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Criteria III - Research, Innovation and Extension

3.3 Research Publication and Awards

3.3.1 Number of research papers published per teacher in the Journals notified on UGC care list during the last five years

Screenshots of the Research Article

Year 2017 - 2018

3.3.1 / Research Papers Published / Data Template / Row No. 6

இராமானுசரும் வைணவமும்

சு. எழிலா
உதவி பேராசிரியர், தமிழ்த்துறை
கே.ஜி கலை மற்றும் அறிவியல் கல்லூரி
கோவை

ஐந்து புலன்களைக்கட்டி மனதை ஒர் இடத்தில் நிறுத்துவது ஞானம். ஞானம் உடையவருக்கு காலமும் இடமும் வசப்படும் தெளிவு என்பது அறிவு.

கல்லி கொடுத்தவன் வித்தியா குரு
தீக்கை அளிப்பவன் தீட்சா குரு
ஞானம் அளிப்பவன் ஞான குரு

தனிப்பட்ட ஒருவருக்கு ஞானம் கொடுப்பவன் தீட்சா குரு. எத்தகேனுக்கு ஞானம் கொடுப்பவர்கள் ஞான குரு புதரி பெறுவான் ஏலியேரன். இராமனுசர் என்பாரும் உலகக் குரு ஆவார் என்பர்.

ஆசிய ரத்ன ஹாரம் - பெரியபெருமாள்

இராமனுசர் வரலாற்று நூல்கள் - பெரியபெருமாள்

- பெரியபிராட்டியார்   மணவாளமாமுனிகள்
- சேனைமுதலியார்   திருவாய்மொழிப்பிள்ளை
- நம்மாழ்வார்   பிள்ளை லோகாரியர்
- நாதமுனிகள்   வடக்குத்திருவீதிப்பிள்ளை
- உய்யக்கொண்டார்   நம்பிள்ளை
- மணக்காலம்பை   நஞ்சீயா
- ஆளவந்தார்   பட்டர்
- பெரியநம்பிகள்   எம்பார்

3.3.1 / Research Papers Published / Data Template / Row No. 7

இலக்கியங்கள் காட்டும் சமயம்

முனைவர் சி. கவிதா
உதவிப் பேராசிரியர்/ தமிழியல் துறை
கே.ஜி கலை மற்றும் அறிவியல் கல்லூரி
கோயம்புத்தூர்

முன்னுரை

சமயம் என்றால் மனிதரைச் சமைப்பது அல்லது பக்குவப்படுத்துவது எனப் பொருள்படும். இறைவனை வழிபட்ட மக்கள் சிறிது சிறிதாகச் சங்க இலக்கியம் தொடங்கி நடைமுறை வழிபாட்டை முதன்மையாகக் கொண்டு உருவம் கொடுத்து சமய வழிபாட்டில் ஈடுபட்டனர். சமயம் என்பது பக்குவப்படுத்தி கொள்ளவைக்கும் எனப் பொருள் விளக்கம் பெறும் சமயம் என்பது நிலைக்கப்பட்டு வரையறுக்கப்பட்டது என்றும் கூறலாம். இன்று மதம் என்ற பொருள் உணர்கின்றனர்...

சமயம் பற்றி சான்றோர் கருத்துக்கள்

[பத்தியின் தொடர்ச்சி — சமய நெறி பற்றிய சான்றோர் கருத்துக்கள் விளக்கம்]

3.3.1 / Research Papers Published / Data Template / Row No. 8

அகத்திணை வாழ்வின் இருவேறு நிலைகள்

முனைவர் வீ. வீ ஜெயந்தி
உதவி பேராசிரியர், தமிழ்த்துறை
கேஜி கலை மற்றும் அறிவியல் கல்லூரி
கோவை

களவு-கற்பு

அகத்துறையில், காதல் இன்பத்தைத் துய்ப்பதில், களவு, கற்பு என்ற இருவேறு நிலைகள் உள்ளன. அகப்பொருள் பாடல்களைப் பயில்வோர் இந்த இரண்டு நிலைகளையும் காண்பர். காதலனும் காதலியும் தொல்காப்பியர் கூறும் பன்னைந்து தெய்வம் என்ற காழின் துணையால், முன்கிடை அறிபாதலர்களாக இருந்தாலும் ஒரிடத்தில் சந்தித்துக் காதல் கொள்ளுகின்றனர். கலந்து இன்பருநுப்க்கின்றன இதனைக் களவு என்று அகப்பொருள் இலக்கணம் கூறும் இன்னாறு களவு முறையில் காதல் புரிவோசல் பிறகு, பர்லோரறிய மணந்து கொள்ளா. இதனைக் கற்பு என்று கூறுமர், அகப்பொருள் நூலார், முதலில் களவு ஒழுக்கத்தில் ஈடுபட்ட தம்பால் திருமணம் புரிந்து கொண்டு, இல்லொழுக்கையாகிய கற்பொழுக்கத்துக்கு மேற்கொள்வது 'களவின் வழி வந்த கற்பு' என்று சொல்லப்பெறும். இக்களவொழுக்கமே நிலமாம் முதலிலேயே திருமணம் செய்துகொண்டு கனவன் மனைவியாக வாழும் நிலைவழ அக்காலத்தில் இருந்தது 'களவின் வழி வாரா கற்பு' என்று இதனைக் குறிப்பர். மற்ற இரண்டு வகைக் கற்பிலும் களவின்வழி எந்த கற்பே சிறப்புடையது என்று பன்னடைபடி தமிழ்கள் எண்ணினேன் அகவாழ்வில் காணும் இந்தக் களவு,கற்பு என்ற இரண்டு வகையோ வகைகளையும் பற்றி ஓரளவு விரிவாகத் தெரிந்துகொள்வோம் காண்டோள்- 'ஒழுக்கங்கள் என்பர் நச்சினார்க்கினியர், ஒழுக்கம் என்பது அதன் கருத்து.

களவு-விளக்கம்

களவானது 'பிணி ருப்புகளின்றி எஞ்சாளனும் ஒரு தன்னலாராய், உருவுடைந்திரவும் பருவழும் குணைஇழலருழும் அன்பும் முதலியவற்றால் ஒப்புமையுடைபரய தன்மைகளும் தன்மைகளும் பிற்கொடுப்பவும் அடுப்பமறின்றி, தாழ் வகையால் தாமே எதிர்படுதல் கூடுதல்.' தாது மகள் பிறக்கு உரியவள் என்று இருமுதுகுரவரால் (பெற்றோரால) கொடை எதிர்த்தற்குரிய தலைவியை, அவர் கொடுப்பக் கொள்ளாது, இருவரும் கரந்த உள்ளத்தோடு எதிர்பட்டுறு புணர்தலின் களவு எனப் பெயர் பெற்று இக்களவுகள்போது புணர்ந்ததனின் 'காலக்கூட்டம்' என்றும் வழங்கப்பெறும்.இன்றை இதனை 'மறைந்த ஒழுக்கம்' 'மறை' 'அடங்கவு' என்று செஞ்சொளலும் தொல்காப்பியர் குறிப்பர்.

களவு என்பதற்குப் பிறர்க்குரிய பொருளை மறைவிற்கொடல் என்று பொருள் கூறுவர் இலைப்புரணர். வேதத்தை 'மறைநூல்' என்று சொல்வது போலவே. அறநிலை வழலாமல் காதலர்கள் கரந்து ஒழுகும் இதலைக் 'களவு' என்று பண்டைபயோர் குறித்துள்ளனர் என்பதை அறிதல் வேண்டும். 'களவு என்னும் சொர்கேட்பாடுக் களவு நீ செய்யறும் உடம் அன்றையறு அவை நல்ல ஆமாறும் உண்டு.' இனையனர் களவியல் துற்பாஇல் உளறு என்று களவியல் உரைகாரி கூறைன்றவரும் அதற்கு அவர் கூறும் சான்றுகளையும் இங்கெல்ந்தில் சிந்தித்துநோக்க வேண்டும் ஒரு பெண் தன உறவினரொரி சண்டையிட்டுக்கொண்டு நஞ்சுண்டு சாவதற்குத் திரைனம் செய்து சமயம் பார்த்து உண்பதற்கு நஞ்சைத் தேடி வைத்திருந்தாள். அதுநடையானன் ஒருவன் அந்த நஞ்சினை எடுத்து மறைத்து விட்டான் அப்பெண் நஞ்சினைத் தேடும் போது அது கிடைக்கவில்லை அவளும் அழுனை உண்டு சாகாமல் உயிர்தப்பினள். இன்னாறு அவளை உயிர்தப்பிக்கச் செய்யப்பட்ட களவு நல்லதாயிற்று காமம் நல்லது என்பதற்கு அவர் எடுத்துக்காட்டுக் கருவின்றார் காமம் என்பது ஆசை ஒருவர் கவர்க்கத்தின் கண் சென்று போகத்துப்பல் என்று கூறுவதும் உத்தரருவின் கண் போகத்துப்பல் என்று கூறுவதும். நன்றொனக்காறு விடுபெறுவல் என்று கூறுவதும், தெய்வத்தைவழிபடுவல் என்று கூறுவதும் காலத்தினபருட்டலவே. இன்னனக் காமம் மேன்மக்களால் புகழப்படுகின்று மறைக்கும் உறுதி பயக்கின்றது ஆகவே இது நல்லது

3.3.1 / Research Papers Published / Data Template / Row No. 9

நற்றிணையில் கதைமாந்தரும் எடுத்துரைப்பும்

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உதவிப் பேராசிரியர், தமிழியல்துறை
கேஜி கலை மற்றும் அறிவியல் கல்லூரி
கோவை

முன்னுரை

பழந்தமிழ் இலக்கியங்கள் நவீன இலக்கியங்களுக்கு முன்னோடியாகத் திகழ்கின்றன. அவ்வாறு முன்னோடியாகத் திகழ்வதற்குப் பழந்தமிழ் இலக்கியங்களில் காணப்படும் பொருள்வளமையும் உத்திமுறைகளும் காரணமாகத் திகழ்கின்றன. இந்த இலக்கியங்கள் பின்பற்றிய மரபையே நவீன இலக்கியங்களும் பின்பற்றத் தொடங்கியுள்ளன. இவ்வாறு பின்பற்றப்பட்ட இலக்கியங்களில் எடுத்துக்காட்டாகச் சங்க இலக்கியத்திலும் இன்றியமையாததாக விளங்குபவை கதைமாந்தர்கள். இக்கதைமாந்தர்களின் அடிப்படையில் இலக்கியங்களின் தன்மையைக் கட்டுகின்றன. ஆக இலக்கியங்களில் கதை மாந்தர்களின் பெயர்களைக் கட்டவில்லை. இதே போல் நவீன இலக்கியங்களும் இன்று கட்டுப்பெயராக கதைமாந்தர்களைப் படைப்பதையும் காணலாம். இலக்கியச் சிந்தனைகளை எடுத்துரைப்பு செய்வனவற்றுள் தலையாய இடம்பெறுபவையும் மாந்தர்களே. சங்க இலக்கியத்தில் நற்றிணையில் கயமனார் இயற்றிய 12, 198, 279, 305, 324 ஆகிய ஐந்து பாடல்களில் எடுத்துரைப்பு எவ்வாறு அமைகிறது என்பதை இக்கட்டுரை விளக்க முற்படுகிறது.

கதைமாந்தரின் முக்கியத்துவம்

கதை சொல்வதும் கேட்பதும் சங்ககாலம் தொட்டே நமக்குள் ஒன்றிப்போனவை. எப்பொழுது கதைபோன்று சொல்ல நினைத்தோமே அப்பொழுதே கதைமாந்தி இடம் பெற்றுவிட்டன. கதையின் நல்லதும் சொல்லப்பாடும் கருத்தை நேரடியாக அல்லது மறைமுகமாக எந்த்துரைப்பதில் கதைமாந்தர்களே பெரும் பங்காற்றுவன். ஆக கதைமாந்தர்களின் படைப்பில் தன் தனித்தன்மையை வெளிப்படுத்த முயலும் படைப்பாளியின் நோக்கத்தைப் பொறுத்தே கதைமாந்தர்கள் முக்கியத்துவம் பெறுகின்றன.

"நாததுகே சாரோஸ்ட" என்ற படைப்பாளி, பெயர் அறியப்படாத ஒரு முறையில் உருவான கதை மாந்தர்களைக் கொண்டுதான் கதைகளை எழுதுகிறனார். ஏனென்றால் தன்னுடைய வாசகர்கள் தன் நாவலை வாசித்து முடிக்கும்போது கதைமாந்தர்கள் எனப்படும் ஒன்றில் முழ்கி அந்தரேயே தவ்கி விடுவார்களோ என அருகிறார். "ரொமண்ட் பார்த்தும் அவ்வாறே எழுதுகிறார்" என்பதை உ. பஞ்சாங்கம் "நவீனக் கலைநயமியல்" என்னும் நூலில் பதிவுசெய்துள்ளனர்.

ஒரு படைப்பில் கதைப்பாத்திரங்கள் ஒன்றும் இருப்பதில்லை கொண்டிருக்கவில்லை. உண்மையில் இந்தக் கதைப்பாத்திரங்கள் நிகழ்ச்சிகளின் ஒரு பதியியாகத்தான் இருக்கின்றன. இந்த நிகழ்ச்சிகள்தான் கதைப்பாத்திரங்களை உருவாக்கி இயக்குகின்றன என்ற 'மார்ஷல் முட்டே' என்பன் கருத்தும் இங்கு குறிப்பிட வேண்டியவை.

அகத்திணை மரபு

சங்க அக இலக்கியம் கதைமாந்தர்களின் பெயர்களை சுட்டவில்லை என்றாலும், ஒத்த அன்பைக் கொண்ட ஆண், பெண் இருவரின் காளை, கற்பு நிலையாக மாறி வாழ்வை நெறிப்படுத்தவதே அகத்திணைமரபு எனலாம். அவ்வகையில் மணநில் ஒத்துக் காணப்படும் ஆண் பெண் இருவரின் காதல் நிலையை உடலியிரீகே பொருந்தும் வகையில் தலைவன், தலைவி என்று பொதுப் பெயரால் குறிப்பிட்டு மரபின் நிலையை மீறாமல் கட்டிக்காட்டியுள்ளதை சங்ககாலப் புலவர்கள் மூலம் அறியலாம். தலைவன், தலைவி ஆகிய இருவரின் மனப்பாங்கில் ஏற்படும் இடர்பாடுகளைக் கடைந்து வாழ்வைப் பணிபடுத்துவதற்கு எடுத்துரைப்பு அவசியமாகின்றது. யார் யார் எந்தெந்த இடங்களில்

3.3.1 / Research Papers Published / Data Template / Row No. 10

சங்க இலக்கியத்தில் இசையும் உயிரினத் தொடர்பும்

ஆ. கார்த்திக்
உதவிப் பேராசிரியர், தமிழ்த்துறை
கேஜி கலை மற்றும் அறிவியல் கல்லூரி
கோவை

முன்னுரை

முந்தமிழ் இசை என்பது தமிழரின் மரபுவழியான மிகப்பழமையான இசைச் செல்வமாகும். இசை என்பது ஒழுங்கு செய்யப்பட்ட, கட்டுப்படுத்தப்பட்ட அழகு ஒலியாகும். இசையை எடுமொழியில் நாதம் என அழைப்பர். இசை என்று சொல்லுக்கு இசைய வைப்பது என்ற பொருள், மனித்தனையும் மற்ற உயிரினையும் இசைய வைக்கின்ற பணிய வைக்கின்ற ஒரு அருளுசாரமை இசை. இசைக்குள் எல்லா உயிரளும் அடங்கும் இன்றைய உலகில் இசை ஒரு மறுமலரச்சியே விளங்குகிறது. இசையால் இறந்த அழத்தும் முதல் நரம்பியல் தொடர்பான நோய்கள் கூட குணமாகின்றன என்று இன்றைய அறிவியல் உலகக்கிறது ...

சங்க கால இசைக்கருவிகள்

சங்க கால மக்கள் இசைத்துறையில் நன்கு தேர்ச்சி பெற்றிருந்தனர். குறிஞ்சிப்பண், பாலைப்பண், மருதப்பண், நெய்தற்பண், விளரிப்பண், காமரப்பண், ஆம்பல்பண் எனப் பல்வேறு பண்களையும் காலை, மாலை எனப் பொழுதறிந்து இசைத்து மகிழ்ந்தனர். யாழ், குழல், தோல், கஞ்சம் என நான்கு வகையான இசைக்கருவிகளோடு குரலெழுப்பி இசைத்து மகிழ்ந்தனர்.

இசைக்கு மயங்கும் உயிர்கள்

சங்க இலக்கியங்களின் வழி புலனெிங்கள், விலங்கினங்கள் இசைக்கு மயங்கிய தன்மைகளையும் புலவர்கள் குறிப்பிட்டுள்ளனர். எட்டுத்தொகையில் ஒன்றான கலித்தொகையில் யானை யாழோசைக்குக் கட்டுப்படுவதை,

காழமை நில்லாக் கருங்களிற்று
ஒருத்தல் யாழவரைத் தாங்கியாங்கு (கலி-2-26-27)

என்ற பாடல் வழி அறிப்படுகிறது. பானைப்பாகனின் குத்துக்கோலுக்கு அடங்காத பானையை யாழின் இன்னிசையான இசைக்கு மயங்கியமை புலப்படுத்தப்படுகிறது. மலைச்சாரலின் பதியில் நிலைப்பயிரத் தின்ன ஒரு கட்டி யானை அங்கு வந்து அங்குள்ள குறத்தி அழகான குறிஞ்சிப்பண்களைப் பாடினாள். அதைக் கேட்டு மெய்மறந்து நின்ற யானை பயிரச்சமைட மறந்தனர். அதன்.

ஒலியல் வார் தயிர் உளரினர் கோழச்சி
பெருவை மருங்கில் குறிஞ்சி பாடக்
குரலும் கொள்ளாது நிலைவிஜும் பெயராது
படாதல் மையங்கள் பாடுபெற்று ஒய்யென
மறம்புகல் மழகளிறு உறங்கும் (அகம்.102)

என்ற பாடல்வழி அறிப்பாராய்.

3.3.1 / Research Papers Published / Data Template / Row No. 11

சங்க இலக்கிய ஆற்றுப்படை கலைஞர்களின் வாழ்க்கை முறை

ச. அனிதா
உதவிப் பேராசிரியர், தமிழியல் துறை
வேறு கலை அறிவியல் கல்லூரி
கோயம்புத்தூர்

முன்னுரை

சங்க இலக்கியம் இலக்கிய வாழ்வும் இலக்கண வாழ்வும் பெற்று தனித்தியங்கலை தனிச்சிறப்பினை உடையது. தமிழர்களின் மிகத்தொட பண்பாட்டிற்கும் நளிசிறந்த நாகரிகத்திற்கும், அறிவுப்பெருக்கத்திற்கும் பயிற்பெரும் பழகுகளை புரிந்து கொள்வதற்கும், தமிழரின் அறிவியல் நட்பந்திற்கும் சான்றாக விளங்குகின்றது சங்ககால வாழ்க்கை முறை. இயற்கையைப்பை அழிப்படையாகக் கொண்டது மக்களின் உணவு தொழில் பழக்கவழக்கங்கள் பொழுது போக்குகளும், மனப்பாங்கு, சமயப்பிர்கைகள் அனைத்தையும் சங்க இலக்கியங்கள் சித்தரிக்கின்றன. ஆடல் பாடல் இசைக் கலையில் சிறந்து விளங்கிய பாண, கூத்தர், விறலியர், பொருநர் உள்ளிட்ட தொழில்முறை கலைப்படைப்பாளர்களான ஆற்றுப்படை கலைஞர்களின் வாழ்க்கை முறைகளை அறிய முயல்வதே இக்கட்டுரையின் நோக்கமாகும்.

சங்க இலக்கியத்தில் கலைஞர்கள்

சங்க இலக்கியத்தில் சிற்பக்கலையில் சிறந்து விளங்கிய கலைஞர்களை நூலறி புலவன், தச்சர், கம்மாளன், மணனசிட்டாளர் என்றும் ஓவியக்கலையில் சிறந்து விளங்கிய்வர்களை கண்ணுள் விணைஞர் என்று பெயராலும் இசை நடனம் போன்ற கலையில் சிறந்து விளங்கிய கலைஞர்களை பாண, கூத்தர், விறலியர், பொருநர் என்ற பெயராலும் அழைக்கப்பட்டவைத இலக்கியங்களின் வழி அறிய முடிகிறது பிறதுறைக் கலைஞர்களை விட இசையோடு தொடர்புள்ள கலைஞர்கள் இலக்கியத்தில் சிறப்பும் பெற்றிருந்தன. இரந்தக் காரணம் பிற கலையில் தேர்ச்சியடைந்தவர்களைப் பற்றிய வாழ்வியல் செய்திகள் அதிகமாக இலக்கியத்தில் பதிவு செய்யப்படவில்லை. ஆனால் இசையோடு தொடர்புடைய கலைஞர்களின் வாழ்க்கைமுறைப் பதிவுகளை எட்டுத்தொகை, பத்துப்பாட்டு நூல்கள் படம் பிடித்துக் காட்டுகின்றன.

கலைஞர்கள்

வாழ்க்கைமுறை (ம) தொழில்முறை   தொழில்

இசைக்கருவி தொடர்பு   இசைத்கருவி   சிற்பம், ஓவியம் பிற

பாண, வீத்தர், விறலியர், பொருநர்,   புலவர்

பாண, கூத்தர், விறலியர், பொருநர் என்ற இசைக்கலையோடு தொடர்பு கொண்ட கலைஞர்கள் நத்தம் கலைத்திறமையால் பாதுபடுத்தப்பட்டனர் என்றாலும் அவர்கள் அனைவரையும் பாண் கற்றத்தின் என்றே அழைத்தனர். ஏனெனில் மற்ற கலைஞர்களை விட இலக்கியத்திலும் பாணனே அதிக இடத்தைப் பெறுகிறான். இசைக் கலைஞர்களின் வரிசையில் புலவர்களும் பாண் கற்றத்தினரோடு தொடர்பு வைத்துக் கொண்டாழும் கலை என்னும் படைப்புத்திறனை நோக்கும்போது

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Women's Predicament in Selected Poems of Kamala Das

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Abstract

Feminism has been used and interpreted in numerous shades of meaning, but the core idea being one and the same that women should have equal rights, power and opportunity on par with men in a society. Kamala Das' quest for identity is directly the progeny of an old social set up, oriented towards the total annihilation of the feminine personality. Love is the major theme of her poetry but the depth of her distress seems to have left a constant sting in her soul and that leads to her identity with a certain tincture of pang. The ever-changing reality of life inevitably reflects itself in literature. The position of women in society is no exception to this characteristic. The place of woman all over the world particularly in India has been undergoing a rapid change today. This coincides with the starting and the growth of Indian writing in English.

Keywords

Experience; Hegemony; Feminism; Glorification; Swamped.

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SENTIMENTS AND CULTURAL CONFLICTS IN BHARATHI MUKHERJEE'S NOVEL 'WIFE'

Article Particulars

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Abstract

Bharathi Mukherjee narrates modern woman who was rebellious, however she adapted to all tradition and therefore she leads her life audaciously. Her novel Wife is a unique work by exploring into heroine's psyche. Dimple, the protagonist set an example of whole class of women in India. She was ill- treated by her husband like an inanimate object and subsequently lost her identity. She was afraid of change, because egos cannot control change.

Introduction

Bharathi Mukherjee is a diasporic novelist and non- fiction writer. She explores the process of migration, accumulation, resistance, adaptation and transformation in her novel. Usually diasporic writer had experience of identity crisis. Bharathi also search of a concrete identity in her own culture. These writers often used to indicate religious or national groups living outside their homeland in their work.

Bharathi was born in an upper-middle class Hindu Brahmin family in Calcutta, India. She planned to become a writer since childhood. She went to the University of Iowa to attend the writer's workshop. She intended to study there and return to India and to get married to a bridegroom of her caste. Fortunately, at lunch break with Clark Blaise had changed her plan and transferring herself into a split of two cultures. After marriage she moved to Canada. In many interviews, she spoke about struggle of her life. She wrote her novels like 'The Tiger's Daughter '(1971) 'Wife '(1975) when she was working as professional status at McGill University, Montreal. She reflects her sentiments of cultural separation in her short stories in Darkness (1985), Jasmine (1989) and Leave it to me (1997). Since, she has different experiences throughout her life, she had been lived through several phases of life, as a colonial, then post colonial Indian in Canada. After tolerating the antagonism in Canada, her family moved to United States in 1980.Here, she worked at various colleges and university of California in America.

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An Empirical View of Influence Marketing from Influencers and Influence Marketers

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ABSTRACT

The present study is an effort to know the current trend of the influential marketing. Influencers come in many ways, either online or web celebrity or even the other customers. Influencers can play a role in each moment of truth during the customer journey through content, engagement and community. It is by engaging influencers in authentic, long-term relationships and creating value within the relationships between influencers and their communities, that CMOs can impact sales, satisfaction, retention and overall customer experience. The true potential of influence marketing on social networks rests on the quality of relationships developed with influencers. Influential marketing strategies must be focused on the customer's contextual experience and then proposes to reinvent the mapping of the consumer's journey, based on content that is centered on the needs of the customers and distributed by influencers and ambassadors. "There is no more B2B or B2C. It's Human to Human, #H2H. Social and marketing need to work together to personalize individual conversations, as well as deliver shared global experiences that crowds of common values can benefit from and this is what our social and digital mediums have gifted us, and how humans interact and feel more compelled to take action." Many companies are now investing their efforts and resources into influence marketing thus the current study was proposed with a sample of 180 respondents in Coimbatore to know the marketers and influencers view on influencial marketing.

Keywords: Ambassadors, Influential

1. INTRODUCTION

Influencer marketing focuses on using key leaders to drive their brand's message to the larger market segment. In other words, it helps you concentrate on the central figures in marketing rather than focusing on marketing as a niche. These key leaders can be anyone from A-list celebrities to Instagram stars and Vloggers. Influencer marketing relies on technology; whereby influencers are expected to spread the word through their personal social channels. There is no denying that traditional ads are no longer as appealing to consumers as they once were. With so many ads popping out on print, electronic and social media, consumers are left with no choice but to ignore or block them. Influencer marketing is proving its value as an effective marketing tool better than the traditional Ads. Whereas conventional ads are no longer as effective because ad blockers are becoming increasingly popular and easy to use. Influencer marketing leverages the popularity and trend-setting power of influencers. For example, you saw your favorite celebrity sharing a post in which she mentioned buying her favorite jeans and affiliation to that particular brand. The next day, you went out to buy the same brand thinking that it would be cool. Influencer marketing is having a critical impact on brand marketing and this trend is being followed by not only big celebrities, but also by small boutiques and businesses. In the 2000s, social marketing was the hot trend, then came content marketing and today, it is influencer marketing. After all, nothing influences a person more than another person, and what could be more influencing than famous celebrities? The core theme behind influencer marketing is to get individuals with a fan following and make them

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A SURVEY ON THE INFLUENCE OF GOLD, CRUDE OIL & US DOLLAR RATES ON STOCK PRICE MOVEMENT IN INDIA

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ABSTRACT

The Global Financial Crisis (GFC) which began in the midst of 2007 and gained momentum in 2008 by the fall of leading American Banks like Lehman Brothers affected the economic environment all over the globe. This crisis rattled all the developed and developing market sentiments.The prime aim of this study is to predict the impact of GFC on stock and commodity market in India. We have employed granger causality test and vector auto regression (VAR) model using monthly average price of Standard Gold, Brent Crude Oil, US Dollar Exchange Rate and S&P BSE 100 index for twenty five years from 1990 to 2015. Granger causality test reveals that there exists uni-directional causality from US Dollar Exchange rate to BSE 100, from oil price index to US Dollar which means there is short run interchangeable lead-lag relationship between these variables. Valid evidence resulted from impulse-response function shows that oil market has a negative effect on BSE 100 in long run.

JEL Classifications: G01, G15

Keywords: BSE 100, Global financial Crisis, Impulse-response function

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DEMONETIZATION IMPACT ON CASHLESS PAYMENT AND EFFECT ON STOCK MARKET

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ABSTRACT

The advancement of IT has enabled innovation of electronic payment where goods and services are purchased without the use of physical cash. Cashless payment eliminates the use of money for exchange of goods and services by allowing E-transfer. Increase in the use of credit/debit cards, net banking and other online payment mechanisms isone of the positive effect of demonetization, as this would not only lower transaction costs but some of these could help earn some income foe economy. The impact on share market is also high due to insufficient money flow.

INTRODUCTION:

Demonetization for us means that on 8th November our prime minister Modi and Reserve Bank of India has announced the withdraw of the old Rs 500 and Rs 1000 notes as an official mode of payment. Demonetization is the act of withdrawing a currency unit of its status from a legal tender. The annual report of Reserve Bank of India on 31 March 2016 stated that total bank notes in circulation valued to Rs.16.42 lakh crore (US$240 billion) of which nearly 86% (i.e. 14.18 lakh crore (US$210 billi on)) was 500 and 1000 rupee notes.

A cashless transaction is where the goods and services are transacted without cash but through either through electronic transfer or paper payment. In this context, diffusion is the spread of cashless payment where consumers seek improved and convenient transaction, while businesses seek new profit opportunities. The diffusion of cashless payment will result in the adoption of cashless transactions within the society or community, subject to the types of innovation adoptersand innovation-decision process. Since the consequences of cashless payment depend on how quickly the society is willing to adopt cashless payment through different stages of innovation processes, the consequences of the adoption of cashless payment differs in different society.

OBJECTIVES OF THE STUDY:

- To analyze the movement of stock market in selected sectors.
- To identify the growth of cashless transactions post and pre demonetization.

RESEARCH METHODOLOGY:

The study is based on secondary data/ information. Information from Different books, journals, newspapers and relevant websites have been reviewed in order to make the study an effective one. The study attempts to examine the impact of demonetization in stock market and Cashless Payment System in India.

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Green Marketing - A Step Towards Sustainable Growth

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ABSTRACT
The paper is to study the concept of green marketing and its importance in environment and the government initiative. Green marketing has gained importance among the public due to non availability of resources and high price. All the resource are scarce and human wants are increasing green marketing has gained preference to satisfy them. Most of people are aware of environment protection and they are ready to compromise with the products they buy. Main aim of the study to know the challenges faces by companies to adopt green marketing. The data's are collected from websites and analysis are made to know the present trend in green marketing in India. The government is also taking initiative to green technology and to protect it by the regulations.

INTRODUCTION:
Green marketing is a process of selling products or services to safeguard the environment. According to The American Marketing Association, —Green or Environmental Marketing consists of all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs with minimal detrimental impact on the natural environment. Green marketing must satisfy two objectives: improved environmental quality and customer satisfaction. Product or service may be environmental friendly by itself or it can be produced in an environmental friendly way, including:

➤ Being manufactured in a sustainable fashion
➤ Not containing toxic materials or ozone-depleting substances
➤ Able to be recycled or it can be produced from recycled materials
➤ Being made from renewable materials (such as bamboo, etc.)
➤ Not making use of excessive packaging
➤ Being designed to be repairable and not "throwaway"

Green marketing is the marketing of environmentally friendly products and services. It is becoming more popular as more people become concerned with environmental issues and decide that they want to spend their money in a way that is kinder to the planet.

Green marketing can involve a number of different things, such as creating an eco-friendly product, using eco-friendly packaging, adopting sustainable business practices, or focusing marketing efforts on messages that communicate a product's green benefits.

Objective of study:
The primary purpose of this study is to evaluate the need and implication of green marketing and also to evaluate the initiatives taken by the Indian government and concern for green marketing in their core business values.

Research Methodology
The study is exploratory in nature to provide a clear guidance for empirical research. Secondary data were used for the study. The secondary data were collected through newspapers, magazines, books, journals, conference proceedings, Government reports and websites.

Review of Literature
➤ According to the American marketing association it has been interpreted or defined in three ways 1. Retailing: the marketing of products that are

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INTER-RELATIONSHIPS OF EMOTIONAL INTELLIGENCE AND TRANSFORMATIONAL LEADERSHIP TOWARDS TEACHING EFFECTIVENESS AMONG TEACHING PROFESSIONALS AT SELF-FINANCING INSTITUTIONS IN COIMBATORE DISTRICT

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ABSTRACT

Teaching professionals with strong emotional bondage in their academic arena learns and applies emotional intelligence (EI) skills to improve better physical and mental wellbeing. Emotional skills can be improved by gaining knowledge to manage practice of emotional reactivity. Transformational leadership (TL) may be established at all levels in creating high-performance teaching professionals which has turned progressively important to inspire environment. In recent phenomenon of emotional intelligence in the field of academic studies relationships between emotional intelligence and transformational leadership is greatly strenuous. An individual who possess high emotional intelligence could recognize and manage emotions in one self and others. The current study aims to investigate relationships between competency of

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BIG DATA: A REVOLUTION IN THE HEALTH CARE INDUSTRY

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ABSTRACT

Data has become the key to staying competitive in today's global economy. Managing the three Vs of big data like volume, velocity and variety is a big challenge for the organizations. Gone are the days of data collected exclusively in electronic health records and other structured formats. Increasingly, the data is in multimedia format and unstructured. The paper analyses the role of big data in the health care industry whereby most of the hospitals are surviving only because they are paid for the treatment done and, not for the results, so to establish themselves and to be known for their treatments, they have to make the system better by paying for results, rather than paying for procedures and this can be done through big data's. The trend with new models, including accountable care organizations (ACO), is to incent and compensate providers to keep patients healthy. At the same time, patients are increasingly demanding information about their healthcare options so that they understand their choices and can participate in decisions about their care. Patients are an important element in keeping healthcare costs down and improving outcomes. BCBS (Blue Cross and Blue Shield) is taking steps to employ the use of Big Data to help prevent 1-million heart attacks by 2017.The data have been collected from various sources and analyzed. The conclusion of the paper is that big data play a prominent role in providing patients with accurate and up-to-date information and guidance rather than just data that will help them make better decisions and adhere to treatment process.

Keywords: Accountable Care Organizations, Big data, Blue Cross, Database, Technology

INTRODUCTION

The health care - based data are naturally much more complicated and difficult to collect than social-media data. The big data will enable to predict more accurately which treatments will be effective for which patient, and which treatments won't be applicable. A better understanding of the relationship between treatments out comes, and patients will have a huge impact on the practice of medicine in the health care industry. The health care industry is now awash in data in a way that it has never been before: from biological data such as gene expression, next generation

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A Study on Beta Analysis of Banking Sectors Listed in NSE

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ABSTRACT

The Reserve Bank of India (RBI) is India's central bank. Though public sector banks currently dominate the banking industry, numerous private and foreign banks exist. India's government-owned banks dominate the market. Their performance has been mixed, with a few being consistently profitable. Several public sector banks are being restructured, and in some the government either already has or will reduce its ownership. India has an extensive banking network, in both urban and rural areas. All large Indian banks are nationalized, and all Indian financial institutions are in the public sector. The RBI has granted operating approval to a few privately owned domestic banks; of these many commenced banking business. Foreign banks operate more than 150 branches in India.

Keywords: Banks, Capital, Domestic Banks, Foreign Banks, RBI

INTRODUCTION

Beta describes the relationship between the stocks return and the market index returns. This can be positive and negative. It is the percentage change in the price of the stock regressed (or related) to the percentage change in the market index. If beta is 1, a one percentage change in market index will lead to one percentage change in price of the stock. If beta is 0, stock price is unrelated to the market index and if the market goes up by a +1%, the stock price will fall by 1% beta measures the systematic market related risk, which cannot be eliminated by diversification. If the portfolio is efficient, beta measures the systematic risk effectively. On the other hand alpha and epsilon measures the unsystematic risk, which can be reduced by efficient diversification. More details of beta are discussed else where in the book.

OBJECTIVES

➤ To measure the comparative beta analysis of selected Indian banks.
➤ To evaluate the correlation between nifty returns and ICICI bank returns.
➤ To evaluate the correlation between Nifty returns and HDFC returns.
➤ To evaluate the correlation between Nifty and Andhra bank returns.
➤ To evaluate the correlation between Nifty and Vijay bank returns.

STATEMEMENT OF THE PROBLEM

➤ Post liberalization of Indian economy, the financial arena of banking sector has led to a great transformation of over the past two decades.
➤ Asset quality and profitability have improved significantly.
➤ Banking industry plays a vital role in the economic growth of a country.
➤ It is the backbone of country's economy.
➤ In this present situation risk analysis of selected banking stocks in India is felt highly relevant.

REVIEW OF LITERATURE

1. **Anbukarasi and Nithya (2014)** made an attempt to bring out the correlation between select stock indices and the NIFTY from January 2013 to June 2014. It was found that there was significant correlation of all the selected indices except Metal, Pharma, Bank and Realty indices. It was also concluded that the Pharma and Bank indices have a strong impact on NIFTY movements.

2. **Rajamohan.S and Muthukamu.M (2015)**, conducted a comparative study between bank Index and other sectoral indices using Pearsonian correlation coefficient. It was found that Bank index positively influenced almost all the other sectoral indices. Investors, before investing in any sector, hence need to check the patterns in the banking sector as it could influence the behaviour of other sector stocks.

3. **William and Vimala (2016)** examined the volatility of equity share price of five select private bank listed in the National Stock Exchange. Considering that banks play an important role in the economy of India, an attempt was made to analyse the market volatility of the selected banks by using mean, standard deviation and beta values using the opening and closing prices.

ANALYSIS AND INTREPRETATION

1. HDFC BANK

The primary objective of HDFC is to enhance residential housing stock in the country through the provision of housing finance in a systematic and professional manner, and to promote home ownership. Another objective is to increase the flow of resources to the housing sector by integrating the housing finance sector with the overall domestic financial markets.

TABLE SHOWING THE MONTHLY PRICE AND RETURNS OF HDFC AND NIFTY:

Date	Adj close	Nifty Monthly Returns (%)	Adj Close	Hdfc monthly Returns (%)
12/1/2016	15.11		60.68	6.33
11/1/2016	15.75	4.24	64.52	9.70
10/3/2016	16.99	7.87	70.78	1.57
9/1/2016	16.39	-3.53	71.89	-0.33
8/1/2016	16.5	0.67	71.65	-3.32
7/1/2016	16.56	0.36	69.27	-4.22
6/1/2016	17.81	7.55	66.35	-3.62
5/2/2016	18.07	1.46	63.95	-100.00

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Consumer Preference towards Organic products

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ABSTRACT

In recent days organic products grasp many pupils. Thus, a consumer-oriented approach to understanding organic agriculture and organic products is important not only in its own right, but also in terms of shifting market dynamics. Organic products are obtained by processes friendly to the environment "Green World", Pupils throughout the world receiving awareness by any form but still 12% don't know and not sure, silent lack of knowledge is there about organic products. The latest innovation on organic products gives more importance among the pupil by the marketers. Consumer's preference is highly turned towards the organic products increasing day by day. Consumers give their important to their safety, cheapest and chemical free, they have higher utility in organic products.

INTRODUCTION

Current scenario consumer's interest are grasped on organically products is increasing throughout the world. Organic give importance to food safety and human health, animal welfare considerations and concern about the environment. To classify and identify several categories of organic consumers are namely (1) environmentalists, (2) food fearful, (3) healthy wishers, (4) humanists and (5) wellbeing enthusiasts. The interest in organic agriculture and organic merchandise has prompted several personals to engaged both directly and indirectly to study on the comparing aspects of organic and non-organic products.

The future of organic agriculture will depend, to a large extent, on consumer demand. As a result, a consumer-oriented approach is used to understand the organic agriculture and organic products are important not only in its own right, but also in terms of shifting market dynamics. This could also vary depending on the region of the world. Thus, a clear understanding of consumer attitudes and the motivations core actions in responding to organically products is important.

Therefore there is no common definition of "organic" due to the fact that different countries have different standard for products to be certified "organic". In clear note organic products are cleanly process to maintain the truth of the product without artificial ingredients, preservatives or irradiation.

Organic products are obtained by processes to save and being friendly to the environment for saving the world into "Green World", by using better and modern cultivation techniques to develop that consider both the attributes of the final product and the production methods. This article descried that over half of Indian consumers reported 'natural or organic' features influencing hair and skin care purchase decisions. While 82per cent of consumers surveyed said that they would pick up only original Organic products.

The important role of Organic food is too produced by methods that comply with the standards of organic farming. Organic Standards may vary at wide-reaching, but organic farming in wide-ranging features practices that strive to cycle resources, promote ecological balance, and conserve biodiversity. Organizations regulating organic products may control the use of positive pesticides and natural fertilizers in farming to reduce the harm. In universal, organic foods are also frequently not processed using irradiations, industrial solvents or synthetic food additives.

Organic healthy food products

Many people believing that organic food products have a higher nutrient content, are kinder to the environment and livestock and are healthier than the conventionally produced foods, demand for organic products shows rise. Organic food culture refers to a fresh collective and cultural trend in which there has been a blown up interest in organic food due to the frequent advertisements and healthy tips of coverage on media, food safety, and environmental dangers of pesticides. This approach considers food is the important

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A STUDY ON THE IMPACT OF STRATEGIC LEADERSHIP SKILLS OF MSME EMPLOYEES TOWARDS BUSINESS PERFORMANCE

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ABSTRACT

"India lives in villages" is rightly said by Mahatma Gandhi. In order to make India a developed country, the strategies should reach rural places also. This can happen only when entrepreneurs come up with innovative ideas, set up units and create employment opportunity. Here Micro Small and Medium Enterprises play a vital role in improving the Indian economy. In the 21st Century, not only the top management, but also the employees play a vital role in uplifting the company. Employees inculcating strategic leadership skills can be the important input for the sustainable development of the enterprises. According to literature survey, the research gap prevailing in the company that, in the present scenario all employees are not motivated or involved in decision making process of MSME sector. The research is undertaken by collecting the data through structured questionnaire which say that more than one mind is better to bring the company to the level where it could compete in the Global Market, perform better and sustain development.

Key words: Strategic Leadership Skills, Sustainable Development, Micro Small and Medium Scale Enterprises.

INTRODUCTION

"India lives in villages" is rightly said by Mahatma Gandhi. In order to make India a developed country, the strategies should reach rural places also. This can happen only when entrepreneurs come up with innovative ideas, set up units and create employment opportunity. Here Micro Small and Medium Enterprises play a vital role in improving the Indian economy. In the 21st Century, not only the employers, but also the employees play a vital role in uplifting the company. The entrepreneurs of course because of their ideas have

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A Study on the Factors Influencing Online Shopping Behaviour

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ABSTRACT

The advent of World Wide Web made the online shopping popular. There are many factors which influence the online shopping decision. This paper aim is to analyze the factors of online shopping and online shoppers in terms of demographics. The study results that youngsters prefer to buy apparels and electronic goods more through cash on delivery, especially men as compared to women. Lack of security and network reliability become the major obstacle to online shopping.

Key factors: Influencing factor, buying behavior

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A STUDY ON THE RELATIONSHIP BETWEEN LONG-TERM ORIENTATION, SELF-EFFICACY AND CERTAIN BEHAVIORAL ASPECTS OF WOMEN MICRO-ENTREPRENEURS

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ABSTRACT

Women empowerment is indispensible for the economic development of any nation, especially developing nations. Long term orientation and self-efficacy are aspects that are found to aid individual empowerment. The present study explores the relationship between long-term orientation, self efficacy and certain behavioural variables of women micro entrepreneurs who are members of a Self Help Group (SHG) of India. The behavioural aspects considered for the study include Materialistic Attitude, Collectivism and Spirituality Index of Well being. Data for the study have been collected from 999 micro entrepreneurs. The results have presented some interesting inter correlation between the variables studied. A few suggestion based on the findings that could enhance women empowerment are also presented.

Keywords: Self Help Group, Women micro-entrepreneurs Long term orientation, Self-efficacy, Materialistic Attitude, Collectivism, Spirituality

INTRODUCTION

There is no second opinion that women empowerment is crucial for the overall development of any nation. This is all the more important for developing nations. There is also unanimity that woman empowerment results in all round sustainable progress. The World Bank (2001) opined that societies that discriminate based on gender are likely to experience less rapid economic growth. Since gender disparities produce economically unproductive outcomes, it could result in poverty. In India, despite a host of measures being implemented to promote women empowerment, it is still a major concern. Since rural women play a significant role in

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AN ACCESSIBLE SCHEME OF CRYPTOGRAPHIC KEY ORGANIZATION FOR MICRO, SMALL AND MEDIUM ENTERPRISES APPLICATION PROSPECTUS VIEW

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ABSTRACT

Mission-critical networks show great potential in emergency response and/or recovery, health care, critical in-restructure monitoring, etc. Such mission-critical applications demand that security service be "anywhere", "anytime", and "anyhow". However, it is challenging to design a key management scheme in current mission-critical networks to full the required attributes of secure communications, such as data integrity, authentication, confidentiality, no repudiation, and service availability. In this paper, we present a self-contained public key-management scheme, a scalable method of cryptographic key management (SMOCK), which achieves almost zero communication overhead for authentication, and offers high service availability. In our scheme, a small number of cryptographic keys are stored offline at individual nodes before they are deployed in the network. To provide good scalability in terms of the number of nodes and storage space, we utilize a combinatorial design of public-private key pairs, which means nodes combine more than one key pair to encrypt and decrypt messages. In this regard an accessible scheme of cryptographic key organization which is partially applicable for the for micro, small and medium enterprises application for maintaining security purpose.

Keywords: key management scheme, data integrity, authentication, confidentiality, no repudiation, service availability, authentication, cryptographic keys, public-private key pairs, encryption, decryption, micro small medium enterprises.

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Consumer Perception – An Empirical Study with special reference to Himalaya Herbal Products

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Abstract:

Herbs as medicine are being used since Vedic age. Now a day's people give preference to the herbal products, as the chemical products being used for costlier and have side effects. There is more recognition for herbal products in the country now than the past few decades. This herbal concept is gaining ground and attracting attention worldwide. A large number of medicinal plants, herbs, shrubs, etc are available in our country in the hilly/forest regions. As the side effects of cosmetics and other chemical based product are increasing day by day. The Manufacturing Process of each product is different. However, for the manufacture of creams and body lotion, the general process of manufacture of cream and lotion is involved Herbal products generate billions of dollars of income for the companies that produce them, but there are so many types of herbal creams and other herbal body products are available in the market.

In this study, the researcher has accessed the perception of the HIMALAYA HERBAL PRODUCTS. The study shows that the respondents are satisfied with the quality of the Himalaya herbal product on a wide range of consumer who belongs to different regions all over the world.

Keywords: Consumer Perception, Quality, Availability, Herbal products.

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IMPACT OF CASHLESS ECONOMY

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ABSTRACT

A cashless society describes a state's economy where financial transactions are not carried with money in the form of physical banknotes or coins but rather transactions are made through digital way. Earlier times transactions were made without paying amount, but nowadays non cash dealings have also become possible using digital currencies. Payment of cash was the procedure for buying a goods but for past ten years developments have been made in settling for purcahses. Non cash transactions is moving towards an impact of a society where cash is replace by digital correspondent way. Nowadays formally all the transactions which we make are made in electronical way. Before twenty years paying without cash begin. Settlements were made through electronical way. From that time On-line banking became very popular. Electonical way of paying for a transactions started to grow in many countries.

INTRODUCTION

The direct conversion of ownership rights from one ownership type to another of an asset without any original cash spends by the investor. A large number of non-cash transactions conversions are regularly made on a specific date as specified in the original contract.

Before twenty years the trend towards use of non-cash dealings and settlement began, that time online banking became popular. By the 2010s digital payment methods were widespread in many countries. We have been paying for things for centuries, but only in the last few decades have developments in compensation technology really taken off. Rabobank takes you on a brief journey through where payment is transmitted from coins to electronical modes.

Bartering came about in earlier times and is still common way in many culture. The Chinese was the primary country to introduce coins in about 770 BC. When coins also made their entry in the Middle East, this type. Payment system developed around the world. Coins were popularized in Europe by the Greeks and Romans, and went on to remain the only earnings.

NON CASH TRANSACTIONS

A common method of measuring "cashless society" in a country is by measuring the number of cashless payments made by person to person. The Nordic countries carry out more cashless transactions than Europeans. In 2015 – 2016 ,Crosswise 33 countries covered in the European payment cards, the average number of card payments per capita per year is 88.4. Comparing card payment average for Dane, fin, Icelander, Norwegian and Swede. Dane makes 268.6 card payments fin makes 243.6 and Icelander 375.5, Norwegian 353.7 and Swede 270.2. This makes card payments in the Nordics two-and a-half to four times higher than the European. "store of value" can also be functioned for commodities like diamonds, gold, silver, and platinum or real estate and antiques. There May be a difference in cash less transactions with the level of cash circulated in a country. For instance, Denmark ranks more than amount of cash movement, Swede has a higher percent in the main exchange banknote.

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A STUDY OF PASSENGERS OPINION ABOUT AIRLINE SERVICES

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Abstract

Airline Industry is growing at a fast pace on one hand and other side the competition faced by the airlines to sustain in the market is getting difficult with the increase in fuel cost, airport taxes and along with more number of carrier came into market with different service motive. Customer's needs and wants are increasing day by day. Nowadays customers want best service at affordable rate with higher service quality. So to maintain the quality and better service and keep their ticket cost low to attract customer is not an easy task .Therefore the airline service providers do different marketing strategies to attract the customers and also to retain them. It is interesting to see that the passengers prefer airline services more comparatively in the previous past. Therefore, it is necessary to find the awareness level of passengers towards different airline services, their preferences and ideas, level of satisfaction towards the services both during travel and in the airport and also to find out the inconvenience caused to the passengers. Hence a study on marketing practices in airline services is identified as the problem of the study.

Keywords: airline service, affordable rate

INTRODUCTION

India is one of the fastest growing aviation markets in the world. With the liberalization of the Indian aviation sector, the industry had witnessed a transformation with the entry of the privately owned full service airlines and low cost carriers. As of May 2006, private carriers accounted for around 75 per cent share of the domestic aviation market. With a Compound Annual Growth rate (CAGR) of 18 per cent and 454 airports and airstrips in place in the country, of which 16 are designated as international airports. The sector has also seen a significant increase in number of domestic air travel passengers. Some of the factors that have resulted in higher demand for air transport in India include the growing middle class and its purchasing power, low airfares offered by low cost carriers, the growth of the tourism industry in India, increasing outbound travel from India, and the overall economic growth of India. In addition to these factors, the emphasis on modernization of non-metro airports, fleet expansion by airlines, service expansion by state owned carriers, development of the maintenance, repair and overhaul (MRO) industry in India, opening up of new international routes by the Indian government, establishment of new airports and renovation and restructuring of the existing airports have added to the growth of the industry.

The history of the civil aviation industry in India can be traced back to the year 1912 when the first air flight between Karachi and Delhi was started by the Indian State Air Services in collaboration with the UK based Imperial Airways. The Government of India nationalized nine airline companies vide the Air Corporations Act, 1953. Accordingly it established the Indian Airlines Corporation (IAC) to cater to domestic air travel passengers and Air India International (AI) for international air travel passengers. The assets of the existing airline companies were transferred to these two corporations. This Act ensured that IAC and AI had a monopoly over the Indian skies. A third government-owned airline, Vayudoot, which provided services between smaller cities, was merged with IAC in 1994. These government-owned airlines dominated India's air travel industry till the mid-1990s. In 1994, IAC was renamed Indian Airlines (IA). In the same year, the Indian Government, as part of its "open skies" policy, ended the monopoly of IA and AI in the air transport services by repealing the Air Corporations Act of 1953 and replacing it with the Air Corporations (Transfer of Undertaking and Repeal) Act, 1994. Private operators were allowed to provide air transport services. Foreign direct investment (FDI) of up to 49 percent equity stake and NRI (Non Resident Indian) investment

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A Study on Poverty and Un-Employment

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Abstract

This study mainly deals about the poverty and unemployment problem of our nation. The social sector of India has been discussed in this paper and what are all the policies and programmed have been introduced by the government to reduce the poverty. It also focuses the economic growth and its conditions of the nation. This paper shows the steps which have been executing by government to reduce poverty and un-employment.

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CORPORATE SOCIAL RESPONSIBILITY – AN OVERVIEW

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ABSTRACT: Corporate Social Responsibility is a concept which as become dominate in business reporting. The broadest definition of corporate social responsibility is concerned with what is – or should be –the relationship between global corporation, governments of countries and individual citizens. This is concerned with the effect which action taken in the present has upon the options available in the future. This concept therefore implies a recognition that the organisation is part of wider societal network and has responsibilities to all of that network rather than just to the organisation. There is principle, which together comprise all CSR activity. These are:

- Sustainability
- Accountability
- Transparency

Keywords: CSR, Organizations, Government countries.

Introduction

Corporate Social Responsibility is a concept which as become dominate in business reporting. Every corporation has a policy concerning CSR and produce a report annually detailing its activity. And of course each of us claims to be able to recognise corporate activity which is socially responsible and activity which is not socially responsible. There are two interesting pints about this firstly we do not necessarily agree with each other about what is socially responsible and although we claim to recognise what it is or is not when we are asked to define it then we find this impossibly difficult . Thus the number of different definition is huge and is this chapter we look at some of these.

Definitions of CSR

The broadest definition of corporate social responsibility is concerned with what is – or should be –the relationship between global corporation, governments of countries and individual citizens. More locally the definition is concerned with the relationship between a corporation and the local society in which it resides or operates. Another definition is concerned with the relationship between a corporation and its stakeholders.

This social contact implies some form of altruistic behaviour-the converse of selfishness-where as self-interest connotes selfishness. Self-interest is central to the Utilitarian perspective championed by such people has Bentham, Locke and J.S.Mill. The latter, for example Is generally considered to have advocated ass morally right the pursuit of the greatest happiness for the greatest number-although Utilitarian philosophy is actually much more based on selfishness then this-something to which be return later. According to the EU commission "CSR is a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their Stakeholders on a voluntary basis."

Corporations are Part of Society

A growing number of writers however have recognised that the activities of an organisation impact upon the external environmental and have suggested that one of the roles of accounting should be to report upon the impact of an organisation in this report upon the impact of an organisation in this respect. Such a suggestion first arose in the 1970s and a concern with a wider view of company performance is taken by some writers who evince concern with the social performance of a business, as a member of society at large.

The Effects of Organisational Activity

It is apparent of course that any action which an organisation undertakes will have an effect not just upon itself but also upon the external environment within which that organisation resides. In considering the effect of the organisation upon its external environment it must be recognised that this environment includes both the business environment in which the firm is operating, the local societal environment in which the organisation is located and the wider global environment. This effect of the organisation can take many forms, such as:

- The utilisation of natural resources as a part of its production processes

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A CONCEPTUAL STUDY ON THE CONSEQUENCES OF SERVICE QUALITY DIMENSIONS ON CUSTOMER SATISFACTION

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ABSTRACT:

In today's competitive scenario consumer satisfaction is the first priority. Customer satisfaction and service quality both are most widely studied constructs. Organizations are working hard to provide the quality of service to their customers in order to attain their satisfaction and loyalty. This study was destined to find the impact of service quality on customer satisfaction. Organizations to increase the number of their customers, their loyalty, revenue, profit and market share and subsequently increased survival, attempt to assess customer satisfaction in their business. The organization should aim not only at satisfying the consumer but also focus on the delighting them. Customer satisfaction moderates impact of service quality on behavioral intentions of customers. Quality of service is an important element in determining the success of an enterprise service. Factor "satisfaction" depends on the service provider's ability to meet the norms and expectations of customers.

Keywords: Customer Satisfaction, Service Quality, Expectations, Performance

I. INTRODUCTION

Todays, intensive competition, technological developments, new social trends, dynamic economic environment are factors that have faced enterprises with wide fluctuations. Because of strong impact of customer demands on the organization, special attention is required. In a competitive environment, organizations are able to grow only if they provide customers satisfaction. In fact, if the environmental uncertainty and instability increase, the attention to customer needs and ideas for survival, growth and continuity of organization would be more essential. Attention to customer demands is a prominent feature of modern organizations. There is no doubt that the organizations will win and succeed that recognize customer needs and wants faster and better than the competitors and produce and provide their products consistent or exceed customer's expectations (Pirayesh Neghab,Daneshvar,2011).

The characteristics of service quality which is intangible, heterogeneity, inseparability and perishability (Parsuraman, 1985), cannot be measured objectively (Patterson and Johnson, 1993). However, many researchers stated that service quality can be measured by making the comparisons between customers' expectations and perceptions (Zeithaml et al, 1990). The authors have distinguished the service quality into four types namely expected service; desired service; adequate service; and predicted service. Expected services are the services that customers intend to obtain from the service provider. Desired services is the level of service which the customer wish to obtain. Adequate service refers to the minimum level of services expected from the service provider and finally, predicted services is what the customers believe the company will perform. O'Neil and Palmer (2004) also define service quality as the difference between what a student expects to receive and his/her perceptions of actual delivery. This definition is similar to the one advocated by Zeithaml et al, (1990)

According to A. Parasuraman, V.A.Zeithaml, and L.L.Berry, it is during the service delivery that the quality of services is assessed and the contact with each customer implies as a chance to satisfy or dissatisfy the customer, a moment of truth. They defined customer satisfaction with regards to service as 'by comparing

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A Study on Manufacturing Industry in India

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Abstract

In this paper an effort is made to measure the productive efficiency of aggregate manufacturing sector in Tamil Nadu in the liberalized regime for the reference period from 1991-1992 to 2011-2012. A stochastic frontier production function model was applied to analyze the data. The summation of the elasticities of factors of production, indicated return to scale of 1.287. Since the value of return to scale was greater than unity, one percent increase in inputs (labour and capital) resulted an increase 1.287 percent in output level for the stochastic frontier. In terms of technical efficiency, the manufacturing sector in Tamil Nadu recorded an average efficiency of 0.939 (93.0 percent). It was also revealed that the technical efficiency of industries in Tamil Nadu have not shown any decline but showed mixed trend. The average technical inefficiency was observed as 0.065, which was negligible. In order to reduce the inefficiency in future, and become more efficient the manufacturing sector can increase output using the existing resources or by reducing costs given the current level of production.

The Indian economy is the tenth-biggest on the planet by alleged Gross domestic product and the third-biggest by obtaining power equality (PPP). India was the nineteenth biggest stock and the sixth biggest administrations exporter on the planet in 2013; it imported a sum of $616.7 billion worth of stock and administrations in 2013, as the twelfth biggest stock and seventh biggest administrations merchant. India's financial development eased back to 4.7% for the 2013–14 monetary years, as opposed to higher financial development rates in 2000s. IMF extends India's Gross domestic product to develop at 5.4% more than 2014-15. Assembling industry has held a consistent offer of its monetary commitment, while the quickest developing piece of the economy. The manufacturing sector is an important sector of the Indian economy comprising about 31 percent of the non-agricultural sector, which makes up 75 percent of the overall GDP in India (Kalirajan and Bhide 2005).

The post-independence time Indian economy (from 1947 to 1991) was a blended economy with an internal looking, midway arranged, interventionist approaches and import-substituting monetary model that neglected to exploit the post-war development of exchange and that nationalized numerous divisions of its economy. India's offer of worldwide exchange tumbled from 1.3% out of 1953 to 0.5% of every 1983. This model added to across the board wasteful aspects and debasement, and it was ineffectively actualized.

After a fiscal crisis in 1991, India has increasingly adopted free-market principles and liberalized its economy to international trade. These reforms were started by former Finance minister Manmohan Singh

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IMPACT OF GLOBALIZATION ON BANKING SECTOR

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ABSTRACT

There are three distinct spells of development of banking industry in post independent India, the pre-nationalisation era from 1947 to 1969, the post-nationalisation cum pre-liberalisation era from 1969 to 1991 and the neo-liberalisation era from 1991 onwards. The first phase was mostly city-centric private Banking marked by frequent failures and liquidation of Banks and consequent pauperisation of numerous poor and middle class depositors and loss of jobs for the employees. The post-nationalisation era saw a sea-change in the Banking scenario: financial stability of Public Sector Banks (PSBs) controlling more than 84% of banking business of the country, PSBs commanding trust and confidence of the Banking-public, expansion of Branch net-work of Banks.

Impact of Globalization:

The implications of globalization for a national economy are many. Globalization has intensified interdependence and competition between economies in the world market.

These economic reforms have yielded the following significant benefits: Globalization in India had a favorable impact on the overall growth rate of the economy. This is major improvement given that India's growth rate in the 1970's was very low at 3% and GDP growth in countries like Brazil, Indonesia, Korea, and Mexico was more than twice that of India. Though India's average annual growth rate almost doubled in the eighties to 5.9%, it was still lower than the growth rate in China, Korea and Indonesia. The pick up in GDP growth has helped improve India's global position.

Introduction:

The banking sector is one of the most important economic sectors and the most influential and responsive to changes, whether international or domestic. The most important of those changes include technological developments, the internationality of money markets, and freedom from the constraints that hinder all banking activities, the removal of barriers that prevent some financial institutions from working in certain sectors, and the trend to develop and manage the risks of lending in light of the increase in international competition in this sector while seeking to attract foreign capital with the emergence of giant banking entities.

Globalization of Indian Banking Sector:

Globalization refers to widening and Deepings of international flow of trade, capital, labour, technology, information and services. Globalization has led to an overall economic, political and technological integration of the world. In our country, first economic reforms (1991) gave birth to globalization and

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ROLE ON GOODS AND SERVICES TAX (GST)

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Abstract

Goods and Services Tax (GST) is an indirect tax which was introduced in India on 1 July 2017 and was applicable throughout India. The reform process of India's indirect tax regime was started in 1986 by VishwanathPratap Singh, Finance Minister in Rajiv Gandhi's government, with the introduction of the Modified Value Added Tax (MODVAT). IGST complicates tax collection for State Governments by disabling them from collecting the tax owed to them directly from the Central Government.The GST is imposed at different rates on different items. In the GST system, taxes for both Centre and State will be collected at the point of sale.The introduction of the GST increased the costs of most consumer goods and services in India. Introduction of a GST is very much essential in the emerging environment of the Indian economy. By implementing the GST, India will gain $15 billion a year. Adoption and migration to the new GST system would involve teething troubles and learning for the entire ecosystem. GST is the most logical steps towards the comprehensive indirect tax reform in our country since independence.

I. INTRODUCTION

Goods and Services Tax (GST)is an indirect tax which was introduced in India on 1 July 2017 and was applicable throughout India which replaced multiple cascading taxes levied by the central and state governments. It was introduced as The Constitution (One Hundred and First Amendment) Act 2017, following the passage of Constitution 122nd Amendment Bill. The GST is governed by a GST Council and its Chairman is the Finance Minister of India. Under GST, goods and services are taxed at the following rates, 0%, 5%, 12% ,18% and 28%.There is a special rate of 0.25% on rough precious and semi-precious stones and 3% on gold.In addition a cess of 15% or other rates on top of 28% GST applies on few items like aerated drinks, luxury cars and tobacco products.GST was initially proposed to replace a slew of indirect taxes with a unified tax and was therefore set to dramatically reshape the country's 2 trillion dollar economy. The rate of GST in India is between double to four times that levied in other countries like Singapore.

History

The reform process of India's indirect tax regime was started in 1986 by VishwanathPratap Singh, Finance Minister in Rajiv Gandhi's government, with the introduction of the Modified Value Added Tax (MODVAT). Subsequently, Manmohan Singh, then Finance Minister under of P V NarasimhaRao, initiated early discussions on a Value Added Tax at the state level.[7] A single common "Goods and Services Tax (GST)" was proposed and given a go-ahead in 1999 during a meeting between then Prime MinisterAtalBihari Vajpayee and his economic advisory panel, which included three former RBI governors IG Patel, BimalJalan and C Rangarajan. Vajpayee set up a committee headed by the then finance minister of West Bengal, AsimDasgupta to design a GST model. The Ravi Dasgupta committee was also tasked with putting in place the backend technology and logistics (later came to be known as the GST Network, or GSTN, in 2017) for rolling out a uniform taxation regime in the country. In 2002, the Vajpayee government formed a task force under Vijay Kelkar to recommend tax reforms. In 2005, the

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10.Title:Impact of Demonetization – A Study with reference to Street Vendors

Author(s): R. Kanchana & G. Karthikayini

Vol:10 Issue:14(2017) pp 46-53

Abstract: Demonetization is the progression in which a particular currency or valuable mineral is degraded as a legal tender to avoid some illegal practices and also make a revolution relevant for economic welfare. Demonetization happens when a particular currency is no longer in regular use within the country of origin, or when a newer currency comes into circulation with the view to make regulations for better functioning. The latest demonetization in India was the sudden announcement by Prime Minister of India dated 8th November at 8.30 p.m. that 500 and 1,000 rupees currency notes would not be legal tender from midnight of 8th November 2016. The announcement was made much after banking hour's thus giving nobody a chance for any foul play and at the same time making alternative actions to avoid public sufferings.

The Reserve Bank of India (RBI) data suggests that the proportion of 500 and 1,000 rupees currency notes were 86.4% of total value of notes in circulation on March 31, 2016, amounting to 14 trillion. A significant portion of old currency was also considered to be fake money pumped into the economy to fund terrorist activities that are supported by illegitimate groups. At the stroke of midnight of 8th November 2016, India lost 86.4% of its monetary base. In this single move, the Government has attempted to tackle the issues arising from various areas that affect the economy, i.e., counterfeit currency in circulation and terror financing. The Government's move to introduce the 2,000 rupees currency notes to ease the short money fall has not helped the economy as expected. Thus, street vendors had been carrying a significant currency demanding for small payments, which is inappropriate for exchange. Both Large, Small and Medium scale traders and public people too suffered a lot to carry monetary transactions. Though, IT has been enrolling in financial transactions like Net Banking, E-wallet, E-commerce and so on. It does not exercise among illiterate people. Thus, the study aims at understanding the impacts of demonetization on the street vendors and the changes happened in their day-to-day transaction and innovative ideas undertaken to overcome these issues.

Key words: Demonetization, street vendors, Long-run survival.

3.3.1 / Research Papers Published / Data Template / Row No. 36

A Study on Supporting Visual Narratives Student Engagement using Big Data Technologies

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ABSTRACT: A novel visual narrative framework that has been exposed to facilitate, support and enhance student commitment in an adaptive Online Learning Environment (OLE). VisEN provides explorable visual narratives modified to students in order to support them to engage with course content. The evaluation of VisEN showed that the explorable visual narratives confident the majority of improving engagement students that completed the Information Management and Data Engineering module as part of their undergraduate degree, to engage with assigned activities , and subsequently these learners enhanced their engagement levels. It might make the power system load varied complex than before which will bring difficulties in short-term load forecasting area. To overcome this issue, this paper proposes a new short-term load forecasting framework based on big data technologies. First, a cluster analysis is performed to classify daily load patterns for individual loads using smart meter data. Next, an association analysis is used to determine critical influential factors. This is followed by the application of a decision tree to establish classification rules. Then, appropriate forecasting models are chosen for different load patterns. Finally, the forecasted total system load is obtained through an aggregation of an individual load's forecasting results. Case studies using real load data show that the proposed new framework can guarantee the accuracy of short-term load forecasting within required limits.

Keywords— Association analysis, cluster analysis, short-term load forecasting, Personalized E-learning, Information visualization

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3.3.1 / Research Papers Published / Data Template / Row No. 37

A NETWORK SAFETY IN INTERNET PENETRATION FOR REDUCING E-COMMERCE RISKS

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ABSTRACT: E-commerce Security is a part of the Information Security framework and is specifically applied to the components that affect e-commerce that include Computer Security, Data security and other wider realms of the Information Security framework. E-commerce security has its own particular nuances and is one of the highest visible security components that affect the end user through their daily payment interaction with business. E-commerce security is the protection of e-commerce assets from unauthorized access, use, alteration, or destruction. Dimensions of e-commerce security-Integrity, Non-repudiation, Authenticity, Confidentiality, Privacy, Availability. In order to avoid system security flaw and defect caused user great loss, how to reduce e-commerce security risk has become a topic worthy of further exploration. In this paper, the critical security requirement for the e-commerce system is investigated and deduced the compliance, availability and manageability quality characteristics for e-commerce software security requirement. Applying the quantified quality characteristics and proposes a Security Requirement Quality Measurement (SRQM) model. Based on SRQM model, the paper develops a Security Requirement Quality Improvement (SRQI) procedure to identify problem and defect of security requirement quality.

Keywords: Digital E-commerce, Security Vulnerability, Security measures, Security Threats, Quality measurement model, SRQI

INTRODUCTION

E-commerce Security is a part of the Information Security framework and is specifically applied to the components that affect e-commerce that include Computer Security, Data security and other wider realms of the Information Security framework. E-commerce security has its own particular nuances and is one of the highest visible security components that affect the end user through their daily payment interaction with business. Today, privacy and security are a major concern for electronic technologies. M-commerce shares security concerns with other technologies in the field. Privacy concerns have been found, revealing a lack of trust in a variety of contexts, including commerce, electronic health records, e-recruitment technology and social networking , and this has directly influenced users. Security is one of the principal and

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3.3.1 / Research Papers Published / Data Template / Row No. 38

13.Title: Capital Structure – A Study with Special reference to Kingfisher Airline

Author(s): V. Devaki

Vol:10 Issue:14(2017) pp 66-71

Abstract: The global airline industry consists of over 2000 airlines operating more than 23,000 aircraft, providing service to over 3700 airports. In 2006, world's airlines flew almost 28 million scheduled flight departures and carried over 2 billion passengers. Kingfisher Airlines is an airline group based in India. Its head office is The Qube in Andheri (East), Mumbai and Registered Office in UB City, Bangalore through its parent company United Breweries Group, has a 50% stake in low-cost carrier Kingfisher Red. The airline has been facing financial issues for many years. Until December 2011, Kingfisher Airlines had the second largest share in India's domestic air travel market. However, due to the severe financial crisis faced by the airline, it has the fifth largest market share in the year 2012, only above Go Air. Henceforth the researcher made an attempt to study the capital structure of Kingfisher Airline.

Key words: Airline industry, Balance sheet, Income statement, financial crisis.

3.3.1 / Research Papers Published / Data Template / Row No. 39

An Impact of Social Media – A Study with Reference to WhatsApp among Youth

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Abstract

In the fast-moving world, we can see many changes in every second. Therefore life is getting difficult in each segment, but we live comfortably with a lot of innovation and technology. Both of things joint together and came out as Technovation which provides the new platform called social media. It includes facebook, twitter, linkedin, WhatsApp, Hike, Instagram etc. WhatsApp is one of the mobile applications which has become a part of youth life. Recently it is more popular among the youth, which is currently available in the various electronic gazettes such as Android mobile phones, tablets, I-phone, and computer. Today WhatsApp is a fantastic application used to connect ourselves to all types of peoples in the world. In our day-to-day life, WhatsApp occupies a significant part in many ways like sharing of information and ideas. But it creates some harmful effects among the life of youth. Hence the researcher attempted to study the impacts in youth life and how it reflects the society. The primary objectives of the papers are to find out the usage of WhatsApp among youth and understand the effects of WhatsApp on Youth. The research study has been conducted with the primary data collected from 100 respondents through structured questionnaire. Descriptive statistics have been applied for the analysis.

Key words: WhatsApp, Social media, Impact, Youth

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1.Title: A Study on Consumer's Satisfaction towards Packaged Drinking Water with Reference to Coimbatore City

Author(s): S.Selvi

Vol:10 Issue:14(2017) pp 1-8

o 2014 – December – (Volume – VII) Special Issue

Abstract: This study is undertaken to analyze the usage of consumer towards Hindu newspaper and also their satisfaction. The study gives a brief description of the people's opinion about the satisfaction towards packaged drinking water. The survey was based on a formal interview with the customers directly, and responses are collected through Questionnaire. The sample size for this study is only 150 respondents and the area selected to do this study is Coimbatore city. Here snowball sampling method was adopted to conduct the survey. The main aim of this study is to find the level of consumer's satisfaction and suggested them to improve the Quality of websites and overall satisfaction. The data used for the study is primary and secondary. It is collected from the respondents by issuing questionnaires and analyzed their opinion.

Archives

o December 2014

Keywords: Consumer satisfaction, Drinking water, Brand Value, Quality based services.

KG College of Arts and Science	Criterion 3 – Research, Innovation and Extension	3.3.1 Number of research papers published per teacher in the Journals notified on UGC care list during the last five years

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Customer Preference and Satisfaction towards Information Technology Based Products and Services – A Study with Reference to Banking Industry

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ABSTRACT

Indian commercial banks have witnessed a rapid spread of new private banks and increasing number of foreign banks. Moreover, the banking industry is characterized by a rapid change and increasingly sophisticated customers, due to the impact of revolutionary changes in computer and communication technology. The banking industry is not only witnessing rapid changes but also facing severe competition due to liberalization, privatization, and globalization. Banks are forced to enhance their productivity and efficiency to meet the increased competition by concentrating on the major emerging issues like Knowing the customers, Technology issues, Product innovation, and Pricing products.

Key Words: Customer preference, products and services, level of satisfaction, Technology & Indian Banking Industry.

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Tourism Industry in India – A Study

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ABSTRACT

Tourism is currently the world's largest industry and the fastest growing sector of the market. Tourism is usually viewed as being multidimensional, possessing physical, social, cultural, economic and political characteristics. Worldwide tourism is ranked second highest revenue-generating industry. There is a large potential market for rural tourism especially for foreign tourists, which has not yet developed because government has not taken up any systematic approach to attract foreign tourists. The basic concept of rural tourism is to benefit the local community through entrepreneurial opportunities, income generation, employment opportunities, conservation and development of rural arts and crafts, investment for infrastructure development and preservation of the environment and heritage. Rural tourism will bring people of different cultures, faiths, languages and life-styles close to one another and it will provide a broader outlook of life. It will not only generate employment for the people but it can also develop social, cultural and educational values.

Keywords

Employment opportunities; Foreign versus domestic tourists; Importance –Job, Education, Types of Tourism.

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AN ANALYSIS OF PROFITS WITHIN THE INDIAN FOOD PROCESSING SECTOR

2 Author(s): SHANTHI R, SELVAM K

Abstract

India has the tenth-largest arable land resources in the world with 161 million tonnes. With 20 agri-climatic regions, all 15 major climates in the world exist in India. The country also possesses 46 of the 60 soil types in the world. The planning and control of finance function aims at increasing profitability of the concern. It is true that money generates money. To increase profitability, sufficient funds will have to be invested. Finance function should be so planned that the concern neither suffers from inadequacy of funds nor wastes more funds than required. A proper control should also be exercised so that scarce resources are not frittered away on uneconomical operations. The cost of acquiring funds also influences profitability of the business. For our study, we have considered five companies and the data used for a period of five years.

References

3.3.1 / Research Papers Published / Data Template / Row No. 44

A study on customer preference towards two wheelers in Coimbatore city

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Abstract
Within the past decade two wheeler usage indicates a rapid growth in Indian market. Among the two wheeler population, Indian two wheeler brands representing a huge portion. In this research study researcher put effort to find out what are the factors effect on decisions of consumers on two wheelers. Main purpose of this study was to identify why people prefer two wheeler brands becoming more popular and which factors effect on the purchasing decision and open up the gateway to study on this area among this study. Researcher's previous working experience at Automotive Industry was lead to conduct the study. Data were collected from 200 respondents using questionnaire. The findings also revealed several implications for marketers to better segmentation and targeting in the automobile industry especially on two wheeler sales. Further contribution of the demographic factors such as age, gender, distance travelled how far impacted on the purchasing decisions of the two wheelers and those are helpful to marketing managers to develop their strategies.

Keywords: purchasing intension, two wheelers, Coimbatore city

Introduction
The Indian auto industry is one of the largest in the world. The industry accounts for 7.1 per cent of the country's Gross Domestic Product (GDP). The Two Wheelers segment with 80 per cent market share is the leader of the Indian Automobile market owing to a growing middle class and a young population. Moreover, the growing interest of the companies in exploring the rural markets further aided the growth of the sector. The overall Passenger Vehicle (PV) segment has 14 per cent market share. India is also a prominent auto exporter and has strong export growth expectations for the near future. Overall automobile exports grew 15.81 per cent year-on-year between April-February 2017-18. In addition, several initiatives by the Government of India and the major automobile players in the Indian market are expected to make India a leader in the 2W and Four Wheeler (4W) market in the world by 2020. Production of passenger vehicles, commercial vehicles, three wheelers and two wheelers grew at 14.41 per cent year-on-year between April-February 2017-18 to 26,402,671 vehicles. The auto industry is set to witness major changes in the form of electric vehicles (EVs), shared mobility, Bharat Stage-VI emission and safety norms. Electric cars in India are expected to get new green number plates and may also get free parking for three years along with toll waivers@. India's electric vehicle (EV) sales increased to 25,000 units during FY 2016-17 and are poised to rise further on the back of cheaper energy storage costs and the Government of India's vision to see six million electric and hybrid vehicles in India by 2020.

Statement of the problem
The necessity of usage of two wheelers is becoming mandatory for today's fast work. The purchase decision is based on their needs and necessities. The earning capacity of and individual plays a vital role in decision making. Therefore the study focuses on the problems in the usage of two wheelers and the decision among consumers is based on needs and awareness of brands available in Coimbatore city.

Objectives of the study
1. To analyze the preference of the customers with respect to two wheelers.
2. Suggestions to improve market.

Methodology
The researcher used descriptive type of research. This research design deals with describing the characteristics of a particular individual or group of customers. Descriptive research includes surveys and fact finding inquires of different kind. In this study the researcher attempted to analyze the customer preferences towards purchasing of two wheelers in the Coimbatore city. So, the descriptive is selected for this study. The researcher used primary and secondary data to collect the details from the respondents. The sample size of this study consists of 200 respondents. Convenient sampling method was used in identifying samples for the study. For analyzing the data, the statistical tools used for the study Simple Percentage Method and Chi-Square Test is used.

Review of literature
Joseph Sarkis, (2007) Green supply chain management: pressures, practices and performance within the Chinese automobile industry this study examines the Chinese automobile supply chain managers to consider and initiate implementation of green supply chain management (GSCM) practices to improve both their economic and environmental performance.
Anna. S. Mattila (2011) the Impact of Other Customers on

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Impact of micro credit on women empowerment

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Abstract
The words of Crowther, "Empowerment means to give somebody the power or authority to act"[1]. Women empowerment means an all round development which includes their physical, socio-economic and political development. Without the full and equal participation of women, there can be no sustainable human development.
"Microcredit is the expansion of very diminutive loans to the entrepreneurs and to others living in poverty that are not measured bankable". SHG is a charitable form of organization. It admits any woman to become its member. The members of SHG should be the residents of the particular area. At the same time, the members should be above 18 years of age. They should attend the meetings properly. In this chapter an attempt has been made to study the socio economic conditions of the SHG members.

Keywords: SHG-self-help groups, microcredit, empowerment

1. Introduction
Microcredit is a tool for socio-economic development. There is an imperative need of empowering women particularly in rural areas. The formation of Self Help Groups and microcredit will enhance their socio-economic position in the society.
"There is a vital need of empowering women mainly in rural areas. The formation of Self Help Groups and microcredit will build up their socio-economic point in the society".
"The achievement of micro credit initiatives has often been accredited to their exacting meeting point on empowering women and encouraging their self confidence through developing their own means of income". Various case studies show that there is a positive relationship between credit availability and women's empowerment. It is observed that majority of rural women who are connected with self help group activity optimistically succeeded to gain them empowered. SHG is a suitable means for the empowerment of women.

1.2 Statement of the problem
Alleviation of poverty, the core of all developmental efforts has remained a very complex and critical concern for developing countries. It is in this context Self-Help Groups have emerged and the concept of micro credit came in to existence. To what extent micro credit is helping the poor women for their empowerment? To find out the answer for this question, the present study is undertaken. An attempt is made in this study to find out the impact of micro credit on women empowerment.

1.3 Review of literature
A lot of literature is available on women empowerment, which are written by Indian and foreign authors. Hence, an attempt is made to review the important studies undertaken in India. Articles published in research journals, doctoral thesis

submitted to various Indian and foreign universities and papers presented in national and international seminars have been reviewed. It is hoped that the review will be helpful in identifying the research gaps in the area of women empowerment and to determine the method that should be adopted for the present study.
Malhotra A, in his paper entitled, "Measuring women's empowerment as a variable in international development", constructed a list of the most commonly used dimensions of women's empowerment, drawing from the frameworks developed by the various authors in the different fields of social sciences. Allowing for overlap, these frameworks suggest that women's empowerment needs to occur along multiple dimensions including. Economic, Socio-Cultural, Familial/interpersonal, legal and political. Since these dimensions cover a broad range of factors, women may be empowered within one of this sub-domains.[18]

1.4 Objectives of the Study
1. To trace the history of micro credit and practices followed by SHGs.
2. To analyses the impact of micro credit on women empowerment among the members of women SHGs in Ettayapuram Taluk, Tuticorin district.
3. To offer suitable suggestions based on the findings of the study.

1.5 Scope of the study
The study covers the impact of micro credit on income, expenditure, owning assets and level of the SHG members, which is studied on the basis of primary data collected by the researcher. The present study aims at analyzing the opinions of the SHG members regarding the micro credit provided by the Pandian Grama Bank, in the Ettayapuram Taluk, Tuticorin district. It aims at analyzing the impact and opinions of the beneficiaries on micro credit. The study covers only women

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Customer Preference and Satisfaction towards Information Technology Based Products and Services – A Study with Reference to Banking Industry

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ABSTRACT

Indian commercial banks have witnessed a rapid spread of new private banks and increasing number of foreign banks. Moreover, the banking industry is characterized by a rapid change and increasingly sophisticated customers, due to the impact of revolutionary changes in computer and communication technology. The banking industry is not only witnessing rapid changes but also facing severe competition due to liberalization, privatization, and globalization. Banks are forced to enhance their productivity and efficiency to meet the increased competition by concentrating on the major emerging issues like Knowing the customers, Technology issues, Product innovation, and Pricing products.

Key Words: Customer preference, products and services, level of satisfaction, Technology & Indian Banking Industry.

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Analytical Method of Multi-Objective Genetic Algorithm with Multi-Objective Messy Genetic Algorithm in Satellite Image Segmentation

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ABSTRACT

Image can be dividing into different Segmentation. In image processing , the important task is Segmentation process methods. This method involves such as K-means clustering, watershed segmentation, Fuzzy c-Means, Iterative Self Organizing Data. Clustering methods depends powerfully on the selection of the primary spectral signatures which represents initial cluster centers. Normally, this is either done physically or erratically based on statistical operations. In this case the outcome is random and sometime inaccurate. In base paper an unsupervised method based on Multi-Objective Genetic Algorithm (MO-GA) for the selection of spectral signature from satellite images is implemented. The goal is to make greatest cluster centers as an initial population for any segmentation technique. Experimental results are conducted using high-resolution SPOT V satellite image and the verification of the segmentation results is based on a very elevated resolution satellite image of kind Quickbird. The spectral signatures method to Fuzzy c-means and K-means by MO-GA method increased the speed of the clustering algorithm to approximately4 times the speed of the random based selection of signatures. In this paper unsupervised method is comparative with Multi-Objective Messy Genetic Algorithm(MOMGA) with existing MO-GA methods for the selection of spectral signature using satellite images.
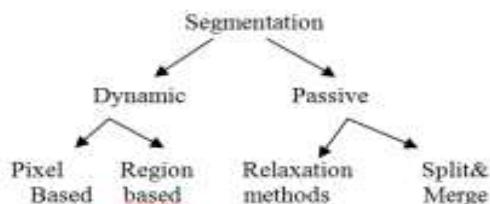
Keywords: Multi-Objective Genetic Algorithm, Multi-Objective Messy Genetic Algorithm Clustering, Image Segmentations, Satellite Images.

I. INTRODUCTION

Image segmentation process is to divide the image into homogeneous, self-consistent regions, which should correspond to different objects in the scene. The process is achieved using only properties of the image. The basic property useful for image segmentation is its amplitude. The other properties such as edges and texture are also useful for image segmentation. The goal of segmentation is to simplify and/or change the representation of an image into something that is more meaningful and easier to evaluate.[1] Image segmentation is generally used to set objects and boundaries as lines, curves, etc. in images.

It is classified in the following way as

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CONSUMERS PERCEPTION ON ONLINE SHOPPING WITH SPECIAL REFERENCE TO COIMBATORE CITY

Commerce

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ABSTRACT

E-commerce is helping people in smaller towns and rural areas in India access quality products and services similar to what people in the larger cities have access to. It being forecast that close to 70% of online shoppers would come from beyond the top ten large cities by end of this year. The first World Wide Web server and browser, created by Tim Berners-Lee in 1990, opened for commercial use in 1991. Immediately after, Amazon.com launched its online shopping site in 1995 and eBay was introduced in 1996. This study highlights student's attitude towards online shopping and their product preference through online shopping. This enable the e-retailers to support their online customer better by developing suitable marketing strategy in effective way in order to attract and convert potential customer as an active customers by encouraging them in an efficient way to make a purchase decision.

KEYWORDS

e-Commerce, Online Shopping, Consumer Perception, Buying Behaviour, Purchase Decision,

1. Introduction

Internet marketing is conceptually different from other marketing channels and internet promotes a one to one communication between the seller and the end user with round the clock customer service that is 24X7 basis. Today, business internet marketing is the fastest growing segment of online consumers. The major difference between traditional and online selling is the extent of interaction between the consumer and the seller without face to face interactions. There is much more electronic interactivity with the consumer in the form of emails and FAQs. Through FAQs, the consumer's questions on shipment, payment, product, policies and other customer concerns can be addressed effectively (Pervaiz Ali,2011).Increasing numbers of people are analysing towards more intensive use of the Internet as the accessibility of technology, the availability of information, and the ability to interact through the Internet increase and evolve. Obvious capabilities of the Internet include avenues for gathering information, purchasing a product, or rendering a service. These advances in Internet technology allow for the expansion of shopping options beyond traditional methods that may be more time consuming. Issues with having to physically gather information with offline shopping methods are alleviated, and customers are better able to efficiently use their time. For instance, instead of having to physically visit different stores to compare prices or rely on circular pamphlets in newspapers, a consumer is able to search and retrieve needed information through the Internet. The Internet explosion has opened the doors to a new electronic world. Consumers are now able to use the Internet for a variety of purposes such as research, communication, online banking, and even shopping. With such advantages, the Internet is rapidly becoming the main method of communication and of conducting business conveniently. With a growing number of households turning towards the Internet and the world of e-commerce to shop, invest, make payments, and do online banking, new technological advancements will have to come about to make these transactions secure. However, not all consumers are participating in online transactions as part of the Internet boom(illiterate consumers).

2. Review of Literature

There are certain literature reviews by the context of Indian consumers **Ratika Rastogia and Sonia Chaudhary** (2012),in this article the consumer behaviour suggest how individual, groups and organization select, buy, use and dispose of goods, services, ideas or experience to satisfy their needs and wants. Consumer needs and preferences are continuously changing, attributing the changes to factors like demographics and lifestyles. Rural areas are scattered and it is next to impossible to ensure the availability of a brand all over the country. It is true that Consumer India is flourishing, but at the same time Indian Consumer has his roots deep into his traditions.

Susan Rose, Neil Hair and Moira Clark (2011) identified online purchase in particular continues to rise, as adoption and penetration levels of Internet technology continuously increase. By 2007, European Internet penetration stood at 43% of the population with a 2 31% usage growth year on year. In North America, penetration was at 71% of the population with 120% growth (Internet World Stats 2007).

This is also evidenced by increasing levels of online sales, which in the US reached US$128.1bn in 2007 and were projected to reach US$165. 9bn by 2009 (source: US Census Bureau 2009).

Peterson et al. (1997) commented that it is an early stage in Internet development in terms of building an appropriate dedicated model of consumer buying behavior. Decisionsequences will be influenced by the starting point of the consumer, the relevant market structures and the characteristics of the product in question. Consumers' attitude towards online shopping is a prominent factor affecting actual buying behavior.

3. Objective of the Study

The objective of the study is given below
1. To know the type of products purchased by consumers through online shopping.
2. To identify the factors influencing consumer to buy online

4. Research Methodology

The study intends to explore the consumer's perception on online shopping. This chapter focuses on research design and methodology adopted for the study. The data for the study was gathered through a structured questionnaire. A direct survey was used to collect the data mostly on the students of Top most colleges in Coimbatore city. The first part of the questionnaire about Internet usage habits of the respondents such as how frequent they browse Internet, how much time they spent, purposes for Internet use, what type of products the respondents purchase online and how frequent the respondents buy products through online. The second part consisted of questions measuring all the variables which are used to measure the online shopping. All the questions were utilizing on a Likert scale ranging from 1=strongly disagree to 6=strongly agree.

5. Result and Discussion
5. 1.1. Type of Products Purchased Online

It is clearly indicated that out of the 100 people surveyed the total number of various products purchased by them online 5.6 % purchased software online, 16.74% purchased Travel services such as Airlines & hotels rentals, 6.05% purchased Music and CDs, 8.84% purchased computer and hardwares, 8.3% purchased Home Electronics, 13.09%

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A Comparative Performance Analysis of Wireless Sensor Network Protocols

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ABSTRACT

Wireless Sensor networks plays a vital role in the recent technologies.WSN consists of group of sensor nodes and monitors the environment for application without having any central controller. The sensor networks consist of sensed data, which may be depending upon the applications in real time. The networks transfer the large amount of data, broadcast messages from one node to another. These Application required high performance on the network without affecting the resource constraints. Wireless devices are having limited energy because nodes are operated by batteries. The main challenge in the WSN is the durability of the energy in the nodes. By using the protocol the energy of the nodes can be stable and reduce the error prone transmission of sensored data. In this paper, the Analysis of LEACH (Low Energy Adaptive Clustering Hierarchy) Protocol and TEEN (Threshold Sensitive Energy Efficient Sensor Network) protocol to conserve the energy of the nodes in the Wireless sensor networks. Wireless sensing element networks have emerged as a promising tool for observance (and probably actuating) the physical world, utilizing self-organizing networks of powered wireless sensors that can sense, process and communicate. The necessities and limitations of sensing element networks build their design and protocols each challenging and divergent from the wants of ancient Internet design. A sensing element network is a network of many tiny disposable low power devices, known as nodes, which are spatially distributed in order to perform an application-oriented international task.

Keyword: LEACH, Nodes , TEEN, Sensor Network, Wireless Sensor Network.

I. INTRODUCTION

Wireless Sensor Network

A Wireless Sensor Network is surrounded by the network of small sensor nodes communicating among themselves using signals, and deployed to sense and monitor the real world environment. Wireless Sensor nodes are called motes.[1]

Figure 1. Operations of WSN

A WSN is a network consisting of numerous sensor nodes with sensing, wireless communications and computing capabilities. These sensor nodes are isolated throughout the environment to sense the physical world. The sensed data can be collected by sink nodes which have accesses to infrastructure networks like the Internet. Finally, an end user can remotely fetch the sensed data by accessing infrastructure networks. The sensor nodes either form a flat network topology, multi-hop routing, or a hierarchical network topology where more powerful or mobile relays are used to collect and route the sensor data to a sink.[3]

II. OBJECTIVES

- ✓ Low Node Cost
- ✓ Low Power Consumption
- ✓ Self-configurability
- ✓ Scalability
- ✓ Adaptability

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A STUDY ON INVESTOR ATTITUDE TOWARDS INVESTMENT SCHEME

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Abstract : Investing in well-known financial products falls into the category of traditional investments. These include bonds, shares, real estate etc. These are categories which are quite popular among investors to save their life for the future

IndexTerms- Investment types, Postal savings scheme, Importance of investment

1. INTRODUCTION

In the financial industry, there are two concepts that form the basis of most transactional activities. One is savings and the other is investments. There is a huge overlap between the two concepts though, it terms of execution. Investment in terms of financial context, means any money that is spent today in the hope of financial benefits that may be reaped in a future time frame. Any investment is the act of buying or creating assets with an expectation that the same would yield interest earnings or dividend or capital appreciation or any other return that is profitable as compared to the money put in initially. Almost all investments are differentiated from other kinds of transactions based on the aim of the money spent. Money spent on making investments is primarily with the aim of obtaining some sort of return in a specific period of time.

Types of investment
1. Bond
2. Stock
3. Small savings Scheme
4. Employees Provident Fund
5. Sukanya samriddhi scheme
6. National pension Scheme
7. Mutual Fund
8. Fixed Deposits
9. Real Estate

Alternative Investment
1. Hedge funds
2. Private Equity
3. Venture Capital
4. Managed Futures
5. Structured products
6. Collectible Items

Importance of Investment
1. Investing money in various financial schemes impels that the money grows
2. Investments return help the investor to make use for the emergency purpose
3. Investments help to earn income from your accumulated wealth. For example, earning rent from a real estate investment or earning dividends from stock market investment
4. Investment in postal savings scheme helps to get the tax deduction.
5. Investing helps to face both the inflation and deflation stages in the economy.
6. Investments vital role in helping the financial support for the families
7. Investment can be done both short term and long term

Traditional Investment
- Stocks
- Bonds
- Deposits

Alternative Investment
- Real Estate
- Private Equity
- Collectibles (Valuables)
  - Gold jewelry, bullions, coins etc.(Check for Gold Rates Place Wise)
  - Silver jewelry, coins etc.(Check for Silver Rates Place Wise)
  - Other precious metals and gems
  - Antique Collectibles
  - Paintings
- Hedge Funds
- Structured Products

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A Study on Profitability of Selected Cement Companies

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Abstract

All the industries are looking for best possible outcomes such as productivity and profit. With this key point, the researcher attempted to study the profitability of the cement industry which is contributing more share to the economic development of the country. The researcher has selected few companies in India based on the capital and its ratio. The tools used in this study are Arithmetic Mean, Standard Deviation, Coefficient of Variation and Analysis of Variance (ANOVA). The researcher has chosen the periods between 2001 and 2016 for the analysis.

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A Study on Customer Satisfaction towards Samsung Mobile Phones in Coimbatore City

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ABSTRACT

Samsung Heavy Industries (the world's 2nd-largest shipbuilder measured by 2010 revenues and Samsung Engineering and Samsung C&T (respectively the world's 13th and 36th-largest construction companies). Other notable subsidiaries include Samsung Life Insurance (the world's 14th-largest life insurance company), Samsung Ever land (operator of Ever land Resort, the oldest theme park in South Korea) and Cheil- Worldwide (the world's] 5th-largest advertising agency measured by 2012 revenues).

Keywords: Samsung history, Mission, Vision, Rewards

3.3.1 / Research Papers Published / Data Template / Row No. 53

STIGMATIZED MENSTRUATION AND GST: A CRITICAL APPRAISAL

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Customer Attitude towards Payback Card-A Study with Special Reference to Select City

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DETERMINANTS OF CAPITAL STRUCTURE IN SELECT INDIAN INDUSTRIES

Author Names : *Pavithra.K Assistant Professor in Commerce KG College of Arts and Science, Coimbatore **Dr.R.Velmurugan Associate Professor in Commerce karpagam University, Coimbatore

The Growth and Trends in Elementary School Enrollment and Drop-outs – An Appraisal of Indian Experience

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A STUDY ON CONSUMER SHIFT AND CONSUMER BUYING BEHAVIOUR AMONG YOUTH TOWARDS MAGGI NOODLES AFTER ITS RELAUNCH

3.3.1 / Research Papers Published / Data Template / Row No. 54

International Journal of Applied Research

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A Study on children's influenced in family purchase decision making with special reference to Coimbatore city

V Suganya

Abstract

Influence operating on family purchase behavior is the influence of children on the budget allocation and purchases and consumption. There are two type of theoretical approaches that have played a vital role in studying children's influence is affected by a variety of factors, including family variables, namely, social class, family size and family structure, children's characteristics say, gender, birth order and age, parent's characteristics that is education occupation and consumption dependences, Experiences parental potential style and family communication environment.

As soon as children develop the basic skills to communicate they start attempting to influence the family decisions. When compare to younger children Older children have high decision power to take decision in a. As families differ across families and would affect and degree of influence children can exert on purchase decision. In addition, children are also influenced by their families through the socialization process. In the context of consumer behavior the parent- child relationship can be seen as an influence versus yield situation. Children, acting as initiators or influencers seek to influence parents make a particular product/brand decision (to yield). The response of the parent may be modified by enabling condition, or a differing order of expenditure priorities. It has been found that attempts on the part of children to influence purchase decisions of parents tend to decline as they grow up.

Keywords: Communication environment, parent's characteristics, parent-child relationship

Introduction

Economic models of the family treat children either as "goods" in the consumption vector of their parents or as agents with autonomous preferences who are capable of full economic independence. In a developmental trajectory between the infant and the near-adult they know that there are children who have well-defined preferences, who are developing communications and formal reasoning skills, who are capable of productive work and independent action, and who still rely on their parents for guidance and support, but economic theory does not accommodate them easily. During late childhood and early adolescence, children acquire a level of autonomy about their own activities and spending at rates that vary depending on their own traits and abilities, the preferences and resources of their parents, and their environment.

As children being to make choices about how to allocate their time between homework and television, and about how and when to spend their money, they become economic agents engaged in constrained optimization. We know very little about the process by which children acquire this agency; this research provides a first look at child decision-making autonomy from an economic perspective.

The balance that is struck between parental authority and child independence in choices about children's own activities is potentially important for developmental outcomes. Parental restrictions can curtail risky behavior and promote investments in child human capital, but children develop self-confidence by taking independent actions and judgment by experiencing their own mistakes.

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Statement of the Problem

Generally both marketers and consumer researchers have ignored children as a consumer segment because, of their title disposable income. Since the 1980's interest has been

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Role of Institutions Supported for Women Entrepreneurs - A Study

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ABSTRACT

Women entrepreneurship plays an important role in economic development of a country. They perform in several areas especially in small and microenterprise. With the increase in the number of women getting educated, there is considerable awareness among women to be self-employed and gradually the role of entrepreneur in the society. Established in cities and towns Having sufficient education Both traditional and nontraditional items Undertaking women services-kindergarten, crèches, beauty parlors , health clinic etc Third Category: Illiterate women Financially week Involved in family business such as Agriculture, Horticulture, Animal Husbandry, Dairy, Fisheries, Agro Forestry, Handloom, Power loom etc. Here microfinance provides several lending facilities for women entrepreneur but women have lower personal financial assets than men and established in large cities. It means the opportunity and equality for women may exploit and secure additional resources compared to man. Women entrepreneurs based on women participation in stating business in equity and employment of a business enterprise. One of the major problems faced by all the entrepreneurs especially the women entrepreneurs is the problem of Finance as well as Technical Know-How. For the discussion, institutional support in the form of finance as well as technical support is considered. District Level Institutions: DIC, KVIC, State Level Institutions: SFC, TCO, SSIDC, SIDC, KVIB, EDI, SISI, SIDBI, National Level Institutions: ICICI, IIC, EDII, KVIC, NABARAD, IDBI, IFCI, IIBI/IRBI/BIFR, Investment Companies: LIC, GIC, UTI and Specialized Financial Institutions: Exim Bank, NABARD. Special Agencies – Institutional finance to Entrepreneurship - Venture Capital and its importance Institutional set up – SFC – SIDC – SIPCOT – TIIC – COMMECIAL BANKS – SIDBI –DIC – SIDO – NSIC – SISI – Industrial Investment Center – KVIC - PIPDIC – NIESBUD – TCO – ITCOT – SIETI – NISIET – SIDCO – EGB – IDBI – IFCI – ICICI – LIC – NAYE – KSSIDC – SSIB – SSIC - SSIDC - SSIB – SENET – IRBI – UTI - EXIM – COSIDICI – SES – PSIDC – IIE – EGB - EDII – NABARD.,.

Key Words: Women Entrepreneurship, Micro finance, Institutions, institutional finance,

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12.Title: A Study on the Consumers' Buying Behavior towards Organic Food Products in Coimbatore City

Author(s): S. Kalaiselvi

Vol:10 Issue:14(2017) pp 61-65

Abstract: Organic food consumption has increased during the last years as a consequence of its direct impact on consumer health, lifestyle, and social convenience as well as on the environment and sustainable development. Organic products are obtained by processes eco – friendly, by cultivation techniques that consider both the attributes of the final product and the production methods. The present study focused on Consumers; buying behavior towards organic food products in Coimbatore City with the sample size of 100 respondents who are familiar with Organic Food Products by adopting Convenience sampling technique. The study is based on both primary and secondary data.

Key words: Buying Behaviour, Organic Food, sustainable development, eco–friendly.

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11.Title: Job Embeddedness – A Study of Workers in KSB and Aqua Sub Pumps in Coimbatore

Author(s): G. Kowsalya Devi

Vol:10 Issue:14(2017) pp 54-60

Abstract: Job embeddedness is the collection of factors that influence the employee retention. It can be distinguished from turnover in that its emphasis is on all of the factors that keep an employee on the job, rather than the psychological proves one goes through when quitting. Job embeddedness is made up of different types of links, investments, and appraisals, both on and off the job, that create a net or web of forces that tie people to their organization and role. Research has continued to demonstrate the job embeddedness significantly contributes to employee retention. Because it inhibits withdrawal from the organization in the broader sense researcher also sees opportunities for job embeddedness to increase chances for in- role and extra-role behaviors that enhance job performance. For this study job, performance has been characterized as task performance and organizational citizenship behaviors.

Job embeddedness theory us a relatively new perspective in turnover research. Although theoretical and empirical implications are encouraging, the construct of job embeddedness us still under development/. The job embeddedness concept takes in many factors such as benefits, diversity, training and personal development before drawing up their conclusion. Employees who feel positively about their occupation are apter in depicting their favorable sentiment about the organization to the community at large, it is what the concept of job embeddedness aims to achieve, and this is what makes studying job embeddedness concepts an essential part of the business. Job embeddedness us a topic that requires constant monitoring and studying because of its rapid evolutional capabilities. If the job embeddedness exists in the company, the job satisfaction of the workers will be more, in turn, the job performance of the workers will also be used which in turn leads to increased productivity.

Key words: Job embeddedness, Employee, Retention and job performance.

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14.Title: Problems Faced by the Customers – A Study with Special Reference to Solar Water Heater in Coimbatore City

Author(s): T. Sumathi & Dr. K Brindha

Vol:10 Issue:14(2017) pp 72-81

Abstract: In recent years, India has emerged as one of the leading destinations for investors from developed countries Economic growth, increasing prosperity and urbanization, the rise in per -capita consumption, and spreads of energy access are the key factors that would be responsible for substantially increasing the total demand for electricity. Thus there is emerging energy supply-demand unevenness. At present, the researchers depended on the non-renewable source of energy. These are all having the so many carbon by-products and pollute the environment. So the man has evolved to find out the alternatives source of clean energy. In such way one of the alternative renewable energy is solar energy. Solar energy can be used for a variety of purposes like as Heating, Drying, Cooking and Electricity. In practical life, Solar Hot Water System (SWHS) is one of the popular devices that harnesses the solar energy. The study is descriptive both primary and secondary data to be considered for this analysis. 450 samples are randomly selected in the area of South zone of Coimbatore city and analyzed for the study. Three objectives are framed and required tools to be applied for this study. Through this study problem towards solar water heater have been analyzed and provide the suitable suggestions to improve the solar energy utilization in households.

Key words: Economic Growth, Electricity, Non-renewable, Solar energy, Utilisation.

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Cause and Relation of Stress – A Study with Special reference to Executives in Apparel Industry, Tirupur

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ABSTRACT:

Executive stress is one's life interferes with one's interpersonal relationships at home, on the job, and socially. It can make one spend one's efforts on not being unhappy, rather than on being happy. Stress can waste one's vitality and deplete one's energy resources that could be used for enjoyment. The individual concerned can become negatively influenced by his attitudes and feelings about himself more easily. Also, medical research estimates as much as 90 percent of illness and diseases are stress related. Stress can interfere with your physical functioning and bodily processes. High blood pressure, cardiovascular diseases and heart diseases have been linked to stress factors. Other stress-related ailments include ulcers, allergies, asthma, and migraine headaches. Most health professionals agree stress can be a contributing factor in making existing medical problems worse.

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A STUDY ON INVENTORY MANAGEMENT OF TATA MOTORS

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ABSTRACT

In the study contain the Inventory management of the Tata motors Limited. To know about the raw materials of the company for the last five years. The data's are to be collected from the secondary. This analysis to know about the stock levels under EOQ method. Finally shows the company economic order quantity of the stock levels for the last five years (2012-2016).

Keywords: Inventory Management, Economic Order Quantity

Introduction

A term inventory refers to the stock file of the products a firm is offering for sale and the components that make up the product. In other words, inventory is composed of assets that will be showed in future in the normal course of the business operations. The assets which firms store as inventory in anticipation of need are:

- ✔ Raw materials
- ✔ Work in process (Semi Finished goods)
- ✔ Finished goods

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A STUDY ON CUSTOMERS ATTITUDE TOWARDS E-TAILING IN COIMBATORE

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ABSTRACT

Today , due to improvement in technology and communication , people are attracted towards electronic shopping in order to save time and cost. Online shopping customer behaviour is also called E-shopping customer buying behaviour. E-tailing is known as electronic retailing which is becoming a popular trend nowadays. Online stores are offering almost all sorts of products in their stores even groceries. Online stores are offering best prices, good products and completely hassle-free shopping experiences for the customers. Many online websites are trying to attract a huge number of customers. E-Tailing is nothing but the Electronic Retailing, which was blended together.   The success of any E-tailer company in India is depending upon its popularity , its branding image, its unique and fair polices, and its customer relations etc. The purpose of this study is to examine and analyse the attitude and buying behavioural pattern of customers towards online retailing in the study area. Also tried to find out various attitudes of users of Coimbatore city towards the online retailing. The study are is a business town having all classes of people living together and almost all the online stores are have their distribution agencies in the study area. And also the people living in the city use the online shopping websites. The data was collected from 100 respondents.   The study result concluded that E-tailing will be having a prosperous growth in the upcoming years.

Key words: E-shopping, E-tailing , online stores and Coimbatore city

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A STUDY ON QULAITY OF WORK LIFE OF THE SRI RENGA APPERALS, COIMBATORE

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ABSTRACT

Quality of life means that the level of happiness or dissatisfaction on one's career. Quality is no more a specialized word but has become necessary and the greatest asset to any organization. Maintaining and managing the quality of such human aspects is through the maintenance of quality of work perfectly. The high QWL gives the better result in the organization performance, effectiveness, innovativeness etc. It is the corroboration between the employees and their organization. It helps to increase the family life and work life of the individuals. The factors that determine the QWL are attitude, environment, opportunities ,nature of job, stress level, challenges, growth and development and risk involved in work and reward.

Keywords: Quality of work life, Organization commitment and job security.

INTRODUCTION

Quality of work life is the set of organizational conditions. This phrase is used with frequency to describe the environmental and humanistic values. It can be said to be all the original inputs which aim at improving the employee's satisfaction and enhancing organizational effectiveness. It becomes mandatory for all the organizations. Business organizations attention is

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PROJECTS AND CONSULTANCY EXPORTS: STRATEGIC EXPOSITION AND FRAMEWORK

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ABSTRACT

Developing countries have realized the importance of undertaking extensive infrastructure development in order to achieve and sustain economic growth and prosperity. The standard of living of their population is rising, enhancing their expectations. At the same time, adverse balance of payments position with regards to the developed world is making them realize the need for diversifying their economic relations, away from the developed world towards other developing countries. This is accompanied by the growing realization of the opportunities available in overseas markets for the project and consultancy firms from the developing countries.

Moreover, several factors have brought about major changes in the competitive position of leading project and consultancy exporting countries, including labour costs, technology, patterns of international demand, government policies etc Growth of developing countries' output and trade as well as their share in the world trade in services has increased over last ten years. Although currently only a few developing countries are contributing to this growth, many more countries are realizing the inevitability of exports. By year 2016, the share of developing countries in world's exports is expected to increase from the current 17% to 22%. The dynamics of global service market continue to stimulate demand with reduction in domestic and international entry barriers. The quick changes in marketplace and

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Steganographic Approach using Enigma Intermix Cube Encryption Technique

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Abstract— Steganography is a process of hiding one data behind an image. A text data or an image in one format is being hidden in the other image or text data of the same format or of the different format. The data transmitted nowadays are being hacked easily by intruders, such that the purpose of secured transmission fails there. There are several traditional ways of transmitting data such as encryption, scrambling, watermarking, steganography, etc; the process of encryption involves changing data in one format to the other and transmitting. When the decryption method is known to the intruders then the data is easily available for them. Most of the encryption techniques are easy to predict. The process of scrambling involves shuffling the positions of the data in a format, which when applied in the reverse order or applied continuously will result in the original data. Watermarking is a process of embedding an image or text or logo in another image such that it is partially visible on the main data and hence it doesnot so well for secured transmission technique. Similarly the various traditional methods of steganography have some disadvantages. Some among them are listed below.

Index terms - Encryption, HVS (Human Visual System), LSB (Least Significant Bit), PSNR (Peak Signal Noise Ratio), Steganography

I. Introduction

The word steganography is derived from the Greek words stegos meaning cover and grafia meaning writing defining it as covered writing. In image Steganography the information is hidden exclusively in images. Steganography is the art and science of secret communication .It is the practice of encoding/embedding secret information in a manner such that the existence of the information is invisible. The original files can be referred to as cover text, cover image, or cover audio. After inserting the secret message it is referred to as stego-medium. The Least Significant Bit (LSB) insertion is the most common spatial domain technique, which consecutively replaces the least significant bit of cover image with the

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CONNECTIVITY IN A FUZZY GRAPH

MUTHUKANI.M*

ABSTRACT

The concept of connectivity and cycle connectivity play an important role in fuzzy graph theory. In this paper cyclic cut vertices, cyclic bridges and cyclically balanced fuzzy graphs are discussed. A cyclic vertex connectivity and cyclic edge connectivity of fuzzy graphs are also discussed. Connectivity of a complement fuzzy graph is analyzed.

Key Words - Fuzzy Relations, Cyclic Cut Vertices, Cyclic Bridges, Cyclic Vertex Connectivity, Cyclic Edge Connectivity.

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STRUCTURE OF LIQUID AND COMPARISON OF ADHESIVE FORCE WITH COHESION FORCE

J.Nirmala*

ABSTRACT

This paper shows the structure of a liquid based on the degrees of freedom that the molecules have for motion is determined by the number of coordinates that are occupied by cohesion. It gives the structure of liquid- surface model, string model and ring model. Various important properties of cohesion and adhesive forces are also discussed briefly. Also cohesion force is compared with adhesive force and the results are tabulated in this paper.

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DECOMPOSITION OF α−CONTINUITY, α•G− CONTINUITY AND G*CLOSED SETS IN TOPOLOGY

V.Sindhu[*]

ABSTRACT

In this paper, α^*g closed, $D\eta^*$, $D\eta^{**}$, $\acute{n}$ sets are defined and a schematic representation is obtained relating various open sets. Using these sets, α^*g, $D\eta^*$, $D\eta^{**}$, $\acute{n}$ continuities are defined and finally decompositions of α-continuity in terms of $D^*\eta^*$-continuity and α^*g continuity, α^*g-continuous in terms of $D^*\eta^*$ continuous and $\dot{n}$ continuous and a decomposition of continuity using g^* continuous and g^*lc^* continuous are obtained.

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STRONG AND BALANCED IRREGULAR INTERVAL-VALUED FUZZY GRAPHS

Selvanayaki. S[*]

Abstract

In this paper, the strong and balanced irregular interval-valued fuzzy graph concept is investigated and the size, order of the irregular interval-valued fuzzy graphs is derived and also the density of the graph is derived. Some basic propositions and theorem are also been presented.

Keywords: Balanced interval-valued fuzzy graphs, Interval-valued fuzzy graphs, Irregular interval-valued fuzzy graphs, Strong interval- valued fuzzy graphs.

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ALGEBRAIC PROPERTIES OF INTUITIONISTIC FUZZY SET OPERATORS

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ABSTRACT

In this paper, some results are proved for establishing the algebraic properties of intuitionistic operators with respect to intuitionistic fuzzy sets.

Keywords: Intuitionistic Fuzzy Set, Intuitionistic Fuzzy Operators.

INTRODUCTION

Crisp sets [5] which has a membership function only 0 and 1 is applied in a lot of branches beside mathematics. L.A.Zadeh [6] introduced the notion of fuzzy sub set μ of a set X is a function from X to [0,1], To get a wider application of the set theory. The fuzzy concept has been introduced in almost all branches of mathematics, After the introduction of fuzzy sets by L.A.Zadeh [6]. Then the concept intuitionistic fuzzy sets (IFS) was introduced by K.T.Atanassov [1] as a generalization of notation of a fuzzy set. Here, we discuss the algebraic properties of intuitionistic fuzzy operators and proved some theorems for the same.

1. PRELIMINARIES

For any two IFSs A and B the following relation and operations can be defined [2,3,4] as follows

Definition 1.1-Crisp Sets: The crisp set is defined in such a way to classify the individuals the universe in two groups: Members and Non-Members.
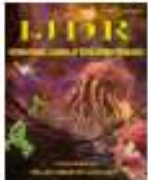
Definition 1.2-Fuzzy Sets: A Fuzzy set is a class of object with a continuum of grades of membership. Such a set is chacterized by a membership (characteristic) function which assigns to each object a grade of membership ranging between zero and one.

Definition 1.3-Fuzzy Sub Sets: Let S be any non empty set, A mapping μ from S to [0, 1] is called a fuzzy sub set of S.

Definition 1.4-Intuitionistic Fuzzy Set: Intuitionistic fuzzy sets are sets whose elements have degrees of membership and non-membership. Intuitionistic fuzzy sets have been introduced by Krassimir Atanassov (1983) as a extention of Lotfi Zadeh's notion of fuzzy sets, which itself extends the classical notion of a set. An intuitionistic fuzzy set A is a non-empty set X is an object having the form $A = \{\langle x, \mu_A(x), \gamma_A(x)\rangle / x \varepsilon E\}$ where the function $\mu_A : X \to [0,1]$ and $\gamma_A : X \to [0,1]$ denote the degrees of membership and non-membership of the element $x \varepsilon X$ to A respectively and satisfy $0 \leq \mu_A(x) + \gamma_A(x) \leq 1$ for all $x \varepsilon X$. The family of all intuitionistic fuzzy set in X denoted by IFS(X).

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ORIGINAL RESEARCH ARTICLE

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PROPERTIES OF INTUITIONISTIC FUZZY SET OPERATORS

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ARTICLE INFO

ABSTRACT

In this paper, various operations in Intuitionistic Fuzzy Sets are discussed. Some theorems are proved for establishing the properties of intuitionistic fuzzy operators with respect to different intuitionistic fuzzy sets.

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INTRODUCTION

Crisp set [5] which has a membership function only 0 and 1 is applied in a lot of branches besides mathematics. To get a wider application of the set theory, L. A. Zadeh [6] introduced the notion of a Fuzzy sub set μ of a Set X as a function from X to [0,1]. After the introduction of Fuzzy sets by L.A.Zadeh [6], the Fuzzy concept has been introduced in almost all branches of Mathematics. Then the concept of Intuitionistic Fuzzy Set (IFS) was introduced by K.T. Atanassov [1] as a generalization of the notation of a Fuzzy set. Here, we discuss the algebraic nature of Intuitionistic Fuzzy operations and prove some results on the commutative Monoid.

1. Preliminaries

For any two IFSs A and B, the following relations and operations can be defined [2, 3, 4] as follows.

Definition 1.1 - Crisp Sets:

The Crisp set is defined in such a way to classify the individuals in the Universe in two groups : Members and Non Members

Definition 1.2 – Fuzzy Sets:

A fuzzy set is a class of objects with a continuum of grades of membership. Such a set is characterized by a membership (characteristic) function which assigns to each object a grade of membership ranging between zero and one.

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INTUITIONISTIC FUZZY IDEALS IN SEMIGROUPS

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Abstract- In this paper, I consider the Intuitionistic fuzzification of the concept of several ideals in Semigroup S, and investigate some theorems in such ideals.

Keywords- Semigroup, Crisp Set, Fuzzy Set, Intuitionistic Fuzzy ideal, Intuitionistic Fuzzy bi-ideal, Level Subset of Intuitionistic Fuzzy.

I.INTRODUCTION

After the introduction of fuzzy sets by Zadeh in 1965, (see [7]) has achieved great success in a various fields. L.A. Zadeh (see [7]) introduced the notion of a Fuzzy sub set μ of a Set X as a function from X to [0,1]. Also several higher order fuzzy sets, introduced by Atanassov (see [1]). Fuzzy ideals in Semigroup have been first studied by N.edekind for the theory of algebraic numbers, was generalized by Emmy Noether for associative rings.

Since then many papers on ideals for rings and Semigroup appeared showing the importance of the concept [A.H. Clifford, S. Lajos and many others]. Further generalization of ideals by lattice-theoretical methods was given by G.Birkhoff, O.Steinfeld, and N.Kehayopulu.In this paper, we discuss further properties of Intuitionistic fuzzy sets of ideals in Semigroup are discussed.

II. PRELIMINARIES

Definition 2.1 – Crisp Sets:

Either the elements belongs to the set or does not belongs to the set is called crisp set. In this set the membership function has takes only the values 0(false) and 1(true).

Definition 2.2 – Fuzzy Set:

Let S be a Semigroup and F be a "fuzzy" and let f be a subsemigroup. A function f from S to the unit interval $[0,1]$ is called a fuzzy set of S. Let F(S) denote the set of all fuzzy sets in S.

(or)

Non crisp sets are called fuzzy set. In Fuzzy set the membership function takes the value[0,1]

Definition 2.3 – Intuitionistic Fuzzy sets:

Intuitionistic fuzzy sets are sets whose elements have degrees of membership and non-membership function. An Intuitionistic fuzzy set A is a non empty set X is an object having the form

$$A = \left\{ \left(x, \mu_A(x), \nu_A(x) \mid x \in E \right) \right\}$$ and satisfies

$$0 \le \mu_A(x) + \nu_A(x) \le 1.$$

Definition 2.4- Intuitionistic Fuzzy Set Operation:

For Intuitionistic fuzzy set, for any

$A(\mu_A, \nu_A), B(\mu_B, \nu_B) \in F(S), A \subseteq B$ is defined by

$$\mu_A \le \mu_B \quad \text{and} \quad \nu_A \le \nu_B$$

For $\forall x \in S$, respectively.

$(A \sqcap B)(x) = \min((\mu_A(x), \nu_A(x)), (\mu_B(x), \nu_B(x)))$

$= (\mu_A(x), \nu_A(x)) \wedge (\mu_B(x), \nu_B(x))$

$(A \curlyvee B)(x) = \max((\mu_A(x), \nu_A(x)), (\mu_B(x), \nu_B(x)))$

$= (\mu_A(x), \nu_A(x)) \vee (\mu_B(x), \nu_B(x))$

For $\forall x \in S$, respectively

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INTUITIONISTIC FUZZY IDEALS OF M-Γ GROUPS

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ABSTRACT

In this paper we define and derive lemmas and theorems of Intuitionistic Fuzzy Ideals of M- Γ Groups analogous to Fuzzy Ideals.

Keywords: *Intuitionistic fuzzy rings, Near ring, Fuzzy M- Γ sub group, Intuitionistic fuzzy ideals, of Intuitionistic Fuzzy Ideals of M- Γ Groups.*

INTRODUCTION

In 1986 Atanassov [1] introduced the notion of an Intuitionistic Fuzzy set as a generalization of Zadeh [9] fuzzy set. Atanassov [1] also described different operations of Intuitionistic Fuzzy set and their properties elaborately. Clay [3] discussed various properties and applications of near rings. The theories and applications of Fuzzy sets and Fuzzy logics were put forth by Klir and Yuan [9]. Characteristics and properties of Intuitionistic Fuzzy Ideals of Near Rings were discussed in 2004 by Ma and Zhan [10]. Based on the introductory study of M- Γ Groups, various results of Fuzzy Ideals of M- Γ Groups were defined, discussed and derived by Satyanarayana and Prasad [14]. An analogous definition, theorems and properties of Intuitionistic Fuzzy Ideals of M- Γ Groups are explored.

PRELIMINARIES

Definition 2.1-Crisp Sets [19]: The Crisp set is defined to classify the individuals in the Universe in two groups: Members and Non- Members

Definition 2.2–Fuzzy Sets [19]: A fuzzy set has objects with a continuum of grades of membership. Such a set is characterized by a membership (characteristic) function which assigns to each object a grade of membership ranging between zero and one.

Definition 2.3–Fuzzy Subsets [19]: Let S be any non-empty set, A mapping μ from S to [0,1] is called a Fuzzy sub set of S.

Definition 2.4-Intuitionistic Fuzzy sets [4, 9]: Let X be any non-empty set, a fuzzy subset A of X is of the form A = {<x, $\mu_A(x)$, $\gamma_A(x)$>/x∈X} where the functions $\mu_A : X \to [0.1]$ and $\gamma_A : X \to [0.1]$ denote the degrees of membership and non-membership of the element x∈X to A respectively and satisfy $0 \le \mu_A(x) + \gamma_A(x) \le 1$ for all x∈X. The family of all intuitionistic fuzzy sets in X denoted by IFS (X).

Definition 2.5 [9]: Let A be any fuzzy set in X. Then for any $\alpha \in [0, 1]$, α cut of A, denoted by $^\alpha A$, is defined as $^\alpha A = \{x : x \in X$ such that $\mu_A(x) \ge \alpha\}$ and the strong α cut of A denoted by $^{\alpha+}A$, is defined as $^{\alpha+}A = \{x : x \in X$ such that $\mu_A(x) > \alpha\}$

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Solving An Optimal Control Problem With Free Final Time

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Abstract: In this paper, we presents a Pontryagin Principle for Bolza problem. The procedure for solving a Bolza Problem is discussed. To solving an optimal control problem with free final time. The problem is to find an optimal control and optimal state.

Keywords: Optimal Control, Bolza Problem, Pontryagin Principle Algorithm, Pontryagin Principle.

I. INTRODUCTION

The theory of optimal control has been developed for over forty years. With the advances of computer technique, optimal control is now widely used in multi-disciplinary applications such as biological systems, communications networks and socio-economic systems etc. As a result, more and more people will benefit greatly by learning to solve the optimal control problems numerically. An optimal control is a set of differential equation describing the paths of the control variables that minimize the cost function. The control theory [1] was the "Classic" book for studying the theory as well as many Problems (Observability, Controllability, Stable).In most books [3] [4] it is free final time problem that being tackled first to derive the necessary conditions for optimal control. In retrospect, [4] was the first and the "classic" book for studying the theory as well as many interesting cases. Necessary conditions for various systems were derived and explicit solutions were given when possible. Later [3] proved to be a concise yet excellent book with more engineering examples. One of the distinguish features of this book is that it introduced several iterative algorithms for solving problem numerically. Free final time problem [2] [5] were treated as an equivalent variation with one more state for time. However free final time problem general form and solve the problem by using algorithm to find an optimal control and optimal state.

II. BASIS DEFINITIONS

A. OPTIMAL CONTROL

Consider the linear varying system,

$$\dot{x}(t) = A(t)x(t) + B(t)u(t)$$

and the cost functional,

$$J = \frac{1}{2}x^T(T)Fx(T) + \frac{1}{2}\int_0^T [x^T(t)Q(t)x(t) + u^T(t)R(t)u(t)]dt$$

Where $A(t), B(t), Q(t), R(t)$ are continuous on $[0,T]$, the terminal time T is specified,

F is a constant $n \times n$ symmetric positive semidefinite matrix,

$Q(t)$ is an $n \times n$ symmetric positive semidefinite matrix,

$R(t)$ is an $m \times m$ symmetric positive definite matrix and $u(t)$ is not constrained.

We shall show that the optimal control is a linear function of state, this is of the form

$$u(t) = G(t)x(t), \qquad t \in [0,T]$$

Where, $G(t)$ is an $m \times n$ matrix valued function.

B. BOLZA PROBLEM

Consider the optimal control system where the performance index is of general form containing a final (terminal) cost function in addition to the integral cost

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International Journal of Statistics and Applied Mathematics

A study on cerebrospinal fluid analysis

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Abstract
Cerebrospinal fluid (CSF) is a biological fluid mainly formed in the Ventricular choroid plexus distributed within the ventricular system. Analysis of the CSF provides invaluable diagnostic information because diseases take place either within its bounding membranes. To treat the CSF some test should include protein and glucose levels, cell counts are included with table data. Additional details with test such as opening pressure, supernatant color, latex agglutination and polymerase chain reaction are performed in primary care and secondary care mentioned with some advanced treatment like shunt valve.

Keywords: cerebrospinal fluid, biological fluid, Ventricular choroid

Introduction
The diagnostic chain for various central nervous system pathologies is an important element of the cerebrospinal fluid (CSF). Primary care frequently performed using lumbar puncture. It deals with many serious complications are included with extreme caution and its benefits are overcome risks situation in that diseases. If pressure increased as much as it occur to brain tumor then it also leading with irreversible brain damage or brain death. Lumbar puncture usually are a dull head pain initially it shows as simple headache some people reported as throbbing sensation. Normally stiff neck and nausea may accompany the headache. Lumbar puncture Headaches typically begin within two days and it extend to several weeks or months.

Normal results
1. Gross appearance: Normal CSF is clear and colorless.
2. CSF opening pressure: 50-175 mm H_2O.
3. Specific gravity: 1.006-1.009.
4. Glucose: 40–80 mg/dL.
5. Total protein: 15–45 mg/dL.
6. LD: 1/10 of serum level.
7. Lactate: less than 35 mg/dL.
8. Leukocytes (white blood cells): 0–5/microL (adults and children); up to 30/microL (newborns).
9. Differential: 60–80% lymphocytes; up to 30% monocytes and macrophages; other cells 2% or less. Monocytes and macrophages are somewhat higher in neonates.
10. Gram stain: Negative.
11. Culture: Sterile.
12. Syphilis serology: Negative.
13. Red blood cell count: There are no red blood cells in the CSF unless the needle passes through a blood vessel on route to the CSF.

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International Journal of Statistics and Applied Mathematics

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A study on casing damage based on effect of water injection pressure

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Abstract
The water flooding extraction of the oilfield, the quantity and increasing speed of oilfield casing damage are rising obviously. Casing damage creates the loss of economy and also affect the development of the oilfield. The problem of casing damage has become an urgent problem an the oilfield. This paper gives a study of casing damage based on effect of water injection pressure in a particular oil field and the datas are analysed and the results are tabulated.

Mechanism of casing damage is discontinuous deformation in the overloading strata and the discontinuous deformation includes interlayer sliding and fault movement induced by subsidence, which results in casing shear damage. The oil pressure goes down axial compression and bending of casing are caused by large vertical displacement. The casing damage in the middle of production floor is because of the largest axial strain and casing bent because of excessive axial load and its surroundings without sufficient lateral support.

Channeling is easily caused when water injection pressure fracture pressure in the case of poor cementing quality. In the case of water channel, immersion area forms and strata stress is out of balance, which results in that the casing damage area from in large immersion area. However, there is no effective way to prevent and slow the damage of casing well. Example as pubei oilfield in china "Casing damage on effect of water injection pressure" The distribution of casing damage is raised and the effect rule and mechanism that water injection pressure acts on casing damage of injection wells and oil wells are studied.

Keywords: Casing damage, water injection pressure, flooding extraction

Introduction
General Situation and Distribution of Casing Damage in Pubei Oilfield
General situation of casing damage
The number of casing damaged wells in the seventh oil production plant of daqing oilfield is 355, among which 247 are injection wells, and 108 are oil wells. Casing damaged injection wells accounts for 80.28% of the total casing damaged wells. There are 285 casing damaged wells in the pubei oilfield, which accounts for 80.28% of the total number of the seventh oil production plant of daqing oilfield. The main forms of casing damage are deformation and dislocation.168 wells emerge casing dislocation and deformation appear in 153wells. Casing damaged wells two kinds of forms account for 90.42% of the total casing damaged wells. In vertical casing damage mainly emerge in reservoirs. The second and third blocks are main casing damage blocks in Pubei oilfield, and the number of casing damaged wells is 163, which accounts for 64.68% of total casing damaged wells in pubei oilfield. Casing damaged wells account for 19.52% of the oil and water wells in the second block. Casing damaged wells account for 16.23% of the oil and water wells in the third block.

Distribution of casing damage
Analyze the distribution statistical data of casing damaged wells along north and south direction in the second block with regression method to obtain the curve and mathematical relation of casing damage rate.

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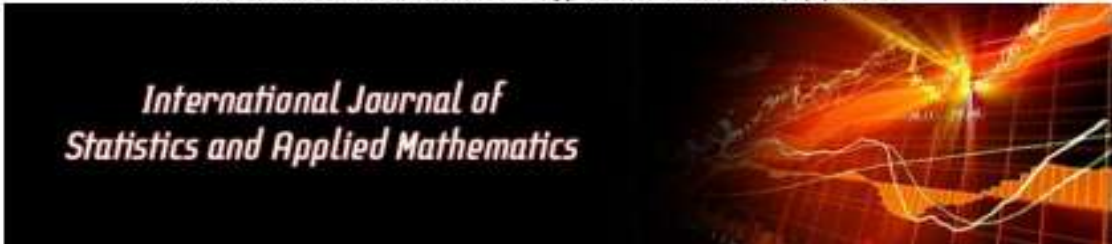J Nirmala
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International Journal of Statistics and Applied Mathematics

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A study on analytical solution for acoustic waves propagation in fluids

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Abstract
In this paper, The approach is based on a analytical solution to the homogeneous wave equation for fluid medium. Analytical solution found for the acoustic waves propagation in fluid medium using normal mode analysis and discuss the computational results.

Keywords: Analytical solution, acoustic waves, propagation in fluids

1. Introduction

In recent years, physical acoustic wave modeling has become a successful tool in diagnostic and therapeutic ultrasound application. There are several wave equations available for describing acoustic wave propagation. Numerical methods can be used as a tool for sound field simulation. Discrete-time simulation algorithms for wave propagation can be derived by numerically solving an acoustic wave equation in terms of the variables for sound pressure and particle velocity. Initial conditions for time derivatives and boundary conditions for space derivatives are necessary to provide a complete set of solutions of the wave equation. These equations are most commonly solved by propagation in time. However, when propagating over large distances, such methods are expensive in terms of memory and computational costs. The normal mode analysis method gives exact solutions without any assumed restrictions on pressure and velocity components distributions. It is applied to wide range of problems in different branches. It can be applied to boundary-layer problems, which are described by the linearized Navier-stokes equations in electrohydrodynamic.

In this paper, the normal mode analysis can be employed to solve linear acoustic wave equation analytically. The technique focuses on description of a linear model and discusses the conditions under which using this technique. The propagation of acoustic pressure wave by the normal mode analysis in a medium with two-dimensional spatially variable acoustic properties has been explained.

2. Acoustic Wave Equation

Consider sound waves propagating in the water. Instead of the wave equation, we base our work on the basic Euler's equation and the equation of continuity. For simplicity, the discussion is confined to a two dimensional space. In a 2-D Cartesian coordinate system, the sound pressure p and the particle velocity v satisfy the following linear equations:

$$-\rho \nabla \cdot v(x, y, t) = \frac{1}{c^2} \frac{\partial p(x, y, t)}{\partial t} \qquad \ldots (2.1)$$

$$\frac{\partial p(x, y, t)}{\partial x} = -\rho \frac{\partial v_x(x, y, t)}{\partial t} \qquad \ldots (2.2)$$

$$\frac{\partial p(x, y, t)}{\partial y} = -\rho \frac{\partial v_y(x, y, t)}{\partial t} \qquad \ldots (2.3)$$

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International Journal of Statistics and Applied Mathematics

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A study on soft GSR-closed sets in soft topological spaces

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Abstract
In this paper the concept of soft -gsr-closed and open sets in soft topological spaces are defined. The properties on soft closed set, soft regular open, soft-gsr-closed sets and soft-gsr open sets are discussed.

Keywords: R Soft set, soft topology, soft-gsr-closed sets, soft-gsr-open sets

1. Introduction
A new mathematical tool of the concept of soft set theory was initiated by Molodtsov. Muhammad Shabir and Munazza Naz introduced the soft topological spaces and the notions of soft open set, soft closed set, soft closure, soft interior points. Levine introduced generalized closed and open sets in topological spaces. The properties of soft semi open sets and soft semi closed sets are introduced by Bin Chen. Soft regular open set and soft regular closed sets are introduced by Saziye Yuksel.

2. Preliminaries
Definition: 2.1
Let U be the initial universe, P(U) be the power set of U and E be the set of all parameters
Let A be a non -empty subset of E. A pair (F, A) is called a soft set over U, where F is a mapping given by
$F: A \to P(U)$. In other words, a soft set over U is a parameterized family of subsets of the universe U. F (E) may be considered as the set E- approximate elements Of the soft set (F, A) for E ∈ A. For two soft sets (F,A) and (G,B) over the common universe U, (F,A) is a soft subset of (G,B) if

(i) $A \subseteq B$ and (ii) for all e ∈ A, F (e) and G(e) are identical approximations. We write (F, A) $\subseteq$ (G, B). (F, A) is said to be a soft superset of (G, B), if (G, B) is a soft subset of (F,A). Two soft sets (F, A) and (G, B) over a common universe U are said to be soft equal if (F, A) is a soft subset of (G, B) and (G, B) is a soft subset of (F, A).

Definition: 2.2
The union of two soft sets of (F, A) and (G, B) over the common universe U is soft set (H, C), where $C = A \cup B$ and for all e ∈ C
(i) H(e) = F(e) if e ∈ A-B, (ii) H(e) = G(e) if e ∈ B-A and (iii) H(e) = F(e) U G(e) if e ∈ A ∩ B,
(F, A) U (G, B) = (H,C).

Definition: 2.3
The Intersection (H, C) of two soft sets (F, A) and (G,B) over a common universe U denoted (F,A) ∩ (G,B) is defined as $C = A \cap B$ and H (e) = F (e) ∩ G (e) for all e ∈ C.

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Definition: 2.4
For a soft set (F, A) over the universe U, the relative complement of (F, A) is denoted by $(F,A)^c$ and is defined by $(F, A)^c = (F^c, A)$, where $F^c: A \to P(U)$ is a mapping defined by $F^c (e) = U - F(e)$ for all e ∈ A.
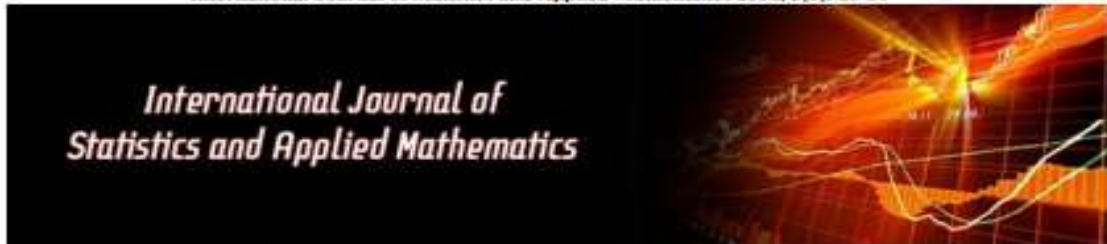
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International Journal of Statistics and Applied Mathematics

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A study on certain types of multi-level continuous sampling plans (CSPs) and its operating procedures

K Anithalakshmi

Abstract
Sampling plans are commonly used in manufacturing industries and government firm for controlling the quality of shipments of components, supplies, raw materials and final products. This paper furnish various kinds of continuous sampling plans and its operating procedures. The implementation of single- and multi-level continuous sampling plans, such as CSP-1, CSP-2, CSP-T, CSP-V, CSP – M and CSP-F (Markov chain modal) which provides for alternating sequences of 100% inspection which contain some differences due to the implementation and the theoretical foundation among them.

Keywords: Continuous sampling plan, mathematical rationale, sampling procedure, operating procedure, theoretic foundation

1. Introduction

Acceptance Sampling Plans are introduced mainly to accept or reject the lots of completed products in that period the concept of Continuous Sampling Plans was first introduced by H.F. Dodge. Continuous sampling plans are used where production is continuous and it is differ from lot-by-lot acceptance sampling plans. Lot acceptance sampling plans are used to test the units and submitted for evaluation against certain hypotheses. From a manufacturing perspective, it provide a check on a company's quality control processes. Most Lot acceptance sampling plans samples of a product are bring out in lots. In typical sampling a hypotheses of the sample makes up the precedent by which the process is judged. That is the samples are accepted or rejected on the basis of the set forth hypothesis. If a process has been tested plentiful, then the lot or unit is accepted and passed on to customer. But the quality control is not adequate; sampling will prevent unacceptable products from manufacturer. Accept or reject a lot or unit is synonymous with not rejecting or rejecting the null hypothesis in the hypothesis test. Because grouping into lots is not always favor, continuous sampling as outlined below, takes a quiet different approach to quality control in manufacturing.

Dodge (1943) [6] has introduced the concept of continuous sampling, that continuous sampling plan is called as CSP-1. The plan provides the mathematical rationale and rules of operation for CSP-1 continuous sampling plan and it is used where product flow is continuous and not easily grouped in lots. Two parameters exist for continuous sampling. One of the frequency is f and the second is the clearing number i. The frequency f is defined by a number such as 1/20, 1/30, or 1/X. The clearing number (i) are 30 or 60. A company checks all of its product until 100% inspection of i number of units and found to be defect free. After 100% inspection of i number of units are found to be mistake free then 100% inspection is discontinue, and one out of every X number of units is checked. The sampling continues until a defect is found. After finding a defect the cycle repeats itself until 100% of i number of units has been found to be free of defect. At this point the sample 1/X will begin again. The Execution of a continuous sampling plan is simple and it can be carried in 3 steps.

1. All i data are Inspect.
2. If Shortcoming are not found, randomly sample fraction f of data and check again for defects.
3. Whenever a Shortcoming is found, correct the fault and repeat step 1.

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International Journal of Statistics and Applied Mathematics

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A study on generalized invexity in separable Hilbert space

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Abstract
In this paper, it will be shown that two of the main results of Fan seem invalid, and the remaining ones can be proved under any separable Hilbert space, rather than Rn. In addition, some further results are established, which provide some other characterizations for generalized invexity and generalized monotonicity under separable Hilbert spaces.

Keywords: Generalized invexity, separable Hilbert space, pseudo-convexity

1. Introduction
An important generalization of convexity is invexity, first introduced by Hanson. In some recently published papers, Soleimani-damaneh has provided some results in invexity analysis. Also in another paper, he has studied the relations between quasi-convexity and pseudo-convexity of a nonsmooth function by means of limiting subdifferentials in Rn. Jabarootian and Zafarani researched the relations between generalized invexity of a non differentiable function and generalized monotonicity of its Clarke generalized sub differential mapping. Fan generalized some results of, using the properties of limiting sub differentials in Rn.

2. Preliminaries
Let H be a real Hilbert space and let D be a nonempty subset of H. Suppose that x is a point not lying in D. Suppose furtherthat there exists a point s in D whose distance to x is minimal. Then s is called the projection of x onto D. The set of all such projections is named as the metric projection of x onto D and is denoted by M_D (x). Hence

$M_D(x) = \{s \in D : \| x - s \| \leq \| x - y \| \text{ for all } y \in D \}$

The vector $x - s$ determines what we will call a proximal normal direction to D at s. Any nonnegative multiple $\zeta = \lambda(x - s)$, $\lambda \geq 0$, of the proximal normal direction is called a proximal normal to D at s. Hence the proximal normal cone to D at s $\in$ D is given by $N_D^P(s) = \{\zeta \in H$
$\exists (\lambda \geq 0, x \in H \setminus D) \text{ such that } s \in M_D(x) \& \zeta = \lambda(x - s)\}$.

Suppose that s $\in$ D such that s $\notin M_D(x)$ for all $x \notin$ D (for instance, suppose that s $\in$ intD), then we define $N_D^P(s) = \{0\}$.When s $\notin$ D then $N_D^P(s)$ remains undefined.
A vector $\zeta \in$ H is said to be a proximal subgradient of h : S $\subseteq$ H → R at $x \in$ S if

$(\zeta, -1) \in N_{epih}^P(x, h(x))$,

Where, epih = $\{(x, z) : z \geq h(x)\} \subseteq S = R$.

The set of all proximal subgradient vectors of h at x is denoted by $\partial_P h(x)$ and is referred to as the proximal sub differential. The function h : R → R defined by $h(x) = -|x|$ is a simple example of a continuous function having $\partial_P h(0) = \emptyset$.

Hence, there may exist some points x, in domain of h such that $\partial_P h(x) = \emptyset$. Hence, we define the notion of limiting subdifferentials as follows. In the following definition "wlim" stands for "lim" in the weak topology.

Definition 2.1
A vector d $\in$ H is a limiting sub-differential vector of f : S $\subseteq$ H→R at $x \in$ S if there exist two sequences $\{\zeta_i\} \subseteq$ H and $\{x_i\} \subseteq$ S such that $\zeta_i \in \partial_P f(x_i)$, d = w lim ζ_i, $x_i \rightarrow x$, and $f(x_i) \rightarrow f(x)$.

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Stability of the pexiderized cauchy functional equation in (n, β)-Hilbert space

PM Parimala

Abstract
The concept of pexiderized Cauchy functional equation we obtain the general solution for the new additive functional equation. We prove some results of pexiderized Cauchy functional equation. Let f be the mapping from a linear space x into a complete random normed spacey. The Cauchy functional equation and the Cauchy-pexiderized functional equation, Hilbert space are generalized and their solution are determined.

Keywords: Pexiderized cauchy functional equation, (n, β)-Hilbert space

Introduction

$f(x) = ax + b$ for some a, b.

The area of the shaded region with base from y to x y is $f(xy) - f(y)$. This follows immediately from the fact that the region under the hyperbola from y to x y is exactly that which is obtained by removing the region from 1 to y from the region from 1 to xy. Thus, using Saint-Vincent's scaling argument, we have $f(x) = f(xy) - f(y)$ or equivalently that $f(xy) = f(x) + f(y)$.

Cauchy functional equations

Let us being by restarting and solving Cauchy's functional equation.
Let $f: R \rightarrow R$ be a continuous function satisfying

$$f(x + y) = f(x) + f(y) \text{ for all real} \tag{1.2.1}$$

We show that there exists a real number that $f(x) = ax$ for all $x \in R$ it is straight forward to show by mathematical induction (1.2.1) implies

$$f(x_1 + x_2 + \cdots + x_n) = f(x_1) + f(x_2) + \cdots + f(x_n) \text{ for all } x_1, x_2, \ldots x_n \in R \tag{1.2.2}$$

A special case of this is found by setting $x_1 = x_2 = \cdots = x_n$ say then (1.3.2) becomes

$$f(nx) = f(mt) \text{ For all positive integer n and for all real x} \tag{1.2.3}$$

Let $x = \left(\frac{m}{n}\right) t$ where m and n are positive integers then $nx = mt$ so,
$$f(nx) = f(mt)$$
$$nf(x) = mf(t)$$
$$nf\left(\frac{m}{n}t\right) = mf(t)$$

But this can be written as

$$f\left(\frac{m}{n} t\right) = \frac{m}{n} f(t) \text{ for all } t \in R \tag{1.2.4}$$

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Then we have proved that

$$f(qt) = qf(t) \text{ For all real value of t and all rational of q} \tag{1.2.5}$$

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A study on M/M/3 queuing model on waiting time reduction in a local health care centre

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Abstract
Queuing theory is a mathematical approach to the study of waiting lines. Long waiting time in a health care system indicates the lack in management of the system. This project is an attempt to analyze the use of queuing theory in a local health care clinic. Also considers the clinic as a multi server queuing system following Poisson arrival and Exponential service based system. A comparison of the results using MATLAB pertaining to single server and multiple server queuing system is also provided.

Keywords: M/M/3, local health care centre, Queuing theory

Introduction
Queuing theory has its origin in research by a Danish telephone engineer Agner Krarup Erlang when he generated models to describe the Telephone Exchange of Copenhagen." The theory of Probability and telephone conversations" is the first paper on queuing theory published in 1909. He pondered the problems of determining the number of telephone circuits necessary to provide phone services that would prevent customers from waiting too long for an available circuit. In developing a solution to this problem he began to realize that the problem of minimizing waiting time was applicable to many fields and began developing the theory further. Therefore, A.K. Erlang is considered the father of queuing theory.

The queuing theory is one of the most celebrated problems of operation research which has attracted the attention of researchers, scientists, mathematics and social scientists. A lot of research work has been dedicated to the application of this theory in health care systems, construction industries, human resource management, transportation, traffic and many other such systems.

A lot of contribution and application of queuing theory in the field of health care are found in the literature. In an era of health care reform, queuing theory is applied in improving quality, safety and decreasing health care cost. Whenever it is used appropriately, the results are often remarkable in saving time, increasing revenue and increasing staff and patient satisfaction. Therefore, applying queuing theory to health care sector is a necessary step towards improving quality of care and enhancement of the systems. Queuing theory has been studied in the health care settings. A considerable body of the research has shown the use of queuing theory in the real world health care situation. Research on models for evaluating the impact of bed assignments policies on utilization, wailing time and the probability of turning away patients. Review the use of queuing theory in pharmacy application with particular attention to improving customer's satisfaction. Customer satisfaction is improved by predicting and reducing waiting times and adjusting staffing. Preater presents a brief history of the use of queuing theory in health care. Green applied the queuing theory in health care. She discusses the relationship among delays, utilization and the number of servers; the basic M/M/s model, its assumptions and extensions; and the application of the queuing theory to determine the required number of servers. System design, appointment systems, out-patient appointment systems, the emergency cardiac in-patient flow and others. They successfully established the applicability of queuing theory in the field of health care.

Thus, queuing theory is a mathematical approach to study of the waiting lines. Long waiting time in any health care centre affects the improvement of the centre as well as the nation's

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Properties of Strong and Complete Intuitionistic Fuzzy Soft Graph

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Abstract: In this paper, the notions of intuitionistic fuzzy soft graph, strong intuitionistic fuzzy soft graph and complete intuitionistic fuzzy soft graph are introduced. Also studied about the complement of the strong and complete intuitionistic fuzzy soft graph, and proved that the complement of a strong intuitionistic fuzzy soft graph is a strong intuitionistic fuzzy soft graph as well as the complement of a complete intuitionistic fuzzy soft graph is a complete intuitionistic fuzzy soft graph.

Keywords: Intuitionistic fuzzy soft graph, Strong intuitionistic fuzzy soft graph, Complete Intuitionistic fuzzy soft graph, Complement intuitionistic fuzzy soft graph.

I. Introduction

In 2015, Akram and Nawaz [1] introduced the notions of fuzzy soft graphs, strong fuzzy soft graphs, complete fuzzy soft graphs, regular fuzzy soft graphs and investigated some of their properties. Akram and Nawaz [2] developed the concepts of soft graphs, vertex-induced soft graphs, edge-induced soft graphs and describe some operations on soft graphs. Akram and Nawaz [3] introduced the notions of soft trees, soft cycles, soft bridges, soft ctnodes and describe a various methods of construction of soft trees.

In 2016, Akram and Nawaz [4] presented concept of fuzzy soft graphs, certain types of irregular fuzzy soft graphs and described applications of fuzzy soft graphs in social network and road network. M.G.Karunambigai and R.Parvathi [5] introduced some new definitions for intuitionistic fuzzy soft graph and some of their properties are discussed. In 2011 M.G.Karunambigai, R.Parvathi and R.Bhuvaneswari[6] discussed about constant and total constant intuitionistic fuzzy soft graphs.In 2011

M.G.Karunambigai, R.Parvathi and R.Bhuvaneswari[7] discussed about arcs in constant and intuitionistic fuzzy soft graphs.

In 1999, Molodtsov [8] introduced the concept of soft set theory to solve imprecise problems in the field of engineering, social science, economics, medical science and environment. Molodtsov [8,9] applied this theory to several directions such as smoothness of function, game theory, operation research, probability and measurement theory. In recent times, a number of researchers were more active doing research on soft set. Anas Al-Masarwah, Majdoleen Abu Qamar [10] introduced the complement of fuzzy soft graph and isolated fuzzy soft graph. A.M.Shyla and T.M.Mathew Varkey [11] discussed strong and complete intuitionistic fuzzy soft graph.

In this paper, the authors introduced some new concepts of intuitionistic fuzzy soft graphs, complement of strong and complete intuitionistic fuzzy soft graphs and isolated of intuitionistic fuzzy soft graphs.

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PROPERTIES OF ARCS IN INTUITIONISTIC FUZZY GRAPHS

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Abstract

In this paper, some properties of strong arcs and bridges in an Intuitionistic Fuzzy Graph (IFG) are studied. Arcs in strong intuitionistic fuzzy graph have been discussed. Different types of arcs such as α-strong, β-strong, δ-weak, and bridge are analysed in IFGs and complement of IFG.

Keywords: Strong, α-strong, β-strong, δ-weak arcs in IFG, bridge, arcs in complement IFG.

Introduction

Intuitionistic Fuzzy Graph theory was introduced by Krassimir T Atanassov in [1]. In [6], M.G. Karunambigai and R. Parvathi introduced intuitionistic fuzzy graph as a special case of Atanassov's IFG. In [10], these concepts had been applied to find the shortest path in networks using dynamic programming problem approach. Further in [10], some important operations on IFGs are defined and their properties are studied. Constant intuitionistic fuzzy graph was introduced by M.G. Karunambigai, R. Parvathi, and R. Buvaneswari in [7]. In [8], the authors classified strong arcs into two types namely α-strong, β-strong, and introduced δ-weak in IFGs. In this paper, we put forward criterion by which an arc will be an IF bridge, α-strong, β-strong, δ-weak in IFGs, strong IFG and complement of an IFG (GC)

Preliminaries

In this section, some basic definitions and theorems which are useful in constructing the proper-ties relating to IFGs are given.

Definition 2.1. [10] Minmax Intuitionistic Fuzzy Graph (IFG) is of the form $G = (V, E)$, where

(i) $V = \{v1, v2, \ldots, vn\}$ such that $\mu1 : V \rightarrow [0, 1]$ and $v1 : V \rightarrow [0, 1]$ denote the degrees of membership and non-membership of the element $vi \in V$ respectively and $0 \le \mu1(vi) + v1(vi) \le 1$, for every $vi \in V$ ($i = 1, 2, \ldots, n$).

(ii) $E \subseteq V \times V$ where $\mu2 : V \times V \rightarrow [0, 1]$ and $v2 : V \times V \rightarrow [0, 1]$ are such that

$\mu2(vi, vj) \le \min[\mu1(vi), \mu1(vj)]$

$v2(vi, vj) \le \max[v1(vi), v1(vj)]$

and $0 \le \mu2(vi, vj) + v2(vi, vj) \le 1$ for every $(vi, vj) \in E$.

Here the triple $(vi, \mu1i, v1i)$ denotes the degree of membership and degree of non-membership of the vertex vi. The triple $(eij, \mu2ij, v2ij)$ denotes the degree of membership and degree of non-membership of the edge relation $eij = (vi, vj)$ on $V \times V$.

Notation: Here after an IFG, $G = (V, E)$ means a Minmax IFG $G = (V, E)$.

Note 1. When $\mu2ij = v2ij = 0$ for some i and j, then there is no edge between vi and vj.

Other-wise there exists an edge between vi and vj.

Definition 2.2. [10] An IFG, $G = V$, E is said to be a semi-μ strong IFG if $\mu2ij = \min(\mu1i, \mu1j)$ for every i and j.

Definition 2.3. [10] An IFG, $G = V$, E is said to be a semi-v strong IFG if $v2ij = \max(v1i, v1j)$ for every i and j.

Definition 2.4. [10] An IFG, $G = V$, E is said to be strong IFG if $\mu2ij = \min(\mu1i, \mu1j)$ and $v2ij = \max(v1i, v1j)$ for all $(vi, vj) \in E$.

Definition 2.5. [10] An IFG, $G = V$, E is said to be a complete-μ strong IFG if $\mu2ij = \min(\mu1i, \mu1j)$ and $v2ij < \max(v1i, v1j)$ for all i and j.

Definition 2.6. [10] An IFG, $G = V$, E is said to be a complete-v strong IFG if $\mu2ij < \min(\mu1i, \mu1j)$ and $v2ij = \max(v1i, v1j)$ for all i and j.

Definition 2.7. [10] An IFG, $G = V$, E is said to be a complete IFG if $\mu2ij = \min(\mu1i, \mu1j)$ and $v2ij = \max(v1i, v1j)$ for every vi, vj ∈ V

Definition 2.8. [10] A path P in an IFG sequence of distinct vertices v1, v2, …, vn for all $(i, j = 1, 2, …, n)$ such that either one of the following conditions is satisfied.

i) $\mu2ij > 0$ and $v2ij = 0$ for some i and j.

ii) $\mu2ij = 0$ and $v2ij > 0$ for some i and j.

iii) $\mu2ij > 0$ and $v2ij > 0$ for some i and j.

Definition 2.9. [8] The μ-strength of a path $P = v1, v2, \ldots vn$ is defined as min $(\mu2ij)$ for all $(i, j = 1, 2, …n)$ and it is denoted by Sμ.

Definition 2.10. [8] The v-strength of a path $P = v1, v2, \ldots vn$ is defined as max $(v2ij)$ for all $(i, j = 1, 2, …n)$ and it is denoted by Sv. Note 2. If same edge posses both the values $(Sμ, Sv)$, then it is the strength of the path P and is denoted by SP.

Definition 2.11. [8] If vi, vj ∈ V ⊆ G, the μ-strength of connectedness between two nodes vi and vj is CON Nμ(G) $(vi, vj) = \max$ {Sμ} and v-strength of connectedness between two nodes vi and vj is CON Nv(G) $(vi, vj) = \min$ {Sv} of all possible paths between vi and vj. Note 3. [8] CON Nμ(G)-(vi, vj) (vi, vj), CON Nv(G)-(vi, vj) (vi, vj) is the strength of connectedness between vi and vj in the IFG obtained from G by deleting the arc (vi, vj).

Definition 2.12. [10] An arc (vi, vj) is said to be a bridge in G, if either CON Nμ(G)-(vi, vj) (vi, vj) < CON Nμ(G) (vi, vj) and CON Nv(G)-(vi, vj) (vi, vj) ≥ CON Nv(G) (vi, vj) or CON Nμ(G)-(vi, vj) (vi, vj) ≤ CON Nμ(G) (vi, vj) and CON Nv(G)-(vi, vj) (vi, vj) > CON Nv(G) (vi, vj) for some vi, vj ∈ V.

In other words, deleting an edge (vi, vj) reduces the strength of connectedness between some pair of vertices (or) (vi, vj) is a bridge if there exist vertices vi, vj such that (vi, vj) is an edge of every strongest path from vi to vj.

Definition 2.13. [10] The complement of an IFG $G = (V, E)$ is an IFG $Gc = (Vc, Ec)$ where

• Vc = V c, μc = μ1i and v1i = v1i, for all i = 1, 2, …n.1i

• μc = min(μ1i, μ1j) − μ2ij and v2ij = max(v1i, v1j) − v2ij for all i, j = 1, 2, …n.2ij.

Definition 2.14. [8] An arc (vi, vj) is said to be a strong arc if $\mu2ij ≥$ CON Nμ(G) (vi, vj) and $v2ij ≤$ CON Nv(G) (vi, vj) for every vi, vj ∈ V.

Definition 2.15. [8] An arc (vi, vj) is said to be the weakest arc if $\mu2ij <$ CON Nμ(G) (vi, vj) and $v2ij >$ CON Nv(G) (vi, vj) for every vi, vj ∈ V.

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International Journal of Statistics and Applied Mathematics

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Solving a cash flow oriented EOQ model under permissible delay in payment using Matlab

T Jagan

Abstract
In this paper an inventory model to determine an optimal ordering policy for non-determining items and time dependent demand rate with delay in payments permitted by the supplies under inflation and time discounting. The permissible delay period $\leq$ replacement cycle period for setting the account. The objective is minimize the total present value of the cost over time horizon using MATLAB program.

Keywords: Inventory, permissible delay, replenishment cycle period, trade credits, MATLAB

1. Introduction
The Inventory is generally used to indicate raw materials in process, finished product, packaging, spaces and other stocked in order to meet an expected demand or distribute in future. The inventory model with cash flow oriented and quantity dependent under Trade credit is solved analytically to obtain the optimal solution, and Numerical illustration for case $m \leq T$ is established using MATLAB program.

2. Assumptions
The following assumptions are used to develop the mathematical model
- The demand R (t) for the item is a downward sloping function of the time. For simplicity, we assume that demand is a function of time. i.e. $R(t)=(a+bt)$ where $a>0$ and $b>0$.
- Shortages are not allowed.
- Lead time is zero.
- The net discount rate of inflation rate is constant.

3. Notations
The inventory system involves item.
- $I(t)$ = Inventory level at time t
- Q = Order quantity, units per cycle
- H = Length of planning horizon
- T = Replenishment cycle time
- n = Number of replenishment during the planning horizon, $n=H/T$
- $R(t)$ = Demand rate per unit time, and $R(t)=a + bt$, $a>0$, $b>0$
- $A0$ = Ordering cost at time 't' is zero, $/order
- c = Per unit cost of the item, $/unit
- h = Inventory holding cost per unit per unit time excluding interest charges, $.unit/unit time
- r = Discount rate represent the time value of money
- f = Inflation rate
- k = The net discount rate of inflation, $k = r-f$
- Ie = The interest earned per dollar in stocks per unit time by the supplies
- Ic = The interest charged per dollar in stocks per unit time by the supplies, Ic Ie
- m = The permissible delay in settling the account
- ip = Interest payable during the first replenishment cycle

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Analysis on Securing Methods in Multi Cloud

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Abstract- *Cloud computing is most popular because of its most important feature data sharing with multiple users which giving humongous advantage to the user. [1] Data sharing is the top priority among the organization which leads them to share 74% with customers and 64% with suppliers. By more number of users contributes in Cloud through which it is economically and timely more affective. The growth of Cloud in the recent decade to till date is rapid. From the invention of sharing idea of data the problem of securing data is also challenging factor which come across in this environment. This paper deals with how to secure data in cloud computing using multi computing.*

Keywords- Security, Multi-Cloud Computing

I. INTRODUCTION

At present globally from an individual person to big multinational organization is very keen in sharing data and getting their own productivity through the cloud. Social media platforms and giant cloud providers are big earning people in this form of business. When it comes to sharing the data, then the cloud business model have to ensure the following criteria for the proper process attaining.

- ❖ Confidential in data providing
- ❖ User revoking properly
- ❖ Providing good scalability and efficiency

Cloud Computing is giving huge privileges to the users to access the data, this feature is most vigorous to the attackers and malicious users for mishandling the data and its growing as big threat to organization market. This leads to following types of attacks in the cloud environment.

[1]Different Types of Attacks on the Cloud Computing:-
- ❖ XML Signature Wrapping Attacks
- ❖ Cross site scripting attacks
- ❖ Flooding Attack Problem
- ❖ Denial-of-Service Attacks
- ❖ Law Enforcement Requests
- ❖ Data Stealing Problem
- ❖

[1]Expectations and Cause of Malicious User:-
- ❖ Stealing the high priority data

- ❖ Creating problems by duplicating data
- ❖ Helping hackers to use the space
- ❖ For the sake of proving intelligence
- ❖ By Curiosity doing this work

Traditionally the way of providing security in cloud is encryption and decryption of data with proper keys. In recent times all the key managing process are broken down and it's questioning the trust of data security in cloud. To overcome the data violation a concept multi cloud with different techniques are discussed below.

II. MULTI CLOUD COMPUTING

Multi cloud is collection of several cloud infrastructures to form a service pattern for providing needs to the users. [2] An example of Multi Cloud architecture is DepSky architecture fig (1). DepSky model contains clients and a cloud of several cloud storage providers. The storage providers perform the task issued by clients.
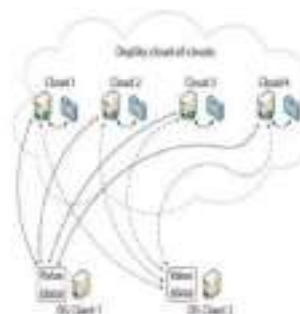
Fig (1):- DepSky Architecture

[3] A multi-cloud system is also known as cloud-to-cloud or mashup clouds, which is a distributed system where data have a certain degree of redundancy and replicated among different clouds owned by different vendors. Several reasons are there for moving to multi cloud in which its ability to provide both public and private data in different clouds. It's

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A Monthly Journal of Computer Science and Information Technology

i-LEACH for Energy Efficient Wireless Sensor Network

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Abstract: The recent developments in WSN show the need of WSN and variety of applications in this WSN improves the need of protocols with various designs to solve the design issues in the previous models. This paper proposed an energy efficient routing protocol which in turn reduces the energy consumption. The evaluation results of the proposed protocol shows the performance in lifetime improvement. The proposed protocol receives a better performance in energy dissipation and alive nodes which improves the efficiency of the network in all other aspects.

Keywords: Wireless Sensor Network, routing protocol, energy efficient, network lifetime, performance improvement.

1. INTRODUCTION

Wireless Sensor Network (WSN) is an emerging technology in the research group because of the recent developments in WSN. The development of technologies in IOT, RFID and so on increases the WSN applications with the recent updates. The improvements in WSN applications such as solar equipped WSN, rechargeable WSN and so on shows the need of WSN. In addition, applications for military, home security and other daily using applications are in developing stage in WSN. WSN consists of sensor nodes which are grouped to form clusters to collect and forward the data to the base station. Sensor nodes are consist of battery which is mostly non-rechargeable, memory, processor and so on.

Grouping and forming of sensor nodes as cluster is one of the tedious task. Clustering is also a vital task for collecting and forwarding the collected data to base station. Clustering algorithms are in developing which shows the need of clustering. The routing protocols consider the clustering process and develops various possibilities to achieve efficient clustering process. Not only clustering is efficient in collection of data but also it utilise most of the energy of the sensor nodes. Therefore, the energy efficient clustering techniques are in need to develop an effective clustering model for WSN.

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A Survey on Web Mining Methods

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Abstract- *Utility of information mining strategies to the sector extensive net, referred to as web mining, has been the focal point of numerous current studies initiatives and papers. But, there is no installed vocabulary, main to confusion when comparing research efforts. The term internet mining has been used in distinct approaches. The first, referred to as internet content mining in this paper, is the system of records discovery from sources internationally extensive web. The second one, referred to as web usage mining, is the method of mining for consumer surfing and access patterns. We outline web mining and gift an overview of the various research problems, strategies, and development efforts.*

Keywords- Web Mining, Web Content Mining, Web.

I. INTRODUCTION

Web mining is the application of data mining techniques to discover patterns from the World Wide Web. As the name proposes, this is information gathered by mining the web[1]. It makes utilization of automated apparatuses to reveal and extricate data from servers and web reports, and it permits organizations to get to both organized and unstructured information from browser activities, server logs, website and link structure, page content and different sources. Web mining can be divided into three different types – Web usage mining, Web content mining and Web structure mining.

II. LITERATURE SURVEY

In paper[1] Rajinder Singh Rao1, Jyoti Arora2

Explained the uses of web mining.

In paper[2] D Riboni, M Murtas revealed the computer vision on web mining.

In paper[3] J Young, L Kunze, V Basile, E Cabrio, N Hawes explained the semantic web mining.

In paper[4] Dursun Delen said about different mining techniques.

In paper[5] Manoj Kumar Mrs. Meenu explained the pattern discovery in web mining.

II. WEB USAGE MINING

Web usage Mining is the application of facts mining strategies to discover thrilling usage patterns from web statistics for you to apprehend and higher serve the needs of web-based programs. utilization statistics captures the identification or beginning of internet users along with their browsing behavior at a web site. Web utilization mining itself can be classified similarly relying at the form of usage information considered:

web Server records: The consumer logs are amassed via the web server. Common facts consists of IP deal with, page reference and get right of entry to time.

application Server information: business application servers have big capabilities to permit e-commerce applications to be built on pinnacle of them with little effort. A key characteristic is the ability to tune various kinds of enterprise occasions and log them in application server logs.

application level records: New sorts of activities may be defined in an software, and logging can be became on for them as a consequence producing histories of these specifically defined occasions. It ought to be cited, but, that many stop packages require a aggregate of 1 or extra of the strategies applied within the classes above.

III. WEB STRUCTURE MINING

Web structure mining makes use of graph concept to investigate the node and connection shape of an internet site. Consistent with the kind of net structural information, web structure mining can be divided into two sorts:

Extracting styles from links inside the net: a link is a structural thing that connects the internet page to a one of a kind location.

Mining the file structure: analysis of the tree-like structure of web page systems to describe HTML or XML tag usage.

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Comparison of Big Data and Data Mining

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ABSTRACT: There's no hard and rapid rule about exactly what size a database wishes to be so as for the records inside of it to be considered "large." as a substitute, what normally defines huge information is the need for new strategies and equipment in an effort to be able to manner it. To be able to use large records, you need programs which span multiple bodily and/or virtual machines running collectively in live performance if you want to system all the statistics in a reasonable span of time.

Keywords: Mining, Records, Statistics, Database, Information.

1. INTRODUCTION

Records mining include finding thrilling styles from datasets. large information entails large scale garage and processing(often at a datacenter scale) of massive facts units. So, data mining achieved of massive records (e.g. locating buying patterns from massive buy logs) may be very thrilling and is getting lot of attention presently. All large information venture aren't information mining ones (e.g. large scale indexing). All records mining obligations are not on huge statistics (e.g. facts mining on a small document which can be achieved on a unmarried node). Statistics Mining way to mine data to extract beneficial facts from it. This data can include few samples, say 10, or it could be big quantity of samples, say 1 Billion. Facts may be of various kinds like speech, textual content, etc. it could be dependent or unstructured. Every records factor could have as much number of features as feasible.

Records is called "huge data" if it is huge in terms of extent (quantity of facts points or samples or quantity of capabilities per records point), speed (lots of data coming in small amount of time for storage, evaluation, mining, and so forth.), or range (different varieties of kind e.g. textual content, speech, photos, videos, or dependent, unstructured, and many others).

Facts mining can be accomplished over small facts or big information. The massive statistics, likely, is tons greater a concept than a particular term.

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A Survey on Big Data Analytics: Challenges and Applications in Healthcare

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Abstract- The paper entitled as "A Survey on Big Data Analytics: Challenges and applications in health care" is to describe the challenges and applications of big data analytics in healthcare

Keywords- Big data, Analytics, Healthcare.

I. INTRODUCTION

By definition, health care is that the maintaining and restoration of health by the treatment and interference of illness particularly by trained and authorized professionals (as in medication, dentistry, psychotherapeutics, and public health). Antecedently most health care facilities were an area wherever the sick were housed and cared for till death. Physicians seldom practiced in hospitals and solely those that were lucky may afford correct care reception or in camera clinics. Nowadays the amount of health care has excelled staggeringly. Presently the goal of our health care is to possess a time of look after the patient, one that is integrated on all levels. Several hospitals supply a referral service or discharge arrange to patients WHO area unit being discharged. Plans for the patient area unit mentioned with a discharge planner. The discharge planner could be a one that is trained in assessing what the patient's needs for health care are going to be once discharge from the hospital. this allows the patient to continue their care at A level that is most acceptable for them. Things reviewed for discharge coming up with embody however aren't restricted to therapies, medication desires, living arrangements and identification of specific goals. Many of the choices that area unit out there for persons being discharged from AN acute care hospital will embody home health care, assisted living facilities, future care or hospice. Big information may be a term that describes the big volume of information – each structured and unstructured – that inundates a business on a every day basis. However it's not the quantity of information that's vital. It's what organizations do with the info that matters. Huge information is analyzed for insights that result in higher choices and strategic business moves. The importance of massive information doesn't revolve around what quantity information you've got, however what you are doing with it. you'll take information from any

supply and analyze it to seek out answers that alter 1) price reductions, 2) time reductions, 3) new development and optimized offerings, and 4) smart move creating. huge information is characterized as extraordinarily massive information sets which will be analyzed computationally to seek out patterns, trends, and associations, visual image, querying, data privacy and prognosticative analytics on massive wide unfold assortment of information. Big knowledge in care is overwhelming not solely thanks to its volume however conjointly thanks to the range of information varieties and also the speed at that it should be managed. The totality of information associated with patient care and well-being compose "big data" within the care trade. It includes clinical knowledge from CPOE and clinical call support systems (physician's written notes and prescriptions, medical imaging, laboratory, pharmacy, insurance, and different body knowledge); patient knowledge in electronic patient records (EPRs); machine generated/sensor data, like from observance important signs; social media posts, as well as Twitter feeds (so-called tweets) , blogs , standing updates on Face book and different platforms, and net pages; and fewer patient-specific data, as well as emergency care knowledge, news feeds, and articles in medical journals. Care isn't any completely different. On the far side rising profits and reducing on wasted overhead, huge knowledge in care is getting used to predict epidemics, cure malady, improve quality of life and avoid preventable deaths. With the world's population increasing and everybody living longer, models of treatment delivery are speedily dynamic, and lots of the choices behind those changes are being driven by knowledge. When care organizations envision the longer term of massive knowledge, they typically think about victimization it for analyzing text-based notes. Current analytics technologies for the foremost half create use of separate knowledge and struggle to exploit all of the precious clinical data captured in physicians' and nurses' notes. massive information categorization techniques, and a few of the new work finding info in matter fields, may so add real price to aid analytics within the future. Mobile phones, sensors, patients, hospitals, researchers, suppliers and organizations square measure today, generating vast amounts of aid information. The $64000 challenge in aid systems is a way to realize, collect, analyze

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Image Compression: Huffman and LZW Techniques

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Abstract: This paper describes the Huffman and LZW techniques of image compression. There are many techniques of image compression, but these two are important. The paper also differentiates the concepts of Huffman and LZW techniques. These two techniques are belongs to Lossless compression of image compression.

I. INTRODUCTION

A picture is associate degree artifact that depicts or records perception, as an example a two-dimensional image, that includes a similar look to some subject sometimes a entity or an individual, therefore providing an outline of it. pictures is also two-dimensional, like a photograph, screen show, and similarly as a three-dimensional, like a sculpture or photograph. they will be captured by optical devices like cameras, mirrors, lenses, telescopes, microscopes, etc. and natural objects and phenomena, like the human eye or water surfaces. The subsequent area unit the categories of pictures: volatile image, mental and still image.

II. COMPRESSION

The target of compression is to cut back irrelevancy associate degreed redundancy of the image knowledge so as to be ready to store or transmit knowledge in an economical type. compression is also lossy or lossless. lossless compression is most well-liked for deposit functions and sometimes for medical imaging, technical drawings, clip art, or comics.b lossy compression ways, particularly once used at low bit rates, introduce compression artifacts. lossy ways area unit particularly appropriate for natural pictures like pictures in applications wherever minor (sometimes imperceptible) loss of fidelity is suitable to realize a considerable reduction in bit rate. The lossy compression that produces inaudible variations is also known as visually lossless.

A. Methods for lossless compression are

Run-length cryptography – used as default methodology in PCX and in concert of doable in BMP, TGA, TIFF

Huffman secret writing

Entropy cryptography

Adaptive wordbook algorithms like LZW – employed in GIF and bicker

Deflation – employed in PNG, MNG, and TIFF

Chain codes

III. ADVANTAGES OF COMPRESSION

The essential plan behind this methodology of compression is to treat a digital image as Associate in Nursing array of numbers i.e., a matrix. every image consists of a reasonably sizable amount of very little squares referred to as pixels (picture elements). The matrix similar to a digital image assigns an entire variety to every pel. as an example, within the case of a 256x256 pel grey scale image, the image is keep as a 256x256 matrix, with every component of the matrix being an entire variety starting from zero (for black) to 225 (for white). The JPEG compression technique divides a picture into 8x8 blocks and assigns a matrix to every block. One will use some algebra techniques to maximize compression of the image and maintain an appropriate level of detail. JPEG is one in every of the foremost unremarkably used file formats for storing and transferring pictures. looking on however the image was created, it should be overly giant in size. The larger the JPEG is that the tougher it'll be to transfer and share. Luckily with JPEG compression computer code the file are often created smaller and additional economical.

IV. HUFFMAN CRYPTOGRAPHY

In applied science and data theory, Huffman secret writing is Associate in Nursing entropy cryptography algorithmic program used for lossless information compression. The term refers to the utilization of a variable-length code table for cryptography a supply

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A Survey on Accuracy in Diabetics & Research and Predictive Re-Surgery Problems Using Data Mining Techniques

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Abstract- In our day to day life surgical procedures are associated with medicine, the same is the case for critical healthcare. The goal of this work is to review on the best works in Predictive Resurgery and to identify the most accurate method to predict Diabetes to assist health professionals in these areas in the field of biosciences. By applying various Datamining techniques it is possible to help the medicinal knowledge, to predict whether the particular patient should or should not be operated upon the same problem. In this study, some aspects such as history of the disease, hereditarial, and the age factor and some data classes were built to improve the models that has been already been formed. In addition, several models are also created that aims at predicting the re-surgery of patients. The metric used to get the sensitive datasets and the success rate of this approach is almost 90%.The modern advances in bioinformatics and health sciences have led to a considerable production of medicinal data, such as high throughput genetic data and clinical information, generated from large Health Related Electronic Records (HRERs).

Diabetes mellitus is a metabolic disorder characterized by the presence of hyperglycemia due to defective insulin secretion, defective insulin action or both exerting significant pressure on human health across the world. The Diabetes research has led to the generation of massive volumes of data. A systematic review has been conducted in various applications of machine learning, techniques and tools in data mining in the field of diabetes research with respect to Prediction and Diagnosis, Complication due to Diabetes, Genetic Background and the surrounding environment, along with Health Care and Management. A wide range of machine learning algorithms were implemented in these approaches and in those findings indicate 85% of those used were characterized by supervised learning approaches and 15% by unsupervised ones mainly association rules. In addition, different data mining techniques used to uncover potential predictors of diabetes. Support vector machines is been suggested as the most accurate and popular algorithm. Clinical data sets are used considering the accuracy of data as input. This is achieved from the results by

showing the performance of each classification algorithm through extraction of valuable knowledge.

Keywords- Diabetes mellitus, Datamining prediction, DM, SVM, predictive resurgery

I. INTRODUCTION

This study focuses on the use of classification approaches in order to predict the patients who are resurgeried together with the medical knowledge in view of assisting health professionals. The dataset used in this project was provided by standard hospital, however to improve the quality of the results, these have been modified. The strategies used were standardization of data to create the models, but without changing the accuracy of the results. The standardization of data is a set of rules that aims to reduce data redundancy and increase data integrity. This study was conducted by following the CRISP-DM methodology.

By applying Machine learning and data mining methods in DM research is a key approach to utilizing large volumes of available diabetes related data for extracting knowledge. The severe social impact of the specific disease renders DM one of the main priorities in biological science research, which undoubtedly generates huge amounts of data. Therefore, machine learning and data mining approaches in DM are dealt with caution, when it comes to diagnosis, management and other related clinical administration aspects. This framework helps to review the recent literature on machine learning and data mining approaches related to diabetes research. The review deals with background knowledge on machine learning and knowledge discovery in databases (KDD).Knowledge discovery in databases is precise process consisting of numerous distinct steps. Data mining is the nuclear step, which results in the discovery of hidden but useful knowledge from voluminous databases. Data mining is a non-trivial extraction of inherent formerly unknown and potentially valuable information about data.

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A COMPARATIVE STUDY ON K-MEDOIDS ALGORITHM WITH DENCLUE-IM APPROACH FOR BIG DATA

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*ABSTRACT: Every day, a bulky volume of knowledge is generated by multiple sources namely social networks, mobile devices, Clustering plays a really very important role in exploring knowledge, making predictions and to nullify the anomalies within the knowledge. This type of knowledge sources turn out AN heterogeneous knowledge, that needs to be square measure engendered in high frequency. One among the techniques permitting to a stronger use and exploit this type of complicated knowledge is called a clump. Finding a compromise between performance and speed interval gifts a serious challenge to classify this humongous knowledge at our disposal. For this purpose, we have an attendency to propose AN economical algorithmic program that is studied in program that is AN improved version of DENCLUE, referred to as by the name DENCLUE-IM. The concept behind is to hurry calculation by avoiding the crucial step in DENCLUE that is that the Hill ascent step. Experimental results victimisation giant datasets proves the potency of our projected algorithmic program. Clusters that contain collateral, identical characteristics during a dataset square measure classified victimisation repetitive techniques. However, because of the increase in global data is growing day-by-day terribly increasing giant datasets with very little or no information are often known into attention grabbing patterns with clump. In this comparative study two most well liked clump algorithms K-Means and K-Medoids square measure evaluated on data set transaction 10k of KEEL. The input to those algorithms square measure arbitrarily distributed knowledge points and supported their similarity clusters has been generated. The comparison results show that point taken in cluster head choice and area quality of overlapping of cluster is way higher in K-Medoids than K-Means. Additionally K-Medoids is healthier in terms of execution time, non sensitive to outliers and reduces noise as compared to K -Means because it minimizes the total of dissimilarities of knowledge objects.
Key words— cluster, clustering method, data mining, k-medoids, Big data, clustering*

I. INTRODUCTION

Cluster analysis segments data into important or practical groups of clusters. Its importance is in clusters are the goal, and then the consequential clusters capture the natural structure of the data. For example, cluster analysis used to group related documents for browsing, to find genes and proteins that have parallel functionality, and to offer a grouping earth-quakes of spatial locations level. In other cases cluster analysis is only a useful starting point for other purposes. E.g. data compression or efficiently pronouncement the adjacent neighbors of points.

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Classification of Speech Emotion Based on Gender Using Fuzzy Logic And Neural Network

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Abstract- An human interaction with computer become common interface now a days. Many developers identified Emotions from speech signal by classifying the emotion as happiness, surprise, neutral taste, anger, sadness etc. The samples and the features are extracted from the emotional speech samples, sample taken as pitch. Another new technique utilizes fluffy rationale and neural system to distinguish the sex of the speaker. To prepare fluffy rationale and neural system, preparing informational index is created. The performances of the classification is based on the extracted features and the limit of the speech based on the classification.

Keywords- Neural network, Mel frequency Cepstrum Coefficient, Power spectrum.

I. INTRODUCTION

Emotion recognition improves the quality of human and computer interaction and easily interact with the system. The most natural way of interacting human with computer is speech by using speech tool.speech recognition is now good enough to allow speech to text engines, emotion recognition can increase the overall efficiency of interaction and may provide everyone a more comfortable user interface. It is often very difficult for humans to get the emotion of the speech signal and adjust their behavior accordingly. The arrangement of Emotion acknowledgment will allow to developer to build up a manmade brainpower that can get the speaker's sentiments that can be utilized as a part of numerous situations from PC diversions to virtual deals programs. Speech is one of the natural forms of communication. Emotional speech recognition is to detect and identifying the emotion from this emotions it identifies the gender by his or her voice by a use of new method fuzzy logic and neural network to identify the gender of the speaker. To train fuzzy logic and neural network, training data set is generated by using the above three features. At that point mean esteem is figured for the acquired outcome from fluffy rationale and neural system. By utilizing this limit esteem, the proposed technique recognizes the speaker has a place with which sexual orientation. The improved result shows the performance of the proposed technique in gender classification. Signal may be a normal or along with an

emotion like happy, sad, fear, angry etc. Voices differ for men and women in several aspects such as speaking pitch, pitch range, the space between the vocal folds, formant frequency, and the incidence of voice problems. Females speak with a higher fundamental frequency (voice pitch) when compared to males [1]. The higher pitch in women compared to men means the vocal folds vibrate or come together almost twice as many times per second in females than in males. The other differences found in voice quality are caused by the way the vocal folds vibrate between male and female. Usually males speak decrepit than female and females speak by causing an audible sound of breathing than males.

Many speech sets that belong to these emotion groups are taken and used for training and testing. The ERNN distinguishing these test samples. Neural networks are chosen for the solution because a basic formula cannot be devised for the problem. The neural networks are also quick to respond which is a requirement as the emotion should be identified almost instantly. The training takes a long time but is irrelevant as the training will be mostly off-line and on-line both.

II. GENDER CLASSIFICATION USING FUZZY LOGIC AND NEURAL NETWORK

This technique is used to identify the gender of the speaker. Various techniques are their for classifying the gender. Usually the major problem comes in pitch value detection. The pitch value depends upon the frequency of voice. Normally the pitch of male is low and for female the pitch will be high. Sometimes the pitch of male goes higher as the female and also the pitch of female goes lower as male. In such cases or situation speech classification using pitch will not produce approximate results. For this drawback here proposed a new method for speech classification using three features, energy entropy, short time energy, and zero crossing rates.

Basically the three feature values are calculated and given as an input to the fuzzy logic and neural network separately and it gives the percentage of male and the female feature as output. After that the mean esteem is taken for this

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Abolishing the Noise from Speech by Estimating the Variance using EM Algorithm

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ABSTRACT

A speech noise disturbs in almost all acoustic environments The speech signal recorded by a microphone is generally infected by noise originating from various sources and it can corrupt or change the characteristics of the speech signals and degrade the speech quality and intelligibility in human-to-machine communication systems. To improve the quality of speech, Here make use of the EM algorithm to estimate the clear variance and coupling of errors statistic.

1. INTRODUCTION

Speech enhancement as various techniques such as signal-subspace embedding, time-domain iterative, spectral subtraction etc. All these methods are frequently result in audible distortion of the signal, and are far from satisfactory in the real-world noisy environments. Recent neural network based filtering methods utilize data sets where the clean speech is avails a target signal for training. These methods are often effective within the training set, but tend to generalize this for the ac tual speech with varying signal and noise levels (a review of neural based approaches can be found in [16]). Furthermore, the net- work models in these methods do not fully take into account the non-stationary nature of speech. In the approach presented here, we assume the availability of only the noisy signal. Effectively, a *order* of neural networks is trained on the few noisy speech signal, resulting in a non-stationary model which can be used to remove noise from the given speech.

Nonlinear Speech Model

A noisy speech signal can be accurately modeled as a with both process and additive observation noise:

$$x(k) = F(x(k-1),\ldots\ldots x(k-M),W + V(K) \quad (1)$$
$$Y(k) = x(k) + n(k), \quad (2)$$

where corresponds to the true underlying speech signal driven by process noise and is a nonlinear function of past values of parameterized by . The speech is only assumed to be stationary over short part, with each part having a differ ent model. The available observation is , which contains additive noise . If is linear, this reduces to the classic Linear Predictive Coding (LPC) model of speech. The optimal *estimator* given the noisy observations is .

The most direct way to approximate this conditional expectation would be to train on a set of clean data in which the true may be used as the target to a neural network. Our assumption, however, is that the clean speech is never available; the goal is to estimate itself from the noisy measurements alone.

In order to solve this problem, we assume that is in the class of feed forward neural network models, and compute the dual estimation of both states and weights based on a Kalman filtering approach. In this paper we provide a basic description of the algorithm, followed by a discussion of experimental results.

2. DUAL EXTENDED KALMAN FILTERING

By formulating the dual estimation problem in a state-space frame- work, we can use Kalman filtering methods to perform the estimation in an efficient, recursive manner At each time point, the Kalman filter provides an optimal estimation by combining a prior prediction with a new observation. Connor et al.[3] proposed using an extended Kalman filter with a neural network to perform state estimation alone. Puskorious and Feldkamp [13] and others have posed the weight estimation in a state-space framework to allow for efficient Kalman training of a neural network. In prior work, we extended these ideas to include the dual Kalman estimation of both states and weights for efficient maximum-likelihood optimization for robust nonlinear prediction, estimation, and smoothing [14]. The work presented here develops these ideas in the context of speech processing.

To apply the EKF, we first put the autoregression of Equation 1 and 2 in state-space form:

$$X(k) = f[(x(k-1)] + Bv(k) \quad (3)$$
$$Y(k) = Cx(k) + n(k) \quad (4)$$

Where and. If the model is linear, then takes the form, and can be written as ,where is a matrix in controllable canonical form. We initially assume the noise terms and are white with known variances.

2.1. State Estimation

A linear model with known parameters, the Kalmanfilter(KF) algorithm can be readily used to estimate the states[8]. Aa each time step, the filter computes the linear least squares estimate.

In the linear case with Gaussian statistics, the estimates are the minimum mean square estimates. With no prior information on , they reduce to the maximum-likelihood estimates.

When the model is nonlinear, the KF cannot be applied directly, they reduce to the maximum-likelihood estimates. When the model is nonlinear, the KF cannot be applied directly, but requires a linearization of the nonlinear model at the each time step. The resulting algorithm is called the extended Kalman filter (EKF), and effectively approximates the nonlinear function with a time-varying linear one. The EKF algorithm is as follows.

$$x \sim (k) = F[X^{k-1}, W] \quad (6)$$
$$Px(k) = A(k)Px(k-1)A^{T}(k) + BEB^{T} \quad (7)$$

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An Investigation on Analysis of Big Data Challenges and Analytical Methods

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Abstract- *Big Data, with their latent to establish valued insights for improved decision-making process, have newly attracted significant interest from academics and practitioners. Big Data Analytics is more and more becoming a trending practice that many organizations are adopting with the purpose of constructing precious information from Big Data. A tools, is seen by organizations as a tool to improve equipped efficiency though it has planned potential, drive new returns streams and increase competitive advantages over business rivals. Though, there are various types of analytic applications to consider. Thus, prior to rapid use and buying costly Big Data tools, there is a need for organizations to first understand the Big Data Analytics landscape.*

This paper presents a up to date review that presents a holistic view of the Big Data challenges and Big Data Analytics methods. In doing so, methodically analyzing and synthesizing the existing research published on Big Data and Big Data area. A research area, evaluating contributions, summarizing knowledge, thereby identifying restrictions, implications and possible further research avenues to support the academic community in exploring research patterns. Thus, to hint the execution of Big Data strategies, a profiling method is in use to analyze articles extracted from the database. The analysis presented in this paper has acknowledged relevant Big Data research studies that have contributed both theoretically and empirically to the development and enhance of academic wealth to the Big Data.

Keywords- Big Data, Big Data Analytics, Challenges

I. INTRODUCTION

The degree of data generated and shared by businesses, public administrations numerous industrial and not-to-profit sectors, and scientific research, has enlarged infinitely. These data include textual content (i.e. structured, semi-structured as well as unstructured), to multimedia content on a multiplicity of platforms. For example machine-to-machine communications, social media sites, sensors networks, cyber-physical systems, and Internet of Things report that every day the world produces around 2.5 quintillion bytes of data, with 90% of these data generated in the world

being unstructured. Gantz and Reinsel (2012) assert that by 2020, over 40 Zettabytes (or 40 trillion gigabytes) of data will have been generated, imitated, and consumed.

With this enticing amount of intricate and various data pouring from any-where, anytime, and any device, there is indisputably an era of Big Data- a discernible fact also referred to as the Data cascade. The impending of Big Data is evident as it has been incorporated in Gartner's Top 10 premeditated technology trends for 2013 and Top 10 Critical Tech Trends for the Next Five Years. It is as essential as nanotechnology and quantum computing in the present era. In essence, Big Data is the relic of human individual as well as combined intelligence generated and communal mainly through the technological environment, where almost anything and everything can be documented, measured, and captured digitally.

In line with the endorsement concept and ever increasing technological advancements, advocates assert that in the future a mainstream of data will be generated and shared throughout machines. In spite of where Big Data is generated from and shared to, with the certainty of Big Data comes the challenge of analyzing it in a way that brings Big Value. With so much value residing inside, Big Data has been regarded as today's Digital Oil with the New Raw Material of the 21st century. Suitable data processing and management could expose new knowledge, and aid in responding to promising opportunities and challenges in a timely manner. On the other hand, the expansion of data in volumes in the digital world seems to out-speed the advance of the many extant computing infrastructures.

Established data processing technologies, for example database and data warehouse, are becoming insufficient given the amount of data the world is current generating. The huge amount of data requests to be analyzed in an iterative, as well as in a time sensitive manner. With the availability of advanced Big Data analyzing, insights can be enhanced attained to facilitate in improving business strategies and the decision-making process in critical sectors such as healthcare, economic productivity, energy futures, and predicting natural catastrophe, to name but a few.

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AUGMENTING DATA WAREHOUSES WITH BIG DATA – A SURVEY

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Abstract

In the past decade, corporations are gradually more engaging in efforts whose aim is the investigation and wide-ranging use of big data. The greater part of academic big data articles have been paying attention on methods, approaches, opportunities, and organizational impact of big data analytics. Big data analytics has turn into a very dynamic research area in the last few years, as well as the research of essential data organization that would enhance it, which could be addressed as big data warehousing. One research trend is enhancing data warehouse with new paradigms that have demonstrated to be successful at handling big data. Most accepted of them is the MapReduce paradigm. In this paper, the focus is on the knack of big data to also augment and develop the analytical power of data warehouses.

Keywords: Big Data, Databases, Data Warehouses, Map Reduce

Introduction

Big data explode upon the panorama in the first decade of the 21st century, and the first organizations to embrace it were online and startup firms. Perhaps, firms like Google, eBay, LinkedIn, and Facebook were built around big data from the beginning. They didn't have to merge or incorporate big data with more traditional sources of data and the analytics performed ahead them, since they didn't have those traditional forms. They didn't have to amalgamate big data

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Text Mining, Process and Models: An Overview

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Abstract- Text Mining is the process of extracting or understanding information from a set of texts. It is the use of automated methods for understanding the knowledge available in the text documents. It is also the process of analyzing text to extract information that is useful for a specific purpose. It can also work with semi-structured or unstructured data sets such as emails, text documents and HTML files etc. In this paper, the process and the models of text mining are discussed.

Keywords- Text Mining, topic modeling, probabilistic modeling

I. INTRODUCTION

Text Mining field deals with tremendous amount of text data, which are created in a variety of forms such as social networks, E-mail, web articles, blog entries. Text data is a good example of unstructured information, which is one of the simplest forms of data that can be generated in most.

Unstructured text can be easily processed and perceived by humans, but is significantly harder for machines to understand. As a result, there is a need to design process, methods, models in order to effectively process the unstructured text in a wide variety of applications. Various process and modeling methods are used. In this paper, we have discussed about the process of text mining, topic modeling, the methods used in topic modeling, probabilistic modeling and its methods.

II. LITERATURE REVIEW

The fundamental process and techniques used in text domain are discussed [1]. Process involved in text mining to structure the unstructured data and the use of natural language processing in preprocessing [4] are used widely in this modern era.Topic Modeling is an efficient way to analyze the big unclassified text. The author gives a high level view of the methods used in topic modeling[12]. Recently, Probabilistic Classifiers have gained a lot of popularity and have shown to perform remarkably well. The simplest and the widely used classifier is the Naïve Bayes classifier[1]. When compared to other methods in Probabilistic Modeling, the Hidden Markov Model produces high level of accuracy[15]

III. TEXT MINING PROCESS

To mine the information efficiently, text mining involves a series of activities to be performed.
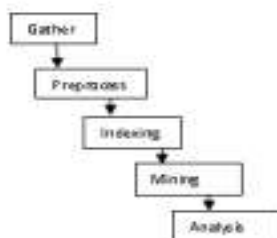
Gather: Text Mining starts with a collection of documents. This step involves the help of a search engine to find out the collection of text also known as corpus of texts which might need some conversion. These texts should be brought together in a format which will be helpful for the users to understand. Usually XML is the standard for text mining.

Pre-process: The dataset obtained is an unstructured dataset of documents which are pre-processed. The complexity of data pre-processing depends on the data sources used. It is a process of discovering sequential patterns in e-documents. This step allows the system to perform grammatical analysis of a sentence to read the text. It also analyzes the text in structures using Natural Language Processing. Preprocessing techniques are applied on the target data set to reduce the size of the data set.

Indexing: The next crucial process is indexing. In this process, the indexed representations collects a set of indexes and the information is expressed in natural language in the texts with the minimum loss of semantics.

Mining: At this point the text mining process merges with the traditional Data Mining process. It extract information, find patterns, and organize contents. This blends natural language processing, machine learning and semi-automated coding tools.

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A SURVEY ON DISTRIBUTED DATA CLUSTERING

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Abstract

Clustering is the process of grouping a set of objects of the same group which are more or less similar to each other than those in other groups. In recent years, many applications are generated in the form of streams, such as network flow, sensor data, and Web click streams. Analysing and mining of these data is increasingly becoming popular now. As a basic technique of data mining, clustering analysis in data flow environments has been attracted attention from academic and industry. Clustering algorithm for data streams has the following requirements: (1) the number of natural clusters without assumptions: (2) the ability to discover clusters of arbitrary shape: (3) the ability to deal with outliers.

Keywords : Clustering, distributed clustering, K-means, centroid

Introduction

The basic task of Cluster analysis used on data analysis fields are statistical exploration, machine learning or similar kind of pattern oriented field. It represents a single technique which can be implemented

in several ways. This clustering analysis is a type of grouping hard partitioning that allows an object not to be part of a cluster, or strictly

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Offshore Communication for Coastal Region Using Mobile Infrastructure

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Abstract- Marine fishermen risk their lives once they go as so much as one hundred twenty klick from the shore on a fishing trip lasting 5-7 days. They square measure utterly cut off from the earth. Cellular coverage exists solely up to 12-15 klick from the shore. In emergency things, the fishermen don't have any thanks to concern facilitate. Even underneath traditional conditions, prolonged isolation from their family and friends causes mental depression. Since the marine fishermen square measure not economically well off particularly in the developing countries, there has not been abundant industrial interest in addressing this downside. it's not seen as a profitable business proposition. However, addressing this downside can profit the marine fishermen community vastly. Our center conducted interviews with many fishermen to know this downside and came up with an economical resolution. the answer allows the fishermen to use the good phones that they own already to induce net puzzled exploitation Wi-Fi. The Access purpose (AP) on the boat connects over LAN to AN aboard entree to long vary Wi-Fi backhaul network. The onshore base station is put in on a tower at a height of 50-60 m. Boats are used as mobile base stations to extend the vary of the network. This resolution, once tested over the Arabian ocean, provided a variety of 40+ klick within the 1st hop and 20+ klick each future hop. This network are often operated on a cooperative community basis by the fishermen community

Keywords- Internet, long range(LR) Wi-Fi, base station, gateway, backhaul network, field trial, point-to-multi-point (P2MP) network

I. INTRODUCTION

Marine fishing may be a key contributor to the economy of the countries with an extended outline. These square measure varied communities of fishermen living on the coastal regions whose keep has relied on fishing for generations along. for instance, Asian nation contains a outline of over 8000 klick with 2000 fishing villages tenanted by seven million folks relying alone on fishing for his or her keep. Majority of those folks square measure used as daily wage earners by the boat homeowners.

Upto ten fishermen come into being in seventy foot long mid-sized boats called trawlers for marine fishing. These trawlers square measure equipped with cold storage to preserve the fish. every fishing trip lasts 5-7 days generally, typically even longer, so as to catch enough fish to create it profitable to the boat homeowners. throughout these fishing journeys, these fishermen square measure entirely isolated from their families and friends.

Collision with a ship may be a common downside long-faced by these fishermen that ends up in loss of lives and harm to boats. Accidental crossing of the maritime boundary is another common issue that leads to their arrest and arrogation of the boat by the neighboring countries' police investigation personnel. Currently, the fishermen use hand-held radios for communication that have a restricted vary at intervals the road of sight and don't work dependably underneath adverse conditions once the ocean state is rough. Researchers conducted in depth interviews with over 100 fishermen, boat homeowners and their families supported a form to achieve insight into the issues long-faced by them, their communication needs and their activity patterns. From their responses, it had been evident that that they had a true downside that they didn't have a reasonable resolution. Any resolution planned ought to return at nearly no value to them so as for it to be viable.

Based on these observations, it was decided that extending the Internet to the sea using the cheapest backhaul technology option would be the best way to develop a viable and cost- effective solution for connecting the marine fishermen to the mainland. A comparative study of various backhaul technology options based on several parameters revealed that long range (LR) Wi-Fi was the most suitable option for the backhaul network [3].

In order to overcome the unique challenges in the marine environment for achieving coverage and connectivity, an innovative backhaul network architecture which opportunistically stitches together several point-to- multi-point (P2MP) networks using Ethernet and Wi-Fi mesh networks was envisaged. The standard Wi-Fi access point (AP) on board the boats will enable the fishermen to connect to the

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A Survey Paper on Security Protocols of Wireless Detector Networks

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Abstract: *Wireless sensing element Network stands jointly of the foremost rising technologies combining along sensing, procedure capability and communication into minute devices continuing towards whole new world of simplicity. During thisera wediscover intellectuals everywhere the planet discussing on 2 major growing trends "Internet of things (IoT)" and "Cloud computing". Currently emergenceof them could directly or indirectly depend upon WSN too.When we say IoT it includes sensible devices that area unit grouping information through sensors and sharing this information through wired and wireless communication networks. Several of cloud computing applications like that in health sector includes assortment of knowledge by sensors so causing it wirelessly to cloud. it'stroublesome to deny that we tend to area unit moving towards a world wherever Wireless sensing element Network can impact our day to day lives. thus it's turning into even a lot of vital to figure towards development of wireless sensing elementnetwork*

Key Words: Wireless device Network; Personal computers; Personal Digital Assistants; Denial of Service attack; offset codebook

I. INTRODUCTION

Awireless device network (WSN) could be a assortment of spatially distributed autonomous sensors to look at giftatmospherical and physical like temperature, pressure, etc. and to hand in glove pass the info gathered through the network to a main centralized purpose. A WSN in its simplest type is outlined as a group of sensing devices (nodes) which will sense the atmosphere, method knowledge and communicate the data gathered from the monitored field wirelessly to a centralized purpose (sink) which will use it domestically, or it's connected to different networks through a entry way.

A. Design ofwsn

A detector node or a stuff could be a node that gathers info from fields performs some process on it info and propagatesthis info with alternative connected nodes within the network. Gateways ar the mediators that interface Motes with computers, personal digital assistants (PDAs), web and existing networks and protocols. Gateways is also thought ofas a proxy for the detector network on the web. Application Manager is that the software package that connects to the gateways via some communication media like web or satellite link. Sink is accessed by the user via communication link like web or satellite communication. Location of sink is principally close to the detector field or well-equipped nodes of the detector network.

II. CHARACTERISTICSOF WIRELESS DETECTOR NETWORK

A. Dynamic constellation
B. Measurability to giant scale of preparation
C. Big selection of densities
D. Re-programmability
E. Maintainability
F. Power consumption constrains for nodes exploitation batteries or energy gather
G. Ability to address node failures.
H. Quality of nodes
I. Heterogeneousness of nodes
J. Ability to resist harsh environmental conditions
K. Easy use

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<blockquote>

A Survey Paper on Various Techniques used in Cryptography

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ABSTRACT

In Modern Era, evaluation of wireless networks and networking provides the easiest way of communication in anywhere at any time. Security is the main aspect in wireless technology. The process of cryptography plays an very important role in provide the security to the wireless networks. There are various symmetric and asymmetric cryptographic techniques used to provide the security for wireless networks. This paper is mainly deals with various types of cryptography algorithms.

Keywords: Encryption, DES, AES, Blowfish, RSA

1. Introduction

Cryptography [1, 2] is the art and science of achieving security by encoding messages to make them readable. The tremendous growth of the networking technology leads to the culture for interchanging of data very drastically. Hence it is more unsafe of duplicating of data and re-distributed by hackers. Due to the above reason the information has to be protected while transmitting it, Sensitive information like credit cards, banking transactions and social security numbers need to be protected. For this many encryption techniques are existing which are used to avoid the hacking of information. In recent days, the encryption of data plays a vital role in securing the data during online transmission. It focuses mainly on its security across the wireless. Different encryption techniques are used to protect the information from unauthorized use. Encryption is a very common technique which was used for the information security. The evolution of encryption is moving towards a future of endless possibilities .Everyday new methods of encryption techniques are discovered. This paper holds some of existing encryption techniques and their comparison.

2. Some of the terms used in cryptography are described below [1]:

2.1 Cryptography

Plain Text: Any communication in the language that we speak referred as plain text. It is understood by both the sender and the receiver and also it will understand by anyone who gets an access to that message.

Cipher Text: Cipher is also referred as secret message. When a readable text is codified as unreadable text using any suitable scheme the resulting message is called as cipher text.

Encryption: The process of encrypt the plain text into cipher text is called encryption.

Decryption: The reverse process of encryption is defined as decryption that is transforming cipher text messages back to plain text is called as decryption.

Key: It is an important aspect for performing encryption and decryption. It is the key which was used for encryption and decryption that makes the process of cryptography secure.

2.2 Uses of Cryptography

Cryptography uses for following purposes:

Confidentiality: The main principle of confidentiality specifies that only the sender and the particular receiver will able to access the contents of a message.

Authentication: The main purpose of authentication mechanisms is to establish the proof of identities. This process ensures that the origin of the message is correctly identified.

Integrity: The integrity mechanism ensures that the contents of the message remain the same when it reaches the particular receiver as sent by the sender.

Non- repudiation: It is the assurance that someone cannot deny something that is the

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A Survey on Providing Security To MANETs Against Black Hole Attacks

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Abstract- MANET or Mobile ad hoc Network is self-configuring network. MANET infrastructure is dynamic in nature; it is disposed to various types of attacks. These types of attacks are harmful to working of MANET. Black Hole attack is one of the types of those attacks which lead to dropping of messages. In this type of attack, the attacking node leading agrees to forward packets and then not succeeded to do so. This attack is possible because of the presence of malicious node which is misbehaving in the wireless environment. So the nodes in the network attempting to find out the path to the destination, which loses their packets. This paper represents the ways of black hole attacks in MANET proposed by various researchers.

Keywords- MANET, Black hole attack, dynamic

I. INTRODUCTION

A Mobile Adhoc Network self organizing infrastructure less network of mobile devices which are connected through wireless network. Each device in MANET is travelling on any route,so that it alters it's path frequently.Each node in a network acting as a router.It may joined to the network of network such as Internet.It is represented by following figure i.

Figure i. MANET

II. SECURITY ISSUES IN MANET

In MANET security is most important factor for discussion. Due to it's features like dynamic topology, open medium, decentralized monitoring and no clear steps for fighting against the attacks it is often suffer from security attacks. So it has to prove the security for data to achieve confidentiality and integrity [7]. In the few years, security of computer networks has been of serious issue for discussion. Problems arise for routing are different for wired network and MANET. In previous days routing table was created for the hosts which are linked to wired to a non-dynamic structure[1].

III. PREVIOUS WORK

[2]Shivani et al, surveyed the different proposed methods to detect and mitigate the attacks in the network. In this paper they discussed about black hole attack in the MANET. They stated that effect of that attack is Denial of Service attack which results in reduction of network performance. They showed that methods for implementing, preventing, detection mechanisms for black hole attack using AODV protocol.Finally they summarized about the methods of detecting single black hole node in MANET and how they affect the network parameters like PDR,end to end delay,routing overhead,threshold based on TSDRP ,Sequence number of nodes,SRD-AODV,Modified RREP methods.

[3] Vasantavalli et al.proposed the PL2 (PreLude,PostLude)technique which is enhancement of AODV protocol, to protect against Black hole attack.In this method,first it check for malicious node exists.After that it starts to find and remove the black hole nodes,During the Route discovery PL2 messages are added for detection otherwise it is same as AODV.

[4] Mohamed Elboukhari et al, explained about the effects of black hole attack in MANET.They showed the results by simulating nodes in NS2.They compared average packet loss with two black holes and without black hole nodes depends on the parameters like packets sent, received, dropped. They concluded that when the black hole get increased the Packet delivery Ratio get decreased.

[5] Sushil Kumar et al, measured the performance of AODV protocol with and without black hole attack under various parameters in NS2 simulator. They stated that when the node get attacked by black hole effect it will result in AODV performance. They concluded that efficient functionalities are needed to stop the attacks.

[6] In this paper the author analysed about proposed AODV algorithm. In this proposed method the malicious nodes are

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A Survey on Performance Analysis of Tora with Other Reactive Routing Protocols in Manets

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Abstract: Nowadays wireless network places vital role in communication. Mobile Ad hoc Network (MANET) is a popular and backbone for mobile communication. MANET is group of particular mobile nodes which does not follow particular structure. It does not developed with centralized authority. So that such kind of these networks must follow specific protocols and these protocols must specific to dynamic network topology. In this paper survey has been made about performance of the reactive (On –demand) routing protocols TORA, AODV,DSR are considered which are based on performance metrics such as route discovery, route maintenance, etc.
Keywords:Tora, Aodv, Dsr.

I. INTRODUCTION

MANET is a self-configuring dynamic network with more than one devices connected via the wireless network. In this network devices communicate with one another using multi hop wireless networks in decentralized manner. In this network, the number of communicating nodes is two and they are located closely means there is no need for specific routing decisions or protocols. But if the numbers of mobile nodes are larger routing protocols comes into picture so that decisions have to be made to produce optimal route from source to destination. Nodes in MANET are responsible for finding other nodes in a network to communicate. The basic challenge in MANET is building proper reachability of information from source node to destination node .The group of applications for MANET is diverse and from smaller network to larger network. Due to its properties like flexibility, mobility and portability usability of MANET is increasing.

II. WIRELESS AD HOC ROUTING PROTOCOLS

A. AODV

The Ad-hoc On-demand Distance Vector (AODV) protocol is one of the type of reactive routing protocol which does not keep global routing information for the whole network, so that routing paths are formed whenever there is demand. When the nodes are not in the path they do not need to maintain any details for that path. Therefore they have information only for their active paths. In AODV protocol, asymmetric links are not maintained. Important uses AODV protocol is the particular destination needed paths are created and destination numbers are used to find updated path towards particular destination.

B. DSR

The Dynamic Source Routing protocol allows the sources to find out paths to any destination. Before reaching desired destination, all the data packets of source add all the list of nodes, which the packets must go through. So, all the nodes that listen these packets may collect routing details for future purpose.

With that faster network topology transformation, DSR protocol also provides asymmetric links. Like AODV, DSR has path searching mechanism, if a route is not set up. DSR retain demand path so that no usual packets are needed for topology changes. During the failure of the links, they should have accurate advertisement for routing. Further, DSR allows sources to obtain and reserve more than single path to a specific destination. When a link failure is known midway nodes have the chance to change routing path. DSR is useful in network when it has low mobility.

C. TORA

TORA is temporally ordered routing algorithm based on reversal algorithm. It is used to reduce the control message in dynamic ad-hoc networks. Unlike DSR, a node has to send query information by flooding method when it has passed some information from source to destination.

Since the shortest path finding is not important in TORA, so the longer paths may lead to loss of information than usual. In TORA longer paths are chosen mainly to reduce the overhead in process of finding new paths.

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A Big Analysis About Data Mining With Big Data

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Abstract- *In current era, Big Data is to be a entire volume, multipart, growing data sets with several, independent sources. With the rapid improvement of networking, data storage space, and the data gathering competence, Big Data are used currently very quick expansion in all science and engineering domains, including physical, biological and biomedical sciences. This data-driven model involves demand-driven gathering of information origin, mining and analysis, end-user interest modeling, and security and privacy scrutiny. A Big Data mining is the capability of extracting valuable information from big streams of data or datasets, that expected to its variability, volume, and velocity. Data mining encompass, research and interpret big quantity of data to detect different cavity for big data.*

Keywords- Data, Mining, quantities, Analytics, Big data.

I. INTRODUCTION

In aggressive improvement of data appears an overthrowing stipulation to route and appraise it is called Big Data. Bulk achievement enumerate structures have been construct to attend the wish for executing Big Data methods no more only from an transaction processing mark of view but also from data view. In memory Databases, exertion of mechanism learning algorithms for Big Data outline, the Analytics circumstances of the future, etc. though none gives a chronological and broad vision of all these split topics in a particular document. Modernized creation tendency admonish that big data investigate is enhancing imperative for involuntary determine of intellect that is anxious in the frequently appear arrangement and lurking guidelines. These may then be recycled effortlessly as conductive instruction. To handling big data challenges occurs in the following areas.

i. Data Capture and Storage.
ii. Data Transmission.
iii. Data Curation.
iv. Data Analysis.

II. RELATED WORK

A literature survey is optimistic drifting out in a progression manner to consider the history of the current work, which abetment to searching out the defect in the archival and guides on which undetermined problems can progress out. The following sections consider different references that deliberate about various topics related to cumulative act.

Xindong Wu et al. proposed a Big data involved large volume, complicated, increasing data sets with various, self determining sources. Using of speed increment of networking, data storage and data collection quantity, in current evolution Big data are to be expeditiously enlarging in entire science and engineering realm, with physical, biological and biomedical sciences. Authors also suggest HACE theorem it describes the appearance of Big data innovation, and proposed a Big data model processing, used with data mining attitude. From the information sources of data-driven miniature includes aggregation, with mining and analysis, with user interest modeling, and security and privacy deliberations. They also consider the demand argument in the data-driven model and includes in the Big Data innovation [1].

Matthew Herland, et al. used with number of data produced including of Health Informatics are randomly increased to be entirely insignificant, and the analysis of Big data allocates probably boundless capabilities for observation is achieved. From this information it increase the aspect of health care to the patients. Yet, lot of argument may increased while handling with huge data quantities, specifically how the data to be analyzed in a dependable appearance. Important ambition of Health Informatics is to contain in actual world medical data through various levels of human survival to support leading of users responsiveness in medical and medical practice. This work also includes current exploration with Big data Tools and access for the analyzing with Health Informatics and data accumulated at various stages, involves with molecular, tissue, patient and population levels. It also includes data at various stages, various stage with queries that to be declared: human-scale biology, Clinical-scale and epidemic-scale. Authors still consider and research the positive upcoming work for every areas, then also show how linking data from every leveled that distribute the greater accurate approach to achievement the better knowledge in Health Informatics [2].

Sowmiya R and Suneetha K R a suggested in the current informative technology world, with the capability to

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An Analysis on Removal of Duplicate Records using Different Types of Data Mining Techniques: A Survey

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Abstract: In the current period rapid improvement of information technology provides to the need of large volume of storage to storing the dataset. From different data mart, most of the data warehouse access ability of data, by reason of this there is a prospect of latency of high record duplicates. Uncounted systems are mainly troubled by the habitation of duplication in the database which provides to the problem like slow performance, degradation of data quality, waste of data storage and high operating cost. In enlargement assurance of duplicates provides to the issue of misleading, the system reports as fails to recover the proper data for the entanglement of query and the time complication is big. The above said issues can be concluding by the process of record deduplication which is the one of the necessary task in data preprocessing. This process concluded in data cleaning and replica free repositories which allow recovering increased higher quality information. Record Deduplication is the process of analyzing and removing records in data storage which indicate to the same entity of different sources of data. Record Deduplication is necessary while linking entity based datasets that permit or not permit to share a frequent accessory. This paper discusses about the elaborate introduction to data deduplication. In this paper also granted the comprehensive study of different existing techniques for removal of data replication using deduplication.

Keywords: Deduplication, Record, Mining, Replica, Repository.

1. INTRODUCTION

For every organization database is a most important origin which is collected from various types of origins. All different resource has diverse explanation for identical entity, which lead to replica in repository. Thus big investments are made by different companies to clear the replica from the repository. Data mining is the contemporary technology which clipped the useful instruction required by the company for getting an improved verdict. This is the step of KDD (Knowledge Discovery in Databases) method. Fayyad et.al. states that, "KDD is the method of identifying a accurate, potentially useful and finally comprehensible constitution in data" [1]. In the KDD procedure, Preprocessing is the data cleaning stage where the excessive information's to be isolated. The data cleaning is the method of identifying and rectifying the records from the database [2]. It includes parsing, renovation, and refusal of duplicates. One common approach to avert duplication, is the record duplication (also described as record linkage or data linkage) [3].

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An Olsr Protocol Using Multipoint Relay Selection in Manet

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Abstract- Flooding is an important communication primitive in mobile ad hoc networks. And also serves as a building block for more complex protocol such as routing protocol. In any flooding mechanism one must balance reliability against message overhead. On the one hand, increasing reliability generally involves sending a greater number of redundant messages and thus increases message overhead. Redundant messages are needed to reach all nodes and to recover from packet loss, hence reducing the overhead will generally decrease reliability. Selective broadcast of that packet improves the reliability as well as packet drop. These compensation packets are constructed from dropped data packets, based on techniques from AODV, AOMDV. The OLSR protocol (Multi-relay selection) inherits these stability of the link state algorithm, due to this proactive nature it has an advantage of having the route immediately available when needed. OLSR protocol is an optimization of a pure link state protocol for mobile ad hoc networks. The OLSR minimizes flooding of this control traffic by using only the selective nodes called multipoint relay, to diffuse this messages in networks. Only the multipoint relay of nodes transmits its broadcast messages.

Keywords- AODV; AOMDV; OLSR; Multi- relay selection

I. INTRODUCTION

An Ad hoc network is a collection of mobile nodes, which forms a temporary network without the aid of centralized administration or standard support devices regularly available as conventional networks. These nodes generally have a limited transmission range and, each node seeks the assistance of its neighbouring nodes in forwarding packets and hence the nodes in an Ad hoc network can act as both routers and hosts. Thus a node may forward packets between other nodes as well as run user applications.

By nature these types of networks are suitable for situations where either no fixed infrastructure exists or deploying network is not possible. Ad hoc mobile networks have found many applications in various fields like military, emergency, conferencing and sensor networks. Each of these application areas has their specific requirements for routing protocols.

II. RELATED WORK

Royer, et al[1], An analysis of the optimum node density for ad hoc mobile networks. This work explores the nature of this transmission power tradeoff in mobile networks to determine the optimum node density for delivering the maximum number of data packets. It is shown that there does not exists a global optimum density, but rather that, to achieve this maximum, the node density should increase as the rate of node movement increases.

Das, et al[2], Performance comparison of two on-demand routing protocols for ad hoc networks In
This will work they co - operate for the AODV,
the two prominent on-demand a routing protocols
for ad hoc networks. DSR and AODV both use on demand route discovery, but with different routing mechanics. DSR exploits caching aggressively and maintains multiple routes per destination. AODV, on the other hand uses routing tables, one route per destination and destination sequence numbers, a mechanism to prevent loops and to determine freshness of routes.

Ni, S, et al[3], The broadcast storm problem in a mobile ad-hoc network In this work states broadcast activities in MANETs are both unreliable and spontaneous. For on-demand MANETs routing protocols the problems caused by unmanaged broadcast activities. Broadcast based Route Discovery is performed for every unknown route in the network. The study also pointed out that flooding based broadcast creates redundant broadcasts, network contention and frequent packet collisions. Several schemes were proposed to alleviate the problem. The schemes were counter-based schemes, probabilistic schemes, location aided, distance schemes and location aided schemes.

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Dependable Semantic Web

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Abstract- This paper describes some ideas for a reliable semantic web. Semantic web is a technology for perceptive web pages. It is significant that the semantic web is secure. In accumulation, data exchanged by the web has to be of high quality. The processes that the web supports have to congregate certain timing constraints. This paper discusses these aspects, and describes how they endow with a dependable semantic web.

Keywords- Data integrity, Warehouse, Security, Fault tolerance.

I. INTRODUCTION

Recent developments in information systems technologies have resulted in computerizing numerous applications in various business areas. Data has become a decisive resource in many organizations, and therefore, competent access to data, sharing the data, extracting information from the data, and making use of the information has become an urgent need. As a result, there have been many efforts on not only integrating the various data sources speckled across several sites, but extracting information from these databases in the form of patterns and trends has also become vital. These data sources may be databases managed by database management systems, or they could be data warehoused in a repository from manifold data sources. The advent of the World Wide Web (WWW) in the mid 1990s has resulted in even greater demand for managing data, information and knowledge effectively.

There is currently so much data on the web that managing it with conventional tools is flattering almost impossible. New tools and techniques are desirable to effectively manage this data. Therefore, to endow with interoperability as well as warehousing between the multiple data sources and systems, and to extract information from the databases and warehouses on the web, various tools are being urbanized.

One of the recent developments with the web is the semantic web by Tim Berners Lee, Jim Hendler and others [BERN01]. The semantic web is essentially about machine comprehensible web pages. In the article on semantic web by Berners Lee et al., the semantic web is described to be a web that can comprehend and interpret web pages and manage activities for people.

These activities could be maintaining appointments, giving advice, and in essence making the life of the human as easy as possible. If the semantic web is to be effective, then we need to guarantee that the data and information on the web is timely, accurate, and precise. Note that with dire data one cannot make good decisions. Therefore, we need to extend ways to incorporate quality parameters into the technologies for the semantic web. These technologies include XML, (eXtensibe Markup Language), RDF (Resource Description Framework), and agents.

There is petite work reported on data quality, security and integrity for the semantic web. We need to start investigating the issues while we conduct research on the semantic web. If data quality, integrity and security are added as an addendum, then it will be very difficult to build practical systems. This paper will review the developments with the semantic web and then discuss ways of making the semantic web trustworthy. These include integrating data quality, security, integrity and real-time processing for the semantic web. Because of the web we now have access to all sorts of data.This may compromise quality as data may originate from unfrosted sources and be passed from one to another. The paper also discusses research guidelines.

II. SEMANTIC WEB DEPENDABILITY ASPECTS

While the semantic web as a concept is still sprouting, there have been many developments in this area. These include RDF, Ontologies, Agents, and Databases. One could envisage a issue and subscribe model for the web where producers publish the services while consumers subscribe for the services. Agents operate on behalf of users. There are various types of agents including brokers. These brokers confer the best deals for their customers. These services could be managing schedules and appointments as well as giving advice and essentially managing all of the activities for a customer.

Consider a hypothetical example of John who is a physician. The web will arouse him up depending on the day

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An Improved Decision Tree Classification Using ID3 Algorithm Using Data Mining

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Abstract- *Data mining is the process of finding the previously unknown and potentially interesting patterns and relation in database. Decision tree learning algorithm has been successfully used in expert systems in finding the knowledge. The main work is to performed in these systems is using inductive methods to the given values of attributes of an unknown object to determine appropriate classification according to decision tree rules This paper suggests several procedures and methods for building decision tree, such as ID3, C4.5, and CART. Good choice for decision making tree methods . Decision tree learning method is also one of the methods that are used for classification or diagnosis. Decision tree learning method is used in Medical science for diagnosis purpose. This paper suggests that decision tree construction with ID3 algorithm for Diabetic patient database. For this database I have choose Iterative Dichotomizer algorithm. This algorithm based on the homogenous mixture Entropy, Information Gain for the best split.*

Keywords- Data mining, decision tree, ID3(Iterative Dichotomizer),CART(Classification and Regression tree) algorithm, C4.5 algorithm.

I. INTRODUCTION

Data mining is the process of discovering meaningful new patterns, correlation, and trends by sifting through large amount of data stored inrepositories using pattern recognition technologies as well as statistical and mathematical techniques. The main objective of Data mining is to discovered knowledge for the purpose of explaining current behavior, predicting future outcomes or providing support for business decision.

Data mining involves many different algorithms to accomplish different tasks. Data mining algorithms can be characterized as consisting of three parts:-

Model: The Task of the algorithm is to fit a model to the data.

Preference: - Some basic criteria must be used to fit one model over the another model.

Search: - All algorithms the required some of techniques to search the data.

Data mining is the step in the knowledge discovery in database process (KDD) .the structures that are the outcome of the data mining process must meet certain condition so that these can be considered as knowledge. These conditions are validity, understandability, utility, novelty, interestingness.

Researcher identify two fundamental goals of data mining : prediction and description there are several data mining techniques some of these are association, classification, sequential patterns and clustering.

Data mining is the process of discovering more knowledge, such as patterns, changes, associations, significant structures and irregular, from large amounts of data stored in databases or data warehouses or other information repositories [1]. It has been widely used in recent years due to the availability of huge amounts of data in electronic form, and there is a need for turning such data into useful information and knowledge for large applications. These applications are found infields such as Business management, Artificial Intelligence, Learning through machine, Analysis in market, Statistics and Database Systems and Decision Support.

II.DECISION TREE

Decision tree learning method is one of the methods that are used for classification. As for many other machine learning methods, the learning in decision tree is done by using a data set of already classified instances to build a decision tree which will later used as classifier. The set of instances used to "train" the decision tree is called the training set.

Decision tree learning has main advantages. In that one is of the advantages is that it gives a graphical representation of the classifiers which makes it easier to

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An Analysis of Manet and Vanet Routing Protocols

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Abstract- MANET and VANET square measure the active analysis areas and plenty of routing protocols have been planned to be used in these areas. In MANET, nodes square measure connected through wireless channels in an exceedingly network and every node acts as a router and as a number. One among the situation of Manet is transport ad-hoc networks. For communication in VANET, efficient Routing Protocols square measure required. attributable to extremely dynamical configuration and frequent disconnection it's strenuous to style Associate in Nursing economical routing protocol for vehicles, there will be 2 sorts of VANET that square measure V2V(Vehicle to Vehicle) and V2RSU(Vehicle to Road aspect Unit). As a result of daily happening of accidents VANET is one of the affecting areas for the refinement of Intelligent Transportation System (ITS) that will insure passengers and road safety. The Intelligent Transport Systems provides info if there exists any emergency and tells regarding traffic density. The traffic and traffic density. The prevailing routing protocols for VANET aren't economical enough to satisfy all traffic situations. Worthy routing protocols square measure needed to initiate communication between vehicles in future for passengers and road safety. This paper shows literature survey associated with Reactive and Proactive Routing Protocols of MANET as AODV, DSDV, OLSR, and DSR. Analysis and characterization of those protocols is shown within the paper which helps in any improvement of existing routing protocols

Keywords- MANET, VANET, AODV, DSDV, DSR, OLSR.

I. INTRODUCTION

One sort of the wireless Networks is that the Mobile ad- hoc Networks and another sort of wireless Network is transport Ad-hoc Network. In MANET, nodes communicate with associate degree while not an existing infrastructure. A mobile ad-hoc network may be a set of wireless mobile nodes that forms temporary network while not any stable infrastructure. In MANET, every node works as a router and as host. These nodes area unit peer to see, self configuring and liberated to move in any direction due to this links to alternative nodes changes speedily.

In MANET, Network is self configuring and performs important functioning for safeguarding & looking out routes. In MANET, every node acts as a router and as a bunch and also the nodes area unit liberated to move in any direction due to this the topology changes speedily. Maintaining routes during a speedily dynamical topology is hard. The mobile ad-hoc Networks have characteristics as –

1. Multihop
2. Dynamically dynamical atmosphere
3. Information measure forced links

Because of these characteristics we will not use the protocols of wired networks for wireless networks. One of the challenges in Manet is Dynamic communication with one another during a speedily dynamical atmosphere. Alternative challenges embrace Routing, Speed, Quality of Service, and lack of authorization facilities, attacks associated with trust vulnerability, Unicasting, Multicasting, and Frequency of updates or Network overhead. The Advantage of Manet technology is that mobile instruments are used at any purpose of your time.

II. USES OF MANET

Mobile ad-hoc networks have a large application space thanks to its characteristics. A number of the applying space of Manet is as follows-

1. It's employed in the operation of rescue and military connected operations.
2. Manet is helpful in public transportation as Internet and computer network hot spots.
3. Helpful in conferences and seminars for distribution of information.
4. Employed in localized looking and Advertising.

VANET could be a set of Mobile Ad-hoc Networks. It's a freshly introduced technology. VANET permits vehicles to speak with one another and share data in an exceedingly wireless network if the vehicles area unit among the vary. VANET has some completely different characteristics than the Manet that creates it distinctive. There are often 2 forms of VANET-

1. **V2V** - When there is no infrastructure needed, nodes do vehicle to vehicle communication with each other.

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A Survey on Routing Protocols for Underwater Detector Networks

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Abstract: *Different routing protocol perform completely different role within the underwater detector networks. All routing perform each and every specific task into underwater detector network that liable for networking issues that's why this is often the newest method of analysis. Routing term derived from "route" meaning a path some way that perform completely different terms in underwater detector network drawback connected issue. The most effective half is these days several routing protocol are within the underwater wireless detector network. Some completely different attributes comes underwater wireless detector network like high bit error rates, restricted band-width, 3D preparation and high propagation delay. This paper is bearing on as useful for giving transient summary concerning each and every protocol and liable for entire underwater wireless detector networks.*

Keywords: *Underwater detector networks, routing protocol.*

I. Introduction

Our earth is covered by humans and resting space is covered by water that would be river and sea also. In underwater wireless detector network a lot of water animate thing like fish, crocodilian and plenty of additional. Suppose soul work on explicit a specific issue thus some special devices ought to be in underwater wireless detector network that may add underwater wireless detector network system that ought to be able to move among underwater. These days increasing the demand some special routing protocol which may work into underwater wireless detector network? For the present purpose of analysis state of affairs underwater detector network with some completely different routing protocol accessible that plays some specific role within the underwater wireless detector network that why some scientists are operating for developing algorithmic program. Underwater routing detector network not solely useful for giving high reliableness that ought to be able to manage high reliableness of knowledge sent to the SINK node however conjointly its delay comparatively low. Underwater detector network able to perform operation into long terms non time crucial aquatic watching applications wherever GPS support isn't need. The design of routing protocols simply adapt to ever-changing topology. Cut back energy consumption and therefore the network nodes network conflicts the maximum amount as attainable. Some main challenges as well as for routing protocol underwater detector network that challenges are High propagation delays, Node quality, Error prone acoustic underwater channels. In step with this paper it's not solely helpful for giving data concerning routing protocol for underwater detector networks however conjointly useful for operating soul and people that are involving in analysis activities and is additionally helpful for giving correct manner that one is correct routing protocol underwater detector network and that one is ideal for project that may be simply determine by this paper. [1]

II. Design Component For Underwater Detector Networks

Some factors like transmission loss, multipath, noise, propagation loss these are four major issuesthat comes in underwater detector networks. [13]

A. Transmission loss [13]: Transmission loss is combination of geometric spreading and attenuation. It's freelance of frequency. Geometric spreading is enlargement of wave fronts that increase the propagation distance. Essentially attenuation aggravated by increase with distance and frequency, absorption owing to conversion of acoustic energy into heat.

B. Noise [13]: It's divided into 2ways in which as close noise and manmade noise. This in chiefly target the shipping activity and machinery noise.

C. High delay [13]: The propagation speed within the underwater device magnitude is a smaller amount than compare to the radio channel.

D. Multipath [13]: Primarily this term is conferring with as over a method for degradation of the acoustic communication signal that generates confer with as lay image Interference. The over one pure mathematics supported the link configuration. There are 2 channels like vertical and horizontal channel. Horizontal channels could have long over a method spreads whereas Vertical channels could have very little time dispersion.

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RANDOM QUESTION PAPER GENERATOR - SOCIAL ENTREPRENEURSHIP: PERSPECTIVES ON EDUCATION

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ABSTRACT

Contemporary educations have gone iniquitous. Politics have even made its mark in education, early from getting admission for a college and making graduation simple by letting the common assessment exams and semester questions out and pulling the concept of education into the No-Talent state!

It should be fine if there is a random questions generator that would pick questions according to the Designed Application specifically for a College/University with respect to its Blue Print and Weight-age and relying on feasible algorithm that is very easily applicable in any simple code block and in any language – B-Randomization Algorithm (it is introduced in this paper). It is obvious that most of the institutions (every institution at times) are different with its Question paper pattern which varies from Subject to Subject and Department to Department. When this is the case every college can have a uniquely designed application or software that does this work (Randomly generating Question papers). This means that for every college, there has to be a firm which builds this software and does its maintenance and it gets paid in turn and this provides the opportunity to students/youths for their own start up. This idea is highly workable since every subject pattern is not the same as other subject, every subject have individual pattern in every exams like, common assessment test, model exam, semester and etc., a single subject could have varying pattern in different semesters and every college might have a change in its pattern according to which this software is designed. The probability stays high and there has to be individual question paper generator or a single generator could have changeable patterns where we could toggle to the required pattern.

B-Randomization Algorithm is all about making use of easily retrievable values which are un-predictable and implementing the resultant number (for count) in the series for picking up a number in random. Once the number is picked up again this process is done to get another value in the series (series will have numbers/elements excluding previously picked numbers/elements). This way the series or numbers or elements are finally randomized.

This method of randomization provide ease for the developers to design the software or application in any platform implementing the randomization codes on their own instead calling or using a complex packages/methods. This process of generating question papers ensures universities confidentiality and faculties doesn't have an option for going unfair by letting the questions out as those questions wouldn't be known to them anyway before. Taking the education system into a righteous path and making the Indian youths a better entrepreneur, starting from their career from inception (probably every college/university would need an entrepreneur to accomplish this. May be, every department in a college could require such entrepreneur at times to design their own Random Question Paper Generator).

Keywords: Contemporary, Iniquitous, Assessment, Unique, Randomization, Inception.

Introduction and Problem Statement:

As Education system has gone wicked by the corrupted work ethics of Staffs there is a strict need for an overcome through some method which could no way indulge teachers/faculties into such activities. Staff members take up doing a crime by letting question papers out to their close students which is more of a fraudulent act. Parents or Guardians get their child to study in a School or College or University to explore their

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Survey on security of Internet of Things in eHealth and clouds

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ABSTRACT

The technology of Internet of Things (IoT) and cloud has exposed devices to vulnerabilities. As they are distributed, the different devices communicate real time information to open, private or hybrid clouds, with the possibility of collecting, storing and analyzing big data streams in new forms. In the healthcare context, the increased deployment of IoT devices makes patient information a subject to malicious attacks depending on the security and privacy of the IoT devices. While a number of researchers have explored such security challenges and open problems in IoT, there is a lack of a systematic study of the security challenges in the IoT for eHealth on clouds. In this paper, we aim at bridging this gap by conducting a thorough analysis of IoT security Vulnerability. We present then security challenges in the cloud for eHealth domain and recent proposed solutions. We also provide a proposition of an IoT system in the cloud.

Keywords: IoT, Cloud, e-health, Security

Introduction

Providing better healthcare services and improving the quality of life of people presents a primary focus of research, healthcare systems using distributed services based on emerging communication technologies and advanced software architecture, are called eHealth systems. The eHealth services provide a great wealth of formation that can be used to make better actionable decisions. By connecting information, people, devices, processes and context, next generation eHealth services making use of Iot and cloud computing technologies are being developed [1].

Using the cloud technology in the eHealth domain has improved quality of services thanks to the cloud characteristics such as economical, scalable, expedient, ubiquitous, and on-demand access to shared resources [2, 3]. Cloud computing improves efficiency healthcare not only by the use of different medical resources but also with achieving a strong information technology resources and optimizing patient flow [1].

The Internet of Things (IoT) is defined by the European Commission Information Society, as a manageable set of convergent development in sensing, identification, communication, networking, and informatics devices and systems [41]. IoT devices include personal computers, sensors, tablets, smart phones, and other embedded systems. At a conceptual level, IoT refers to the inter connectivity among different devices, which enables the capturing of real time information and facilitates the analysis of this information. By processing the sensed data at a node, connected devices perceive their surroundings and understand what is going on [4] [5].This collected data enables devices to take decisions autonomously or propagates information to users in order to make the best decisions [5].

Cloud and IoT are mutually dependent on each other. IoT benefits from the virtually unlimited capabilities and resources of Cloud to reduce its technological constraints (e.g., storage, processing, and energy). Cloud can benefit from IoT by enlarging its scope to deal with objects in real world and delivering more services in a distributed and dynamic way [6]. however, integrating IoT with cloud services introduces significant security and privacy challenges. Using IoT paradigm, everything relies on the integrity of the data. This data should be secure and private as it is exchanged within the complete integrated environment of cloud facilities [7].

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An Efficient Encryption Scheme for Small Arbitrary Length Domains

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Abstract: Encryption in an important evolving technology, used to protect private data in computers, over private and public network. Encryption is the method of transforming information in order to secure it from intruders. Encrypting entire database can be inefficient because it is challenging to selectively access a part of the encrypted data in an encrypted file. It would be desirable to apply cryptographic techniques specifically on the selected fields in the database. Conventional encryption scheme changes the database structure and applications related to the database. It requires re-engineering of databases and applications in order to store the modified data size and formats.

In order to overcome the drawbacks of the conventional database encryption schemes, a new secure and efficient Format preserving encryption scheme is proposed. In format preserving encryption the data type, length and format of the plaintext is conserved during the encryption process. The structure of the database, applications and the existing queries never modify by the encrypted data.

Index Terms: Deterministic Encryption, Format preserving encryption.

I. INTRODUCTION

Encryption at rest should be compulsory for any media that can possibly leave the physical limits of the infrastructure. Cryptography can be implemented on the physical storage the databases are stored. Data encryption keys should be updated frequently. Data in transit is data being accessed over the network, and therefore could be disturbed by someone else on the network or with access to the physical media the network uses. Encryption can take place in three different levels such as physical storage, database, and application. The lowest level of encryption is encryption of physical storage. It encrypts disk and tape storage that is data stored gets encrypted while anything retrieved from storage gets decrypted. The stored data is protected from unauthorized access. Encrypt the entire database, so that any data in the database are encrypted and any data fetch from the database are decrypted. When encrypting sensitive data within database tables one should consider the difference between encrypting at the column level versus encrypting an entire database file. File encryption schemes apply to entire files and provide access control and auditing capabilities on the entire file only. Column-level encryption solutions provide much more granularity and enable access control, auditing, and security policies for particular columns within a database. It is more flexible in selecting a particular field to encrypt. Applications can be written to control when, where, by whom, and how data is viewed[1]. Different columns (and even different rows) can be encrypted with different keys. The top level of the data encryption is the application level. At this level, individual applications protect data that they use. The data used by the application is get encrypted and after the completion of application it is decrypted.

Figure 1: Levels of Encryption

Column-level encryption is preferable and best one, but there are some drawbacks in the column level encryption. In Most of the block cipher, N-bit block is mapped into another N-bit block. For a few AES modes, the other modes require padding to make the

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Network Security using Python

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ABSTRACT

We uses large amount of information every day. Data is the most valuable factor. Cryptography allows people to keep confidence in the electronic world. Cryptography includes a large number of algorithms which are used in developing secure applications. Many Programming languages are frequently used to implement cryptographic function. Python is the widely used programming language to implement cryptography functions. In this paper I am going to analysis the various functions available in the Python Cryptographic Toolkit (PyCrypto).

Keywords : PyCrypto, Cryptography, DES, AES, API, MD2, MD4, MD5, RIPEMD and SHA

I. INTRODUCTION

Top business organizations spend billions of amount every day to secure their computer networks and to preserve their data safe. As the complication of the systems and the networks are increasing, vulnerabilities are also increasing and the task of securing the networks is becoming more complex. This leads Network Security a vital part of today's businesses. Cryptography is a science that applies complex mathematics and logic to design strong encryption methods. Cryptography is also an art.

Many programming languages are sprinkled all over the Internet, more and make a lot of people confused to select appropriate one. The mostly used programming languages for cryptography are python, Golang, Ruby, C##, Java and Haskell[1].
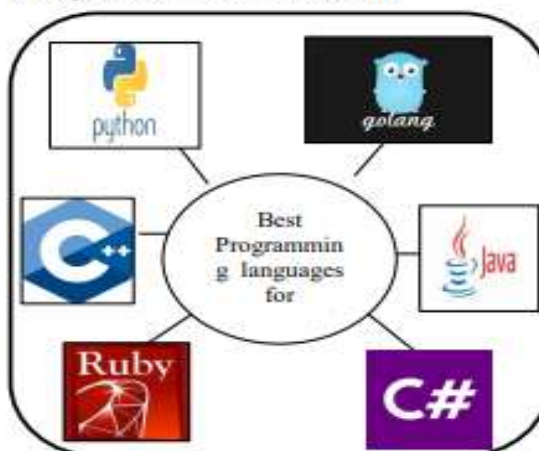
Figure 1. Best programming languages for cryptography

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CONNECTING THE INTERNET USING MULTIFUNCTIONAL DEVICE WI-FI IN HOME APPLIANCES

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Abstract- Nowadays most of the homes are started using smart technology which is more popular and wide spread all around the world. The communication networks are suitable with flexibility and low cost and which made the Wi-Fi technology as a popular wireless networking technology which uses radio waves to give wireless high-speed Internet and network connection. The major purpose and function of this paper is to propose a simple, flexible and low cost design of scheming and controlling all home appliances and connecting other hardware components using Wi-Fi network. The facilities to design and implement this modern technology in various environments by integration with other modern technology are considered as the main advantage of the proposed design. The proposed system provides connection between all the devices and it also controls all the devices within or inside home using sensors and actuators. The monitoring process is done by installing the proper software in user computer.

Keywords— Wi-Fi, Smart Home, Wireless Sensor Networks, WLAN, Home Monitoring.

I. INTRODUCTION

The wireless communication technology has become a standard technology which is widely used nowadays. It connects two or more devices with a wireless signal through wireless communication technologies. This wireless communication has made dramatic changes in data networking, telecommunication, and integrated networks and also in data security.

Many standard protocols are used for these technologies such as Wireless Personal Area Network (WPAN), satellite communications, Wireless Local Area Networks (WLAN), Wireless Wide Area Networks (WWAN) [1]. A WPAN (wireless personal area network) is a personal area network. This network will interconnect the devices which centered on an individual person's workplace. WPAN uses some technology which permits communication within 10 meters, one such technology is Bluetooth. A WPAN can interconnect all computing and communicating in their desk today. So this concept is used to control various home functions automatically such as lighting, heating, ventilation, security etc. [2].

Most of the modern homes automation systems consist of sensors and these sensor devices are connected to the central device. The central device is used to control all other devices home appliances by using software with user interface. A few general WPAN includes ZigBee, Bluetooth and all sensor devices. Wi-Fi plays a significant role in home network communication and in infrastructure such as flexibility, cost saving and wide usage in different surroundings as building, factories, hospitals and educational environments.

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Bat imperialist competitive algorithm (BICA) based feature selection and genetic fuzzy based improved kernel support vector machine (GF-IKSVM) classifier for diagnosis of cardiovascular heart disease.

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Abstract

Nowadays rate of death is increased due to the rapid growth of cardiovascular diseases. Due to the above reason, diagnosing the cardiovascular heart disease becomes very important in medical field. The subset features which are considered as vital role in disease diagnosis are identified for the same disease in modern medicine. Currently, many data mining techniques related to different types of heart disease diagnosis were presented by several authors. Existing methods mainly concentrated on high accuracy and less time consumption and it uses many different types of data mining techniques. This work consists of three major steps such as missing data imputation, high dimensionality reduction or feature selection and classification. The above steps are performed using a dataset called cardiovascular heart disease dataset with 500 patients and 14 features and it utilizes several effective features. Because of incomplete data collections Real time datasets often reveal unaware missing feature's patterns. First step consists of the Expectation Maximization (EM) algorithm which fits an independent component model of the data. This increases the possibility of performing Modified Independent Component Analysis (MICA) on imperfect observations. Bat Imperialist Competitive Algorithm (BICA) based feature selection method is proposed to improve the dataset. BICA is an evolutionary algorithm which is based on the development of human's socio-political. In this algorithm an m number of features and the N number of cardiovascular heart disease observations are used as initial population which is called as countries. A classification approach is introduced with Genetic Fuzzy based Improved Kernel Support Vector machine (GF-IKSVM) classifier and a BICA based feature selection for the classification of cardiovascular heart disease dataset. BICA is used for feature selection methods to reduce number of features which indirectly decreases the important diagnosis tests required to the patients. The proposed method achieves 94.4% accuracy, which is higher than the methods used in the literature. This GF-IKSVM classifier is well-organized and provides good accuracy results for cardiovascular heart disease diagnosis.

Introduction

Data mining is mainly concentrates on getting some hidden information from data. By using single or several datasets the patterns and relationships among large amount of data can be extracted. Various applications such as crime detection, risk evaluation and market analysis use data mining. In banking, insurance and marketing data mining is the main concept which reduces costs, and increases profits [1]. In medical science also, data mining deals with large amount of data and it is used to create different clinical reports and other patient symptoms. Thus data mining can also be used in medical datasets also. From this it is clear that unknown information in medical datasets is used in diagnosis of diseases. Though, medical datasets are generally isolated, heterogeneous, and large number in nature. If these datasets will be ordered and incorporated with the hospital management systems, it will be useful to many patients.

Around world heart attack will be the main reason for many deaths and if it will be detected earlier, it is possible to detect the disease and save several people's life. Data is generated by medical practitioners with the help of hidden information in the dataset, and it's not appropriately used well for predictions. Because of the above reasons, many researchers create many

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PERFORMANCE ANALYSIS OF SOFT COMPUTING TECHNIQUES TOWARDS HEART DISEASE DIAGNOSIS SYSTEM

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Abstract: Data mining is the extraction of concealed prescient data from expansive databases furthermore a capable of new innovation with incredible potential to examine critical data in their data warehouses. Data mining algorithms anticipate future patterns and behaviors, permitting organizations to make proactive and knowledge driven choices. The computerized, forthcoming analyses offered by data mining move beyond investigations of past occasions gave by review tools commonplace of choice emotionally supportive networks. Data mining algorithms can answer business addresses that customarily were excessively prolonged to determine. They scour databases for concealed examples, discovering the prediction of disease that specialists may miss in light of the fact that it lies outside their desires. Manual checking is highly impossible to diagnose for this disease. To predict heart disease several approaches have been carried out. This comparative study paper provides a thorough analysis of various algorithms made towards disease prediction. Several data mining and soft computing approaches are studied. This study concludes that the performance of various algorithms comparison of accuracy, sensitivity and specificity of several algorithms and approaches.

Keywords: Heart Diseases, Weighted Fuzzy Rule, K- Nearest Neighbor, Genetic, Scoring System, PRAA, SVM classifier, Support Vector Machines, Particle Swarm Optimization

1. Introduction:

Data mining, the extraction of hidden predictive information from large databases, is a powerful new technology with great potential to help companies focus on the most important information in their data warehouses. Data mining tools predict future trends and behaviors, allowing businesses to make proactive, knowledge-driven decisions. The automated, prospective analyses offered by data mining move beyond the analyses of past events provided by retrospective tools typical of decision support systems. Data mining tools can answer business questions that traditionally were too time consuming to resolve [Han. J, Kamber.M (2006)]. They scour databases for hidden patterns, finding predictive information that experts may miss because it lies outside their expectations. The process of data mining consists of three stages: (1) The initial exploration, (2) Model building or Pattern identification with validation/verification, and (3) deployment (i.e., the application of the model to new data in order to generate predictions). [9]

Data mining commonly involves four classes of tasks:

✓ **Clustering** - is the task of discovering groups and structures in the data that are in some way or another "similar", without using known structures in the data.

✓ **Classification** - is the task of generalizing known structure to apply to new data. For example, an email program might attempt to classify an email as legitimate or spam. Common algorithms include decision tree learning, nearest neighbor, naive Bayesian classification and neural networks.

✓ **Regression** - Attempts to find a function which models the data with the least error.

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Research Article

AN EFFICIENT FRACTAL COMPRESSION TECHNIQUE IN WSN WITH ADAPTIVE HUFFMAN CODING

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A R T I C L E   I N F O

A B S T R A C T

Fractal Data compression is ability used to reduce the number of bits essential to transmit the data in the particular order. The purpose of Fractal data compression is to eliminate the redundancy in a data in order to decrease its size. Data compression can also be lossless or lossy. Data compression recreates the correct unusual data from the compressed data although lossy data compression cannot restore the ideal unique data from the compressed data. The consequence and magnitude of data compression has exposed increasing development from the past few years and is probable to continue remaining the same in the future. The planned will present an overview of popular adaptive Huffman data compression methods of common effectiveness. It evaluated these presented algorithms with a newly planned scheme with improvements to make the algorithm fully absolute. The size data to be transmitted has a crash on the efficient working of WSN. This study reports the simulation & implementation of proficient Fractal data compression algorithms used for wireless sensor network.

INTRODUCTION

Text databases are rising in the last continuation due to the general use of digital libraries, document databases and largely because of the stable rising of the Web. Compression comes up as an ideal solution that permits to decrease both storage space supplies and input/output operations. Therefore, it is practical when transmitting data throughout a network. Those techniques use terms as the symbols to be squashed. They do not only recover the compression ratio obtained by other well-known techniques (e.g. Ziv-Lempel), but also allow to resourcefully attain searches within the compressed text avoiding the need for decompression prior to the search. As a outcome, those searches are very much sooner than searches inside plain text.

Wireless Sensor Networks are extensively used to control a variety of physical environments. The network nodes collect data and route it to give information in a appropriate way as demanded by the major application when necessary. Sensor Networks have a figure of different features such as limited computation, distributed processing and degree of association. The gathered in order is communicated to gateway nodes or sink nodes.

Radio communication is commonly the principal area of power consumption.

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The data compression algorithms are attractive for these networks to decrease the amount of data communicated to the descend. The objective of the future work is to reduce the total number of bits compulsory to be transmitted from the sensor node to decrease the energy moved by the sensor node. The reality of activist correlation in sensed data is considered as a gain. A modified Huffman Data compression algorithm proper for WSN is proposed in this synopsis. The proposed algorithm does not want the figures of the sensed data though however encodes the difference of the present and the preceding value of the sensed data. By this algorithm, a good compression ratio for both extremely connected and medially connected sensor node data has to be achieved. The main obscurity in wireless sensor networks (WSN) is the limited energy deliver. As the broadcast of the data is the largest energy consumption, many studies have turned notice on reducing the quantity of bits transmitted. The counter consists in data density.

LITERATURE REVIEW

A. Gokilavani has proposed Huffman and LZW techniques of image compression[1]. There are many techniques of image compression, but these two are important. The paper also differentiates the concepts of Huffman and LZW techniques. These two techniques are belongs to Lossless compression of image compression.

Chong Fu, Zhi-liang Zhu et-al has proposed a DCT based fractal image coding method[2] which improves the self similarities exploiting scheme. The range and domain blocks are removed into three classes based on their DCT lower

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Fractal Image Compression with Advanced Particle Swarm Optimization and Sorting

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ABSTRACT

The need for images in our day-today-day life increased drastically. This gives more attention to compression of an image. The image compression focuses on the problem of optimizing storage space and transmission of an image. Research advances in fractal image compression which focuses on computationally efficient and effective algorithm. Fractal compression is an asymmetric process which takes more time to compress an image than decompressing it. It explores the self-similarity property to find the best match within the image itself. In this thesis, an effect is made towards the partitioning methods and coding efficiency in terms of search time. In the existing system, fractal image compression using a genetic algorithm with ranking select mechanism is used. This algorithm is applied on fractal as well as non-fractal images and the result shows that the encoding time for both types of images is greatly reduced while maintaining their quality intact. However, the encoding process is not simple and it fails to maintain other types of images in terms of image quality. In this study, a novel Advanced Particle Swarm Optimization with Sorting based FIC method is proposed, to both speed up the encoding process and retain the quality of the retrieved images. In the proposed algorithm the coefficients of the image are extracted in order to classify the image using DCT. Then according to the coefficients of the range regions the search strategy for each range block is determined by using an algorithm. This proposed algorithm is applied on fractal as well as non-fractal images and the new result shows that the encoding time for both types of images is greatly reduced and also maintaining compression ratio with PSNR value.

Keywords: – Fractal Image Compression, Particle Swarm Optimization, Search encoding, PSNR, Compression Ratio.

I.   INTRODUCTION

The purpose of image compression is to decrease irrelevance and redundancy of the image data in order to be able to store or transmit data in a proficient form. Image compression is minimizing the amount in bytes of a graphics file without modifying the quality of the image to an undesirable level. The decrease in file size allows extra images to be stored in a given amount of disk or memory space [1]. In addition, reduces the time necessary for images to be sent over the Internet or downloaded from Web pages. It becomes essential to find efficient representations for digital images in order to decrease the memory required for storage, progress the data access rate from storage devices, and reduce the band- width and/or the time required for transfer. The branch of digital image processing that deals with this problem is called image compression [1] [2]. Image compression is concerned with minimizing the number of bits required to represent an image.

A.   Need for Image compression

Digital images are extremely large in size and therefore engage larger storage space. Due to their outsized size, they take improved bandwidth and more time for upload or download all over the Internet [3]. This makes it challenging for storage as well as file sharing. To challenge with this problem, the images are compressed in size with particular techniques. This compression not only supports in reduction of storage space but also enables easy sharing of files. Image compression applications decrease the size of an image file without causing key degradation to the quality of the image.

B.   Types of Image compression

Image compression makes use of a selection of techniques and algorithms in compressing images. The method of compression used depends on the required quality of output. There are two main module of image compression:

- Lossless image compression

- Lossy image compression

If the image compression application is usual to produce a very high-quality output without any loss in dependability, lossless compression procedure is used. This method is used where a high degree of accuracy is a must. In this process where some importance can be compromised, a lossy compression method is used. In lossy compression, there is a tiny loss of quality, but the loss is too unassuming to be visible. This technique is used in applications where a little compromise on a superiority of image is acceptable.

C.   Overview of Fractal Image Compression

Fractal image compression is a new technique and has previously received a great deal of consideration. The most significant advantages of fractal image compression are:

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AUTHENTICATION USING MULTIMODAL BIOMETRIC FEATURES

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Abstract: Multimodal biometric systems is the consolidated multiple biometric sources, which enable the recognition performance better than the single biometric modality systems. The information fusion in a multimodal system can be performed at various levels like data level fusion, feature level fusion, match score level fusion and decision level fusion. In this paper, we have studied the performance of different fusion techniques and fusion rules in the context of a multimodal biometric system based on the finger print, hand geometry, knuckle extraction and speech traits of a user. Experiments showed that these fusion techniques showed a marked performance serial rule showed comparatively better performance.

Keywords: multimodal biometrics, fusion strategy, data level fusion, Feature level fusion

1. INTRODUCTION

1.1 Authentication

Nowadays with the extending trends of internet and e-commerce people are becoming more and more connected through electronic network. An electronic network connects individuals, and organizations, etc. The ability to automatically recognize the identity of individuals is known as person identification or person authentication. The personal identity is essential for the access of network and reliable transactions. Person authentication can be performed by different methods like knowledge, token, and biometric features. Mostly personal identification is performed using following means as text passwords, personal identification numbers, barcodes and identity cards. The merit of these schemes is that they do not change their value with respect to time and also unaffected by the environment in which they are

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AN OVER LOOK– VARIOUS APPROACHES FOR RECOGNITION

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Abstract

In this paper, we analyze enhancing the Security and Privacy of multimodal biometric system. Comparing with the traditional authentication technology(password, ID, keys, etc), biometric recognition technology make users not to remember password and take keys and therefore to avoid some problems such as forgetting password, losing keys and potential secure problem etc. Biometric recognition technology operates simply, so users can finish identification without special skills and action. As a result biometric recognition technology has drawn more and more attention as a replacement of traditional authentication technology. Recently biometric recognition technology has widely development and application in various fields. However, with the development of technology the traditional, unimodal biometric system performance could not satisfy people's request of security. Multimodal biometric technology is to do identification by using two or more human physical characteristics or behavior characteristics. This paper presents the review of multimodal biometrics. This includes applications, challenges and areas of research in multimodal biometrics. The different fusion techniques of multimodal biometrics have been discussed.

Keywords: Authentication, Biometric, Cryptography, MultimodalRecognition, , Security.

1. INTRODUCTION

Biometric recognition, or simply biometrics, refers to the automatic recognition of individual person based on their physiological and/or behavioral characteristics. Biometrics helps us to confirm or ascertain an individual's identity based on who she/he is, rather than by what she/he possesses (e.g., an ID card) or what she/he knows (e.g., a password). Existing biometric systems make use of identifiers such as fingerprints, hand geometry, iris, face and voice to establish the individuality.

Biometric systems are growing popular as a measure to identify human being by computing one's physiological or behavioral characteristics. Biometrics identifies the person by physiological or behavioral characteristics of the person rather than what the person carries, unlike the conventional authorization systems like smart cards. Unlike the possession-based and knowledge- based personal identification schemes, the biometric identifiers cannot be misplaced, forgotten, guessed, or easily forged. Traditional personal identification approaches use are knowledge-based, something that you know such as Personal Identification Number (PIN), or something that you have, such as an ID card, which are not sufficiently reliable to satisfy the security requirements of electronic transactions

because they be deficient in the ability to distinguish between a genuine individual and impostor who fraudulently acquires the access privilege. Biometrics, which refers to the identification of the individual based on his/her physiological or behavioral characteristics, relies on something which you are or which you do to make personal identification and, therefore, inherently has the ability to differentiate between a genuine individual and a fraudulent impostor. Any human physiological or behavioral characteristic can be used as a biometric characteristic (pointer) to make personal identification as long as it satisfies the requirements of the biometrics like Universality, Uniqueness, Durability, Collectability, Performance, Acceptability and Circumvention. The physiological biometric features include face, finger print, speech, gait and so on. The behavioral biometric features include speech, signature, and so on.

This paper is organized with the discussions on Multi algorithm and multi sample approach. The need for multimodal biometrics is illustrated in Section 3, the review of related work, different fusion techniques are presented in Section 4. Applications, challenges and research areas are given in Section 5 and Section 6 respectively. Conclusions and future enhancement are presented in the last section of the paper.

2. MULTIMODAL BIOMETRICS

More than one physiological or behavioral characteristic for enrollment, verification or *identification* is known as **Multimodal Biometrics.** The combination of the Fingerprint, Iris, Retina, Finger, Geometry, Signature/Handwriting, Voice, Facial Proportions and Hand Geometry, are used to evaluate the *identity* of a person and consequently providing the best security measures available. If one of the biometric characteristics fails for any reason, system can still use another one or two of them to provide accurate identification of a person.

3. NEED OF MULTIMODAL BIOMETRICS

Most of the biometric systems deployed in real world applications are unimodal, which rely on the evidence of single source of information for authentication (e.g. fingerprint, face, voice etc.). These systems are susceptible to variety of problems such as noisy data, intra-class variations, inter-class similarities, non-universality and spoofing. These problems lead to considerably high false acceptance rate (FAR) and false rejection rate (FRR), limited discrimination capability, upper bound in

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Importance of Quality and Quality Assurance In Software Engineering

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Abstract- *Every single part of works which included building a product is having the responsibility to ensure quality in which they are committed to do. In software industry from the starting point of collecting requirements to final phase of implementation a product in user place and later till the maintenance the quality factor is required for providing appropriate and satisfying service to the clients. In this paper the detailed definition of quality, the factors which are improving and affecting quality in software are discussed.*

Keywords- Quality, Model

I. INTRODUCTION

The study of quality encompasses lot of key factors to derive it. Following are few International Standard body defined the quality [1].

(i)   ANSI Standard: -

"Quality is the totality of features and characteristics of a product or a service that bears on its ability to satisfy the given needs".

(ii)   IEEE Standard :-

(a) The degree to which software possesses a desired combination of attributes.
(b) The degree to which a customer or user perceives that software meets his or her composite expectations.
(c) The composite characteristics of software that determine the degree to which the software in use will meet the expectations of the customer.

(iii)   German Industry Standard:-

"Quality comprises all characteristics and significant features of a product or an activity which relate to the satisfying of given requirements".

Quality factor is inevitable in software industry. A Package of quality broadly divides into two forms as functional and non-functional. Functional point of view is fall directly in the methods and steps which involved in making of a product in the sense quality in coding. The non-functional point has to ensure lot of criteria and which is indirectly mingled with all software process from starting to end of a product. Thus software industry follows lot of methods and steps to ensure quality in their progress.

DIFFERENT FACTORS, METHODS AND PROCESS TO ACHIEVING QUALITY:-

To provide quality for end users, the producers are following numberous of methods according to their environment. In this we are going to see the available process and steps to achieve the goal.

(I) Terminologies and Standards [2].

For prescribing quality there are numbers of terminologies and standards are existed. In or some other way all the criteria which are used to confirm the quality in process will have to cross over the following terminologies. The below table [1] consists of international factors which is stated and followed in America Society for Quality and ISO.

Acceptance	Changeability
Accountability	Co-existence
Accuracy	Compatibility
Adaptability	Confidentiality
Affordability	Configurability
Analyzability	Compliance
Appropriateness	Correctness
Availability	Ease of use
Learn-ability	Performance efficiency
Maintainability	Recoverability
Modifiability	Reliability
Modularity	Reusability
Self-contained	Testability
Time behavior	Transferability

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Survey on Web Video Semantic Analysis

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Abstract:- The semantic video analysis and retrieval process are based on the shapes, texture, color, for the Classification purpose. The video retrieval concept is more efficient and effective. They are summarized on the visualization and interaction. The video library function is provided on the Web application program. The JSON based java script is used to collect the data from web. The screen selection and object recognition are used to annotate the Low level of feature of a video can hardly under the semantic concept the video annotation problem are mainly occurs due to the semantic gap. The match making technique is used to screen the video formatted method. The video get compared using the same level feature are screened. By the colour and texture level OWL file get created using the modelling tool. By protégé. Protégé are used as the pluggable functionalities and services the protégé are supported on the W3C recommendation. The standard language is encouraged and split using the models are ranked on the analysis method. The rankings models are used to describe the video classification Method.

Keywords: Semantic analysis, RDF XML, OWL, Protege.

I. INTRODUCTION

Video makes the user's view in more realistic manner with less effort. Generally, video is the combination of text, image, and video. The number of users searching video over the web is increasing. Video semantic analysis enhances the applications with rich content and use of video tools making the communication more effective. So, video retrieval is desirable for most of the web users. Even effective retrieval of video in "World Wide Web" is still average. The end user can retrieve the video data very effectively based on the depth knowledge of the video representation with well-defined structure [1]

In Semantic Web, the retrieved information has a well-defined meaning. It enables people to create data stores on the web, build vocabularies and write rules for handling data. Semantic web aims to present web data that it is understood by machines to do aggregating and searching the information in web without human operator. It adds meta-data to the existing

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EVALUATION OF SOFTWARE TESTING TECHNIQUES USING AUTOMATION TESTING

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ABSTRACT

Software Industry plays a vital role in the current environment, it is very essential to minimize the fault in the existing software products. In SDLC life cycle, software testing becomes very much important which finds faults in the software that increases the efficiency of software. Most of the cost is occupied by the software testing process, the product very essential to implement the automation technique that reduces the cost and increases the software reliability. In the automated testing process, various intelligent methods are used in order to avoid the manual process. Automation testing tools can be implemented to increase the quality of the software.

Keywords: Software Testing, Testing Techniques, Test Automation, Test case Selection, Neural Network

INTRODUCTION

Software testing in software engineering process is an important component to identify the faults and rectify the errors. Reliability of software becomes a major part in the software product. It is impossible to find all combination of inputs and generate the test case accordingly. Error detection and correction are to be performed by various testing process models and techniques. The main category software testing techniques are static testing techniques and whitebox testing techniques. The static testing techniques include desk code walk through, desk checking, code review and inspection. The structural testing technique includes code coverage testing, branch coverage testing, statement testing, path coverage testing etc. Various methods are to be found to decrease the time and effort of the software testers. Several researches say that the automated and intelligent methods or tools lead the testing process cost effective.

Software testing that performs automation is an alternative approach to test manually. Software testing tools are used to execute the test script on a software application before the product is delivered. Automation testing tools enable the organization to execute the test script rapidly and continuously. The tools apply the

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Review of Software Testing Techniques and Strategies

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Abstract- Software testing plays a major role in the software development life cycle .The major issue in software testing phase is to detect bugs .Software testing is essential to reduce the errors and overall development costs. The major problem in the software testing is to generate the test cases. There are various number of software testing techniques available which performs its own functionality. The goal is to find the effectiveness in software testing with the least number of test cases. The main objective is to compare the software testing techniques or combination of testing techniques can be used to test the quality of the software product

Index Terms: Software Testing, Software testing Techniques, Testing Strategies

1. INTRODUCTION

Advancement and application of information technology are ever changing in SDLC [9].Software testing is the process of evaluating and detecting the errors. It performs verification and validation to check whether the developed software is correct. The software defects are identified, detected and isolated and subjected for rectification. Software Testing is an important area in research in the computer science is likely more important in the future. Testing occupies most of the development efforts and time that requires quality and reliability in the software engineering process. So various software techniques and tools are available to evaluate the system. The software testing techniques can be used to assess the software to determine its quality.

2. TAXONOMY OF SOFTWARE TESTING

2.1. Goal of software testing

The main aim of software testing technique is to ensure the quality of the software, by systematically applying various software testing strategies .Testing should focus on the intent of finding error. A good testing is the one that has high probability of finding an undiscovered error [6]. A test can be either successful or unsuccessful. A successful test is the one that identifies the uncovered errors. The category of software testing can be further divided.

Figure: I Software testing Information
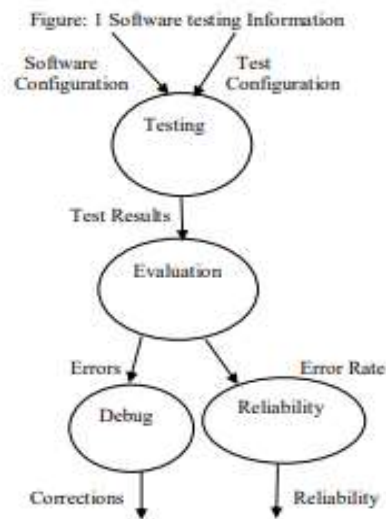
2.2 Testing Levels

Software Testing is involved in every phase of the software development lifecycle [1]. There are various testing process that is carried out at each phase in the software testing.

2.2.1 Unit Testing

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Nautical based Wireless Sensor Networks: Overview and Challenges

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Abstract - Marine environmental monitoring and guidelines is based on wireless sensor networks (WSN)which is a challenging area of study due to the immobility of the water field. Due to the uniqueness of the water environment, there are definite considerations which should be taken into account before the company of marine based wireless sensor networks. It includes different nodes and networks which include the deployment and delivered of wireless nodes (WNs), energy utilization, network connectivity and security. This paper differentiate and compare with the basic parameters linking to WSNs, while maintaining the major components essential to form an like marine based WSN system, and some difficulties of implementing security in Marine WSNs such as the organization of the cryptographic keys.

Index Terms - Marine WSNs; Key management; Security; Wireless Communication Standards; Wireless Nodes

1. INTRODUCTION

Wireless communication have been assisted in the growth of marine ecological monitoring. This has increased the enlargement of minimal cost, low power and small multi-functional sensors, which communicate in multi-ranges. Sensors send out the collected information from various forms of natural and human made phenomenon such as sound, luster, heat, salinity and pollution in water areas to a server 'sink/gateway' and subsequently to the end-user. In order to present a organism suitable for use in the marine environment many researches are looking at by means of wireless networks. In this ad-hoc network systems with wireless sensor nodes which contain large numbers of cheap nodes with sensing flexibilities are being considered.

In This section two, the general structure and architectural design of marine based wireless sensor networks and their challenges are elaborated with necessary equipment which is outlined. In the third section, various communication standards suitable for nautical WSNs are defined and summarized in terms of broadcast Frequency, Data Rates and Network Topology. The fourth section elaborately defined the published marine WSN implementations, which are summarized and compared in terms of technology, network topology, standards and power supply requirements. The fifth section defines the objectives and variance measures of safety for this application area. Finally, conclusions are provided be way of requirements for designing an similar marine based WSN.

2. MARINE BASED WSNS ARCHITECTURAL STRUCTURE AND CHALLENGES

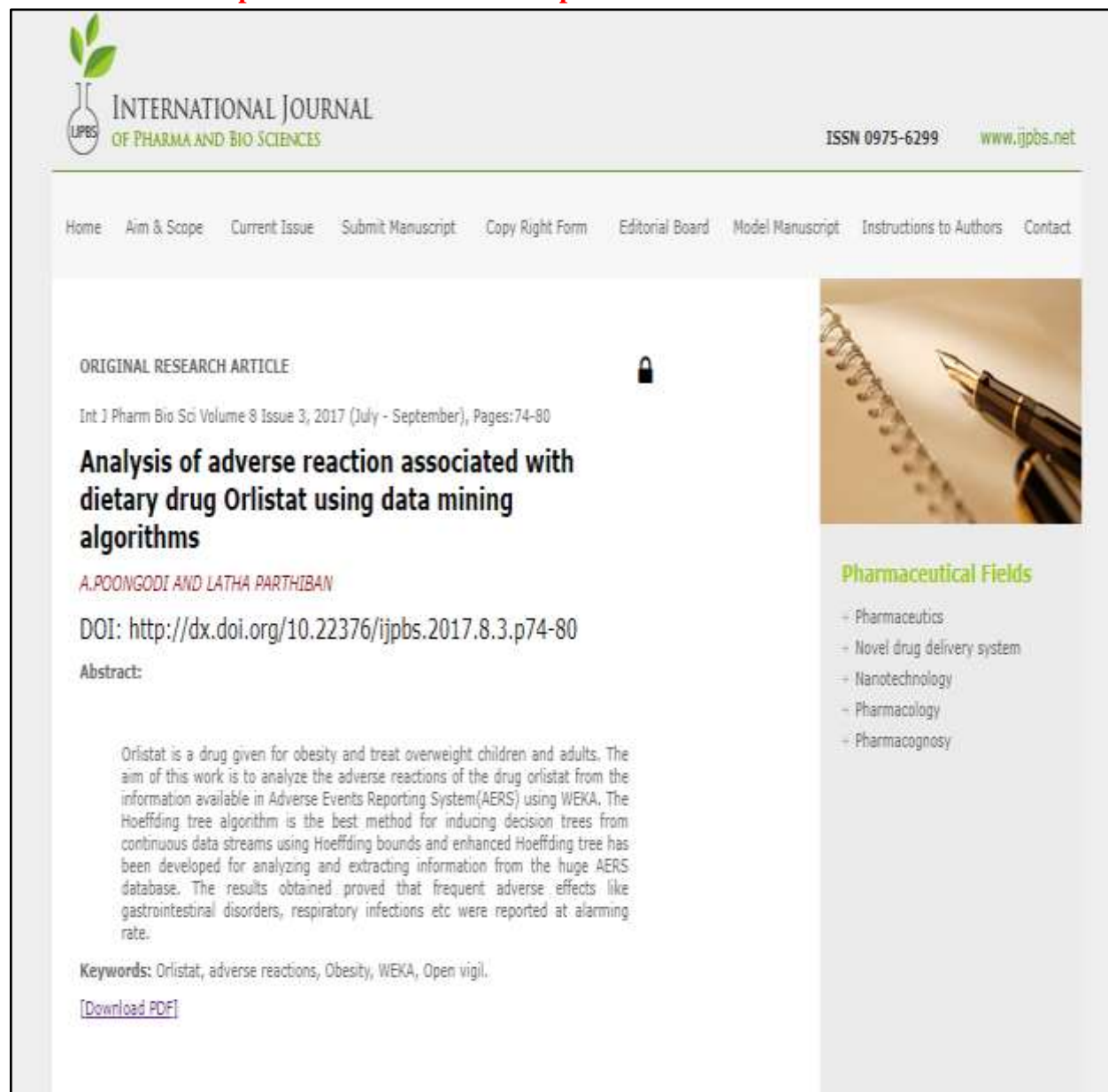### 2.1 Marine based WSN General Architecture

Figure 1 illustrates the general structural design of wireless sensor

2.1.1 Wireless Underwater Acoustic Networking:

This part consists of submerged sensor nodes and autonomous underwater vehicles, which are deployed to carry out cooperative surveillance in a given area. The typical physical layer technology in underwater networks involves acoustic communication. The architectures of underwater acoustic sensor networks can be categorized depending on the network topology used. Thus, network topology is considered as a crucial factor in terms of the capacity of the network, as well as the energy consumption requirements.

Static Underwater Sensor Networks: In this type of network, a group of sensor nodes are anchored to the bottom of the water area with a deep water anchor. In order to send the data to the surface station, wireless acoustic link interconnections are used between underwater sensor nodes and underwater sinks via direct links or through multi-hope pathways[24].

Moving Underwater Sensor Networks: Underwater sensor nodes are attached to a surface buoy or anchor to the bottom of the water area, with flexibility of movement in a specific area.

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ORIGINAL RESEARCH ARTICLE

Analysis of adverse reaction associated with dietary drug Orlistat using data mining algorithms

A.POONGODI AND LATHA PARTHIBAN

Abstract:

Orlistat is a drug given for obesity and treat overweight children and adults. The aim of this work is to analyze the adverse reactions of the drug orlistat from the information available in Adverse Events Reporting System(AERS) using WEKA. The Hoeffding tree algorithm is the best method for inducing decision trees from continuous data streams using Hoeffding bounds and enhanced Hoeffding tree has been developed for analyzing and extracting information from the huge AERS database. The results obtained proved that frequent adverse effects like gastrointestinal disorders, respiratory infections etc were reported at alarming rate.

Keywords: Orlistat, adverse reactions, Obesity, WEKA, Open vigil.

[Download PDF]

Pharmaceutical Fields

- Pharmaceutics
- Novel drug delivery system
- Nanotechnology
- Pharmacology
- Pharmacognosy

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Utilizing Streaming Algorithms for Mining Large Databases

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Abstract - With the advance in both hardware and software technologies, automated generation data and storage has become faster than ever. Streaming data processing is beneficial in most scenarios where new, dynamic data is generated on a continual basis. It applies to most of the industry segments and big data use cases. The data stream mining plays an important role in real-time applications that generate gigantic of data needed intelligent data processing and on-line data analysis. The data stream mining techniques are new data mining techniques or modifying existing ones to mine high dimensional, high-speed and fast changing data of large databases. The main challenges include that the data stream mining needs to handle data distribution and concept drifting. This paper analyzes the uses of streaming algorithms for mining large databases and the challenges involved in designing data mining techniques for mining data streams besides evaluating various existing techniques and their preprocessing methods. The evaluation results reveal which methods are feasible and which methods are not feasible in real-time data streaming applications.

Keywords: Data Mining, Pharmacovigilance, ADRS, Concept Drifting, Data Stream Mining, Hoeffding Tree.

I. INTRODUCTION

With the advent of real time online applications, data repositories in World Wide Web are growing faster than before. As the data is exponentially increased the applications started using data mining technique that analyze the huge amount of data in order to bring about trends or patterns which are required for business intelligence that leads to making well informed decisions. In real-time decision making, mining large databases using streaming algorithms become an important active research work and more widespread in several fields of computer science and engineering. Thus, data mining techniques effectively handle the challenges pertaining to storing and processing the huge amount of data [1]. Recently data mining techniques were proposed to process streaming data which is very challenging. Data streams can be conceived as sequences of training examples that arrive continuously at high-speed from a one of more sources [8], [9]. Data stream mining is a process of mining continuous incoming real time streaming data with acceptable performance [2]. Across wide range of real time applications such as network intrusion detection, stock market analysis, analysis of online click-streams, and web personalization data stream mining is essential [4]. There are many challenges in mining such streaming data in real time as developing techniques for the purpose is difficult [3]. Traditionally Online Analytical

Processing (OLAP) systems involve in scanning data one or more times if needed for processing the data into information. This is not feasible for data stream mining [5] due to unique characteristics. Therefore, it is very important to modify the traditional data mining techniques in order to handle steaming data which comes from diverse sources over network. Processing streaming data in order to discover is given much importance recently as such data is made available through rich internet applications. There are two challenges in developing new techniques that could handle streaming data [6], [7], [9]. The first challenge is to design fast mining method for handling large databases while the second challenge is detecting data distribution and changing concepts in a highly dynamic environment. This paper presents a comprehensive study of data stream mining challenges, mining techniques, their advantages and limitations.

The rest of the paper is organized as follows. Section II provides information about general data stream mining approach and FDA for sample large database. Section III focuses on the data stream mining challenges. Section IV describes about data stream mining techniques. Section V evaluates the methods of mining streaming data with classification techniques. VI concludes the paper.

II. MINING DATA STREAMS

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Biometrics – An Overview in Forensic Investigation

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Abstract - Accurate and specialized identification have become a vital prerequisite for forensic application due to diversities of criminal activities. A recent progress in biometric technology which is equipped with computational intellect techniques is replacing manual recognition approaches in forensic science. Biometrics is a primary verification mechanism that identifies individuals on the basis of their physiological and behavioral features. These biometric expansions are easily observable in different forensic identification areas, e.g. face, fingerprint, iris, voice, handwriting, etc. The effectiveness of biometrics system lies in different recognition processes which include preprocessing, feature extraction and feature matching. The emergence of forensic biometrics covers a extensive range of applications for physical and cybercrime detection. Forensic Biometrics also overcomes the loopholes of traditional identification system that were based on personal probabilities. It is considered as a basic shift in the way criminals are detected. The present study describes the contribution and restrictions of biometric science in the field of forensic identification.

Index Terms - Forensic science; Manual identification; Biometrics; Computational intellect; Forensic biometrics; Criminal Identification.

1. INTRODUCTION
Criminal Investigation and Forensic Science: A Relation

The extent of reported crime incidents is increasing hazardously day by day. Crime is an intentional act or omission in violation of criminal law, committed without defense or justification, and sanctioned by the state as a lawbreaking or offense. It is a deviation from social norms administered by law and its type of costs harmfully affects each person in a society to some extent. Therefore, there is an acute need of accurate and efficient crime detection that may assist in fighting wide verities of criminal activities. Forensics techniques are being used in the investigation of criminal activities as conventional methods. "Forensic science" begins with the effective identification, documentation (collection of notes, photographs, sketching and videos of crime scene), collection and preservation of physical (covers items of non-living origin such as fingerprints, footprints, shoe impression and weapons) and biological evidence (originates from a living source and includes DNA, other bodily fluids, hair, skin and bone material) at the crime scene. The evidence is then subjected to scientific analysis in the forensic laboratory and the results of the examinations yield forensic evidence for consideration by court. Ultimately, the evidence will be presented as proof that a crime was committed and will prove the identification of the criminal. [1]

A picture is associate degree artifact that depicts or records perception, as an example a two-dimensional image, that includes a similar look to some subject sometimes a entity or an individual, therefore providing an outline of it. pictures is also two dimensional, like a photograph, screen show, and similarly as a three-dimensional, like a sculpture or photograph. They will be captured by optical devices like cameras, mirrors, lenses, telescopes, microscopes, etc. and natural objects and phenomena, like the human eye or water surfaces. The subsequent area unit the categories of pictures: volatile image, mental and still image. [12]

1.1 *Drawbacks of Forensic Science in Criminal Identification*
In day today life, forensic science is facing a numerous challenges in the process of crime detection. These challenges are as follows:

Deficiency of evidences: The existence of small piece of physical or biological evidences that are hidden in a disordered crime scene is a type of challenge that is commonly faced by crime investigator. Examples such as a small portion of fingerprints, ear print, shoe prints, fraction of dental features, concealed handwriting and unnoticeable paint scratch.

Identity camouflage: The majority of criminals devote their knowledge in wrapping or disguising their activities to hide their true origin. Sometimes the human forensic expertise relics inefficient in studying the specific component of the evidences. For example: Skilled forgeries.

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Water Monitoring System using Embedded Technology

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Abstract: Embedded technologies play an important role in the field of Science and Technology. Lots of Research works has been increased in the field of Embedded Systems and a number of papers on wireless sensor networks have increased. All these research works basically deals with the areas of networking concepts, communication systems and other areas. In this paper we are dealing with the application of Embedded systems wireless sensor Networks – Water Monitoring System using Embedded Technology. This Paper is about to find the amount of impurities present in the water. The content of impurities present in the water are sensed and the sensed data is collected and transmitted through Zigbee and GPRS. There are some different techniques are used in the implementation of the system with the help of Tiny OS, LabVIEW and MySQL.

Index Terms— Tiny OS; LabVIEW; PLC; ZigBee; GPRS; Water monitoring

I. INTRODUCTION

In this fast developing world, water pollution is one of the serious problem that distracts the world. To deal with this problem, varieties of water monitoring systems have been developed based on cellular mobile network. These systems with high security will provide environmental protection agencies in providing continuous water monitoring with minimum interaction of man interference. But, with such systems, the rare channel resources and hardware are greatly wasted when the monitoring nodes are distributed in higher density. The hierarchical organization, grouping of the monitoring nodes before transferring the sensor data to higher levels, is one of the mechanisms proposed to deal with that extravagance and is commonly referred to as clustering. This paper is to show a hierarchical architecture, which is low in cost, easy to construct, less dependent upon network infrastructure, is implemented by employing ZigBee and GPRS devices. A general-purpose computer, such as a personal computer, is designed to be more flexible and to meet a large number of user needs. In day today life many devices are controlled by embedded systems. Embedded systems are based on microcontrollers but the microprocessors are also still common in practical use, especially in the complex systems. In both the cases, the processor used may be ranging from a general purpose processor to a specialized processor in a standard class of functions, or even the custom designed application at the other hand. A very common standard processor is the digital signal processor (DSP).The important characteristic is to handle a particular task at a given time. Since the embedded system is dedicated to perform specific operations in a quick time, the design engineers can work to reduce its size and cost of the product and at the same time to increase the reliability and performance. LabVIEW (Laboratory Virtual Instrument Engineering Workbench) is a system-design platform and development environment for a visual programming language developed by National Instruments. LabVIEW software is commonly used for instrumention processing and control, data acquisition, industrial automation, it works on different platforms including Microsoft Windows, various versions such as Mac Operating Systems, Linux and Unix.

II.THE STRUCTURE AND COMPOSITION OF THE SYSTEM

The hierarchical network is built with one base Station and many monitoring nodes. These monitoring nodes are responsible for sampling the water, single-hopping the data to the base station by ZigBee channel, while the Base Station is set for coordination between the nodes, sending the sensor data which is collected from the nodes to the remote management platform.

The Base Station is made of online monitoring device, GPRS DTU and ZigBee Module (worked as a coordinator, FFD), as is shown in Fig 2. The online monitoring device which uses CP1H PLC made by OMRON as the controller is responsible for testing the concentration of NO_3-, PO_4^3- and PH value. GPRS DTU implements the transmission of the remote signals by GPRS network. ZigBee module is made up of MSP430 controller and CC2420.

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EMBEDDED SENSOR IMPLEMENTATION IN INDUSTRIAL PRODUCT AND INDUSTRIAL FACILITIES

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ABSTRACT:

A device which gives an output by detecting the changes in quantities or measures can be definite as a sensor. In the main, sensors produce an electrical signal or optical output signal consequent to the changes in the inputs. Sensors can be essentially confidential interested in analog sensors and digital sensors. But, there are a only some types of sensors such as temperature sensors, IR sensors, pressure sensors, proximity sensors, and touch sensors are habitually worn in nearly everyone of the electronics applications. The resistance can be slow by a multimeter then applying strength to the sensing district. Light, radiation, pressure, flow level, and acceleration. In this respect, sensors frequently form the hub constituent in their products and solutions and have a key control on the worth, economic good organization and shelter of the application by jealous key practice parameters.

KEYWORDS: Touch sensor, Temperature sensor, PIR sensor, Pressure sensor.

1. INTRODUCTION

Sensor are becoming the biggest and fastest growing markets, comparable with computers and communication devices market. You find sensors in smart phones, automobiles, security systems and even everyday objects like coffee makers! Apart from consumer electronics, these are also an integral part of the internet of things, medical, nuclear, defence, aviation, robotics and artificial intelligence, agriculture, environment monitoring and deep-sea applications.

Sensor is a device that detects and responds to a number of type of input from the physical environment. The unambiguous input possibly will be light, heat, motion, moisture, pressure, or any one of a enormous integer of other environmental phenomena. The output is commonly a signal that is renewed to human-readable display at the sensor scene or transmitted electronically over a network for reading or auxiliary dispensation. Motion sensors in a range of systems counting home security lights, automatic doors and bathroom fixtures typically transmit out several type of vigour, such as microwaves, ultrasonic waves or light beams and perceive when the flow of energy is sporadic by something inflowing its path.

Fig. 1 Sensor Technology In 2020

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Multi-Purpose Prosthetic Bore Well Rescue Robot System

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Abstract. The aim of this research is to give an innovative concept to handle the bore well rescue operations. It is difficult and also risky to rescue the trapped children to aid in such rescue we proposed a system of designing robots to the rescue of a child in a borehole. A safety balloon is introduced in order to provide extra safety. The Physically Based Rendering System (PBRS) is provided with the newly developed revolving and stabilizing mechanisms for safe holding of child. The different proximity non-vision sensors are used for detecting human condition, depth from ground, surrounding temperature, pressure and existence of any smoke gas. The present proposed design is capable of handling scenarios when child is stuck up at bottom and middle. The PBRS is proposed to reduce the risk involved during the child rescue operation by analysing the situation and also to provide an option in crack detection inside the composite rocket casings, pipelines and boilers.

Keywords: Robot design, Safety balloon, Bore well deaths, Conventional method, Prosthetic.

I.INTRODUCTION

Today's major problem faced by human society is water scarcity, which leads to a large number of bore wells being sunk. These bore wells in turn have started to take many innocent lives. Bores which yielded water and subsequently got depleted are left uncovered. Small children without noticing the hole dug for the bore will slip in and get trapped. There is no proper technique to rescue victims of such accidents. When the make shift local arrangements do not work. In most cases reported so far, a parallel hole is dug and then horizontal path is made to reach to the subject's body. It is not only a time taking process, but also risky in various ways.

Besides it involves a lot of energy and dear resources which are not with no trouble available ubiquitously and in this process, we always need big space around the spellbound bore that we can dig a parallel bore. These ad-hoc approaches involve heavy risks, including the prospect of injuries to the body of the subject during the rescue operation. Also, the body may trap further in the debris and the crisis deepens even more means death. In most cases, we rely on some make shift arrangements. This does not assure us of any long term solution. In such methods some kind of hooks are employed to hold the sufferers clothes and body. This may cause wounds on the body of the subject. After studying all the cases we found a serious issue to do, to make a such robotic machine which can go through the trapped bore well without any support and grasp the trapped body at least minimum time with providing facilities of oxygen cylinder, safety balloon. By way of this machine, there is no chance of harmful human body and other minor compensation, and we called that machine as "Bore Well Child Saver Machine".

As per the Indian government report, Newspaper articles and Google search of bore well accidents in the last 10 years resulted in a total of 39 bore well incidents since 2006. The actual number of incidents may be more since many incidents go unreported. Out of 41 reported cases, maximum number of accidents has occurred in the years 2007 and 2014.

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Security In Embedded Systems With Differential Dimensional View

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Abstract- *The primary goals of this paper are to investigate the protection of embedded systems at completely different levels of abstraction and to propose a new procedure to assess and improve the protection of embedded systems during numerous product life cycle phases. To realize these goals, this paper introduces new classification of embedded systems attacks using a novel multi-dimensional illustration, explores the attainable threats to embedded systems, and proposes a new procedure to evaluate and improve the protection of embedded systems during numerous product development phases.*

Keywords- systems-on-chip (SoC), embedded systems security, Common Criteria

I. INTRODUCTION

Embedded systems are widely used in many fields, yet current work on embedded systems security considers only simple physical attacks against the hardware itself and straightforward software defenses. This has raised serious concerns regarding possible threats to military systems, financial infrastructures, and even household consumer appliances. In fact, security professionals concluded that the failure of military devices in different incidents was due to electronic warfare. In particular, Trojans were added to ICs used in suspected military equipments to shut them down at certain times. Even at the regular consumer level, electronic devices, such as cell phones, are currently being integrated into enterprises, government agencies, and even in the military. These devices hold valuable and sensitive contents and thus face the same risk of being attacked on a daily basis. The problem with current straightforward software defenses in most systems is that hardware is the base physical layer in any embedded system and an attack on that layer can allow a full control over the software running above. This low-level control enables sophisticated attacks that can defeat regular software-based defenses.

Attacks on embedded systems can have different forms, such as theft of service, cloning, spoofing, and reverse engineering. In this paper, we categorize the possible attacks on embedded systems and visualize the different types of attacks using a multi-dimensional analysis. Based on our analysis, we introduce a new methodological security evaluation scheme to help designers better evaluate the security of their designs.

1.1. Main contributions

This paper presents two main contributions:

1. Creating a new classification of embedded systems attacks using a novel multi-dimensional representation. This new classification allows system designers to study the security of their embedded systems at 27 different scenarios.
2. Developing a new methodological security evaluation scheme to assess and improve the security of embedded systems during various product life cycle phases. This new scheme identifies the requirements of four security levels and complementary to other methods, such as the Cryptographic Module Validation Program (CMVP) and Common Criteria (CC).

This paper is organized as follows. Section 2 reviews existing security standards. Section 3 highlights related work. Section 4 introduces a new systematic classification of implementation-oriented attacks on embedded systems and presents three main perspectives that could be used to classify attacks on embedded systems. Section 5 discusses our proposed procedure to evaluate the security of embedded systems. Finally, we draw our conclusion and suggest new ideas for future work in Section 6.

II. REVIEW OF EXISTING SECURITY STANDARDS

Cryptographic Module Validation Program (CMVP) was established by the National Institute of Standards and Technology (NIST) and Communications Security Establishment Canada (CSEC) in 1995. CMVP validates commercial cryptographic modules to the Federal Information Processing Standard (FIPS) 140-2 and other cryptography-

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Exogenous Foliar Application of Phenolic Acids on Quality Constituents of Tea

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Abstract: Exogenous foliar application of phenolic acid could alter the biochemical composition and enhance the antioxidant potential there by protect the living organisms from oxidative injuries. Though the reports on foliar application of phenolics in relation to stress are available their role on quality constituents are lacking in crop plants and in particular, the beverage crop, tea. A phenolic acids like salicylic acid (SA), cinnamic acid (CA) and p-coumaric acid (PCA) were applied individually at various concentrations (100, 250 and 500 ppm) in order to document the changes in the quality constituents of tea crop. When compared to control all the treatments, significantly increased the contents of green leaf polyphenols and flavanoids and corresponding enzymes under field conditions.
Keywords: Phenolic acid, Antioxidant, Catechin

I. INTRODUCTION
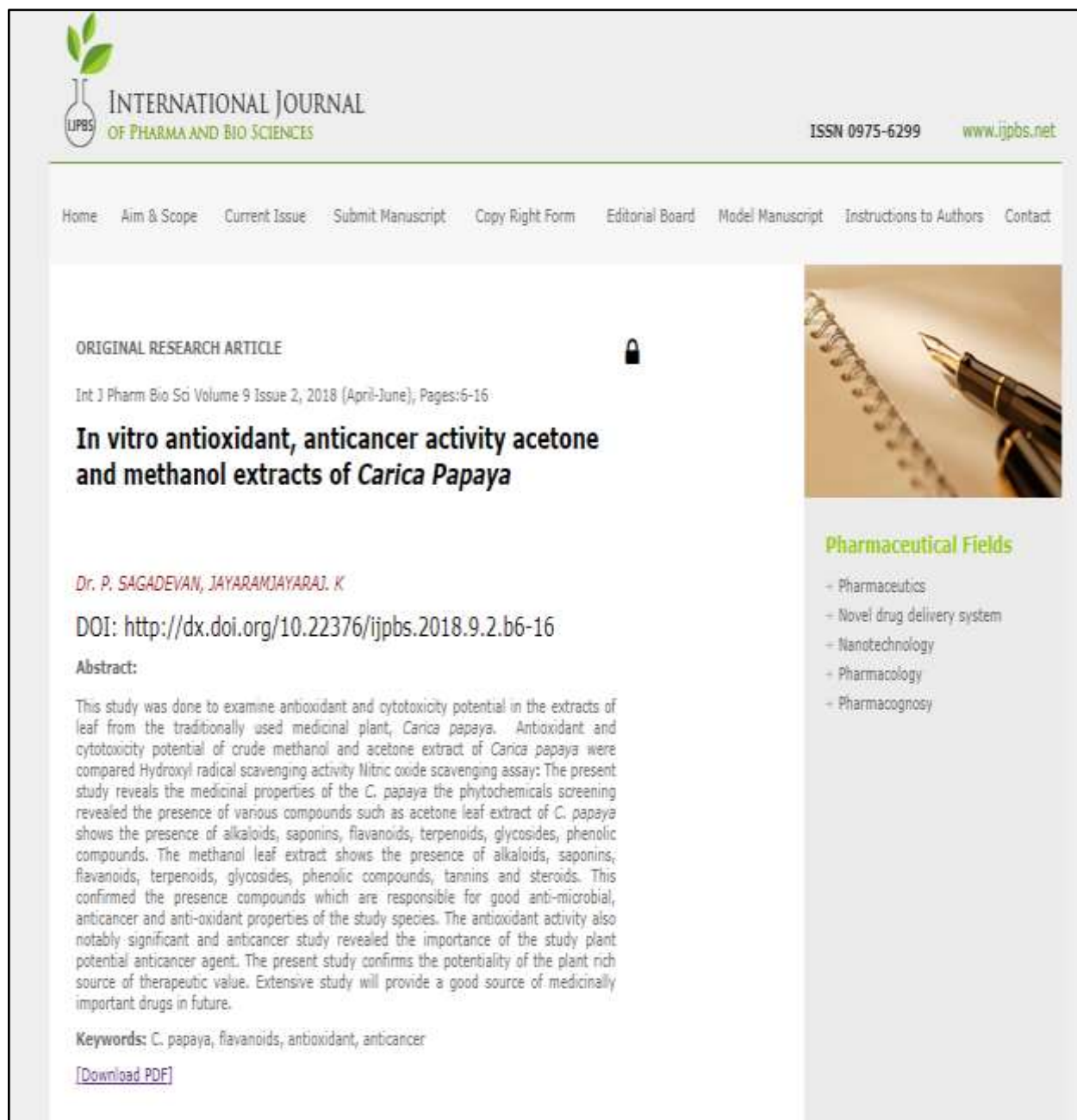
Recent studies have demonstrated that tea is more than a mere stimulant beverage because of its medicinal properties particularly the polyphenols present in higher levels [1]. Quality of the made tea depends on the tender crop shoots with exceptional biochemical make up which enriched with polyphenolic constituents [2]. Polyphenolic compounds are a large group of secondary metabolites widely distributed in plants which can be divided into two major subgroups, flavonols and phenolic acids [3]. Tea contains major proportion of polyphenolic compounds which accounts to 30% on dry matter basis. Two third of polyphenols are flavanols, commonly known as catechins. Higher amount of catechins in tea leaves imparts characteristic astringency, bitterness and impart quality to made tea [4]. Primarily, catechins are comprised of several fractions like simple catechin (+C), (-) epicatechin (EC), (-) epicatechin gallate (ECG), (-) epigallocatechin (EGC), and (-) epigallocatechin gallate (EGCG) [5]. Salicylic acid (SA) protects the plants from soil moisture stress. There are reports available performing to the impact of SA on Brassica nigra [6], Pisum sativum [7] and Arabidopsis [8], [9] in relation to drought. SA has a direct physiological effect through the alteration of antioxidant enzyme activities [10], [11] . And hence exogenous application of SA can improved the yield and yield related traits[12],[13][14]. It has been reported that salicylic acid induced systemic acquired resistance (SAR) in controlling blister blight disease of tea[15]. Potential role for cinnamic acid (CA) as a regulator of the expression of phenylpropanoid biosynthetic genes. It should be noted that the induction of a transferase involved in the formation of chlorogenic acid appears to be mediated by increases in endogenous CA pools [16]. The present study was designed to document the alterations in biochemical constituents as influenced by varying levels of exogenous application of phenolic acids and results are discussed.

II. MATERIALS AND METHOD

A. Experimental Design

A randomised block design experiment was conducted during 2010 (January – May coinciding soil moisture stress) at UPASI Tea Research Experimental Farm Valparai Talk, 1050 meters above MSL. Tea bushes of three years from pruning representing, high yielding and moderate tea clone, UPASI-8 was selected for the study. Randomized block design experiment was conducted with ten treatments and replicated four times. Each experimental plot was consisted by 40 bushes (~40 m²). Three different phenolics (SA, CA and PCA) foliar applied at three different concentrations (100,250 and 500 ppm) besides the untreated control. All the chemicals were purchased from M/&. Merck, Mumbai, India. Foliar application was executed, individually, a day after plucking. Required quantity of chemicals were dissolved in water, and applied on the foliage using with hand operated knapsack sprayer at spray volume of 200 L/ha. During the whole experimental period, four rounds of foliar applications were carried out at monthly interval. After second round of foliar application crop shoots from each replicate were collected regularly and subjected to biochemical quantification. All the cultural operators were carried out as per the recommendations of[17]. Foliar application of NK was not carried out in the experimental block during the experimental period which imparts drought tolerance [18].

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ORIGINAL RESEARCH ARTICLE

In vitro antioxidant, anticancer activity acetone and methanol extracts of *Carica Papaya*

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Abstract:

This study was done to examine antioxidant and cytotoxicity potential in the extracts of leaf from the traditionally used medicinal plant, *Carica papaya*. Antioxidant and cytotoxicity potential of crude methanol and acetone extract of *Carica papaya* were compared Hydroxyl radical scavenging activity Nitric oxide scavenging assay: The present study reveals the medicinal properties of the *C. papaya* the phytochemicals screening revealed the presence of various compounds such as acetone leaf extract of *C. papaya* shows the presence of alkaloids, saponins, flavanoids, terpenoids, glycosides, phenolic compounds. The methanol leaf extract shows the presence of alkaloids, saponins, flavanoids, terpenoids, glycosides, phenolic compounds, tannins and steroids. This confirmed the presence compounds which are responsible for good anti-microbial, anticancer and anti-oxidant properties of the study species. The antioxidant activity also notably significant and anticancer study revealed the importance of the study plant potential anticancer agent. The present study confirms the potentiality of the plant rich source of therapeutic value. Extensive study will provide a good source of medicinally important drugs in future.

Keywords: C. papaya, flavanoids, antioxidant, anticancer

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Pharmaceutical Fields

- Pharmaceutics
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MASS ESTIMATION BASED ON GENERATIVE CLASSIFIER

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Abstract: The aim to build generative classifiers is to estimate the joint probability $p(x, y)$ indirectly, estimating the conditional likelihood $p(x|y)$ and the prior probability $p(y)$. To predict the likely class that maximizes the posterior probability $p(y|x)$ using Bayes rule. The paper propose a generative classifier which estimates the joint distribution directly through a data modelling mechanism called mass estimation. The generative classifier makes prediction based on decision rule that maximizes mass, better than Bayes rule.

Index Terms - Mass distribution, Mass Estimation, Generative classifier.

I. INTRODUCTION

Classification is a data mining task that deals with assigning data instances described by a set of variables (x) to one of the predefined mutually exclusive categories (y).

Discriminative and generative classifiers are two distinct approaches to solve classification problems [10, 13]. Generative classifiers model the joint probability $p(x, y)$ via Bayes rule. Discriminative classifiers, on the other hand, learn a direct mapping from x to y [10]. Classifers such as Naive Bayes (NB), Bayesian Belief Network (BayesNet), Aggregating One Dependence Estimators (AODE) are examples of generative classifiers; whereas, Artificial Neural Networks (ANN), Linear Logistic Regression (LLR), Support VectorMachines (SVM) are examples of discriminative classifiers. Building generative models require density estimators. Current density estimators such as kernel density estimator and k-nearest neighbour density estimator have a high time and space complexities. Thus, it is difficult to estimate $p(x, y)$ directly to build generative models even with data sets that have a moderate number of dimensions and moderate data size.

Instead, the current generative approach focuses on estimating $p(x|y)$ and $p(y)$, and makes the final decision via Bayes rule. This approach encounters the same limitation of existing density estimators: $p(x|y)$ cannot be estimated directly. However, surrogates of $p(x|y)$ can be estimated efficiently provided some assumptions are made (e.g., attribute independence given the class.) Though this type of generative classifiers has been shown to perform well [7, 12, 8], the assumptions made are often violated in practice and can result in poor predictive accuracy.

Mass estimation [17, 16, 15] provides an alternative to density estimation for data modelling and it has been shown to work well in anomaly detection, information retrieval, clustering and regression. This paper is motivated to employ mass estimation to solve classification problems, in particular, by estimating joint distribution directly to build generative models. This is a more direct approach than the current approach to build generative models.

We propose a new type of generative classifier called MassCfier that exploits the notion of mass and mass distribution to estimate the joint distribution effectively. MassCfier has three distinctive characteristics compared to existing generative classifiers:

1. The joint distribution is estimated directly without estimating the likelihood $p(x|y)$ and the prior probability $p(y)$.
2. Its prediction decision is based on a maximum mass rule rather than Bayes rule.
3. It has sub-linear time complexity and constant space complexity; therefore, it scales better for very large database.

II. EXISTING GENERATIVE CLASSIFIERS

The existing generative classifiers estimate the conditional likelihood $p(x|y)$ and the prior $p(y)$ and use Bayes rule to make the final prediction.

$$y = arg_y^{max}\big(p(x|y) \times p(y)\big) \qquad Equ(1)$$

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A THROUGH INVESTIGATION ON ROUTING PROTOCOLS AND ROUTING ATTACKS IN MOBILE AD HOC NETWORKS

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ABSTRACT: Mobile ad hoc networks (MANETs) consist of set of mobile nodes which is differentiated through a self-motivated and connected wireless links repeatedly, through by means of distinct routing protocols. Due to lack of definite central authority, mobility property, security in MANET possess several challenging issues. Several numbers of routing protocols and routing schema have been proposed and developed in the literature to deal with the security issues in MANET. The major focus of this survey paper is to the study of existing routing attacks and routing algorithm against MANET .This survey study on increasing a well-organized routing method in such an extremely self-motivated and resource management in MANET. At present several numbers of routing protocols have been proposed in literature against MANET. Several numbers of routing protocols in MANET are easily susceptible to a variety of kinds of attacks. In this survey, study on existing routing attacks such as such as link spoofing, black holes attacks and wormhole attacks during routing in MANET. This work survey gives the major issues of the state-of-the-art routing protocols, also examined and analyzed the solutions with table comparison .The performance accuracy of the various attacks is also examined based on the parameters like packet efficiency, routing overhead and throughput.

INDEX TERMS: Mobile ad hoc networks (MANET), routing protocols, single black hole attack, collaborative black hole attack, Gray hole Attack, Packet drop Attack; Wormhole Attacks ,Network layer.

I. INTRODUCTION

A mobile ad hoc network (MANET) is an assortment of mobile devices with the purpose of be able to converse through each other not including the make use of a predefined -infrastructure. In adding together the mobility is one of the major important properties in MANET, it has been created speedily at a very low cost, as it mightn't depend on existing network infrastructure. Because of this mobility property in MANET, it can be easily applicable to any applications such as disaster assistance, disaster operations, armed service, vehicle, campus and robot networks etc. [1]. Unlike the traditional network, a MANET is differentiated through comprises a self-motivated, constantly varying network topology appropriate to mobility of nodes [1]. However there are numerous issues concerning MANETs, like protection difficulty, restricted communication bandwidth [2], dynamic connection establishment [3] and limited hardware foundation processing ability [4].

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A Novel Preprocessing System using Evolutionary Neuro Fuzzy System

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ABSTRACT

Ultrasound images are corrupted with speckle noise which makes it impossible for diagnosis. A novel memetic based approach to optimize neuro fuzzy system for reducing this speckle noise in sonogram images has been proposed. The system uses a 5 layer feed forward neural network with 5 input parameters representing the 5×5 window pixel. These are the fuzzy values which are optimized by memetic algorithm (MA) and fed into the system as input parameters. The population generations used in the system is optimized fuzzified input parameters. Fuzzification is based on IF THEN rules. The efficiency is improvised on adding weights in between the input and hidden layer. Then, the amplitude is measured. The system is compared with traditional adaptive mean and adaptive weighted mean methods. The results were 32% better and the computation time was less.

Keywords: Neural Networks, Fuzzy Logic, Memetic Algorithms, Sonograms and Noise Reduction.

1. INTRODUCTION

1.1 Ultrasound Images

The non-persistent nature, low cost, portability and real-time image formation make ultrasound images and essential tool for medical diagnosis [1]. The common applications are image registration, preprocessing, enhancement, segmentation, classifications. The US images allow high acquisition rates and provide real-time images but are corrupted with speckle noise. Speckle noise degrades the quality of the images for identifying the edges, patterns in the images [9]. Speckle noise produces artificial edges, echoes the patterns in the image and etc, this corrupts the images for easy diagnosis. In such cases evolutionary algorithms do not perform well to identify edges and patterns. Hence, preprocessing the artifacts in US images is mandatory [3].

1.2 Neuro-Fuzzy Models

Neural networks and fuzzy systems are dynamical, parallel processing systems that approximation input-output functions [12]. Fuzzy logic is capable of modeling ambiguity, handling vagueness and supporting human-type reasoning. Whereas, neural-networks are capable of learning from scratch, without needing any a priori involvement provided that sufficient data are available or measurable. The neuro-fuzzy systems are the most prominent legislature of hybridizations in terms of the number of practical implementations. In NFS, the fuzzy inference system is the main subject of the hybridization; neural-network adds learning to an inference engine [5].

1.3 Neuro-Fuzzy Evolutionary Models

An evolutionary neuro-fuzzy system (ENFS) is the result of adding evolutionary hunt procedures to systems, integrating fuzzy logic computing and neural learning. With these techniques we can overcome some the boundaries of the existing hybrid systems. The main problem with NFS, is that, the learning algorithm is based on a steepest plunge optimization technique minimizing the error function [6]. That is, in back-propagation training is not guaranteed to converge. The algorithm may be trapped in a local minimum. It can never find the global

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NORA AND GIRIJA – THE REAL FACE OF TWENTIETH CENTURY WOMEN

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Abstract

A mind of woman is almost compared to depth of ocean. It has got more secrets, valuable treasures and dangerous trap too. Residing in the male dominated world, the protagonist Nora in Ibsen's 'The Doll House' and Girija in 'Lamps in Whirlpool' by Rajam Krishnan have to face their same social pressure. Even though they belonged to two different continents, they both share the universal pain of womenfolk in all over the world. They both pose the real face of twentieth century women. They broke the chain of slavery which was adorned as ornaments by the society. This paper is an analysis of Nora and Girija and how they can be examples for Jung's Archetypal characters. In literature, an archetype is atypical character, an action or a situation that seems to represent such universal pattern of human nature.

Keywords: *Archetypal characters, male domination, collective unconscious, real face.*

Introduction

Henrik Johan Ibsen was born on 20th March 1828 in Norway. He was the eldest of his four brothers and one sister. His early childhood days were not so enjoyable. His father became bankrupt when he was eight years old. At the age of 18, he started writing poetry. In 1849, he published his first play 'Catiline'. He left his country on 1864 with his wife. His intrinsic work as a dramatist begins only when he left Norway.

Ibsen's contribution to the field of drama has been exceptionally remarkable and far-reaching. He was both a pioneer and a trend-setter. 'A Doll's House' is probably the most famous and best-known of Ibsen's plays. Almost all women folk could find a tint of Nora's character within themselves.

Rajam Krishnan was born in 1925 in Musiri, Trichy District in Tamil Nadu. Her style is very realistic and her language is very expressive. She was a writer of social conscience and that is why she raised her voice against the injustice done to women either within the family or outside its circle. Lamps in Whirlpool were first published as Suzhalil Mithakkum Deepangal in 1987. The protagonist Girija ascertains her way and come out of its

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A REVOLUTION IN ENGLISH LANGUAGE TEACHING WITH NOVEL INNOVATIONS

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Abstract

This presentation is tried to analyse the recent well known innovations in English Language Teaching that are practised against the olden trends of English Language Teaching. It also gears the trainer to galvanize their classroom atmosphere in dealing ELT with the available modern methods. The trend quoted below is more needed to be conducted to validate it as a legalized and reliable means for professional development for the teachers of ELT in particular. Digital platforms, online corpora, Online CPD, Mobile learning, online authentic materials, IWB. Dogme, Students steering their own learning are few of the newly invented methods of learning in the modern scenario.

Keywords: Global, ELT, Lingua Franca, bilingual, pedagogue, collaborative, linguistics, lexicographers, student-centred, innovations.

Though this is madness, yet there is in it.

- Shakespeare

'English' – A global language and none can deny it. The regional dispute about local languages may be temporary and every one can very well understand that English is indispensible and cannot be taken easily.

The English language teaching has become a challenging mission to every English Teacher. The teacher needs to find out new methodologies to satisfy the inquiring minds of the learners. Illness and unfit novel ideas, innovations are employed in teaching English language purpose of teaching English language would turn be futile. Even though various methods already exist and are followed in teaching English, new methods and technologies must be created to make the work easier, novelistic, ideal, interesting and fruitful.

To munch on the existing approach, methods and techniques in teaching English language, it is understood that the existing approach could be the set of basic beliefs and ideas about a language, learning and teaching a language. Method is the point at which a planning has been done to bring the theory into practice and the technique explains the situation where the actual implementation occurs in a class room situation.

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