KG COLLEGE OF ARTS AND SCIENCE

Affiliated to Bharathiar University

Accredited by NAAC

ISO 9001:2015 Certified Institution

KGiSL Campus, Coimbatore – 641 035

Criteria 3- Research, Innovations and Extension

Key Indicator 3.3- Research Publication and Awards

3.3.2. Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years

Year 2020-2021

Papers Published in Conference Proceedings

Proceedings of the Two Day National Seminar on

"Defining, Designing and Developing Learning Outcomes - based Curriculum Framework in Arts & Science Colleges"

18 th & 19 th November, 2021

Sponsored

National Assessment and Accreditation Council

(NAAC)

Bangalore - 560072, Karnataka, India.

Organized by

Internal Quality Assurance Cell (IQAC)

KG College of Arts and Science

Affiliated to Bharathiar University

Accredited by NAAC

ISO 9001:2015 Certified Institution

KGiSL Campus, Coimbatore - 641 035

All Rights Reserved.

Original English Language Edition ©Copyright by **KG College of Arts and Science**.

This proceedings may not be duplicated in anyway without the express written consent of the publisher, except in the form of brief excerpts or quotations for the purpose of review. The information contained herein is for the personal use of the reader and may not be in corporate in any commercial programs, other books, database or any kind of software without written consent of the publisher. Making copies of this book or any portion there off or any purpose other than your own is a violation of copyright laws.

Limits of Liability/Disclaimer of Warranty: The author and publisher have used their effort in preparing this proceedings and author makes no representation or warranties with respect to accuracy or completeness of the contents of this book and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. There are no warranties which extend beyond the descriptions contained in this paragraph. No warranty may be created or extended by sales representatives or written sales materials. Neither KG College of Arts and Science or author shall be liable for any loss of profit or any other commercial damage, including but limited to special, incidental, consequential or other damages.

ISBN 978-93-5578-229-8

9 789355 782298

Published by

KG College of Arts and Science,
KGiSL Campus,
Saravnampatty,
Coimbatore 641 035.

LIST OF PAPERS

S. No.	Title of the Paper	Author Name	Page No.
1.	A Comparative Analysis of Teaching-Learning Methods	Mrs. N. Valarmathy Ms. R. Divya	1
2.	Visual Repository for Hands on Learning	Mr. M. Arun Prasad Mr. M. Senthilkumar	7
3.	A Study on Overview of Outcome Based Education (OBE)	Mrs. G. Ananthi	11
4.	An Overview of Teaching Learning Best Practice	Mrs. R. Anusuya Mrs. B. Prabadevi	23
5.	Basket to Byte	Dr. P. Ajitha	27
6.	Bibliophilia	Dr. K. Rajitha	29
7.	Bloom's Taxonomy- A Concrete Yet Comprehensive Approach for Successful Teaching Practices.	Mrs. B. Jananipriyadharshini	31
8.	Bridging Employment and Employability Gap	Ms. A. Gokila Vani	41
9.	Bridging the Skill Gap	Dr. D. Kavitha	44
10.	Curriculum Advancement and Choice Based Credit System (CBCS) in Curricular Aspect	Mrs. V. Kalaivani Mrs. R. Sivaranjani	48
11.	Designing a Topic Hierarchy	Mr. M. Vinodkumar	53
12.	Designing the teaching strategies, Learning Sequences and Assessment mechanism using Bloom's Taxonomy	Dr. S. Thangamani Mrs. S. Janani	55
13.	Education Beyond the Classrooms	Dr. J. K. Bharath	59
14.	Effective Teaching Practices in Higher Education	Miss. Sona	61
15.	Integrating dynamic Mathematics resources with GeoGebra	Dr. S. Sharmila	63
16.	Experiential Learning Methodologies: Value Delivered to Learners- A Critical Review	Dr. J. Nithya Mr. R. Dhanasekaran	65
17.	Fostering Quality in Defining Programme Outcomes and Course Outcomes in OBE	Dr. S. D. Selvasundari	69
18.	From Knowing Skills to Doing Skills	Mr. S. Karthikeyan	76

NAAC Sponsored Two Day Virtual National Seminar on "Defining, Designing and Developing Learning Outcomes-Based Curriculum Framework in Arts and Science Colleges"

BIBLIOPHILIA

Dr. K. Rajitha

Assistant Professor & Head
Department of KG College of Arts and Science,
Coimbatore - 641 035

Reading newspaper is a practice that can offer a great sense of scholastic value. Information about politics, economy, entertainment, sports, business, industry, trade and commerce help students understand the micro affairs of the Macrocosm. It improves the language skills and vocabulary of the readers. The below mentioned are some of the benefits of reading newspapers:

- It provides information and general knowledge about a country's economic situation, sports, games, entertainment, trade and commerce which can aid the students to prepare for the Group Examinations.
- It makes a great habit and is already a part of the modern life. This habit can widen the outlook of the reader and enable them to part take in every discussion pertaining to the world's current events.

Objectives

Reading newspapers help students

1. To interpret and explain the news from their own perspective which can help them use their LSRW skills.
2. To gain command over the language with the latest inclusions in vocabulary.
3. To use their creativity in constructing the language as per the demand of their career.
4. To open door for fresh career opportunities.

The Practice

Reading is one of the most important tasks faced by students, nevertheless it is equally important in the commercial working world. The purpose of reading is to connect the ideas on the page to what they already know. The practice is to help students improve the art of reading and writing which in turn help them improve speaking (providing ideas on any chosen topic) and listening (giving them varied information from experts).

To encourage and involve the students into the real part of English learning, the students are made to submit reports on the news articles pertaining to one chosen field. Reading which is considered as a passive skill is made active by making them collect related materials to their articles and work on it. They are to collect information in the journalistic view concerning to their topic of interest and present a newer form of the article. Criticisms on the news articles both constructive and non-constructive help students to improve their skills of reading and writing which in turn

Two - Day Virtual International Conference on "Interdisciplinary Research in Social Sciences, Sciences and Technology"

(ICIRSSST 2021)

21st & 22nd May 2021

Organized by

KG COLLEGE OF ARTS AND SCIENCE

Affiliated to Bharathiar University & Accredited by NAAC
An ISO Certified Institution
KGiSL Campus, Saravanampatti, Coimbatore 641 035

in Collaboration with

UNIVERSITI MALAYA

Proceedings Published by

CiiT

Coimbatore Institute of Information Technology
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamil Nadu, India.
Website: www.ciitresearch.org

All Rights Reserved.

Original English Language Edition © Copyright by **Coimbatore Institute of Information Technology.**

This book may not be duplicated in any way without the express written consent of the publisher, except in the form of brief excerpts or quotations for the purpose of review. The information contained herein is for the personal use of the reader and may not be incorporated in any commercial programs, other books, database, or any kind of software without written consent of the publisher. Making copies of this book or any portion thereof for any purpose other than your own is a violation of copyright laws.

This edition has been published by **Coimbatore Institute of Information Technology, Coimbatore.**

Limits of Liability/Disclaimer of Warranty: The author and publisher have used their effort in preparing this ICIRSSST 2021 book and author makes no representation or warranties with respect to accuracy or completeness of the contents of this book, and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. There are no warranties which extend beyond the descriptions contained in this paragraph. No warranty may be created or extended by sales representatives or written sales materials. Neither CiiT Software Research Institute nor author shall be liable for any loss of profit or any other commercial damage, including but limited to special, incidental, consequential, or other damages.

Trademarks: All brand names and product names used in this book are trademarks, registered trademarks, or trade names of their respective holders.

ISBN 978-81-951822-8-2
This Book is Printed in 70 gsm Papers.

Coimbatore Institute of Information Technology,
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamilnadu, India.
Phone: 0422-4377821
www.ciitresearch.org

81	ICIRSSST 081	LiFePO4 Battery Based Offline UPS *BA. Anandh, A. Shankar Ganesh, R. Sakthivel and E. PremKumar*	95
82	ICIRSSST 082	SPY Robot with Wireless Camera Using Arduino *S. Vasantha Kumar and A. Regan*	96
83	ICIRSSST 083	Feminine Awakening in Select Novels of Kamala Markandaya *S. Venkatalakshmi*	96
84	ICIRSSST 084	Marginalised Depiction of Woman through the Ravage of Time in the Works of New Literature *V. Saravanan*	97
85	ICIRSSST 085	The Impact of Mythological Themes in Indian Literature on Human Life *Susila Victor*	97
86	ICIRSSST 086	A Study of Scheduling Resources for Big Data Systems Using Soft Computing Algorithms *J. Saravana Kumar and L. R. Aravind Babu*	98
87	ICIRSSST 087	Economic Order Quantity (EOQ) for Deteriorating Items with Permissible Delay in Payments *Dr. R. Sathish Kumar and S. Sanjayprabu*	98
88	ICIRSSST 088	Sentiment Analysis Using Different Deep Learning Algorithms *V. Jayalakshmi and Dr. M. Lakshmi*	99
89	ICIRSSST 089	Phytochemical Screening and Antimicrobial Activities of Putative Endophytic Bacteria Isolated from *Moringa Oleifera* Leaves *Suhana Safa, K. P. Mufeeda, M. P. Nahla, Shamna Azeez, Faleela Firosha, N. K. C. Mohammad Nihal and S. Shabanamol*	99
90	ICIRSSST 090	Myth in Early Medieval Assamese Literature *Dr. Pranjal Sharma Bashishtha*	100
91	ICIRSSST 091	An Analysis on Factors Influencing the Consumers on Buying the Electronic Appliances in Coimbatore Region *Dr. M. Arumugam*	100
92	ICIRSSST 092	An Analysis on Adopting the Ecological Consumerism in the Modern Marketing *Dr. K. Mekala*	101
93	ICIRSSST 093	Impact of Organizational Culture, Climate, Commitment on Organization Effectiveness - with Reference to Private Life Insurance Companies in Chennai City *Dr. M. Muthu Vadivoo*	101
94	ICIRSSST 094	Elements of Contemporariness in Girish Karnad"s Mythological Play "Yayati". *Shridhar Bhat*	102
95	ICIRSSST 095	The Aspect of Mythology in Ramayana *M. Jeevitha*	102
96	ICIRSSST 096	The Richness of Indian Mythology in Gita Hariharan"s *The Thousand Faces of Night* *U. Nithyakumari*	103

Two Day Virtual International Conference On Interdisciplinary Research In Social Sciences, Sciences And Technology (ICIRSSST - 2021) May 21st & 22nd, 2021

Marginalised Depiction of Woman through the Ravage of Time in the Works of New Literature

V. Saravanan

Assistant Professor in English, KG College of Arts and Science, Saravanampatti, Coimbatore.

Abstract---The paper consists of a common depiction of woman gender and their roles in literary works. While discussing the position of woman, they were often marginalised though they were given honourable names superficially. The intellectual growth of this particular gender is achieved through the ravage of time. But the growth is not very well acknowledged. Women were given some strict combo of taboos from which they themselves unwilling to come out. Women feel proud in such restrictions. This element was discussed by placing a wonderful drama, The Lion and the Jewel, written by the Nigerian novelist Wole Soyinka, as an illustration. The next partition the paper deals with the unlimited exaggerated freedom given to a woman foranalysing their own life. The exaggerated freedom has resulted in the exaggerated exposure of woman to the society in a pessimistic odour. This fact was illustrated through the novel, -The Edible Woman‖, written by the famous author Margaret Atwood.

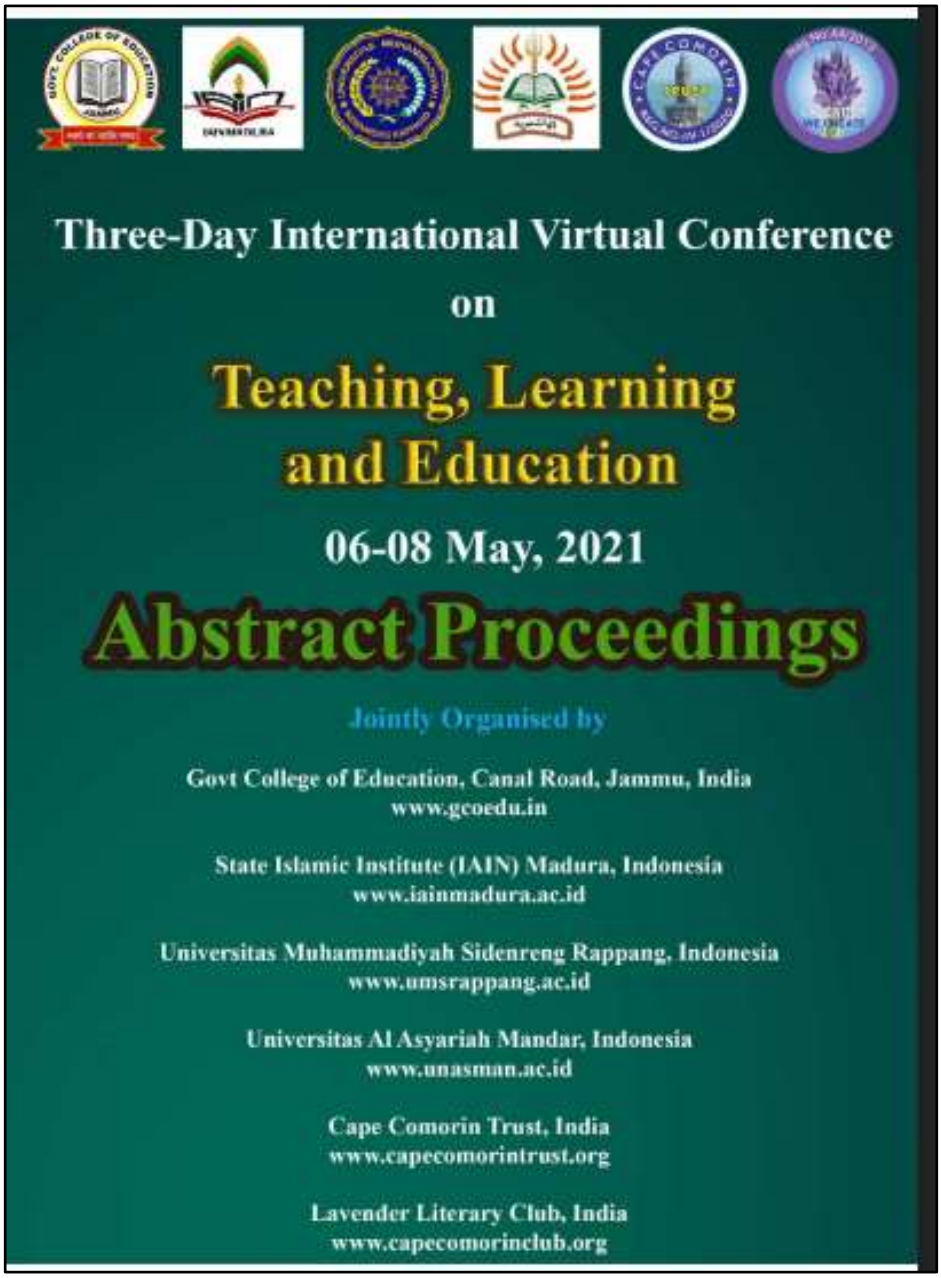
The Impact of Mythological Themes in Indian Literature on Human Life

Susila Victor

Associate Professor, Department of English, KG College of Arts and Science
Saravanampatti; Coimbatore - 35

Abstract---Mythology is a set of widely held but exaggerated or false stories or beliefs. Myth is a traditional story concerning the early history of a people or explaining a natural or social truth. The word -Mythǁ has originated from a Greek word —muthosǁ. The terms like mystical, mythological are the adjectives emerge from the term mythology. Myth is a folklore genre. The study of myth started in the ancient History. Myth began as stories told about religious beliefs to provide people a natural or super-natural phenomenon. Myth is the core part of the literature. Myths can be presented in any form by adding to it or modifying it, deleting something from its content or can be rewritten but must be given to the readers in a pleasant and welcoming manner. Mythology serves four functions in the society. India cannot be separated from religion. It is a nation of secularism respecting every religion prevailing in the country. The age old traditional literatures of great authors , the epics andwritings all focus only the myths and convey the cream of good life and lead a God fearing life. The mythological concepts and what they teach, lead, and guide human lives.

ISBN 978-81-951822-8-2 © 2021 Published by Coimbatore Institute of Information Technology


Three-Day International Virtual Conference
on
Teaching, Learning and Education
06-08 May, 2021
Abstract Proceedings
Jointly Organised by
Govt College of Education, Canal Road, Jammu, India
www.gcoedu.in
State Islamic Institute (IAIN) Madura, Indonesia
www.iainmadura.ac.id
Universitas Muhammadiyah Sidenreng Rappang, Indonesia
www.umsrappang.ac.id
Universitas Al Asyariah Mandar, Indonesia
www.unasman.ac.id
Cape Comorin Trust, India
www.capecomorintrust.org
Lavender Literary Club, India
www.capecomorinclub.org

TITLE : Teaching, Learning and Education

E-ISBN : 978-81-950632-5-3

Editor : Dr Shubhra Jamwal

Price : 125/- INR

Published by : Cape Comorin Publisher
Kanyakumari, Tamilnadu, India

Website : www. capecomorinpublisher.com

Printed at : Cape Comorin Publisher

Copyright © 2021 by Cape Comorin Publisher, All rights Reserved.

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or any other information storage and retrieved without prior permission in writing from the publishers.

Concerned authors are solely responsible for their views, opinions, policies, copyright infringement, legal action, penalty or loss of any kind regarding their content. The publisher will not be responsible for any penalty or loss of any kind if claimed in future. Contributing authors have no right to demand any royalty amount for their content.

40. Social Media Usage: A Mediator for Collaborative Learning and Psychological Wellbeing of Higher Education Students during Lockdown
    Miss. Sasmita Behera
41. The Role of Multilingualism in Education
    Mr. Anand Rakhmaji Waghmare
42. Impact of Physical Activity and Exercise on Physical Fitness: A Study on the root cause and solutions for Overweight and Obesity in young Men and Women
    Mr. K P Kannan
43. A Comparative Study of Teacher Techno-Pedagogical Competency based upon Gender, Stream and Experience of Senior Secondary Teachers in Uttarakhand
    Mrs. Sobha
44. The Importance of Teaching in Our Life
    V Vaniha Jeyakumari
45. Online Classroom: Challenges in Educational Activities
    Ms. Anuradha Bisht
46. "Happiness Curriculum: A New Vision towards Education"
    Ms. Poonam Pandita, Mr. Sachin Kumar and Ms. Chetna Suri
47. Strengthening Physics Teachers' Pedagogical Content Knowledge through Explorations with Agent-based Modelling
    Ms. Shruti Chopra
48. A Study on Behavioural Attributes of Special Educators and Facilitators in TLE
    Navyashree R M and Tejaswini Y
49. A Study of Work Motivation of Secondary School Teachers In Relation To Teacher Efficacy and Organizational Climate
    Neha Bharti
50. Comparative Study of Mental Health among Adolescence
    Nimta Devi
51. Women and Education
    Preeti Devi
52. The Role of C. F. Andrews in shaping St. Stephen's College, Delhi- A Study of Undergraduate Education
    Priyanka Mathew

43. A Comparative Study of Teacher Techno-Pedagogical Competency based upon Gender, Stream and Experience of Senior Secondary Teachers in Uttarakhand

Mrs. Sobha, Research Scholar, *Department of Education, H.N.B. Garhwal Central University Srinagar, uttrakhand*

The research article focuses on the teacher techno-pedagogical competency of senior secondary teachers of Uttarakhand with respect to gender, stream and experience. The sample of the study consisted of 411 senior secondary teachers of Uttarakhand. To collect the requisite data for the present study, the investigator used standardized tool of teacher techno-pedagogical competency scale (2013) developed by Dr. S. Rajsekhar & K. Satyaraj. The data analysis was done with the help of mean, SD, 't' value and one way ANOVA test. The results revealed that there were no major difference of gender, stream and experience of senior secondary teacher in relation to their techno-pedagogical competency.

Keyword: Teacher Techno -Pedagogical Competency, Senior Secondary Teacher.

44. The Importance of Teaching in Our Life

V Vaniha Jeyakumari B.Sc, M.A, M.C.A, M.Phil, B.Ed., B.A., M.A.., Assistant Professor, KG College of Arts and Science, Coimbatore

This paper focuses on the importances of Teaching. Teaching provides knowledge. Every teacher teaches something to the students of schools, colleges, universities etc. The students enrich their knowledge from their teachers. Consider an English teacher teaching Macbeth. After her teaching , the students will come to get knowledge about how to capture kingdom , know who are witches and what they do , how a woman thirst for the post and later suffers , what skill is required for ruling etc. It is sure that what a teacher teaches to his / her students, that knowledge will be imparted to them. With the knowledge they gained in their schools and colleges they are able to survive in the world. They earn and support the family. They give their service to their society. They prosper slowly. They make their life happy and others happy. Even books teach us something. Bible says don't lie. Like

Two - Day Virtual International Conference on "Interdisciplinary Research in Social Sciences, Sciences and Technology"

(ICIRSSST 2021)

21st & 22nd May 2021

Organized by

KG COLLEGE OF ARTS AND SCIENCE

Affiliated to Bharathiar University & Accredited by NAAC
An ISO Certified Institution
KGiSL Campus, Saravanampatti, Coimbatore 641 035

in Collaboration with

UNIVERSITI MALAYA

Proceedings Published by

CiiT

Coimbatore Institute of Information Technology
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamil Nadu, India.
Website: www.ciitresearch.org

All Rights Reserved.

Original English Language Edition © Copyright by **Coimbatore Institute of Information Technology.**

This book may not be duplicated in any way without the express written consent of the publisher, except in the form of brief excerpts or quotations for the purpose of review. The information contained herein is for the personal use of the reader and may not be incorporated in any commercial programs, other books, database, or any kind of software without written consent of the publisher. Making copies of this book or any portion thereof for any purpose other than your own is a violation of copyright laws.

This edition has been published by **Coimbatore Institute of Information Technology, Coimbatore.**

Limits of Liability/Disclaimer of Warranty: The author and publisher have used their effort in preparing this ICIRSSST 2021 book and author makes no representation or warranties with respect to accuracy or completeness of the contents of this book, and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. There are no warranties which extend beyond the descriptions contained in this paragraph. No warranty may be created or extended by sales representatives or written sales materials. Neither CiiT Software Research Institute nor author shall be liable for any loss of profit or any other commercial damage, including but limited to special, incidental, consequential, or other damages.

Trademarks: All brand names and product names used in this book are trademarks, registered trademarks, or trade names of their respective holders.

ISBN 978-81-951822-8-2
This Book is Printed in 70 gsm Papers.

30	ICIRSSST 030	Preparation of Z_nO and CU doped Z_nO Thin Film Using Sol-Gel Dip Coating Method for NO_2 Gas Sensing Application *Dr. J. Sounder, Dr. G. Parthasarathy and Dr. P. Gowthaman*	72
31	ICIRSSST 031	Solar Panel Sun Position Tracking Using Embedded System *Dr. A. T. Rajamanickam, Dr. P. Thirunavukkarasu, Dr. K. Shanmugasundaram and Dr. K. Dhanakodi*	73
32	ICIRSSST 032	CNN - Based Production Assists Water Quality Alert System *K. Udayakumar and Dr. N. P. Subiramaniyam*	73
33	ICIRSSST 033	Implementation of Low Power FIFO Routing Technique in FPGA *Dr. M. Thamarai Selvan and M. Prasannakumar*	74
34	ICIRSSST 034	A Review on – Performance of Division Operation Algorithms *M. Prasanna Kumar and Dr. M. Thamaraiselvan*	74
35	ICIRSSST 035	Undoped and Cu doped ZnS Thin Films for Enhanced Photocatalytic Applications *Dr. M. Sathishkumar*	75
36	ICIRSSST 036	Diabetes Care: A Transformation from Drugs to Device *S. Madumitha, Dr. R. Radha and Dr. G. Parthasarathy*	75
37	ICIRSSST 037	Study Analysis of Grid-Connected Micro Solar PV Power Plant Harmonics *Dr. S. Rajasekaran and Abhilash Reddy Gavinolla*	76
38	ICIRSSST 038	A Review on Plant Disease Detection Based on Image Processing Techniques *M. Kannan, R. Thangavel and P. Jayachandral*	76
39	ICIRSSST 039	LL-MCLMAC Protocol for Energy Harvesting Wireless Sensor Networks *D. Antony Pradeesh and Dr. N. P. Subiramaniyam*	77
40	ICIRSSST 040	Sorts of Oil Spill Detection Algorithms – An Overview *P. Jayachandral, R. Thangavel and M. Kannan*	77
41	ICIRSSST 041	Regional Culture - it's Taboo and Raw Fusion of Vocabulary as Represented in the Novel 'When I Hit You' by Meena Kandasamy *V. H. Jena Priya*	78
42	ICIRSSST 042	The Palace of Illusion by Chitra Banerjee Divakaruni- A Reconstructed Mahabharata in the View of Draupadi *S. R. Akshaya Lekshmi*	78
43	ICIRSSST 043	Gulliver"s Travel Book Three a Satire on Four Aspects of Man *Dr. S. Rammanohar Pari*	79
44	ICIRSSST 044	The Comic Aspect of Human Life as Depicted in the Hairy Ape by Eugene O'Neill *V. Vanitha Jeyakumari*	79
45	ICIRSSST 045	Mythological Themes in Indian Literature *Deva Karunya Zion*	80
46	ICIRSSST 046	Transformation and Relativity of Truth in Modern Literature *Aishwarya Barathi*	80

Two Day Virtual International Conference On Interdisciplinary Research In Social Sciences, Sciences And Technology (ICIRSSST - 2021) May 21st & 22nd, 2021

Gulliver's Travel Book Three a Satire on Four Aspects of Man

Dr. S. Rammanohar Pari

Assistant Professor in English, KG College of Arts and Science, Coimbatore – 641 035

Abstract---The object of the third voyage that to Laputa, is to ridicule the mathematicians and philosophers of Swift's day, and in particular the members of the Royal Society, against some of whom he entertained a grudge. In this description of the people of Laputa, Swift intends to satirize, if not philosophers in general, at all events those pretenders to philosophy, and persons who, in his time, as indeed, in every period of the world, have been found to devote themselves to vain and profitless speculations in science. The description of those people is very ingenious. The subject of comets very much engaged the attention of the learned men of Swift's time, as will be seen by a reference to the transaction of Royal Society, in which there are many papers upon them, and details of observations made by astronomers in various parts of Europe. By Balnibarbi, Swift intends England andLagado is designed to represent its capital, London. The condition of the people in the streets, with their wild looks and hurried manner of walking, is an allusion to the state of the public mind under the excitement of the many schemes and speculations which came out during the years 1719, 1720 and 1721, under the name of -bubbles!, and were pursued by the people with almost a frenzy. The description of the traditional introduction of the King of Luggnagg and the pretentious language addressed to him areintended. In this account of Gulliver's reaction at Japan, Swift refers to the popular but incorrect belief that the Dutch merchants were compelled, when entering Japan, to flatten on the crucifix.

Keywords---Government, Society, Science, Religion and Man

The Comic Aspect of Human Life as Depicted in the Hairy Ape by Eugene O'Neill

V. Vanitha Jeyakumari

Assistant Professor, KG College of Arts and Science, Coimbatore.
E-Mail: vanithajeyakumari.v@kgcas.com, Mobile. No: 9944127152

Abstract---This paper focuses on the comic aspect of human life as depicted in the play -The Hairy Apel. This play can be called as the comedy of Ancient and Modern Life. -Yankl, the protagonist of the play becomes comedy to others and in himself he is suppressed by the Industrial society and thus he feels utter alienation from his society. At basic level he seems to be a comic man but really his life is a bitter one. If none respects us in our family how we would feel for it and how we would be put into frustration. At some higher level, the society where we live should recognize us for our work or for our contribution either too much or too less. Yank being a fireman works hardly and has the ability to lead his team. So he is proud of his position. Within his circle (smaller group) he is proud of his work. But when he is compared to the others like his Industrial owner he is nothing because such people only give him a chance to work as a fireman. He doesn't understand this fact and his friend explains him hiscondition. Even then he is not able to understand it. Thus it brings him frustration and he starts to compare himself to the Ape and believes that he belongs to its category and wishes to have relationship with the Ape. So he goes to the Ape's cage. The Ape is just an animal and so it has killed him. This act of Yank seems to be comic for others but it really shows Yank's frustration in his life.

Keywords---Ape, Beast, Comedy, Frustration, Firemen, Industries, Society.

Two - Day Virtual International Conference on "Interdisciplinary Research in Social Sciences, Sciences and Technology"

(ICIRSSST 2021)

21st & 22nd May 2021

Organized by

KG COLLEGE OF ARTS AND SCIENCE

Affiliated to Bharathiar University & Accredited by NAAC
An ISO Certified Institution
KGiSL Campus, Saravanampatti, Coimbatore 641 035

in Collaboration with

UNIVERSITI MALAYA

Proceedings Published by

CiiT

Coimbatore Institute of Information Technology
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamil Nadu, India.
Website: www.ciitresearch.org

All Rights Reserved.

Original English Language Edition © Copyright by **Coimbatore Institute of Information Technology.**

This book may not be duplicated in any way without the express written consent of the publisher, except in the form of brief excerpts or quotations for the purpose of review. The information contained herein is for the personal use of the reader and may not be incorporated in any commercial programs, other books, database, or any kind of software without written consent of the publisher. Making copies of this book or any portion thereof for any purpose other than your own is a violation of copyright laws.

This edition has been published by **Coimbatore Institute of Information Technology, Coimbatore.**

Limits of Liability/Disclaimer of Warranty: The author and publisher have used their effort in preparing this ICIRSSST 2021 book and author makes no representation or warranties with respect to accuracy or completeness of the contents of this book, and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. There are no warranties which extend beyond the descriptions contained in this paragraph. No warranty may be created or extended by sales representatives or written sales materials. Neither CiiT Software Research Institute nor author shall be liable for any loss of profit or any other commercial damage, including but limited to special, incidental, consequential, or other damages.

Trademarks: All brand names and product names used in this book are trademarks, registered trademarks, or trade names of their respective holders.

ISBN 978-81-951822-8-2
This Book is Printed in 70 gsm Papers.

Coimbatore Institute of Information Technology,
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamilnadu, India.
Phone: 0422-4377821
www.ciitresearch.org

81	ICIRSSST 081	LiFePO4 Battery Based Offline UPS *BA. Anandh, A. Shankar Ganesh, R. Sakthivel and E. PremKumar*	95
82	ICIRSSST 082	SPY Robot with Wireless Camera Using Arduino *S. Vasantha Kumar and A. Regan*	96
83	ICIRSSST 083	Feminine Awakening in Select Novels of Kamala Markandaya *S. Venkatalakshmi*	96
84	ICIRSSST 084	Marginalised Depiction of Woman through the Ravage of Time in the Works of New Literature *V. Saravanan*	97
85	ICIRSSST 085	The Impact of Mythological Themes in Indian Literature on Human Life *Susila Victor*	97
86	ICIRSSST 086	A Study of Scheduling Resources for Big Data Systems Using Soft Computing Algorithms *J. Saravana Kumar and L. R. Aravind Babu*	98
87	ICIRSSST 087	Economic Order Quantity (EOQ) for Deteriorating Items with Permissible Delay in Payments *Dr. R. Sathish Kumar and S. Sanjayprabu*	98
88	ICIRSSST 088	Sentiment Analysis Using Different Deep Learning Algorithms *V. Jayalakshmi and Dr. M. Lakshmi*	99
89	ICIRSSST 089	Phytochemical Screening and Antimicrobial Activities of Putative Endophytic Bacteria Isolated from *Moringa Oleifera* Leaves *Suhana Safa, K. P. Mufeeda, M. P. Nahla, Shamna Azeez, Faleela Firosha, N. K. C. Mohammad Nihal and S. Shabanamol*	99
90	ICIRSSST 090	Myth in Early Medieval Assamese Literature *Dr. Pranjal Sharma Bashishtha*	100
91	ICIRSSST 091	An Analysis on Factors Influencing the Consumers on Buying the Electronic Appliances in Coimbatore Region *Dr. M. Arumugam*	100
92	ICIRSSST 092	An Analysis on Adopting the Ecological Consumerism in the Modern Marketing *Dr. K. Mekala*	101
93	ICIRSSST 093	Impact of Organizational Culture, Climate, Commitment on Organization Effectiveness - with Reference to Private Life Insurance Companies in Chennai City *Dr. M. Muthu Vadivoo*	101
94	ICIRSSST 094	Elements of Contemporariness in Girish Karnad"s Mythological Play "Yayati". *Sheridhar Bhat*	102
95	ICIRSSST 095	The Aspect of Mythology in Ramayana *M. Jeevitha*	102
96	ICIRSSST 096	The Richness of Indian Mythology in Gita Hariharan"s *The Thousand Faces of Night* *U. Nithyakumari*	103

Two Day Virtual International Conference On Interdisciplinary Research In Social Sciences, Sciences And Technology (ICIRSSST - 2021) May 21st & 22nd, 2021

Marginalised Depiction of Woman through the Ravage of Time in the Works of New Literature

V. Saravanan

Assistant Professor in English, KG College of Arts and Science, Saravanampatti, Coimbatore.

Abstract---The paper consists of a common depiction of woman gender and their roles in literary works. While discussing the position of woman, they were often marginalised though they were given honourable names superficially. The intellectual growth of this particular gender is achieved through the ravage of time. But the growth is not very well acknowledged. Women were given some strict combo of taboos from which they themselves unwilling to come out. Women feel proud in such restrictions.This element was discussed by placing a wonderful drama, The Lion and the Jewel, written by the Nigerian novelist Wole Soyinka, as an illustration. The next partition the paper deals with the unlimited exaggerated freedom given to a woman foranalysing their own life. The exaggerated freedom has resulted in the exaggerated exposure of woman to the society in a pessimistic odour. This fact was illustrated through the novel, -The Edible Woman‖, written by the famous author Margaret Atwood.

The Impact of Mythological Themes in Indian Literature on Human Life

Susila Victor

Associate Professor, Department of English, KG College of Arts and Science
Saravanampatti; Coimbatore - 35

Abstract---Mythology is a set of widely held but exaggerated or false stories or beliefs. Myth is a traditional story concerning the early history of a people or explaining a natural or social truth. The word -Myth‖ has originated from a Greek word —muthos‖. The terms like mystical, mythological are the adjectives emerge from the term mythology. Myth is a folklore genre. The study of myth started in the ancient History. Myth began as stories told about religious beliefs to provide people a natural or super-natural phenomenon. Myth is the core part of the literature. Myths can be presented in any form by adding to it or modifying it, deleting something from its content or can be rewritten but must be given to the readers in a pleasant and welcoming manner. Mythology serves four functions in the society. India cannot be separated from religion. It is a nation of secularism respecting every religion prevailing in the country. The age old traditional literatures of great authors , the epics andwritings all focus only the myths and convey the cream of good life and lead a God fearing life. The mythological concepts and what they teach, lead, and guide human lives.

ISBN 978-81-951822-8-2 © 2021 Published by Coimbatore Institute of Information Technology

Two - Day Virtual International Conference
on
"Interdisciplinary Research in Social Sciences, Sciences and Technology"

(ICIRSSST 2021)

21st & 22nd May 2021

Organized by

KG COLLEGE OF ARTS AND SCIENCE
Affiliated to Bharathiar University & Accredited by NAAC
An ISO Certified Institution
KGiSL Campus, Saravanampatti, Coimbatore 641 035

in Collaboration with

UNIVERSITI MALAYA

Proceedings Published by

CiiT

Coimbatore Institute of Information Technology
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamil Nadu, India.
Website: www.ciitresearch.org

All Rights Reserved.

Original English Language Edition © Copyright by **Coimbatore Institute of Information Technology.**

This book may not be duplicated in any way without the express written consent of the publisher, except in the form of brief excerpts or quotations for the purpose of review. The information contained herein is for the personal use of the reader and may not be incorporated in any commercial programs, other books, database, or any kind of software without written consent of the publisher. Making copies of this book or any portion thereof for any purpose other than your own is a violation of copyright laws.

This edition has been published by **Coimbatore Institute of Information Technology, Coimbatore.**

Limits of Liability/Disclaimer of Warranty: The author and publisher have used their effort in preparing this ICIRSSST 2021 book and author makes no representation or warranties with respect to accuracy or completeness of the contents of this book, and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. There are no warranties which extend beyond the descriptions contained in this paragraph. No warranty may be created or extended by sales representatives or written sales materials. Neither CiiT Software Research Institute nor author shall be liable for any loss of profit or any other commercial damage, including but limited to special, incidental, consequential, or other damages.

Trademarks: All brand names and product names used in this book are trademarks, registered trademarks, or trade names of their respective holders.

ISBN 978-81-951822-8-2
This Book is Printed in 70 gsm Papers.

Coimbatore Institute of Information Technology,
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamilnadu, India.
Phone: 0422-4377821
www.ciitresearch.org

30	ICIRSSST 030	Preparation of Z_eO and CU doped Z_eO Thin Film Using Sol-Gel Dip Coating Method for NO_2 Gas Sensing Application *Dr. J. Sounder, Dr. G. Parthasarathy and Dr. P. Gowthaman*	72
31	ICIRSSST 031	Solar Panel Sun Position Tracking Using Embedded System *Dr. A. T. Rajamanickam, Dr. P. Thirunavukkarasu, Dr. K. Shanmugasundaram and Dr. K. Dhanakodi*	73
32	ICIRSSST 032	CNN - Based Production Assists Water Quality Alert System *K. Udayakumar and Dr. N. P. Subiramaniyam*	73
33	ICIRSSST 033	Implementation of Low Power FIFO Routing Technique in FPGA *Dr. M. Thamarai Selvan and M. Prasannakumar*	74
34	ICIRSSST 034	A Review on – Performance of Division Operation Algorithms *M. Prasanna Kumar and Dr. M. Thamaraiselvan*	74
35	ICIRSSST 035	Undoped and Cu doped ZnS Thin Films for Enhanced Photocatalytic Applications *Dr. M. Sathishkumar*	75
36	ICIRSSST 036	Diabetes Care: A Transformation from Drugs to Device *S. Madumitha, Dr. R. Radha and Dr. G. Parthasarathy*	75
37	ICIRSSST 037	Study Analysis of Grid-Connected Micro Solar PV Power Plant Harmonics *Dr. S. Rajasekaran and Abhilash Reddy Gavinolla*	76
38	ICIRSSST 038	A Review on Plant Disease Detection Based on Image Processing Techniques *M. Kannan, R. Thangavel and P. Jayachandral*	76
39	ICIRSSST 039	LL-MCLMAC Protocol for Energy Harvesting Wireless Sensor Networks *D. Antony Pradeesh and Dr. N. P. Subiramaniyam*	77
40	ICIRSSST 040	Sorts of Oil Spill Detection Algorithms – An Overview *P. Jayachandral, R. Thangavel and M. Kannan*	77
41	ICIRSSST 041	Regional Culture - it's Taboo and Raw Fusion of Vocabulary as Represented in the Novel 'When I Hit You' by Meena Kandasamy *V. H. Jena Priya*	78
42	ICIRSSST 042	The Palace of Illusion by Chitra Banerjee Divakaruni- A Reconstructed Mahabharata in the View of Draupadi *S. R. Akshaya Lekshmi*	78
43	ICIRSSST 043	Gulliver''s Travel Book Three a Satire on Four Aspects of Man *Dr. S. Rammanohar Puri*	79
44	ICIRSSST 044	The Comic Aspect of Human Life as Depicted in the Hairy Ape by Eugene O'Neill *V. Vanitha Jeyakumari*	79
45	ICIRSSST 045	Mythological Themes in Indian Literature *Deva Karunya Zion*	80
46	ICIRSSST 046	Transformation and Relativity of Truth in Modern Literature *Aishwarya Barathi*	80

Two Day Virtual International Conference On Interdisciplinary Research In Social Sciences, Sciences And Technology (ICIRSSST - 2021) May 21st & 22nd, 2021

Gulliver's Travel Book Three a Satire on Four Aspects of Man

Dr. S. Rammanohar Pari

Assistant Professor in English, KG College of Arts and Science, Coimbatore – 641 035

***Abstract*---**The object of the third voyage that to Laputa, is to ridicule the mathematicians and philosophers of Swift's day, and in particular the members of the Royal Society, against some of whom he entertained a grudge. In this description of the people of Laputa, Swift intends to satirize, if not philosophers in general, at all events those pretenders to philosophy, and persons who, in his time, as indeed, in every period of the world, have been found to devote themselves to vain and profitless speculations in science. The description of those people is very ingenious. The subject of comets very much engaged the attention of the learned men of Swift's time, as will be seen by a reference to the transaction of Royal Society, in which there are many papers upon them, and details of observations made by astronomers in various parts of Europe. By Balnibarbi, Swift intends England andLagado is designed to represent its capital, London. The condition of the people in the streets, with their wild looks and hurried manner of walking, is an allusion to the state of the public mind under the excitement of the many schemes and speculations which came out during the years 1719, 1720 and 1721, under the name of -bubbles!, and were pursued by the people with almost a frenzy. The description of the traditional introduction of the King of Luggnagg and the pretentious language addressed to him areintended. In this account of Gulliver's reaction at Japan, Swift refers to the popular but incorrect belief that the Dutch merchants were compelled, when entering Japan, to flatten on the crucifix.

***Keywords*---**Government, Society, Science, Religion and Man

The Comic Aspect of Human Life as Depicted in the Hairy Ape by Eugene O'Neill

V. Vanitha Jeyakumari

Assistant Professor, KG College of Arts and Science, Coimbatore.
E-Mail: vanithajeyakumari.v@kgcas.com, Mobile. No: 9944127152

***Abstract*---**This paper focuses on the comic aspect of human life as depicted in the play -The Hairy Apel. This play can be called as the comedy of Ancient and Modern Life. -Yankl, the protagonist of the play becomes comedy to others and in himself he is suppressed by the Industrial society and thus he feels utter alienation from his society. At basic level he seems to be a comic man but really his life is a bitter one. If none respects us in our family how we would feel for it and how we would be put into frustration. At some higher level, the society where we live should recognize us for our work or for our contribution either too much or too less. Yank being a fireman works hardly and has the ability to lead his team. So he is proud of his position. Within his circle (smaller group) he is proud of his work. But when he is compared to the others like his Industrial owner he is nothing because such people only give him a chance to work as a fireman. He doesn't understand this fact and his friend explains him hiscondition. Even then he is not able to understand it. Thus it brings him frustration and he starts to compare himself to the Ape and believes that he belongs to its category and wishes to have relationship with the Ape. So he goes to the Ape's cage. The Ape is just an animal and so it has killed him. This act of Yank seems to be comic for others but it really shows Yank's frustration in his life.

***Keywords*---**Ape, Beast, Comedy, Frustration, Firemen, Industries, Society.

ISBN 978-81-951822-8-2 © 2021 Published by Coimbatore Institute of Information Technology

Proceedings of the
International Virtual Conference on
Applied Mathematics &
Intelligent Computing
ICAMIC 2021
3rd March 2021
Organized by
Department of Mathematics &
Department of Computer Science
SRI RAMAKRISHNA
College of Arts & Science for Women
Affiliated to Bharathiar University Approved by AICTE
Accredited by NAAC & An ISO Certified Institution
Coimbatore – 641044
Published by
CiiT
bringing the world locally
Coimbatore Institute of Information Technology
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamil Nadu, India.
Website: www.ciitresearch.org

All Rights Reserved.
Original English Language Edition © Copyright by **Coimbatore Institute of Information Technology.**

This book may not be duplicated in any way without the express written consent of the publisher, except in the form of brief excerpts or quotations for the purpose of review. The information contained herein is for the personal use of the reader and may not be incorporated in any commercial programs, other books, database, or any kind of software without written consent of the publisher. Making copies of this book or any portion thereof for any purpose other than your own is a violation of copyright laws.

This edition has been published by **Coimbatore Institute of Information Technology, Coimbatore.**

Limits of Liability/Disclaimer of Warranty: The author and publisher have used their effort in preparing this ICAMIC 2021 book and author makes no representation or warranties with respect to accuracy or completeness of the contents of this book, and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. There are no warranties which extend beyond the descriptions contained in this paragraph. No warranty may be created or extended by sales representatives or written sales materials. Neither CiiT Software Research Institute nor author shall be liable for any loss of profit or any other commercial damage, including but limited to special, incidental, consequential, or other damages.

Trademarks: All brand names and product names used in this book are trademarks, registered trademarks, or trade names of their respective holders.

ISBN 978-93-89105-58-2

Coimbatore Institute of Information Technology,
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamil Nadu, India.
Phone: 0422-4377821
www.ciitresearch.org

17	ICAMIC - 17	Intuitionistic Fuzzy Ideals of MΓGroups in Near Rings as Maximal Product of Graphs *S. K. Mala and M. M. Shanmugapriya*	77
18	ICAMIC - 18	Selection of Smart Phones for Mobile Learning Using Multi-Criteria Decision Making *Dr. A. Sahaya Sudha, C. Amala Kaavya and A. Agnes Jenifa*	81
19	ICAMIC - 19	A Ophthalmology Study on Eye Glaucoma and Retina Applied in AI and Deep Learning Techniques *Dr. R. Deepa and S. Vaishnavi*	86
20	ICAMIC - 20	WSN Machine Learning Approach for Scheduling Energy in Network *Dr. C. Yamini and G. Saraniya*	90
21	ICAMIC - 21	Artificial Neural Network Learning Techniques and Applications: A Study *M. Aswathi and Dr. V. G. Rani*	97
22	ICAMIC - 22	Survey on Data Mining Techniques, Process and Algorithms *K. K. Nivethithaa and Dr. S. Vijayalakshmi*	101
23	ICAMIC - 23	Amalgamation of Blockchain Technology with Wireless Sensor Network – A Solution to Security Challenges *M. P. Swapna and Dr. G Satyavathy*	105
24	ICAMIC - 24	Energy Efficiency Mechanisms in Wireless Sensor Networks: A Survey *G. Saraniya*	109
25	ICAMIC - 25	A Review of Recent Feature Selection Techniques for Biomarker Discovery *M. Divyavani and Dr. G. Kalpana*	113
26	ICAMIC - 26	Comparative Analysis and Review on Existing Classification Algorithms for Similar Text Retrieval *P. SanthanaLakshmi and Dr. L. Sankari*	120
27	ICAMIC - 27	A Review On Multitask Auditing Technique Scheme for Big -Data in Cloud *C. N. Indhu Mathi and C. Rathika*	123
28	ICAMIC - 28	Survey on Computational Mathematics for the Research Students in Effective Manner *N. Karunya and M. Manoj Kumar*	127
29	ICAMIC - 29	A Review on Dimension Analysis and Gradation of Rice Grain Using Image Processing Technique *V. T. Anjana*	130
30	ICAMIC - 30	On New Approach of Existence Solutions for Atangana-Baleanu Fractional Neutral Differential Equations with Dependence on the Lipschitz First Derivatives *V. Pandiyammal and U. Karthik Raja*	132

Energy Efficiency Mechanisms in Wireless Sensor Networks: A Survey

G. Saraniya

Assistant Professor, KG College of Arts and Science

***Abstract*---**Wireless Sensor Network (WSN) is one of the emerging research domains which have posed numerous unique challenges to researchers. The low cost MEMS and low processing capability with ultra low power consumption and low range wireless communication makes it lucrative for being exploited in abundance in future. The inbuilt limitation of energy in the sensor nodes which demanded every functionality of WSNs to be energy efficient. In this survey, an attempt is made to study the energy efficient approaches in WSNs. Classification of energy efficient approaches in WSNs is proposed and It also overviews ongoing research approaches, and provides discussion and provision of some design issues and requirements for building energy efficient mechanisms for WSNs.

***Keywords*---**WSNs, Energy Efficiency, Security, Routing, Coverage, Localization

I. Introduction

WIRELESS Sensor Networks (WSNs) have emerged as a new computing paradigm within the past few years. The small size of sensors can be deployed physically, where each can sense information from the phenomena and they can communicate each other or sink node. Interested users can extract useful information about the environment from the WSNs[1][2][3].

Generally, the WSNs consist of large number of sensor nodes, which are densely deployed in an area. The sensor nodes are application specific. As they are battery operated, the energy level has to be considered for all sorts of operations. Each sensor is self-configurable by itself to connect to neighboring sensor and establish network.

The sensor nodes cooperate on the detecting task and use a wireless link for communication. The wireless network has been formed among sensor nodes. The connection between others network has also established. Using the wireless communication yield the WSNs can be conveniently constructed since no infrastructure is requested. Here, source nodes detect the event then they transmit information to sink nodes. After receiving information packet, the sink nodes store them in their memory or process them. The sink nodes might be sensor nodes in the WSNs, PDA or internet gateway where user uses for transmitting his data request. The data transmission from source node to sink node cannot be directly done in large WSNs due to limitation of wireless communication range; thus the most of data transmissions are in multi-hops form.

The sensor node is consisted of five modules – Controller (a CPU is used for processing, data collection and data path searching), Memory module (for storing the sensed information as well as other data), Communication Devices (Transceiver for transmission of information), Sensor and Actuator modules (for sensing the data and finding the location of system) and power supply (energy source of sensor node, mainly battery power). The energy depletion in the sensor node due to sensing, in-network processing/logging, receiving data from source/relay (along with overhearing), transmitting sensed/relayed data (including over-emitting, collision, channel polling and control packet overhead), startup transient energy (may increase due to frequent switching), idle state (including idle-listening) and sleep state[4][5][6].

A sensor node would drain its battery faster in the absence of energy efficient techniques. This fact triggered researchers to design protocols and mechanisms to reduce energy utilization in the WSNs. Many researchers proposed study on energy efficiency techniques in MAC layer, routing layer, transport and application layer separately.

In this survey, it is attempted to present different energy saving mechanisms in WSNs protocol stack across all the layers and present systematic classification of energy saving mechanisms for WSNs. This paper also presents open issues in energy efficiency techniques for WSNs.

The reminder of this paper is organized as follows. Section II discusses Background and Energy Efficiency in WSNs. The aim of Section III is to present systematic classification of energy efficiency techniques for WSNS. Section IV discusses Open Issues and Challenges, and We conclude in Section V.

II. Background And Energy Efficiency in WSNS

Most of the node energy is spent in the communications compared to data sensing and processing. The maximum energy is spent in the communication process (transmit (14.88mW) & receive mode (12.50mW)), then, next to it is the energy spent in idle mode (12.36mW) [7]. Although, a minimum amount of energy is spent in sensing, sleeping & processing mode, still they consume some energy. These processes need to be energy-efficient.

To prolong the operational network lifetime of WSNs optimum use of limited available power source is needed. In WSNs, the energy expense can be minimized in all the layers of the protocol stack. In Physical layer, the node energy can be saved through reducing the data size, effective data rate and efficient energy model. In MAC layer, designing energy efficient MAC duty cycle mechanisms and packet scheduling.

ISBN 978-93-89105-58-2 © 2021 Published by Coimbatore Institute of Information Technology

Two - Day Virtual International Conference on "Interdisciplinary Research in Social Sciences, Sciences and Technology"

(ICIRSSST 2021)

21st & 22nd May 2021

Organized by

KG COLLEGE OF ARTS AND SCIENCE

Affiliated to Bharathiar University & Accredited by NAAC
An ISO Certified Institution
KGiSL Campus, Saravanampatti, Coimbatore 641 035

in Collaboration with

UNIVERSITI MALAYA

Proceedings Published by

CiiT

Coimbatore Institute of Information Technology
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamil Nadu, India.
Website: www.ciitresearch.org

All Rights Reserved.

Original English Language Edition © Copyright by **Coimbatore Institute of Information Technology.**

This book may not be duplicated in any way without the express written consent of the publisher, except in the form of brief excerpts or quotations for the purpose of review. The information contained herein is for the personal use of the reader and may not be incorporated in any commercial programs, other books, database, or any kind of software without written consent of the publisher. Making copies of this book or any portion thereof for any purpose other than your own is a violation of copyright laws.

This edition has been published by **Coimbatore Institute of Information Technology, Coimbatore.**

Limits of Liability/Disclaimer of Warranty: The author and publisher have used their effort in preparing this ICIRSSST 2021 book and author makes no representation or warranties with respect to accuracy or completeness of the contents of this book, and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. There are no warranties which extend beyond the descriptions contained in this paragraph. No warranty may be created or extended by sales representatives or written sales materials. Neither CiiT Software Research Institute nor author shall be liable for any loss of profit or any other commercial damage, including but limited to special, incidental, consequential, or other damages.

Trademarks: All brand names and product names used in this book are trademarks, registered trademarks, or trade names of their respective holders.

ISBN 978-81-951822-8-2
This Book is Printed in 70 gsm Papers.

Coimbatore Institute of Information Technology,
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamilnadu, India.
Phone: 0422-4377821
www.ciitresearch.org

15	ICIRSSST 015	Covid-19 Effect on Exports of Services: Opportunities, Challenges and Suggestions *Dr. N. Vijayanand*	65
16	ICIRSSST 016	Covid – 19 Pandemic and Psychological Health – Review of Existing Literature in Indian Context *M. V. Arjun*	65
17	ICIRSSST 017	Effect of Covid-19 on the Indian Economy *Dr. A. Myilsamy*	66
18	ICIRSSST 018	A Study on Investors Perception towards Mutual Funds in the City of Kochi *S. Dhanasree*	66
19	ICIRSSST 019	Artificial Intelligence in the Real World *Dr. P. Saradhamani and S. Soundarya*	67
20	ICIRSSST 020	A Study on Job Satisfaction among Teachers in Government Schools and Private Schools *G. Teena Jaculin and Dr. S. Suganya*	67
21	ICIRSSST 021	Determinant Attributes of Social Media on Tourist Behaviour - Post Covid *Likitha, Bhoomika and Raghu*	68
22	ICIRSSST 022	Gender Inequality - Violence against Women in Workplace with Reference to Indian Context an Overview *R. Suriya*	68
23	ICIRSSST 023	A Survey on Mental Health and Psychosocial Aspects of Coronavirus Outbreak in India *Dr. S. Suresh*	69
24	ICIRSSST 024	Downpour of Hotel Business during Pandemic Covid"19 in Mysuru City: A Perceptional Study on Current Obstacles and Future Aspiration *Dr. Dilshad Begum*	69
25	ICIRSSST 025	A Study on Reason behind the Rise of Retail Investors in Stock Market during Pandemic *P. B. Deepa and Dr. Josephine Daisy*	70
26	ICIRSSST 026	Impact of Stress on Health and Behaviour of Bank Employees in Kanyakumari District *D. AshlinMelbha and Dr. C. L. Jeba Melvin*	70
27	ICIRSSST 027	A Study on Impact of Covid-19 on Indian Economy with Special Reference to Banking Sector: An Indian Perspective *R. Jasmine Sugirthabai and Dr. D. Jebapriya*	71
28	ICIRSSST 028	Low Power VLSI System Design in AES Using Clock Gated S-Box Transformation Algorithm *K. Subramanian, M. Venkatachalam, M. Saroja and Dr. B. Suresh*	71
29	ICIRSSST 029	Antibacterial Activity of Green Synthesized ZnO Nanoparticles Synthesized from Curcuma Neilgherrensis Wight *Dr. G. Parthasarathy, Dr. M. Saroja and Dr. M. Venkatachalam*	72

Two Day Virtual International Conference On Interdisciplinary Research In Social Sciences, Sciences And Technology (ICIRSSST - 2021) May 21st & 22nd, 2021

Effect of Covid-19 on the Indian Economy

Dr. A. Myilsamy

Assistant Professor of Economics, Department of Commerce IT, KG College of Arts and Science, Saravanampatti, Coimbatore -35

***Abstract*---**At present the world is facing the coronavirus disease known as Covid-19. The first case of the coronavirus was reported in the December, 2019 in the Wuhan city of China which is known as the major transportation hub of China. After the spread of Covid-19 many countries have shut down their sea ports and airports. They have banned the import and export activities. Also, China is the major distributor of the raw materials which affect the manufacturing activities across the globe due to lockdowns.

India is the developing country. Due to the Covid-19 spread, the Indian government has lockdown the country for 9 Months which affected the manufacturing activities and mostly it affects the supply chains and economy of the country. In the present paper we have discussed the effect of Covid-19 on Indian economy and on supply chains in India. There are total of 18 critical barriers are found out which affected the supply chains in the India. It is expected that this study will be helpful for all the researchers to develop the conceptual models to overcome from this issue.

***Keywords*---**Covid-19, Indian Economy, Supply Chain, Manufacturing Industries, Barriers

A Study on Investors Perception towards Mutual Funds in the City of Kochi

S. Dhanasree

PG Department of Commerce, Rajagiri College of Management and Applied Sciences, Kochi, India

***Abstract*---**This study has been conducted to explore and understand the investment perception of individual investors towards Mutual funds. This study enables to understand the perception of investors towards Mutual Fund investment. The mutual fund companies pool the savings of small investors and invest those collected huge amount of funds in different sectors of the economy Mutual Fund is very much profitable tool for investment because of its low cost of acquiring fund, tax benefit, diversification of profits and reduction of risk.

***Keywords*—**Mutual Funds, Perception, Investment

ISBN 978-81-951822-8-2 © 2021 Published by Coimbatore Institute of Information Technology

KAAMADHENU ARTS AND SCIENCE COLLEGE
(Affiliated to Bharathiar University, Coimbatore),
Sathyamangalam, Erode(Dt), Tamilnadu - 638 503.
www.kascsathy.ac.in | 04295 223743, 223843
PROCEEDINGS
Two Days International Conference
on
GLOBAL ECONOMIC IMPACT OF COVID - 19 (ICGEIC-2020)
June 9 and 10, 2020
Edited by
Dr. R. Shanthi

Two Days International Conference

on

GLOBAL ECONOMIC IMPACT OF COVID -19

(ICGEIC-2020)

June 9 and 10, 2020

Organized by

KAAMADHENU ARTS AND SCIENCE COLLEGE

Affiliated to Bharathiar University, Coimbatore
Sathyamangalam, Erode District – 638 503
www.kascsathy.ac.in

IMPACT OF COVID-19 ON IT INDUSTRY

[1] Jayanthi M , [2] Kanchana R

[1]Assistant Professor, KG College of Arts and Science, Coimbatore

[2]Associate Professor, KG College of Arts and Science, Coimbatore

Abstract:

The outbreak of Covid-19 has severely impacted the global economy, with disrupting businesses across diverse sectors around the world. The spread of the virus now has led countries into lockdown, fearing the economy of a recession. As the virus significantly affects most established countries, its impact on India is relatively low than others but has a larger impact on the country's businesses and economy. Since the country's nearly 55 percent of electronics imported from China, these have now slid down to 40 percent due to the corona virus outbreak and subsequent lockdown. Over the last couple of decades, the IT industry has been India's leading sector to economic growth. It plays an imperative role in fulfilling the country's several middle-class dreams of accomplishment and aspirational careers. However, due to corona virus Covid-19 outbreak, players in India's IT services, according to industry analysts, will see a significant slowdown in growth during this financial year. Reports claim that top software exporters, including Tata Consultancy Services, Infosys, and HCL Technologies, will be impacted most by the lessened technology spending from clients in the US and Europe following lockdowns across the globe. In the time of crisis, Brokerage HDFC securities anticipates IT sector revenue to cut down by 2-7 percent due to a delay in decision making in the next six months while businesses assess the impact of the virus. Customers are also expecting to reduce their IT budgets and slow down new initiatives due to the fear of uncertain economic situation and recession

In the time of crisis, Brokerage HDFC securities anticipates IT sector revenue to cut down by 2-7 percent due to a delay in decision making in the next six months while businesses assess the impact of the virus. Customers are also expecting to reduce their IT budgets and slow down new initiatives due to the fear of uncertain economic situation and recession.

In a statement, former Chief Financial Officer at Infosys Ltd V Balakrishnan said last month that there will be an impact on the Indian Information Technology industry for multiple reasons. With the restriction on movement of people following the scare, Indian IT companies' ability to

deliver services on-site could get severely impacted but that could be addressed to some extent by working remotely.

According to the National Association of Software and Services Companies (NASSCOM), India's software and services exports grew 8.1 percent to US$147 billion in the fiscal year 2020. Moreover, Infosys and HCL Technologies give annual forecasts, while Wipro gives revenue guidance for a quarter. However, these firms are yet to announce dates for their quarterly results. Meanwhile, other IT firms in the country such as TCS and Infosys begin the results calendar in the second week of April.

In recent times, Indian firms have faced several projects cancellations by clients across sectors due to limitations in air travel and shutting down of cities and countries to contain the spread of the Covid-19 pandemic.

COVID-19 is an unprecedented public health emergency affecting every industry. While some have stronger defenses, others will struggle to reset to a normal that is constantly redefined—and redesigned.

Consumer demand patterns will shift. Global supply chains will be re-routed. Governments will make even more significant interventions. And companies will have to continuously adapt to new and uncertain market conditions.

Here we provide industry-specific advice on what leaders should consider doing now and next. These are grounded in our daily conversations with clients. We will update these pages as the crisis—and the challenges industries face—evolve.

Corona virus industry impact reports

Accenture outlines critical steps for aerospace and defense companies to take to respond to COVID-19 and build resilience.

Managing automotive industry impact

Accenture outlines the impact of COVID-19 on the automotive industry & what automotive companies ought to do now.

Accenture outlines how rail operators must adapt practices and improve emergency measures to support business continuity and build resilient operations.

How banks can manage the business impact

Accenture outlines the steps banks can take to manage the impact of COVID-19 on the banking industry and their customers.

places, there are chances that some of them might act as the carrier of the virus. However, the fact is, life in villages may get a hit by the pandemic – as a collateral damage of the crumbling of urban economy, the struggle of its rural and agrarian counterpart has already begun.

IMPACT OFRURAL MARKETING

- The first visible impact of COVID-19 in the rural sector is on the agricultural supply-chain. While the government has issued permits to trucks allowing them to carry groceries, fruits, and cereals, a large number of transporters are yet to receive their permits. This has increased the time taken for the farm produce to reach the market. On the other hand, there is a slight impact on the demand side as the restaurants have been ordered to shut down for the interim period. This is causing a sizeable revenue loss to many farmers across states. As per a published report, the railway ministry suggests that freight loading has dipped from a usual 10,000 cargo rakes per day to just about 3-4,000 now. As a result, the farmer has to sell his crop at a cheaper price, settle with a lower profit.
- The second impact of COVID-19 is the delay in sowing and harvesting of crops due to the unavailability of products such as seeds, tractors, ancillary support, and medicines for crop protection. Traditionally, this is the best time for brands from the above-mentioned sectors to market their products to the farmers. Even the e-commerce brands in agriculture have been impacted as the transportation of these products has stopped and there is no inventory.
- The third impact of COVID-19 is the expected job cuts in the agricultural sector. As per the government, there are nearly nine core farmers along with a similar number (if not more) landless agricultural labor. While the farmer will be receiving relief from the government directly, the latter is placed in a difficult position at this time.
- The fourth big impact is the complete shutdown of exports. India has been a major exporter of crops and as per APEDA; India's overall agric-exports in 2018-19 were to the tune of Rs 685 billion. Currently, all the ports have been locked and huge inventory has piled up with the traders and farmers.
- The fifth impact is on the MSME & SME's. These include small industry units, businesses/traders, and shops that manage a decent size inventory and employ numerous direct and indirect employees. Post lockdown, their businesses are shut down and facing a revenue hit. They may have to let go of their employees for a variety of reasons including

financial viability, migration, health and other. People stand to lose jobs without a clear idea of when the situation is going to stabilize.

- The sixth impact is the prediction of a weak consumption trend post COVID-19. Once things return to normal, the primary focus of people would be to secure jobs and get their businesses going. During such time both families and businesses will be keeping stringent checks on their spending patterns. This trend will also be an impediment to the expansion plans of the global/national brands giants in this region. They will take a while before reconsidering their entry to this market.

CONCLUSION:

The current state investment by government in rural areas is limited as compared to urban settings. The government of India is providing proactive measures to contain the virus but fails to accommodate concerns of migrant workers and farmers. The cases of perishable goods and products should be transported properly only when the government should affirm to avoid disruptions in supply chains. Rural areas are highly sensitive to virus spread so local governance should regulate effective service delivery for a considerable section of the population.

Reference:

1. Website address: www.ruralmarketing.com
2. www.ruralmarketingincovi19.in
3. https://www.acadamia.edu.in.

Two - Day Virtual International Conference on "Interdisciplinary Research in Social Sciences, Sciences and Technology"

(ICIRSSST 2021)

21st & 22nd May 2021

Organized by

KG COLLEGE OF ARTS AND SCIENCE

Affiliated to Bharathiar University & Accredited by NAAC
An ISO Certified Institution
KGiSL Campus, Saravanampatti, Coimbatore 641 035

in Collaboration with

UNIVERSITI MALAYA

Proceedings Published by

CiiT

Coimbatore Institute of Information Technology
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamil Nadu, India.
Website: www.ciitresearch.org

47	ICIRSSST 047	Water Sustainable Flush-less Toilets for Rural Area: An Approach to the Sustainable Development *Sanmit P. Nalawade and Pravin A. Manatkar*	80
48	ICIRSSST 048	Microbial Pigments and its Therapeutic Applications *R. Rajan, Hemalatha, G. Rajeswari and N. Yogananth*	81
49	ICIRSSST 049	Screening, Optimization of Actinobacteria Isolated from Mangrove Sediments and Studies on Antimicrobial Potential, Protease Enzyme Activity *S. Ezhil Malar, Y. Nivetha, G. Pavithra and G. Bhuvaneshwari*	81
50	ICIRSSST 050	Mangrove Endophytic Actinobacteria - A Potential Source of Biopharmaceuticals *M. Asha Selva Malar and Dr. R. Rajan*	82
51	ICIRSSST 051	Socio-Economic Structure of Jammu and Kashmir UT and Covid Pandemic *Arshad Bhat*	82
52	ICIRSSST 052	A Study on Fuzzy Soft Supra Preopen Sets *J. Nirmala*	83
53	ICIRSSST 053	Fuzzy Soft Supra Semi Open Sets *V. Krithika and Dr. J. Srikiruthika*	83
54	ICIRSSST 054	An Analytical Solution of Walter"s B Fluid over a Stretching Surface with Radiative and Aligned Magnetic Fields Effects *S. Santhosh Kumar and B. Ganga*	83
55	ICIRSSST 055	Split Edge Domination in Vague Graphs *M. Kaliraja, P. Kanibose and A. Ibrahim*	84
56	ICIRSSST 056	Nutrition Modeling through Rough Set Topology *Y. Preethi Ceon and G. Nivetha*	84
57	ICIRSSST 057	Optimization of Weight of a Belt-Pulley Drive Using ALO, GWO, DA, FA, FPA, WOA, CSO, BA, PSO and GSA *J. Rejula Mercy and S. Elizabeth Anudhini Stephen*	84
58	ICIRSSST 058	Comparative Study on Mini Plant Factory for Shallot Seed Production *R. GeethaRamani and S. Sahaya Keethu Nishma*	85
59	ICIRSSST 059	Orderings on Generalized Regular Interval Valued Fuzzy Soft Matrices *P. Poongodi and K. Sivaranjani*	85
60	ICIRSSST 060	MHD Natural Convection of AL 2 O 3 -Water Nanofluid in a Wavy Cavity with a Heat Source	85

Two Day Virtual International Conference On Interdisciplinary Research In Social Sciences, Sciences And Technology (ICIRSSST - 2021) May 21st & 22nd, 2021

Comparative Study on Mini Plant Factory for Shallot Seed Production

R. GeethaRamani[1] and S. Sahaya Keethu Nishma[2]

[1]*Assistant Professor,* [2]*Student, KG College of Arts and Science*

***Abstract*—**In this project there is an analysis of the changes in airflow Characteristics and temperature distribution in a plant factory with different inlet and outlet Locations. Two alternative design of the inlet and outlet location were simulated to improve the Uniformity of airflow and temperature distribution. The validated CFD model was then used to simulate the alternative design. Then the temperature and airflow were given to a plant to analyze It's growth and found the suitable position to find the uniform air temperature. Finally, we extend our approach in using the effect of CO2 which leads to the faster growth of crops using the Parameters based on needs, responses, and performance of crops.

Orderings on Generalized Regular Interval Valued Fuzzy Soft Matrices

P. Poongodi[1] and K. Sivaranjani[2]

[1]*Associate Professor,* [2]*Assistant Professor*
[1]*Department of Mathematics, KG College of Arts and Science, Coimbatore-641035, India.*
E-Mail: poongodi_happy@rediffmail.com
[2]*Department of Mathematics, Sri Eshwar College of Engineering, Kondampatt i(Post), Coimbatore, India.*
E-Mail: sivasaieshwara@gmail.com

***Abstract*—**In this paper, a special type of ordering called k- ordering for generalized regular Interval Valued Fuzzy Soft Matrix (IVFSM) is discussed as a generalization of the minus partial ordering for regular fuzzy matrices. Under this k – ordering,a set of equivalent conditions for a pair of generalized regular IVFSM to be derived.

***Keywords*—**Fuzzy Matrix, Fuzzy Soft Matrix, K-Regular IVFSM, Minus Ordering, K-Ordering.

MHD Natural Convection of AL 2 O 3 -Water Nanofluid in a Wavy Cavity with a Heat Source

C. Sivaraj[1] and S. Gowtham[2]

[1,2]*Department of Mathematics, PSG College of Arts and Science, Coimbatore 641014, TamilNadu, India.*

***Abstract*—**The present investigation explores into the effect of control parameters governing the process of magnetohydrodynamic (MHD) natural convection in an enclosure that is filled by Al 2 O 3 -water based nanofluid. For this, we have designed a wavy cavity with a heat source embedded at center of the bottom wall. Either sides of the vertical boundaries are kept at constant temperature Tc, while the top side of the cavity is assumed as an adiabatic and the bottom is also an adiabatic except the heat source. The heat source can supply energy in uniform manner. The governing equations are formulated in the form of dimensionless vorticity-stream function and their numerical solutions are arrived by Finite Volume Method (FVM) with power-law differencing scheme. The system was optimized for various values of controlling parameters, namely, number of

ISBN 978-81-951822-8-2 © 2021 Published by Coimbatore Institute of Information Technology

Two - Day Virtual International Conference on "Interdisciplinary Research in Social Sciences, Sciences and Technology"

(ICIRSSST 2021)

21st & 22nd May 2021

Organized by

KG COLLEGE OF ARTS AND SCIENCE

Affiliated to Bharathiar University & Accredited by NAAC
An ISO Certified Institution
KGiSL Campus, Saravanampatti, Coimbatore 641 035

in Collaboration with

UNIVERSITI MALAYA

Proceedings Published by

CiiT

Coimbatore Institute of Information Technology
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamil Nadu, India.
Website: www.ciitresearch.org

All Rights Reserved.

Original English Language Edition © Copyright by **Coimbatore Institute of Information Technology.**

This book may not be duplicated in any way without the express written consent of the publisher, except in the form of brief excerpts or quotations for the purpose of review. The information contained herein is for the personal use of the reader and may not be incorporated in any commercial programs, other books, database, or any kind of software without written consent of the publisher. Making copies of this book or any portion thereof for any purpose other than your own is a violation of copyright laws.

This edition has been published by **Coimbatore Institute of Information Technology, Coimbatore.**

Limits of Liability/Disclaimer of Warranty: The author and publisher have used their effort in preparing this ICIRSSST 2021 book and author makes no representation or warranties with respect to accuracy or completeness of the contents of this book, and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. There are no warranties which extend beyond the descriptions contained in this paragraph. No warranty may be created or extended by sales representatives or written sales materials. Neither CiiT Software Research Institute nor author shall be liable for any loss of profit or any other commercial damage, including but limited to special, incidental, consequential, or other damages.

Trademarks: All brand names and product names used in this book are trademarks, registered trademarks, or trade names of their respective holders.

ISBN 978-81-951822-8-2
This Book is Printed in 70 gsm Papers.

Coimbatore Institute of Information Technology,
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamilnadu, India.
Phone: 0422-4377821
www.ciitresearch.org

47	ICIRSSST 047	Water Sustainable Flush-less Toilets for Rural Area: An Approach to the Sustainable Development *Sanmit P. Nalawade and Pravin A. Manatkar*	80
48	ICIRSSST 048	Microbial Pigments and its Therapeutic Applications *R. Rajan, Hemalatha, G. Rajeswari and N. Yogananth*	81
49	ICIRSSST 049	Screening, Optimization of Actinobacteria Isolated from Mangrove Sediments and Studies on Antimicrobial Potential, Protease Enzyme Activity *S. Ezhil Malar, Y. Nivetha, G. Pavithra and G. Bhuvaneshwari*	81
50	ICIRSSST 050	Mangrove Endophytic Actinobacteria - A Potential Source of Biopharmaceuticals *M. Asha Selva Malar and Dr. R. Rajan*	82
51	ICIRSSST 051	Socio-Economic Structure of Jammu and Kashmir UT and Covid Pandemic *Arshad Bhat*	82
52	ICIRSSST 052	A Study on Fuzzy Soft Supra Preopen Sets *J. Nirmala*	83
53	ICIRSSST 053	Fuzzy Soft Supra Semi Open Sets *V. Krithika and Dr. J. Srikiruthika*	83
54	ICIRSSST 054	An Analytical Solution of Walter"s B Fluid over a Stretching Surface with Radiative and Aligned Magnetic Fields Effects *S. Santhosh Kumar and B. Ganga*	83
55	ICIRSSST 055	Split Edge Domination in Vague Graphs *M. Kaliraja, P. Kanibose and A. Ibrahim*	84
56	ICIRSSST 056	Nutrition Modeling through Rough Set Topology *Y. Preethi Ceon and G. Nivetha*	84
57	ICIRSSST 057	Optimization of Weight of a Belt-Pulley Drive Using ALO, GWO, DA, FA, FPA, WOA, CSO, BA, PSO and GSA *J. Rejula Mercy and S. Elizabeth Amudhini Stephen*	84
58	ICIRSSST 058	Comparative Study on Mini Plant Factory for Shallot Seed Production *R. GeethaRamani and S. Sahaya Keethu Nishma*	85
59	ICIRSSST 059	Orderings on Generalized Regular Interval Valued Fuzzy Soft Matrices *P. Poongodi and K. Sivaranjani*	85
60	ICIRSSST 060	MHD Natural Convection of AL 2 O 3 -Water Nanofluid in a Wavy Cavity with a Heat Source *C. Sivaraj and S. Gowtham*	85
61	ICIRSSST 061	Queueing Theory, Queue Psychology and its Applications *K. Chellapriya*	86
62	ICIRSSST 062	D-Centroid for Static Node Deployment in Wireless Sensor Networks *V. Sneha and Dr. M. Nagarajan*	86
63	ICIRSSST 063	Towards Query Effective and Replication in Big Data Analytics *Bosco Nirmala Priya and Dr. D. Gayathri Devi*	87

Two Day Virtual International Conference On Interdisciplinary Research In Social Sciences, Sciences And Technology (ICIRSSST - 2021) May 21st & 22nd, 2021

Comparative Study on Mini Plant Factory for Shallot Seed Production

R. GeethaRamani[1] and S. Sahaya Keethu Nishma[2]

[1]Assistant Professor, [2]Student, KG College of Arts and Science

***Abstract*---**In this project there is an analysis of the changes in airflow Characteristics and temperature distribution in a plant factory with different inlet and outlet Locations. Two alternative design of the inlet and outlet location were simulated to improve the Uniformity of airflow and temperature distribution. The validated CFD model was then used to simulate the alternative design. Then the temperature and airflow were given to a plant to analyze It's growth and found the suitable position to find the uniform air temperature. Finally, we extend our approach in using the effect of CO2 which leads to the faster growth of crops using the Parameters based on needs, responses, and performance of crops.

Orderings on Generalized Regular Interval Valued Fuzzy Soft Matrices

P. Poongodi[1] and K. Sivaranjani[2]

[1]Associate Professor, [2]Assistant Professor
[1]Department of Mathematics, KG College of Arts and Science, Coimbatore-641035, India.
E-Mail: poongodi_happi@rediffmail.com
[2]Department of Mathematics, Sri Eshwar College of Engineering, Kondampatti i(Post), Coimbatore, India.
E-Mail: sivasaieshwara@gmail.com

***Abstract*---**In this paper, a special type of ordering called k- ordering for generalized regular Interval Valued Fuzzy Soft Matrix (IVFSM) is discussed as a generalization of the minus partial ordering for regular fuzzy matrices. Under this k – ordering,a set of equivalent conditions for a pair of generalized regular IVFSM to be derived.

***Keywords*---**Fuzzy Matrix, Fuzzy Soft Matrix, K-Regular IVFSM, Minus Ordering, K-Ordering.

MHD Natural Convection of AL 2 O 3 -Water Nanofluid in a Wavy Cavity with a Heat Source

C. Sivaraj[1] and S. Gowtham[2]

[1,2]Department of Mathematics, PSG College of Arts and Science, Coimbatore 641014, TamilNadu, India.

***Abstract*---**The present investigation explores into the effect of control parameters governing the process of magnetohydrodynamic (MHD) natural convection in an enclosure that is filled by Al 2 O 3 -water based nanofluid. For this, we have designed a wavy cavity with a heat source embedded at center of the bottom wall. Either sides of the vertical boundaries are kept at constant temperature Tc, while the top side of the cavity is assumed as an adiabatic and the bottom is also an adiabatic except the heat source. The heat source can supply energy in uniform manner. The governing equations are formulated in the form of dimensionless vorticity-stream function and their numerical solutions are arrived by Finite Volume Method (FVM) with power-law differencing scheme. The system was optimized for various values of controlling parameters, namely, number of

ISBN 978-81-951822-8-2 © 2021 Published by Coimbatore Institute of Information Technology

PROCEEDINGS
3rd International Conference on Trends in Material Science and Inventive Materials (ICTMIM 2021)
ICTMIM
IOP Publishing
JCT
COLLEGE OF ENGINEERING AND TECHNOLOGY
JCT College of Engineering and Technology
Coimbatore, India

COST MINIMIZATION OF TURNING MACHINING PROCESS WITH MATERIALS USING ABC, AUCTION, ANT LION, ELEPHANT, SPIRAL, BACTERIAL, GREEDY, LAWLERS FIREWORKS AND PATTERN SEARCH

[1]T. Jagan, [2]S. Elizabeth Amudhini Stephen
[1]Scholar, Department of Mathematics, Karunya Institute of Technology and Sciences;
[1]Assistant professor, Department of Mathematics, KG College of Arts and Science, Coimbatore,
[2]Associate professor, Department of Mathematics, Karunya Institute of Technology and Sciences, elizi.felix@gmail.com

ABSTRACT: The optimization algorithms are used in machining process for improving product quality and minimizing cost and time. The turning machine process is used for cutting speed and feed. This paper describes the optimization of machining process by using the ABC algorithm, Auction, Spiral, Ant lion, Elephant herding, Bacterial colony, Greedy, Lawler's, Fireworks and pattern search for these ten non-traditional methods. In this paper, we have compared the solution to minimize the total cost and time of turning machine process using ten artificial optimization methods. We conclude which method gives a better solution for turning machine process.

Keywords: Turning machine process, Optimization Algorithm, Cost minimization, ABC algorithm, Auction, Ant lion, Elephant herding, Spiral, Bacterial colony, Greedy, Lawler's, Fireworks and Pattern search.

1. Introduction: The machine process involves the different ranging from cutting speed, feed, depth of cut and number of passes to output of production cost, tool life, production time, cutting forces, cutting temperature and power consumption etc. Selecting particular of cutting condition has a significant impact on product quality and machining cost. The parameters are Feed (f), Cutting speed (Vc) and Cutting depth (D).

Optimization machining process condition related to parameter selection problem of multi pass turning (2). The different authors attempted optimization of the same problem using varies methods (3, 4). The hybrid technique based on simulation algorithm and pattern search to minimize the production cost proposed by Chen (5). The optimization based on genetic algorithm approached in optimization technique (6). The pattern search method attract more researcher by solving a complex optimization problem (3). The same model is attempted using hybrid algorithm and genetic algorithm (7).

The above literature review presented, turning machine process is a complex problem to solve various optimization approaches. In this work pattern search is developed to minimize the unit production cost. The proposed optimization method is highlighted by comparing the obtained results with non - traditional optimization methods.

In this next session, we present objective of the problem to minimize subject to various constraints. In same, we proposed an algorithm is studied and results are presented and compared with other non- traditional optimization methods.

All Rights Reserved.

Original English Language Edition © Copyright by **Coimbatore Institute of Information Technology.**

This book may not be duplicated in any way without the express written consent of the publisher, except in the form of brief excerpts or quotations for the purpose of review. The information contained herein is for the personal use of the reader and may not be incorporated in any commercial programs, other books, database, or any kind of software without written consent of the publisher. Making copies of this book or any portion thereof for any purpose other than your own is a violation of copyright laws.

This edition has been published by **Coimbatore Institute of Information Technology, Coimbatore.**

Limits of Liability/Disclaimer of Warranty: The author and publisher have used their effort in preparing this ICIRSSST 2021 book and author makes no representation or warranties with respect to accuracy or completeness of the contents of this book, and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. There are no warranties which extend beyond the descriptions contained in this paragraph. No warranty may be created or extended by sales representatives or written sales materials. Neither CiiT Software Research Institute nor author shall be liable for any loss of profit or any other commercial damage, including but limited to special, incidental, consequential, or other damages.

Trademarks: All brand names and product names used in this book are trademarks, registered trademarks, or trade names of their respective holders.

ISBN 978-81-951822-8-2
This Book is Printed in 70 gsm Papers.

Coimbatore Institute of Information Technology,
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamilnadu, India.
Phone: 0422-4377821
www.ciitresearch.org

Coimbatore Institute of Information Technology
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamil Nadu, India.
Website: www.ciitresearch.org

97	ICIRSSST 097	An Empirical Analysis of Liquidity and Profitability of ONGC *P. Dhanalakshmi*	95
98	ICIRSSST 098	Comparative Analysis of Extracted Caffeine (Methyl Xanthine Alkaloid) from Different Tea Dust and Used Tea Retentate and its Plant Growth Promoting Activity *V. Harini, J. Abirami and A. Praveena*	96
99	ICIRSSST 099	Models Efficient Data Mining and Pattern Recognition Feature Selection Models: A Comparative Study *Issa Mohammed Saeed Ali and Dr. B. Mukunthan*	96
100	ICIRSSST 100	Extraction and Formulation of Tocopherol Cream and its Antioxidant Activity *S. Alice Angel and M. Swathy*	97
101	ICIRSSST 101	Human and Nature"s Conflicts in "The Hungry Tide" *Dr. D. Divya, Dr. R. Sumathi and V. Menaka Devi*	97
102	ICIRSSST 102	Estimation of Spatiotemporal Mining Employing Recurrent Neural Network *Dr. R. Sarala*	98
103	ICIRSSST 103	SVM Machine Learning Approach for Hyperspectral Aerial Image Classification *Dr. A. GokilaVani*	98

Two Day Virtual International Conference On Interdisciplinary Research In Social Sciences, Sciences And Technology (ICIRSSST - 2021) May 21st & 22nd, 2021

Estimation of Spatiotemporal Mining Employing Recurrent Neural Network

Dr. R. Sarala

Assistant Professor, Department of Computer Science, KG College of Arts and Science, Coimbatore, Tamil Nadu, India.
E-Mail: sarala.r@kgcas.com, Contact No: 9994552286

Abstract---Spatiotemporal pattern is observed as the repeated arrangement or relationship of specific occasions or highlights of spatiotemporal. To discriminate these groupings or affiliations, the spatiotemporal patterns of wrongdoing events, proper separation based and length-based estimations are expected to oblige the size or state of the pattern. Genuine world ST patterns can be of various sizes and shapes after some time, and non-consistently disseminated over space. The systematic learning of spatiotemporal successions expects to create future pictures by knowledge from the authentic edges, where spatial advents and temporal varieties are two pivotal structures. This paper projected a predictive methodology of Spatio-temporal utilizingrecurrent neural network. A machine learning approach of persistent neural networks, stands separately as a suitable worldview for without model, data-based prediction of nonlinear dynamical frameworks. By applying this methodology in Spatiotemporal pattern, the prediction mistake is limited.

SVM Machine Learning Approach for Hyperspectral Aerial Image Classification

Dr. A. GokilaVani

Assistant Professor & Head, Department of Computer Science, KG College of Arts and Science, Coimbatore.
E-Mail: a.gokilavani@kgcas.com, Contact no.: 9789498209

Abstract---Recently the analysis of hyperspectral images (HSI) acquired by remote sensors has gained substantial attention and is increasingly becoming an active research discipline. The classification of surface features from satellite imagery is one of the most important applications of remote sensing. The recent development of sensor technology resulted in the possibility to develop hyperspectral sensors which can acquire remotely sensed images in hundreds of spectral bands. Indeed, hyperspectral imagery provides a profuse source of information for various earth observation themes and applications. Despite this potential for information extraction, the classification techniques can provide better performance like high volume data processing, high dimensional space modelling, etc. Therefore, in processing hyperspectral images, the classification approaches have been proposed to hyperspectral data for spaces reduction.

ISBN 978-81-951822-8-2 © 2021 Published by Coimbatore Institute of Information Technology

Online International Conference on "Recent Trends in Computer Science and Information Technology" (ICRCSIT-20)
St. MARTIN'S
Engineering College
UGC AUTONOMOUS
A NON MINORITY COLLEGE, AFFILIATED TO JNTUH, APPROVED BY AICTE,
ACCREDITED BY NBA & NAAC A+, ISO 9001:2008 CERTIFIED
SIRO RECOGNITION BY MINISTRY OF SCIENCE & TECHNOLOGY, GOVT. OF INDIA.
Dhulapally, Near Kompally, Secunderabad - 500 100, T.S. www.smec.ac.in
A+
NAAC
Departments of Computer Science & Engineering and Information Technology presents
Online International Conference on
"Recent Trends in Computer Science and Information Technology"
(ICRCSIT-20) PROCEEDINGS
ISBN:
978-93-80831-66-4
Editor in chief
Dr.P.Santosh Kumar Patra
nirf
Ranked Institute
: 8096945566, 8008333876, 8008333886
: www.smec.ac.in
: Dhulapally, Near Kompally, Secunderabad - 500 100, T.S.
ESTABLISHED 2002

Departments of CSE & IT, St. Martin's Engineering College, Secunderabad (www.smec.ac.in)
ISBN No. 978-93-80831-66-4

201	ICRCSIT-0273	Comparative Analysis of Different Atmospheric Weather Condition in Free Space Optical Communication System *Anupriya Dubey[1*], Sourabh Sahu[2]*	202
202	ICRCSIT-0277	Opportunities of E- Learning *Hari Priya Vedala**	203
203	ICRCSIT-0281	Web of Things for Smart Health Protection Advancements and Openings *Ms.Hemalatha K**	204
204	ICRCSIT-0282	Performance Analysis on Higher Education System Using R Tool *K. Thirunavukkarasu[1], A.Prema[2]*	205
205	ICRCSIT-0283	Application for Gender, Age and FaceRecognition Using OpenCV *Ms. Prasanna N[1], Mr. K. Venkata Rao[2]*	206
206	ICRCSIT-0284	Smart Traffic Light System *Ms. Meena G[1],Mr. K. Venkata Rao[2]*	207
207	ICRCSIT-0289	Cross User Key Control Mechanism in Cloud Computing *Mr. Mantesh Patil**	208
208	ICRCSIT-0291	Integrated Crop Protection Management *Akshatha Ashoka Kasara [1], Lorate Shiny[2], Raju K R[3],Pavithra N[4],Ranjith Kumar S[5]*	209
209	ICRCSIT-0292	Automated Medicine Distributor Based on Symptoms using NodeMcuand Cloud *S.Aiswarya[1],V.AntruddhaMaruthi[2],U.Bharanidharan[3], Manu Manikuttan[4]*	210
210	ICRCSIT-0295	Sentiment Analysis on CAA & NRC using Machine Learning *Dharminder Yadav[1], Sonia Rani[2], Sharik Ahmad[3], Himani Maheshwari[4]*	211
211	ICRCSIT-0297	Study on AI Employment During Covid and Possibilities for Future Wars *Naveen Rathi*	212
212	ICRCSIT-0299	Collaboration of IoT using SDN with Data Mining *Harika B[1], B.Hari Krishna[2],Saidiya Kalagatla[3]*	213
213	ICRCSIT-0300	A Correlative study of Machine Learning Classification Techniques for Anomaly Based Intrusion Detection System *N.Sai Lohitha[1], Dr.M.Pounambal[2]*	214
214	ICRCSIT-0302	Fusion of Medical Images using Image Processing and Fuzzy Logic Based Techniques: A Survey *Happy Ambastha[1], Ankit Arora[2]*	215
215	ICRCSIT-0303	Real time Audio Visual Experience in Museums using Deep Learning *Shereen Esther Jubai[1],Yuvedha Devakumar[2],Shanthini Shanmugam[3]*	216
216	ICRCSIT-0305	Sentiment Analysis and Visualizationof Real-Time Twitter Data *Mahesh G. Huddar[1], Ramya Bavache[2], Neha Hulmani[3], Shraddha Khot[4],Kiran Hipparagi[5].*	217
217	ICRCSIT-0306	A Review: Machine Learning based Chronic Kidney Disease Prediction *Jayashree M[1],Dr. Anitha N[2]*	218
218	ICRCSIT-0307	An Autoencoder Neural Network Approach for High-Resolution Images from Low-Resolution Images [illegible]	219
219	ICRCSIT-0308	A Comparative study on heuristic searches *Aswanandini R*	220
220	ICRCSIT-0309	The Efficiency of Sequential Pattern Mining in Enriches by Tuning Machine *Pisal T.B[1], Dr. Arjun P Ghatule[2]*	221
221	ICRCSIT-0310	Smart Farming Framework *Rohan Joshi[1]*	222
222	ICRCSIT-0311	Biometric Based Online Voting using Blockchain Technology *V.Kandasamy[1], R.Goutham[2], S.Harinath[3], R.Magesh Raj[4]*	223
223	ICRCSIT-0312	Understanding Business and Governance Prospects of Block Chain Technology: A Legal Primer *Dr. Ambika R. Nair[1*], Dr.JishnuJ.R[2]*	224
224	ICRCSIT-0313	Identify Type of Diabetes Disease from a Large Dataset Using Classification and Data Mining Techniques: A Survey	225

PAPER ID: ICRCSIT-0308

A Comparative Study on Heuristic Searches

Aswanandini.R

Assistant Professor,Department of Computer Science,KG College of Arts and Science,Coimbatore.

Abstract

The need to solve large problems with large number of possible statesand to increase the efficiency of search algorithms, problem-specific knowledge like heuristic search needs to be added. Heuristic search is a technique to solve a problem faster than classic methods.Using this search the solution will have accuracy, completeness or precision for speed. In each iteration, it evaluates the available information and choses the next path to follow. The problem solving method using various heuristic search techniques are discussed here.

Keywords:Hyper heuristic, cyber security, malware, perturbation heuristics.

* Corresponding author
E-mail address: aswanandini1981@gmail.com

UGC AUTONOMOUS

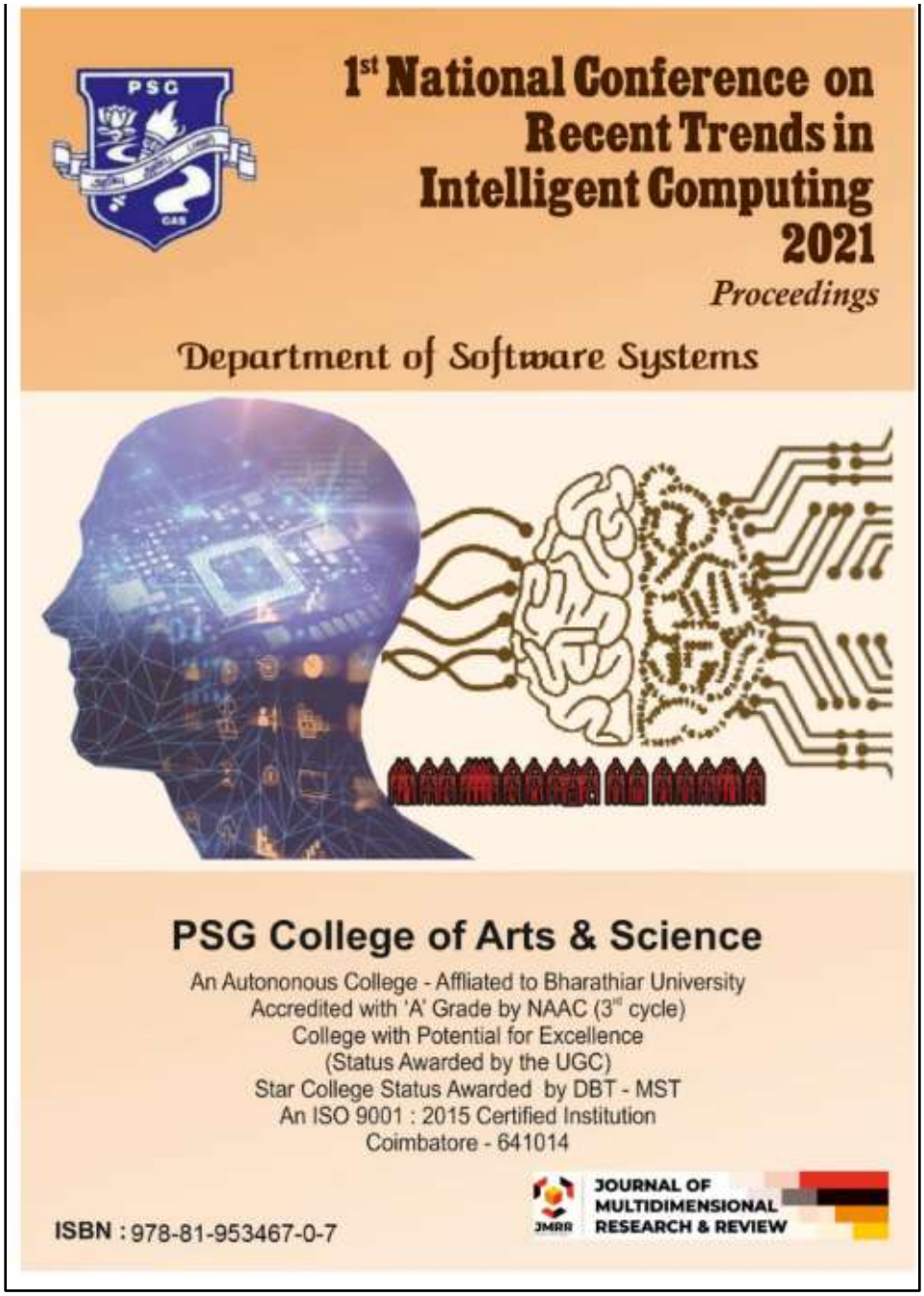

1st National Conference on
Recent Trends in
Intelligent Computing
2021
Proceedings
Department of Software Systems
PSG College of Arts & Science
An Autononous College - Affliated to Bharathiar University
Accredited with 'A' Grade by NAAC (3rd cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT - MST
An ISO 9001 : 2015 Certified Institution
Coimbatore - 641014
ISBN : 978-81-953467-0-7
JOURNAL OF
MULTIDIMENSIONAL
RESEARCH & REVIEW

Table of the Content

S.No	Paper ID	Title & Author Details	Page No
1	NCRTIC210007	IOT Sensor-Based Abnormal Behavior Detection for Elderly People Ms.G.Preethi Ms.K.Abhirami Ms.K.Divya Shree, Ms.S.Lashini	1
2	NCRTIC210015	An Enriched Classification of Images of People by Gender and Age Dr.D.Shanmuga Priyaa	1
3	NCRTIC210035	Challenges in IoT: A Survey Vinitha . A	2
4	NCRTIC210046	An Embedded Device to Detect Diabetic Retinopathy and Cardiovascular Disease using AI Dr. P. Ajitha Dr. S. Vidhya	2
5	NCRTIC210057	A Conceptual View of Biometric usage in IoT Dr.G.Yashodha	3
6	NCRTIC210062	Software Quality Assurance through Artificial Intelligence in Software Testing V.Sathyavathy,	3
7	NCRTIC210063	DDOS Attacks in Cloud Environment Detection Techniques Review A.Lavanya,	4
8	NCRTIC210068	Cloud Security by Format Preserving Encryption Dr. S. Vidhya, Dr. P. Ajitha	4
9	NCRTIC210070	Study on Security Issues and Countermeasures in Wireless Sensor Networks Sowndharya N, Jeevitha Priya, Deepan Kumar S	5
10	NCRTIC210074	Managing Personal Networking during Repgrid Networking	6
11	NCRTIC210094	Hyper Heuristics for Big Data Cyber Security Aswanandini.R, Dr.Deepa.C,	6
12	NCRTIC210107	improved Density based Spatial Clustering G.PriyaDharshini,	7
13	NCRTIC210114	Microprocessor based Power Generation using Mechanical Force in Piezoelectric Sensor Prof.R. Arthi, Ms.S.Ashicka, Ms.V.M. Sowmiya	7
14	NCRTIC210108	Diagnosing the Preferred Practice of Ophthalmology during Covid-19 Pandemic Dr. R. Deepa, Ms. S.Vaishnavi	8
15	NCRTIC210109	Text Mining: Techniques, Applications and Issues R. Romola Elizabeth Prema	8

NCRTIC'2021 ISBN: 978-81-953467-0-7

S.No: 10 Paper ID : NCRTIC210074(AC)

MANAGING PERSONAL NETWORKING DURING REPGRID NETWORKING

Ms.P.R.PameelaRani
Assistant Professor, Department of Computer Technology
KG College of Arts and Science
Coimbatore

Abstract:- RepGrid-Net is a computer-based message system that integrates conventional electronic mail and bulletin board facilities with repertory grid elicitation and analysis facilities to provide both unstructured and structured communications supporting the formation and operation of special interest networks. Users see a mail system in which special-interest networks are purposely supported. The coordinators of such a network provide a basic focus for it through statements of intent, topics and issues which are handled on a bulletin board basis. They also provide one or more core grids listing exact topics and the concepts which they apply to them. These kernel grids can be developed by others interested in the groups, using the stated topics and concepts, and adding to them. broad similarities between grids are analyzed to provide a socio net of people with common viewpoints, and this may be used to access the mail system to be in touch with them. Detailed comparisons of similarities and differences among viewpoints may be made, and personality concept structures can be analyzed.

Keywords: RepGrid, Message System, networks

S.No: 11 Paper ID : NCRTIC210094(AC)

HYPER HEURISTICS FOR BIG DATA CYBER SECURITY

Aswanandini.R,
Assistant Professor, Department of Computer Science, KG College of Arts and Science, Ph.D Scholar, Sri Ramakrishna College of Arts and Science, Coimbatore

Dr.Deepa.C,
Associate Professor, Department of Information Technology,
Sri Ramakrishna College of Arts and Science

*Abstract:-*The need to solve large problems with large number of possible states and to increase the efficiency of search algorithms, problem-specific knowledge like heuristic search needs to be added. Heuristic search is a technique to solve a problem faster than classic methods. Using this search the solution will have accuracy, completeness or precision for speed. In each iteration, it evaluates the available information and chooses the next path to follow. The problem solving method using various heuristic search techniques are discussed here.

Keywords : Hyperheuristic, cyber security, malware, perturbation heuristics.

Two - Day Virtual International Conference on "Interdisciplinary Research in Social Sciences, Sciences and Technology"

(ICIRSSST 2021)

21st & 22nd May 2021

Organized by

KG COLLEGE OF ARTS AND SCIENCE

Affiliated to Bharathiar University & Accredited by NAAC
An ISO Certified Institution
KGiSL Campus, Saravanampatti, Coimbatore 641 035

in Collaboration with

UNIVERSITI MALAYA

Proceedings Published by

CiiT

Coimbatore Institute of Information Technology
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamil Nadu, India.
Website: www.ciitresearch.org

All Rights Reserved.

Original English Language Edition © Copyright by **Coimbatore Institute of Information Technology.**

This book may not be duplicated in any way without the express written consent of the publisher, except in the form of brief excerpts or quotations for the purpose of review. The information contained herein is for the personal use of the reader and may not be incorporated in any commercial programs, other books, database, or any kind of software without written consent of the publisher. Making copies of this book or any portion thereof for any purpose other than your own is a violation of copyright laws.

This edition has been published by **Coimbatore Institute of Information Technology, Coimbatore.**

Limits of Liability/Disclaimer of Warranty: The author and publisher have used their effort in preparing this ICIRSSST 2021 book and author makes no representation or warranties with respect to accuracy or completeness of the contents of this book, and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. There are no warranties which extend beyond the descriptions contained in this paragraph. No warranty may be created or extended by sales representatives or written sales materials. Neither CiiT Software Research Institute nor author shall be liable for any loss of profit or any other commercial damage, including but limited to special, incidental, consequential, or other damages.

Trademarks: All brand names and product names used in this book are trademarks, registered trademarks, or trade names of their respective holders.

ISBN 978-81-951822-8-2
This Book is Printed in 70 gsm Papers.

97	ICIRSSST 097	An Empirical Analysis of Liquidity and Profitability of ONGC *P. Dhanalakshmi*	95
98	ICIRSSST 098	Comparative Analysis of Extracted Caffeine (Methyl Xanthine Alkaloid) from Different Tea Dust and Used Tea Retentate and its Plant Growth Promoting Activity *V. Harini, J. Abirami and A. Praveena*	96
99	ICIRSSST 099	Models Efficient Data Mining and Pattern Recognition Feature Selection Models: A Comparative Study *Issa Mohammed Saeed Ali and Dr. B. Mukunthan*	96
100	ICIRSSST 100	Extraction and Formulation of Tocopherol Cream and its Antioxidant Activity *S. Alice Angel and M. Swathy*	97
101	ICIRSSST 101	Human and Nature"s Conflicts in "The Hungry Tide" *Dr. D. Divya, Dr. R. Sumathi and V. Menaka Devi*	97
102	ICIRSSST 102	Estimation of Spatiotemporal Mining Employing Recurrent Neural Network *Dr. R. Sarala*	98
103	ICIRSSST 103	SVM Machine Learning Approach for Hyperspectral Aerial Image Classification *Dr. A. GokilaVani*	98

Two Day Virtual International Conference On Interdisciplinary Research In Social Sciences, Sciences And Technology (ICIRSSST - 2021) May 21st & 22nd, 2021

Estimation of Spatiotemporal Mining Employing Recurrent Neural Network

Dr. R. Sarala

Assistant Professor, Department of Computer Science, KG College of Arts and Science, Coimbatore, Tamil Nadu, India.
E-Mail: sarala.r@kgcas.com, Contact No: 9994552286

***Abstract*---**Spatiotemporal pattern is observed as the repeated arrangement or relationship of specific occasions or highlights of spatiotemporal. To discriminate these groupings or affiliations, the spatiotemporal patterns of wrongdoing events, proper separation based and length-based estimations are expected to oblige the size or state of the pattern. Genuine world ST patterns can be of various sizes and shapes after some time, and non-consistently disseminated over space. The systematic learning of spatiotemporal successions expects to create future pictures by knowledge from the authentic edges, where spatial advents and temporal varieties are two pivotal structures. This paper projected a predictive methodology of Spatio-temporal utilizingrecurrent neural network. A machine learning approach of persistent neural networks, stands separately as a suitable worldview for without model, data-based prediction of nonlinear dynamical frameworks. By applying this methodology in Spatiotemporal pattern, the prediction mistake is limited.

SVM Machine Learning Approach for Hyperspectral Aerial Image Classification

Dr. A. GokilaVani

Assistant Professor & Head, Department of Computer Science, KG College of Arts and Science, Coimbatore.
E-Mail: a.gokilavani@kgcas.com, Contact no.: 9789498209

***Abstract*---**Recently the analysis of hyperspectral images (HSI) acquired by remote sensors has gained substantial attention and is increasingly becoming an active research discipline. The classification of surface features from satellite imagery is one of the most important applications of remote sensing. The recent development of sensor technology resulted in the possibility to develop hyperspectral sensors which can acquire remotely sensed images in hundreds of spectral bands. Indeed, hyperspectral imagery provides a profuse source of information for various earth observation themes and applications. Despite this potential for information extraction, the classification techniques can provide better performance like high volume data processing, high dimensional space modelling, etc. Therefore, in processing hyperspectral images, the classification approaches have been proposed to hyperspectral data for spaces reduction.

ISBN 978-81-951822-8-2 © 2021 Published by Coimbatore Institute of Information Technology

Online International Conference on "Recent Trends in Computer Science and Information Technology" (ICRCSIT-20)
St. MARTIN'S
Engineering College
UGC AUTONOMOUS
A NON MINORITY COLLEGE, AFFILIATED TO JNTUH, APPROVED BY AICTE,
ACCREDITED BY NBA & NAAC A+, ISO 9001:2008 CERTIFIED
SIRO RECOGNITION BY MINISTRY OF SCIENCE & TECHNOLOGY, GOVT OF INDIA.
Dhulapally, Near Kompally, Secunderabad - 500 100, T.S. www.smec.ac.in
A+
NAAC
Departments of Computer Science & Engineering and Information Technology presents
Online International Conference on
"Recent Trends in Computer Science and Information Technology"
(ICRCSIT-20) PROCEEDINGS
ISBN:
978-93-80831-66-4
Editor in chief
Dr.P.Santosh Kumar Patra
nirf
Ranked Institute
: 8096945566, 8008333876, 8008333886
: www.smec.ac.in
: Dhulapally, Near Kompally, Secunderabad - 500 100, T.S.
ESTABLISHED 2002

Departments of CSE & IT, St. Martin's Engineering College, Secunderabad (www.smec.ac.in)
ISBN No. 978-93-80831-66-4

194	ICRCSIT-0268	An IOT Based Staple Food Endowment and Waste Management System for Foster Care using Arduino and Blockchain *M. Janani[1], R. Gunaseeli[2], B. Aharna[3], B. Malarvizhi[4], Mr. V. Dinesh[5]*	195
195	ICRCSIT-0269	Applicability of Classification Techniques in Predicting Emotional Health *Mikanshu Rani[1], Jarvinder Singh[2]*	196
196	ICRCSIT-0270	CyberSecurity Trends in Information Technology and Emerging Future Threats *Shashikanth K[1], Srikanth Gangadhara[2], Kothakonda Chander[3]*	197
197	ICRCSIT-0271	A Smart System for Alcohol and Heart Attack Detection in Transportation using IOT *Mr. Mohan A. Ghalap[1], Mr. Ravindra R. Patil[2]*	198
198	ICRCSIT-0272	Layered Approach for Data Sharing in Cloud Environment Analysis *Sujarani M S[1], Alvalma S[2], Shahana Shihab[3], Sruthi S[4]*	199
199	ICRCSIT-0273	Comparative Analysis of Different Atmospheric Weather Condition in Free Space Optical Communication System *Anupriya Dubey[1], Sourabh Sahu[2]*	200
200	ICRCSIT-0277	Opportunities of E- Learning *Hari Priya Vedala*	201
201	ICRCSIT-0281	Web of Things for Smart Health Protection Advancements and Openings *Ms.Hemalatha.K*	202
202	ICRCSIT-0282	Performance Analysis on Higher Education System Using R Tool *K. Thirunavukkarasu[1], A. Prema[2]*	203
203	ICRCSIT-0283	Application for Gender, Age and Face Recognition Using OpenCV *Ms. Prasanna N[1], Mr. K. Venkata Rao[2]*	204
204	ICRCSIT-0284	Smart Traffic Light System *Ms. Meena G[1], Mr. K. Venkata Rao[2]*	205
205	ICRCSIT-0289	Cross User Key Control Mechanism in Cloud Computing *Mr. Mantesh Patil*	206
206	ICRCSIT-0291	Integrated Crop Protection Management *Lorate Shiny[1], Akshatha Ashoka Kasara[2], Raju K B[3], Pavithra N[4], Ranjith Kumar S[5]*	207
207	ICRCSIT-0292	Automated Medicine Distributor Based on Symptoms using Node MCU and Cloud *S.Aiswarya[1], V.AnuruddhaMaruthi[2], U.Bharanidharan[3], Manu Manikuttan[4]*	208
208	ICRCSIT-0295	Sentiment Analysis on CAA & NRC using Machine Learning *Dharminder Yadav[1], Sonia Rani[2], Sharik Ahmad[3], Himani Maheshwari[4]*	209
209	ICRCSIT-0297	Study on AI Employment During Covid and Possibilities for Future Wars *Naveen Rathi*	210
210	ICRCSIT-0299	Collaboration of IoT using SDN with Data Mining *Harika.B[1], B.Hari Krishna[2], Saidirya Kalagatla[3]*	211
211	ICRCSIT-0300	A Correlative study of Machine Learning Classification Techniques for Anomaly Based Intrusion Detection System *N.Sai Lohitha[1], Dr.M.Poornambal[2]*	212
212	ICRCSIT-0302	Fusion of Medical Images using Image Processing and Fuzzy Logic Based Techniques: A Survey *Happy Ambastha[1], Anku Arora[2]*	213
213	ICRCSIT-0303	Real time Audio Visual Experience in Museums using Deep Learning *Shereen Esther Jubal[1], Yuvedha Devakumar[2], Shanthini Shanmugam[3]*	214
214	ICRCSIT-0305	Sentiment Analysis and Visualizationof Real-Time Twitter Data *Mahesh G. Huddar[1], Ramya Bavache[2], Neha Hulmani[3], Shraddha Khot[4], Kiran Hippargi[5]*	215
215	ICRCSIT-0306	A Review: Machine Learning based Chronic Kidney Disease Prediction *Jayashree M[1], Dr. Anitha N[2]*	216
216	ICRCSIT-0307	An Autoencoder Neural Network Approach for High-Resolution Images from Low-Resolution Images *Srinivasa Rao G[1], Charles Stud A[2], Srinivasa Rao N[3]*	217
217	ICRCSIT-0308	A Comparative study on heuristic searches *Aswanandini R*	218
218	ICRCSIT-0309	The Efficiency of Sequential Pattern Mining is Enriches by Turing Machine *Pisal T.B[1],Dr. Arjun P. Ghatule[2]*	219
219	ICRCSIT-0310	Smart Farming Framework *Rohan Joshi[1]*	220

Proceedings of online "International Conference on Recent Trends in Computer Science & Information Technology" ICRCSIT – 20 organized on 17th & 18th June 2020.

Departments of CSE & IT, St. Martin's Engineering College, Secunderabad (www.smec.ac.in)
ISBN No. 978-93-80831-66-4

PAPER ID: ICRCSIT-0281

Web of Things for Smart Health Protection Advancements and Openings

Ms Hemalatha K
Assistant Professor , Department of Computer Science, KG College of Arts and Science, Coimbatore, India

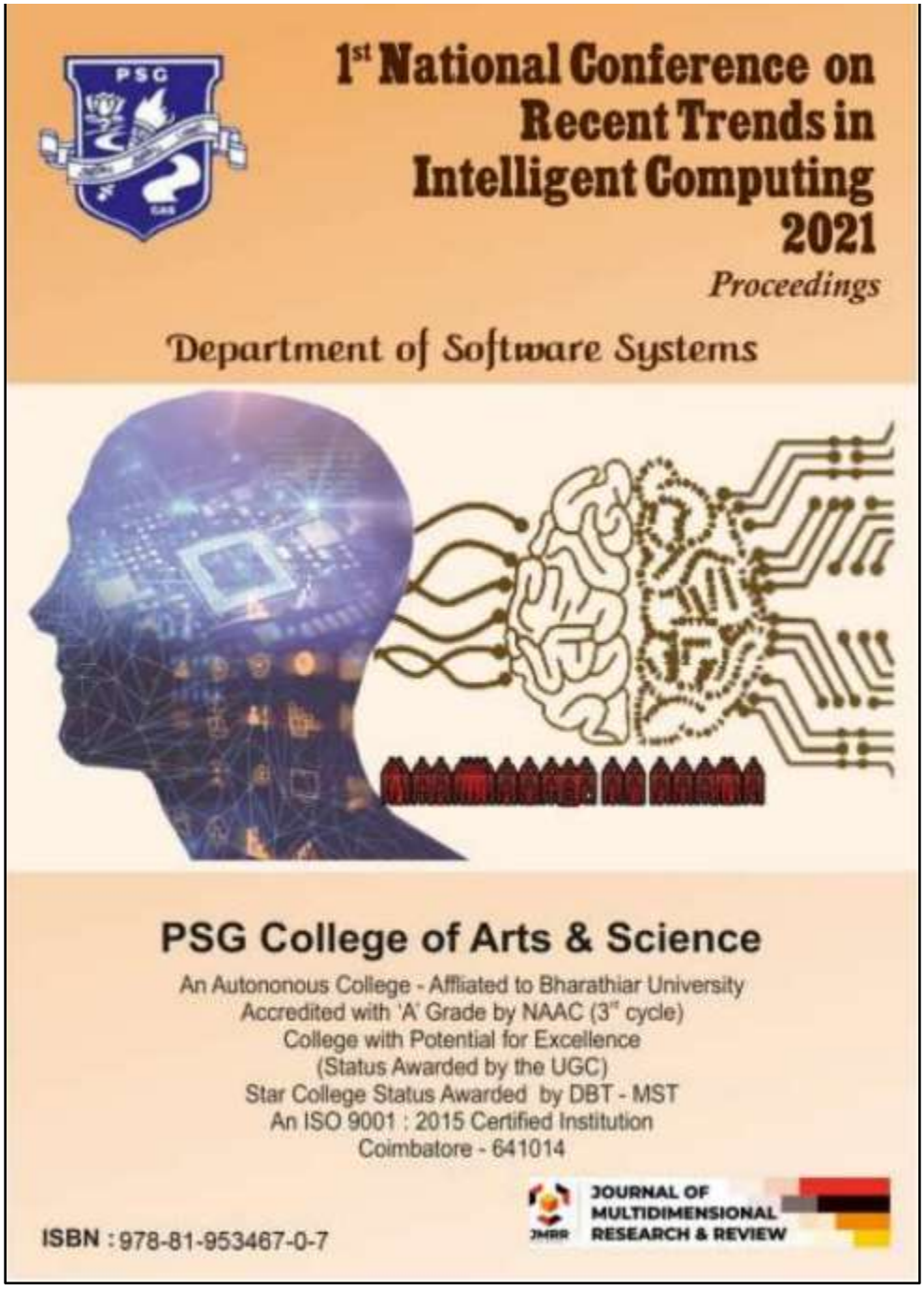
Abstract

Web of Things structures maintained to human administrations upgrade existing development, and the general demonstration of drug. They expand the extent of specialists inside an office and far past it. IOT increase both the precision and size of clinical data through different data grouping from huge game plans of authentic request. They moreover bolster the carefulness of clinical commitment transport through progressively current blend of the social protection structure. In this study paper communicates that how IOT interrelate to various system counting the canny social protection which is one of the standard structure. Human administrations structure has the observation that proposed the need of canny contraptions and splendid things to lessen the disarray of available social protection system. The IOT based human administrations has overhauled advancement which is chic from the commendable social protection and hard and fast clinical system.

Keywords: Internet of things (IOT), Electrocardiography (ECG), health care.

* Corresponding author
E-mail address: hemalathacbe2010@gmail.com

UGC AUTONOMOUS


1st National Conference on Recent Trends in Intelligent Computing 2021
Proceedings
Department of Software Systems
PSG College of Arts & Science
An Autononous College - Affliated to Bharathiar University
Accredited with 'A' Grade by NAAC (3rd cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT - MST
An ISO 9001 : 2015 Certified Institution
Coimbatore - 641014
JOURNAL OF MULTIDIMENSIONAL RESEARCH & REVIEW
ISBN : 978-81-953467-0-7

Since - 1947

PSG College of Arts & Science

An Autonomous College- Affiliated to Bharathiar University
Accredited with 'A' Grade by NAAC (3rd Cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT- MST
An ISO 9001: 2015 Certified Institution
Coimbatore - 641014

Conference Proceeding

(ISBN: 978-81-953467-0-7)

National Conference on Recent Trends in Intelligent Computing

(NCRTIC'21)

Organized by

Department of Software Systems

on

25.03.2021

Editorial Members

Dr. D. Saraswathi –Assistant Professor , Department of Software Systems

Lt. Dr. D. Antony Arul Raj –Associate Professor, Department of Software Systems

Table of the Content

S.No	Paper ID	Title & Author Details	Page No
16	NCRTIC210111	AAA-WSN: Anonymous Access Authentication Scheme For Wireless Sensor Networks in Big Data Environment Ms. Nithiya.G	9
17	NCRTIC210120	A Study on Classification Based Intrusion Detection System for Internet Of Things Dr.P.Manikandaprabhu, Dr.B.Suresh	9
18	NCRTIC210135	A Comparative Analysis on Different Cryptographic Algorithms for Data security in Cloud computing platform Mr.P.Prabhakaran , Dr. R.Malathi Ravindran,	10
19	NCRTIC210019	Intelligent Data Fusion of Fashion and Textiles with Internet of Things (IOT) Sushmitha Vadone V	10
20	NCRTIC210021	An Overview of Image Analysis Approach on Phenotype for Plant System Karthiga Rani.D	11
21	NCRTIC210023	A Novel Approach for Image Enhancement in Medical Imaging Systems G.Meenalochini, R.Ranjani	11
22	NCRTIC210029	Intelligent Computing in Computer Vision Mrs. A. Kalaiselvi, Dr.A.chandrabose	12
23	NCRTIC210039	Medical Image Analysis using Deep Convolutional Neural Networks: Architecture and its Applications P.S.Vijayalakshmi, Dr. M. Jaya kumar	13
24	NCRTIC210048	A Comparative Study of Topic Modelling Techniques T.Rajalakshmi, V.Srividhya	13
25	NCRTIC210051	Biometric Template Protection – A Review Dr.R.Sridevi, P.Shobana	14
26	NCRTIC210059	E - Assistance for Smart Farming Dr. S. Manju, N.Thamaraikannan	14
27	NCRTIC210071	An Intelligent System for the Forecasting of Drivers Efficiency Prakash M C, Muthu C	15
28	NCRTIC210086	A Study on Characteristics and Applications of Big Data Analytics Mrs. R.Anusuya, Dr.S.Krishnaveni	15
		Detection of Malignant Breast Carcinoma using Deep Machine	

NCRTIC'2021 ISBN: 978-81-953467-0-7

S.No: 16 Paper ID : NCRTIC210111AC)

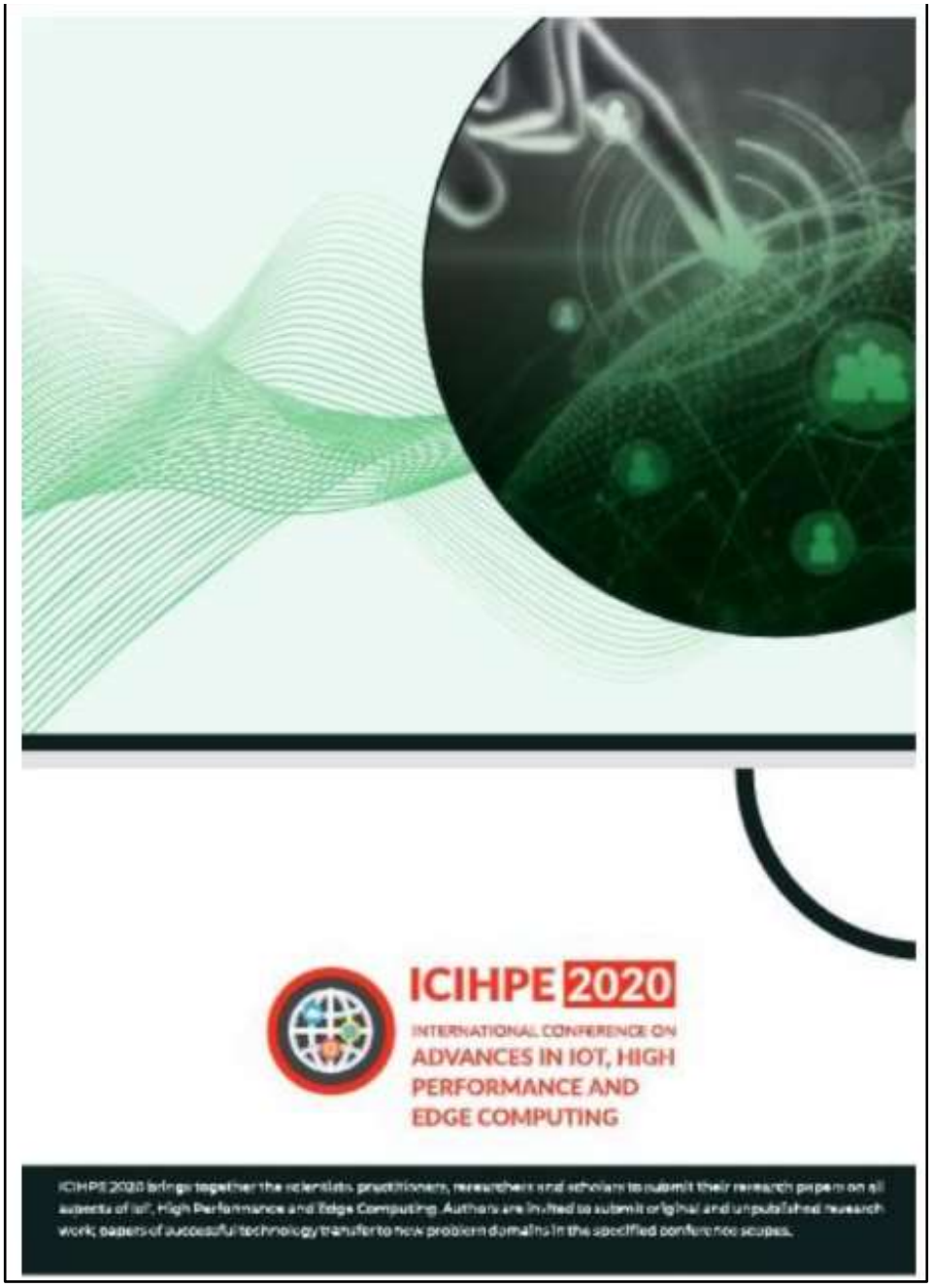
AAA-WSN: ANONYMOUS ACCESS AUTHENTICATION SCHEME FOR WIRELESS SENSOR NETWORKS IN BIG DATA ENVIRONMENT

Nithiya.G MCA., M.Phil.,
Assistant Professor, Department of Computer Applications,
KG College of Arts and Science. nithiyagm@gmail.com

Abstract: The data capturing and access process is an significant phase in the big data applications. The Big data applications are demoralized the wireless sensor networks (WSNs) to complete this process over the sensor nodes that areinstall edinun secure environments .so, these applications are grieved from various security weaknesses, an adversary may abuse such weaknesses to break user's privacy, confidentiality of sensor nodes, and control the communication channel between the net- work components. Consequently, the security issues for this process have concerned much interest of the researchers with the increasing spread of use such applications. The majority of the suggested authentication plans fail to resolve all current security weaknesses concurrently. Now, the authentication scheme is a serious issue in the WSNs. This paper suggests that anonymous access authentication scheme for wireless sensor networks in big data surroundings (AAA-WSN)to realize likable security services. Matching with the current WSNs authentication schemes, the AAA-WSN scheme supports not only security services such as user anonymity and mutual authentication, but also executes the faultless forward secrecy feature with high level of competence. The security analysis displays that the AAA-WSN scheme is strong to the current known attacks. Additionally, the performance analysis with regard to the storage, computations and communications costs proves that the AAA-WSN scheme attains high level of security with required level of efficiency matching the recent WSNs authentication schemes.

Keywords: —Big data Mutual authentication Perfect forward secrecy Real-time data environments User anonymity Wireless sensor networks

ICT ACADEMY
GLOBALTECHNOLOGY
FORUM 2020
14-18 October 2020
ISBN: 978-81-937760-7-0
ICIHPE 2020
INTERNATIONAL CONFERENCE ON
ADVANCES IN IOT, HIGH PERFORMANCE AND EDGE COMPUTING
CONFERENCE PROCEEDINGS
ICTACADEMY
OF TAMIL NADU
gtf2020.ictacademy.in


ICIHPE 2020
INTERNATIONAL CONFERENCE ON
ADVANCES IN IOT, HIGH
PERFORMANCE AND
EDGE COMPUTING

- Novel Trust Based Ranking for Intrusion Detection and Security using Deep Learning — 150
  Josemila Baby and J.R. Jose
- Optimization of Nutrient Supply in Smart Terrace Gardening Using IoT — 156
  D. Louisa Mary and M. Ramakrishnan
- Internet of Things Based Smart and Intelligent Transportation System for Accident Prevention — 160
  K. Radhika and N. Suthanthira Vanitha
- Smart Health Humanoid against Spread of Covid-19 Pandemic — 163
  S. Periyanayagi, A. Manikandan, M. Muthu Krishnan and P. Gowtham
- Threat Modelling for IoT based Water Irrigation Monitoring System for Agriculture — 167
  R. Manomegalai and C.K. Uday Santhiro
- Applying Format Preserving Encryption for Cloud Security — 172
  S. Vidhya, P. Krishnapriya and P. Ajitha
- An IoT-based Anti-Theft Tracking System for Two Wheelers — 176
  R. Pradeepkumaran, K. Rampraksash, G. Gopalakrishnan, E. Rahul, S. Shetin, K.S. Shivani and J. Sowmya
- Design and Implementation of IoT Based Underwater Wireless Communication System — 180
  P.L. Madhuri and J. Ann Rosaria
- IoT: A New Tool for Productivity Improvement — 184
  N. Venkatesh, M. Kavya Kamath and Abhinav Vimukthi
- Replication and Migration Cost Minimization of Cloud Data Center — 191
  Arunambika T and Senthil Vadivu P
- MOO-Monitor, Smart Cattle Monitoring — 200
  Vemika Sapra and Urvashi Sapra
- Smart Blood Bank System — 205
  K. Saranya, S. Vijayashaarathi and T. Premkumari
- A Framework for Analysing Unstructured Data in Computing Devices — 207
  J. Dhayanithi, M. Marimuthu, G. Maharaj and P. Nualashkumar
- A Comparative Study on Auto Evaluation of Programming Courses — 210
  J. Dhayanithi, D. Balamurugan, M. Marimuthu and G. Maharaj
- Supply Chain Management an Innovative Application of Edge Computing — 214
  J. Maharanjini and Krishna Mouli
- IoT: A New Tool for Productivity Improvement — 218
  N. Venkatesh, M. Kavya Kamath and Abhinav Vimukthi
- IoT Based Patient Monitoring System — 225
  J. Jhaffna Ashmi and S. Gavaskar
- Design of Smart Safety and Health Reporting Device for Women using IoT Technology and Mobile Mesh Networking — 228
  A. Kodeswari, S. Bhadth, A. Devaki, S. Ananthalakshmi and J. Rakshith

International Conference on Advances in IoT, High Performance and Edge Computing
ISBN: 978-93-6377-765-7-61 Global Technology Forum 2024

APPLYING FORMAT PRESERVING ENCRYPTION FOR CLOUD SECURITY

S Vidhya, P Krishnapriya and P Ajitha
Department of Computer Science, KG College of Arts and Science, India

Abstract:
In recent years, cloud computing is a widely used technology. Cloud computing provides services to the user over an Internet. Cloud computing means storing and accessing programs and data on Internet instead of our computer memory. A several number of data types are used in cloud computing such as audio, video, textual, image, data, Boolean etc. Cloud computing uses both structured and unstructured data. Cryptography is applied for both type of data. In this paper we proposed a special type of encryption that is AES based Format Preserving Encryption for structured data types on cloud.

Keywords:
Cloud security, Cryptography, Format Preserving Encryption, AES based FPE, Security for structured data type

1. INTRODUCTION

Cloud computing is an emerging technology which provides IT resources over internet. The resources are server, database, networking, software and analytics. The database is the main resource provided by the cloud. It consists of both structured and unstructured data.

Fig.1. Structured Vs Unstructured data

Most of the sensitive information are structured data which should be handled in a secured way. Strong Encryption and Authentication algorithms are required for structured data [1].

In Cryptography, Encryption converts the original information such as plaintext into unreadable secret information such as cipher text. In traditional encryption algorithms, the encrypted value is not same as plaintext in length and format. The encrypted value requires modification to the database and also changes of queries related to the database. To overcome this problem, applying one of the modern cryptography algorithm that is Format Preserving Encryption algorithm can be applied to structured data.

2. ESSENTIAL OF FORMAT PRESERVING ENCRYPTION

In normal encryption, the length and format of the Plaintext was entirely changed. The database structure was also changed by the new encrypted value. The reconstruction of database is a very difficult process. If randomization was used in the encryption algorithm, then referential integrity of the data base was also affected. The index of the column contains encrypted values and then the index is unusable for encrypted data. An encryption algorithm not only alters the structure of the database it also alters the queries passed to the database. Changing of database and queries are complex tasks and also cost prohibitive [2].

Fig.2. Aadhaar number before and after encryption

Most of the block ciphers generate length preserving ciphertext. N bit block is mapped into another N bit block. But the data type of cipher text is not same as plain text. Format preserving encryption is a combination of length and data type conserving encryption [3].

Using Format Preserving Encryption the modification to the database structure, application program and front end is reduced. The cost of updating the database and the application program is also minimized. Most of the encrypted columns are fixed as an index of the table to speed up the searching operation. FPE does not change the index. In Relational Database Management, Referential integrity of the database is also maintained. Use of FPE enables improving database security in a transparent way on many applications [4].

PSGR Krishnammal College for Women

Proceedings of

INTERNATIONAL CONFERENCE ON

"The Current & Future Impact of Artificial Intelligence on Business"

18th & 19th February 2021

COMTECH'2021

ORGANIZED BY

DEPARTMENT OF COMMERCE &

DEPARTMENT OF INFORMATION TECHNOLOGY

IN ASSOCIATION WITH

ICTACT

Innovate... Collaborate... Educate...

ACCA Think Ahead

All Rights Reserved.

Original English Language Edition © Copyright by **Coimbatore Institute of Information Technology.** This book may not be duplicated in any way without the express written consent of the publisher, except in the form of brief excerpts or quotations for the purpose of review. The information contained herein is for the personal use of the reader and may not be incorporated in any commercial programs, other books, database, or any kind of software without written consent of the publisher. Making copies of this book or any portion thereof for any purpose other than your own is a violation of copyright laws.

This edition has been published by **Coimbatore Institute of Information Technology, Coimbatore.**

Limits of Liability/Disclaimer of Warranty: The author and publisher have used their effort in preparing this COMTECH' 2021 book and author makes no representation or warranties with respect to accuracy or completeness of the contents of this book, and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. There are no warranties which extend beyond the descriptions contained in this paragraph. No warranty may be created or extended by sales representatives or written sales materials. Neither CiiT Software Research Institute nor author shall be liable for any loss of profit or any other commercial damage, including but limited to special, incidental, consequential, or other damages.

Trademarks: All brand names and product names used in this book are trademarks, registered trademarks, or trade names of their respective holders.

ISBN 978-93-91347-29-1
This Book is Printed in 70 gsm Papers.

Coimbatore Institute of Information Technology,
#156, 3rd Floor, Kalidas Road,
Ramnagar, Coimbatore - 641009
www.ciitresearch.org
Phone: 0422-4377821

50.	ICCAI'21-50	**MIXED REALITY IN HEALTHCARE** S.Prithievie	247
51.	ICCAI'21-51	**THE CURRENT AND FUTURE IMPACT OF ARTIFICIAL INTELLIGENCE IN BUSINESS (AGRICULTURE)** Supriya Pawar R & Prathibha D	251
52.	ICCAI'21-52	**THE CURRENT AND FUTURE IMPACT OF AI IN BUSINESS ARTIFICIAL NEURAL NETWORKS** Ramya V	257
53.	ICCAI'21-53	**ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING** Yogadharuni. S & Dr.S.Preetha	262
54.	ICCAI'21-54	**EXTREME MACHINE LEARNING CLASSIFICATION TO COMBAT AGAINST PRESENTATION ATTACK ON SECURITY SYSTEMS** Dr. N. Susitha	266
55.	ICCAI'21-55	**ANALYSIS OF GREENING ARTIFICIAL INTELLIGENCE IN VARIOUS FIELDS** N. Devi Gayathri	273
56.	ICCAI'21-56	**AN IOT-BASED SMART AGRICULTURE RESEARCH** S.Vasanth Kumar & R.Maneendhar	278
57.	ICCAI'21-57	**ARTIFICIAL INTELLIGENCE IN DIGITAL MARKETING** Y. Srividhya, V.Madhumitha & Dr.G.Kalpana	283
58.	ICCAI'21-58	**ARTIFICIAL INTELLIGENCE IN DIGITAL MARKETING** Aafreen.S, Bharani Priya & Dr.Pavithra	290
59.	ICCAI'21-59	**A SURVEY ON NATURE-INSPIRED OPTIMIZATION ALGORITHMS IN DATA MINING** P.Lavanya	296
60.	ICCAI'21-60	**BIG DATA STREAM PROCESSING** K.Vijayakumari	301
61.	ICCAI'21-61	**MQTT-HOME BASED TECHNOLOGIES** C.N. Indhu Mathi &, Mrs. C. Rathika	306

Proceedings of the International Conference On "The Current and Future Impact of Artificial Intelligence in Business" COMTECH (ICCIAI'21)

A SURVEY ON NATURE-INSPIRED OPTIMIZATION ALGORITHMS IN DATA MINING

P. Lavanya

Dept. of Information Technology, KG College of Arts and Science, Coimbatore

E-Mail: p.lavanya@kgcas.com

Abstract:

Most of the machine learning algorithms use the randomness at the time of optimization. Optimization algorithms are elated and expeditious in its performance. By observing that the nature, there are lot of techniques introduced and implemented in various problems. In this paper, a survey on assorted nature induced optimizing techniques is being addressed on the basis of its versatile application domains. In this survey paper, Grey Wolf Optimization algorithm, Whale Optimization algorithm, Dragonfly algorithm, Genetic Algorithm and Particle Swarm Optimization algorithm are discussed.

Keywords: Optimization, Nature-Inspired, Data mining.

1. Introduction:

Data mining is merely a methodology of experimentation to regulate a certain end result built on the entire of the converged data. [1] It is depicted to extricate the rules from vast quantities of data. Data mining is very beneficial in the below mentioned figure 1.1:

Figure 1.1

Figure 1.2

1.1. Importance of Data Mining:

Data mining lets us to screen through all the topsy-turvy and large tedious amount of ancillary unintelligible information. Identify the relevance and using those information to appraise the credible conclusion. [3] Increased growth on Big Data leads to the prominent necessity for data mining and it is represented in figure 1.3.

ISBN 978-93-91347-29-1 © 2021 Published by Coimbatore Institute of Information Technology

PAPER • OPEN ACCESS

Generative Adversarial Networks in Disease Gene Drug Relationships

To cite this article: S. Vijaya 2021 *IOP Conf. Ser.: Mater. Sci. Eng.* **1055** 012120

View the article online for updates and enhancements.

You may also like

- Fast simulation of muons produced at the SHiP experiment using Generative Adversarial Networks
C. Ahdida, R. Albanese, A. Alexandrov et al.
- Face Aging on Realistic Photo in Cross-Dataset Implementation
Natrilah Hamzah and Fadhlan Hafizhelmi Kamaru Zaman
- GAN for Recommendation System
A. V. Prosvetov

ECS Membership = Connection

ECS membership connects you to the electrochemical community:

- Facilitate your research and discovery through ECS meetings which convene scientists from around the world;
- Access professional support through your lifetime career;
- Open up mentorship opportunities across the stages of your career;
- Build relationships that nurture partnership, teamwork—and success!

Join ECS! Visit electrochem.org/join

ECS

This content was downloaded from IP address 223.187.112.181 on 09/06/2022 at 17:25

IVC RAISE 2020 IOP Publishing
IOP Conf. Series: Materials Science and Engineering 1055 (2021) 012120 doi:10.1088/1757-899X/1055/1/012120

Generative Adversarial Networks in Disease Gene Drug Relationships

Dr.S.Vijaya[1*]

[1]Assistant Professor, Department of Information Technology, KG College of Arts and Science, Coimbatore, India

*E-mail: s.vijaya@kgcas.com

Abstract: The swift growth in the form of digital information stored in the biomedical databases in this digital era has activated a prototype shift in the models in the Deep learning approaches which have used in several contexts in Machine Learning and in the domain of pattern recognition. Finding relationship between entities like genes, diseases, proteins and drugs is tedious task due the ambiguity in the terms used in biomedical domain. Treating cancer with the drug based on the gene that is associated with the disease increases the survival rate. Hence, the deep learning method "Generative Adversarial Networks" is proposed to find the relationship between Genes, Diseases and Drugs from biomedical abstracts in this work.

Keywords: Biomedical database, Genes, Diseases, Drugs, Deep learning, Generative Adversarial Networks

1. Introduction

Deep learning method is one of a sub part of machine learning methods which try to design complex abstractions in huge amount of dataset. Deep learning approaches use various layers for processing with composite structures. The approaches also poised of several non-linear transformations accomplished to handle huge amount of multidimensional data[1] [2-7]. When the data set is huge in size with multiple dimensions Deep learning methods are used to handle such data.

Major benefit of using this deep learning efficient algorithm is, it replaces handcrafted features and make better representations starting large-scale and unlabeled data as well as it creates the models to learn those representations. Different approaches of deep learning domain such as convolution neural networks, deep belief networks, reinforcement neural networks and Classic neural networks that have been useful in many fields like Relation Extraction, Natural language processing(NLP), Audio, Text recognition and bioinformatics modern results have been obtained on diverse tasks.

Deep Learning domain is considered one of the prominent field to train, analyze and generate patterns from large amounts of data. Tai Sing Lee and David Mumford [8] proposed a hierarchical Bayesian inference framework to be used in the visual cortex. They have used recurrent feed forward /feedback loop concept in visual cortex. They have recommended the methods of particle filtering and Bayesian-belief propagation for top-down and bottom-up observations.

A language modeling (LM) is a ability that catches the notable salient statistical uniqueness of the successions of terms in natural language [9] used temporally factored Restricted Boltzmann Machine Language Model for the words being predicted when compared with the context words.

Content from this work may be used under the terms of the Creative Commons Attribution 3.0 licence. Any further distribution of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI.
Published under licence by IOP Publishing Ltd

IOP Conference Series: Materials Science and Engineering

PAPER • OPEN ACCESS

A Detailed Survey on Improved Groundnut Harvest Automation System Using Wireless Sensor Network Technologies

To cite this article: R Maneendhar and M Usha 2021 *IOP Conf. Ser.: Mater. Sci. Eng.* **1055** 012050

View the article online for updates and enhancements.

You may also like

- Machine Learning Techniques for Precision Agriculture Using Wireless Sensor Networks
Swati Goel, Kalpna Guleria and Surya Narayan Panda
- Improvement Performance of Clustered Shortest Geopath Routing Protocol Using Data Aggregation in Wireless Sensor Network Environments
Rozita, W Wibisono and R Anggoro
- Global warming threatens agricultural productivity in Africa and South Asia
Benjamin Sultan

Activate Windo
Go to Settings to acti

PSGR Krishnammal College for Women
Proceedings of
INTERNATIONAL CONFERENCE ON
"The Current & Future Impact of Artificial Intelligence on Business"
18th & 19th February 2021
COMTECH'2021
TWO DAYS
INTERNATIONAL CONFERENCE
ON
ARTIFICIAL
INTELLIGENCE
IN
BUSINESS
ORGANIZED BY
DEPARTMENT OF COMMERCE &
DEPARTMENT OF INFORMATION TECHNOLOGY
IN ASSOCIATION WITH
ICTACT
Innovate... Collaborate... Educate...
ACCA Think Ahead

All Rights Reserved.

Original English Language Edition © Copyright by **Coimbatore Institute of Information Technology.**
This book may not be duplicated in any way without the express written consent of the publisher, except in the form of brief excerpts or quotations for the purpose of review. The information contained herein is for the personal use of the reader and may not be incorporated in any commercial programs, other books, database, or any kind of software without written consent of the publisher. Making copies of this book or any portion thereof for any purpose other than your own is a violation of copyright laws.

This edition has been published by **Coimbatore Institute of Information Technology, Coimbatore.**

Limits of Liability/Disclaimer of Warranty: The author and publisher have used their effort in preparing this COMTECH' 2021 book and author makes no representation or warranties with respect to accuracy or completeness of the contents of this book, and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. There are no warranties which extend beyond the descriptions contained in this paragraph. No warranty may be created or extended by sales representatives or written sales materials. Neither CiiT Software Research Institute nor author shall be liable for any loss of profit or any other commercial damage, including but limited to special, incidental, consequential, or other damages.

Trademarks: All brand names and product names used in this book are trademarks, registered trademarks, or trade names of their respective holders.

ISBN 978-93-91347-29-1
This Book is Printed in 70 gsm Papers.

Coimbatore Institute of Information Technology,
#156, 3rd Floor, Kalidas Road,
Ramnagar, Coimbatore - 641009
www.ciitresearch.org
Phone: 0422-4377821

50.	ICCAI'21-50	**MIXED REALITY IN HEALTHCARE** S.Prithievie	247
51.	ICCAI'21-51	**THE CURRENT AND FUTURE IMPACT OF ARTIFICIAL INTELLIGENCE IN BUSINESS (AGRICULTURE)** Supriya Pawar R & Prathibha D	251
52.	ICCAI'21-52	**THE CURRENT AND FUTURE IMPACT OF AI IN BUSINESS ARTIFICIAL NEURAL NETWORKS** Ramya V	257
53.	ICCAI'21-53	**ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING** Yogadharuni. S & Dr.S.Preetha	262
54.	ICCAI'21-54	**EXTREME MACHINE LEARNING CLASSIFICATION TO COMBAT AGAINST PRESENTATION ATTACK ON SECURITY SYSTEMS** Dr. N. Susitha	266
55.	ICCAI'21-55	**ANALYSIS OF GREENING ARTIFICIAL INTELLIGENCE IN VARIOUS FIELDS** N. Devi Gayathri	273
56.	ICCAI'21-56	**AN IOT-BASED SMART AGRICULTURE RESEARCH** S.Vasanth Kumar & R.Maneendhar	278
57.	ICCAI'21-57	**ARTIFICIAL INTELLIGENCE IN DIGITAL MARKETING** Y. Srividhya, V.Madhumitha & Dr.G.Kalpana	283
58.	ICCAI'21-58	**ARTIFICIAL INTELLIGENCE IN DIGITAL MARKETING** Aafreen.S, Bharani Priya & Dr.Pavithra	290
59.	ICCAI'21-59	**A SURVEY ON NATURE-INSPIRED OPTIMIZATION ALGORITHMS IN DATA MINING** P.Lavanya	296
60.	ICCAI'21-60	**BIG DATA STREAM PROCESSING** K.Vijayakumari	301
61.	ICCAI'21-61	**MQTT-HOME BASED TECHNOLOGIES** C.N. Indhu Mathi &, Mrs. C. Rathika	306

Proceedings of the International Conference On "The Current and Future Impact of Artificial Intelligence in Business" COMTECH (ICCIAI'21)

A SURVEY ON NATURE-INSPIRED OPTIMIZATION ALGORITHMS IN DATA MINING

P. Lavanya

Dept. of Information Technology, KG College of Arts and Science, Coimbatore

E-Mail: p.lavanya@kgcas.com

Abstract:

Most of the machine learning algorithms use the randomness at the time of optimization. Optimization algorithms are elated and expeditious in its performance. By observing that the nature, there are lot of techniques introduced and implemented in various problems. In this paper, a survey on assorted nature induced optimizing techniques is being addressed on the basis of its versatile application domains. In this survey paper, Grey Wolf Optimization algorithm, Whale Optimization algorithm, Dragonfly algorithm, Genetic Algorithm and Particle Swarm Optimization algorithm are discussed.

Keywords: Optimization, Nature-Inspired, Data mining.

1. Introduction:

Data mining is merely a methodology of experimentation to regulate a certain end result built on the entire of the converged data. [1] It is depicted to extricate the rules from vast quantities of data. Data mining is very beneficial in the below mentioned figure 1.1:

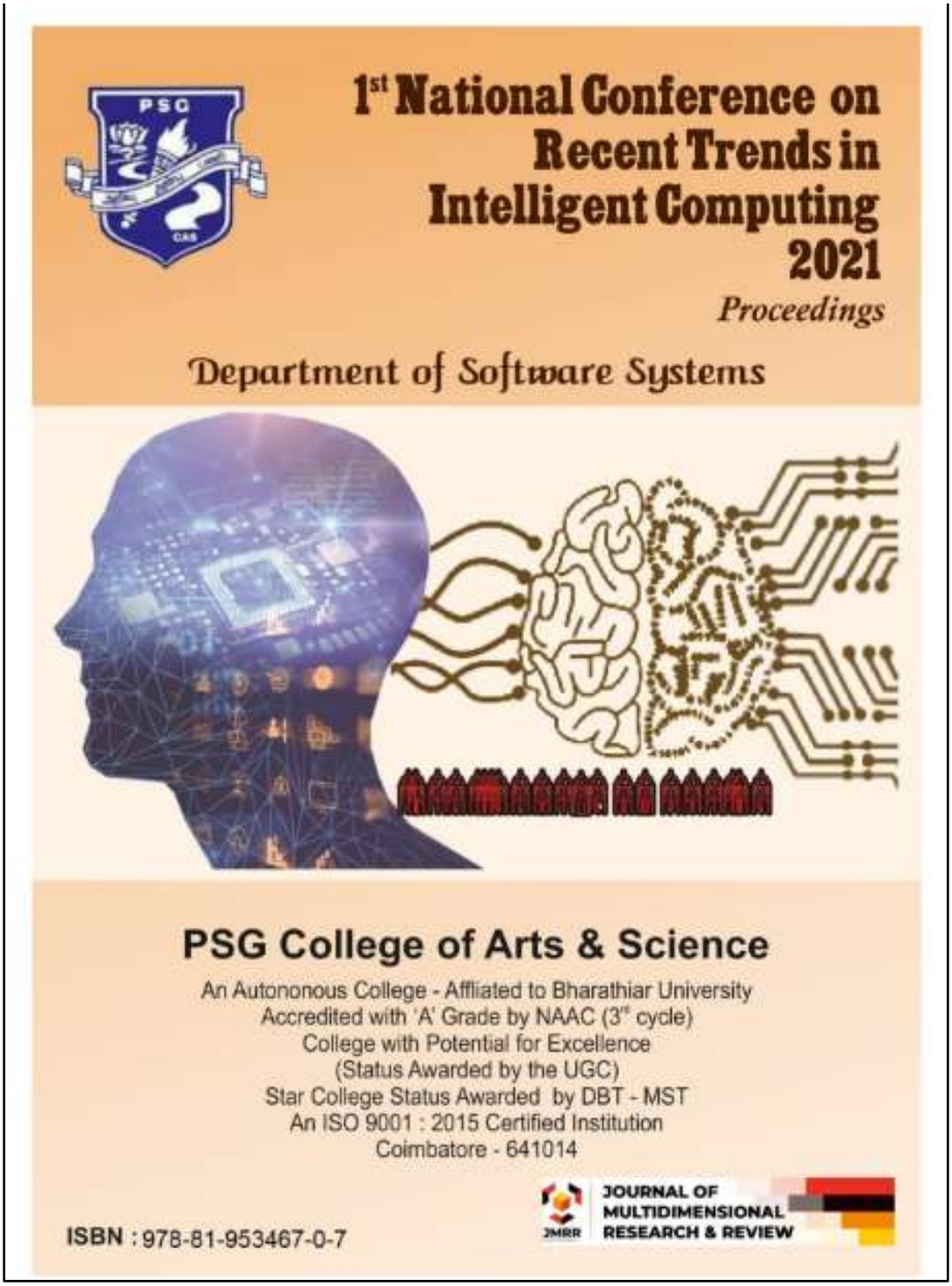
Figure 1.1

Figure 1.2

1.1. Importance of Data Mining:

Data mining lets us to screen through all the topsy-turvy and large tedious amount of ancillary unintelligible information. Identify the relevance and using those information to appraise the credible conclusion. [3] Increased growth on Big Data leads to the prominent necessity for data mining and it is represented in figure 1.3.

ISBN 978-93-91347-29-1 © 2021 Published by Coimbatore Institute of Information Technology


1st National Conference on Recent Trends in Intelligent Computing 2021
Proceedings
Department of Software Systems
PSG College of Arts & Science
An Autononous College - Affliated to Bharathiar University
Accredited with 'A' Grade by NAAC (3rd cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT - MST
An ISO 9001 : 2015 Certified Institution
Coimbatore - 641014
ISBN : 978-81-953467-0-7
JOURNAL OF MULTIDIMENSIONAL RESEARCH & REVIEW

Since - 1947

PSG College of Arts & Science

An Autonomous College- Affiliated to
Bharathiar University
Accredited with 'A' Grade by NAAC (3rd Cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT- MST
An ISO 9001: 2015 Certified Institution
Coimbatore - 641014

Conference Proceeding

(ISBN: 978-81-953467-0-7)

National Conference on Recent Trends in Intelligent Computing

(NCRTIC'21)

Organized by

Department of Software Systems

on

25.03.2021

Editorial Members

Dr. D. Saraswathi –Assistant Professor , Department of Software Systems

Lt. Dr. D. Antony Arul Raj –Associate Professor, Department of Software Systems

Table of the Content

S.No	Paper ID	Title & Author Details	Page No
1	NCRTIC210007	IOT Sensor-Based Abnormal Behavior Detection for Elderly People Ms.G.Preethi Ms.K.Abhirami Ms.K.Divya Shree, Ms.S.Liashini	1
2	NCRTIC210015	An Enriched Classification of Images of People by Gender and Age Dr D.Shanmuga Priyaa	1
3	NCRTIC210035	Challenges in Iot: A Survey Vinitha . A	2
4	NCRTIC210046	An Embedded Device to Detect Diabetic Retinopathy and Cardiovascular Disease using AI Dr. P. Ajitha Dr. S. Vidhya	2
5	NCRTIC210057	A Conceptual View of Biometric usage in IoT Dr.G.Yashodha	3
6	NCRTIC210062	Software Quality Assurance through Artificial Intelligence in Software Testing V.Sathyavathy,	3
7	NCRTIC210063	DDOS Attacks in Cloud Environment Detection Techniques Review A.Lavanya,	4
8	NCRTIC210068	Cloud Security by Format Preserving Encryption Dr. S. Vidhya, Dr. P. Ajitha	4
9	NCRTIC210070	Study on Security Issues and Countermeasures in Wireless Sensor Networks Sowndharya N. Jeevitha Priya, Deepan Kumar S	5
10	NCRTIC210074	Managing Personal Networking during Repgrid Networking Ms.P.R.PameelaRani	6
11	NCRTIC210094	Hyper Heuristics for Big Data Cyber Security Aswanandini.R, Dr.Deepa.C,	6
12	NCRTIC210107	An Intelligent System for Coronary Artery Disease Prediction using improved Density based Spatial Clustering G.PriyaDarshini,	7
13	NCRTIC210114	Microprocessor based Power Generation using Mechanical Force in Piezoelectric Sensor Prof.R. Arthi, Ms.S.Ashicka, Ms.V.M. Sowmiya	7
14	NCRTIC210108	Diagnosing the Preferred Practice of Ophthalmology during Covid-19 Pandemic Dr. R. Deepa, Ms. S.Vaishnavi	8
15	NCRTIC210109	Text Mining: Techniques, Applications and Issues R. Romela Elizabeth Preena	8

NCRTIC'2021 ISBN: 978-81-953467-0-7

S.No: 3 Paper ID : NCRTIC210035(AC)

CHALLENGES IN IOT: A SURVEY

Vinitha A,M.Sc.,M.Phil.,
Assistant professor,
A.V.P College of Arts and Science,Tirupur

Abstract: The IOT plays a major role in today's environment. There are different devices that are connected in network to monitor the surroundings. Hence IOT provides many automated process with minimum human interaction. It is also used in all fields which require less effort. There are many challenging task in IOT. In IOT every task depends on internet and the security is the biggest challenge in IOT. The quality of services provided, cost and interaction of devices are the some of the challenges faced in IOT. In this paper we discuss about the challenges in IOT that are faced in day to day. It is used in all areas like smart home, smart kitchen, health care, agriculture etc.

Keywords: IOT, Smart Home, Health care, Agricuture

S.No: 4 Paper ID : NCRTIC210046(AC)

AN EMBEDDED DEVICE TO DETECT DIABETIC RETINOPATHY AND CARDIOVASCULAR DISEASE USING AI

Dr. P. Ajitha
Assistant Professor, Department of Software Systems & Computer Science (PG),
KG College of Arts and Science ,
Coimbatore, Tamilnadu.
ajitha.p@kgcas.com

Dr. S. Vidhya
Assistant Professor, Department of Software Systems & Computer Science (PG),
KG College of Arts and Science,
Coimbatore, Tamilnadu.
vidhya.s@kgcas.com

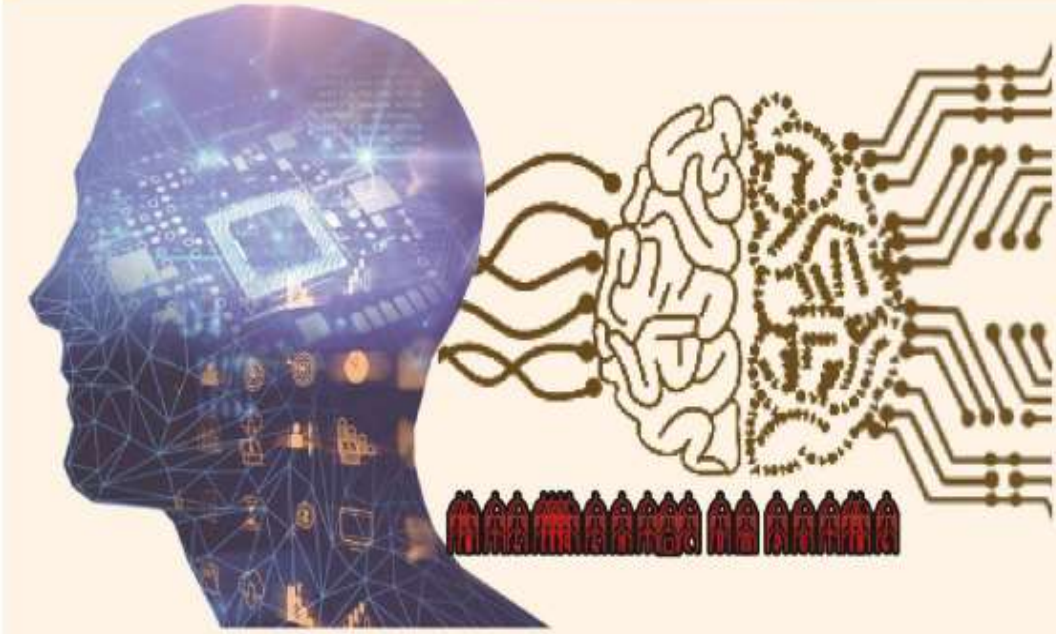
Abstract: An device of embedded nature is designed to detect diabetic retinopathy, cardiovascular disease, age related macular degeneration and for clinical management. Medical Imagery is best solution to identify the diseases by scanning and diagnosing. Image is scanned to extract the properties, patterns and anomalies. The meta data associated with images are also extracted. The noise can be eliminated by applying image processing algorithms. After, noise removal the patterns are extracted and compared with the normal image to diagnose the nature of the disease and levels affected. Protocols are used for automatic identification from the images. Through this the data can be fed and trained to detect the diseased pathologies. Machine learning algorithm is applied to find patterns and disease clusters. Deep learning algorithms are used for automatic detection of properties in images. Both the machine learning and deep learning algorithm are applied in images, text and or any type of data. Artificial Intelligence is applied to design this model. This can be trained to adopt for all types of disease through imaging. The existing papers, had not considered any algorithms to detect, monitor and predict the patterns and deviations. Clusters, and patterns are identified. Unsupervised learning algorithms are applied.

Keywords : unsupervised algorithms, artificial intelligence , clusters , machine learning

1st National Conference on Recent Trends in Intelligent Computing 2021

Proceedings

Department of Software Systems



PSG College of Arts & Science

An Autononous College - Affliated to Bharathiar University
Accredited with 'A' Grade by NAAC (3rd cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT - MST
An ISO 9001 : 2015 Certified Institution
Coimbatore - 641014

ISBN : 978-81-953467-0-7

JMRR JOURNAL OF MULTIDIMENSIONAL RESEARCH & REVIEW

Since - 1947

PSG College of Arts & Science

An Autonomous College- Affiliated to
Bharathiar University
Accredited with 'A' Grade by NAAC (3rd Cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT- MST
An ISO 9001: 2015 Certified Institution
Coimbatore - 641014

Conference Proceeding

(ISBN: 978-81-953467-0-7)

National Conference on Recent Trends in Intelligent Computing

(NCRTIC'21)

Organized by

Department of Software Systems

on

25.03.2021

Editorial Members

Dr. D. Saraswathi –Assistant Professor , Department of Software Systems

Lt. Dr. D. Antony Arul Raj –Associate Professor, Department of Software Systems

Table of the Content

S.No	Paper ID	Title & Author Details	Page No
1	NCRTIC210007	IOT Sensor-Based Abnormal Behavior Detection for Elderly People Ms.G.Preethi Ms.K.Abhirami Ms.K.Divya Shree, Ms.S.Liashini	1
2	NCRTIC210015	An Enriched Classification of Images of People by Gender and Age Dr.D.Shanmuga Priyaa	1
3	NCRTIC210035	Challenges in Iot: A Survey Vinitha . A	2
4	NCRTIC210046	An Embedded Device to Detect Diabetic Retinopathy and Cardiovascular Disease using AI Dr. P. Ajitha Dr. S. Vidhya	2
5	NCRTIC210057	A Conceptual View of Biometric usage in IoT Dr.G.Yashodha	3
6	NCRTIC210062	Software Quality Assurance through Artificial Intelligence in Software Testing V.Sathyavathy,	3
7	NCRTIC210063	DDOS Attacks in Cloud Environment Detection Techniques Review A.Lavanya,	4
8	NCRTIC210068	Cloud Security by Format Preserving Encryption Dr. S. Vidhya, Dr. P. Ajitha	4
9	NCRTIC210070	Study on Security Issues and Countermeasures in Wireless Sensor Networks Sowndharya N, Jeevitha Priya, Deepan Kumar S	5
10	NCRTIC210074	Managing Personal Networking during Repgrid Networking Ms.P.R.PameelaRani	6
11	NCRTIC210094	Hyper Heuristics for Big Data Cyber Security Aswanandini.R, Dr.Deepa.C,	6
12	NCRTIC210107	An Intelligent System for Coronary Artery Disease Prediction using improved Density based Spatial Clustering G.PriyaDarshini,	7
13	NCRTIC210114	Microprocessor based Power Generation using Mechanical Force in Piezoelectric Sensor Prof R. Arthi, Ms S.Ashicka, Ms V.M. Sowmiya	7
14	NCRTIC210108	Diagnosing the Preferred Practice of Ophthalmology during Covid-19 Pandemic Dr. R. Deepa, Ms. S.Vaishnavi	8
15	NCRTIC210109	Text Mining: Techniques, Applications and Issues R. Romela Elizabeth Preena	8

NCRTIC'2021 ISBN: 978-81-953467-0-7

S.No: 5 Paper ID : NCRTIC210057(AC)

A Conceptual View of Biometric usage in IoT

Dr.G.Yashodha
Department of Computer Technology
KG College of Arts and Science
Coimbatore
yashosubha@gmail.com

Abstract:- Internet of Things (IoT) is a catchword, where all digital devices are linking with each other to talk some information. These devices are encroaching on our daily life including home appliances, offices, health etc. Safety is the major concern for the Internet of Things (IoT). Whenever devices are linked then authentication is required for secure communication. So, authentication forms the gateway for a secure communication system. Authentication with text PINs still widely used but have become uncertain. Therefore, it is an vital concern to discourse by using biometric authentication. This paper presents the conceptual idea of securing internet of Things network using biometric authentication.

Keywords: IoT, Biometric, Secure, Authentication, Digital devices

S.No: 6 Paper ID : NCRTIC210062(AC)

SOFTWARE QUALITY ASSURANCE THROUGH ARTIFICIAL INTELLIGENCE IN SOFTWARE TESTING

V.Sathyavathy,
Assistant Professor,
KG College of Arts and Science
E-mail: Sathyavathy.V@kgcas.com

*Abstract:-*Today's growth of software applications, quality assurance of developed software attains the new heights. Software Testing plays an important role in the software development life cycle. Artificial Intelligence (AI) in software testing aims to make testing smarter and more efficient. AI and machine learning apply reasoning and problem solving to automate and improve testing. AI in software testing helps reduce time-consuming manual testing, so teams can focus on more complex tasks, like creating innovative new features. A more complex software applications have been built, time is becoming a critical factor to release applications that must be fully tested and comply with Business Requirements. AI plays a key role in Software Testing and can get more accurate results and saves time. This paper discusses the Artificial Intelligence key pillars that can be used in Software Testing. It also opens a window on how the future will look like in terms of Artificial Intelligence and the Software Testing. The results show that AI can achieve better results in Software Testing and AI-driven testing will lead the new era of the quality assurance (QA) work in the near future. AI Software Testing will reduce time to market and will increase the efficiency of the organization to produce more sophisticated software.

Keywords: Software Testing, Quality Assurance, Artificial Intelligence, Testing Automation

IVC RAISE 2020 IOP Publishing
IOP Conf. Series: Materials Science and Engineering 1055 (2021) 012050 doi:10.1088/1757-899X/1055/1/012050

A Detailed Survey on Improved Groundnut Harvest Automation System Using Wireless Sensor Network Technologies

Maneendhar R[1*], Usha.M[2]

[1]Assistant Professor, Department of Information Technology, KG College of Arts and Science, Coimbatore, Tamil Nadu, India
[2]Head of the Department , Department of Information Technology, KG College of Arts and Science, Coimbatore, Tamil Nadu, India
*E-mail: r.maneendhar@kgcas.com

Abstract

This paper analyses the wireless sensor network technologies on how to use in agricultural crop harvesting and highly productive yielding applications. Wireless sensor networks (WSN) monitoring the crop growth ubiquitous manner and sending crop growth report to the agricultural university administrator system. This survey paper makes a comparison between wealthy crop growth databases to actual crop cultivation reports. The main objective and motivation of this survey paper are tremendous changes are needed in the field of agriculture. Finally, they will give well-optimized suggestion to the farmers such that fertilizer recommendations, managing and controlling crop diseases, suitable irrigation system for crop cultivation, which is all the methodologies are helping to improve the yield of crops.

Keywords: Wireless Sensor Network, GPS, IOT, WAGRIT, GCS Optimization.

1. Introduction

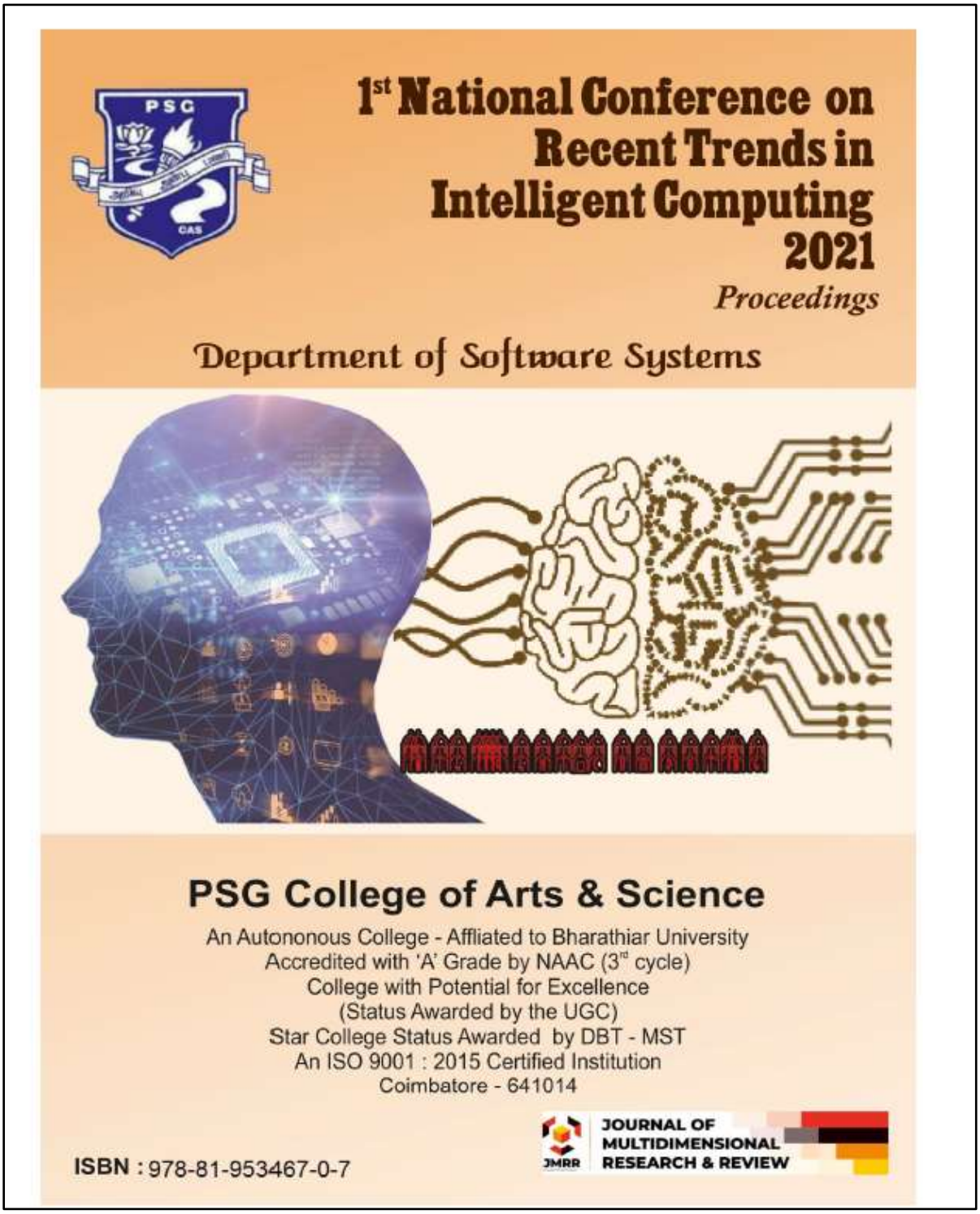
Indian people's culture, civilization, tradition depends upon agriculture. Mahathma Gandhiji says India's backbone as villages. Villages are dependent upon agriculture. But nowadays agriculture is demolished, due to lack of reasons such as unreliable weather conditions, soil composition, and PH stages are unstable, sudden changes in rainfall, uncontrolled crop diseases, cost of sowing, cost of fertilizers, cost of insecticides and cost of irrigation system. According to these reasons, agriculture is not a good growth business. A farmer faces a lot of difficulties in agriculture. These difficulties deeply affect the farmer's life. Crop cultivation is not fulfilling the former basic needs also because of these reasons they are all made to attempt suicide. In this situation definitely could be changing.

The main contribution of this paper deals with the growth monitoring system of groundnut. This system proposes a monitoring environment of the groundnut field. For example groundnut sowing soil PH level, root depth, chlorophyll content, Fertilizer recommendation, irrigation monitoring, sunlight luminance, humidity, temperature, EC, wind direction, wind speed, and so on. These are all monitoring information to be stored in a groundnut database.
Wireless sensor data compared with other agriculture university data warehouse.

The proposed system helps to improve and better yield to groundnut agriculture. Suppose the farmer is uneducated, the system advises the former to make appropriate decisions in an appropriate time. In other words, the former has unawareness about groundnut diseases and the stages of the disease finally what insecticides use to control the diseases. Now a day the information management and communication technologies become a new era. But these technologies not yet to addressed in the agricultural domain. This paper addressed this problem the new innovative wireless sensor technologies used for urban area agricultural development.

In this existing system too complicated construction of ubiquitous monitoring, it means continuous monitoring of a crop any time and every time the field report sends to the agricultural university database and make prevent take a location-aware decision to the farmers. The ubiquitous technology of wireless sensor networks requires platforms of internet information services (IIS) and applications of the internet of things (IoT). The survey report is light the lamp to farmer's life and food cultivation is also a basic need of human beings. Information management and communication technologies used in high yield productivity of groundnut.

Content from this work may be used under the terms of the Creative Commons Attribution 3.0 licence. Any further distribution of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI.
Published under licence by IOP Publishing Ltd


1st National Conference on Recent Trends in Intelligent Computing 2021
Proceedings
Department of Software Systems
PSG College of Arts & Science
An Autononous College - Affliated to Bharathiar University
Accredited with 'A' Grade by NAAC (3rd cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT - MST
An ISO 9001 : 2015 Certified Institution
Coimbatore - 641014
ISBN : 978-81-953467-0-7
JMRR
JOURNAL OF MULTIDIMENSIONAL RESEARCH & REVIEW

Since - 1947

PSG College of Arts & Science

An Autonomous College- Affiliated to
Bharathiar University
Accredited with 'A' Grade by NAAC (3rd Cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT- MST
An ISO 9001: 2015 Certified Institution
Coimbatore - 641014

Conference Proceeding

(ISBN: 978-81-953467-0-7)

National Conference on Recent Trends in Intelligent Computing

(NCRTIC'21)

Organized by

Department of Software Systems

on

25.03.2021

Editorial Members

Dr. D. Saraswathi –Assistant Professor , Department of Software Systems

Lt. Dr. D. Antony Arul Raj –Associate Professor, Department of Software Systems

Table of the Content

S.No	Paper ID	Title & Author Details	Page No
1	NCRTIC210007	IOT Sensor-Based Abnormal Behavior Detection for Elderly People Ms.G.Preethi Ms.K.Abhirami Ms.K.Divya Shree, Ms.S.Liashini	1
2	NCRTIC210015	An Enriched Classification of Images of People by Gender and Age Dr.D.Shanmuga Priyaa	1
3	NCRTIC210035	Challenges in Iot: A Survey Vinitha . A	2
4	NCRTIC210046	An Embedded Device to Detect Diabetic Retinopathy and Cardiovascular Disease using AI Dr. P. Ajitha Dr. S. Vidhya	2
5	NCRTIC210057	A Conceptual View of Biometric usage in IoT Dr.G.Yashodha	3
6	NCRTIC210062	Software Quality Assurance through Artificial Intelligence in Software Testing V.Sathyavathy,	3
7	NCRTIC210063	DDOS Attacks in Cloud Environment Detection Techniques Review A.Lavanya,	4
8	NCRTIC210068	Cloud Security by Format Preserving Encryption Dr. S. Vidhya, Dr. P. Ajitha	4
9	NCRTIC210070	Study on Security Issues and Countermeasures in Wireless Sensor Networks Sowndharya N, Jeevitha Priya, Deepan Kumar S	5
10	NCRTIC210074	Managing Personal Networking during Repgrid Networking Ms.P.R.PameelaRani	6
11	NCRTIC210094	Hyper Heuristics for Big Data Cyber Security Aswanandini.R, Dr.Deepa.C,	6
12	NCRTIC210107	An Intelligent System for Coronary Artery Disease Prediction using improved Density based Spatial Clustering G.PriyaDarshini,	7
13	NCRTIC210114	Microprocessor based Power Generation using Mechanical Force in Piezoelectric Sensor Prof R. Arthi, Ms S.Ashicka, Ms V.M. Sowmiya	7
14	NCRTIC210108	Diagnosing the Preferred Practice of Ophthalmology during Covid-19 Pandemic Dr. R. Deepa, Ms. S.Vaishnavi	8
15	NCRTIC210109	Text Mining: Techniques, Applications and Issues R. Romela Elizabeth Preena	8

NCRTIC'2021 ISBN: 978-81-953467-0-7

S.No: 5 Paper ID : NCRTIC210057(AC)

A Conceptual View of Biometric usage in IoT

Dr.G.Yashodha
Department of Computer Technology
KG College of Arts and Science
Coimbatore
yashosubha@gmail.com

Abstract:- Internet of Things (IoT) is a catchword, where all digital devices are linking with each other to talk some information. These devices are encroaching on our daily life including home appliances, offices, health etc. Safety is the major concern for the Internet of Things (IoT). Whenever devices are linked then authentication is required for secure communication. So, authentication forms the gateway for a secure communication system. Authentication with text PINs still widely used but have become uncertain. Therefore, it is an vital concern to discourse by using biometric authentication. This paper presents the conceptual idea of securing internet of Things network using biometric authentication.

Keywords: IoT, Biometric, Secure, Authentication, Digital devices

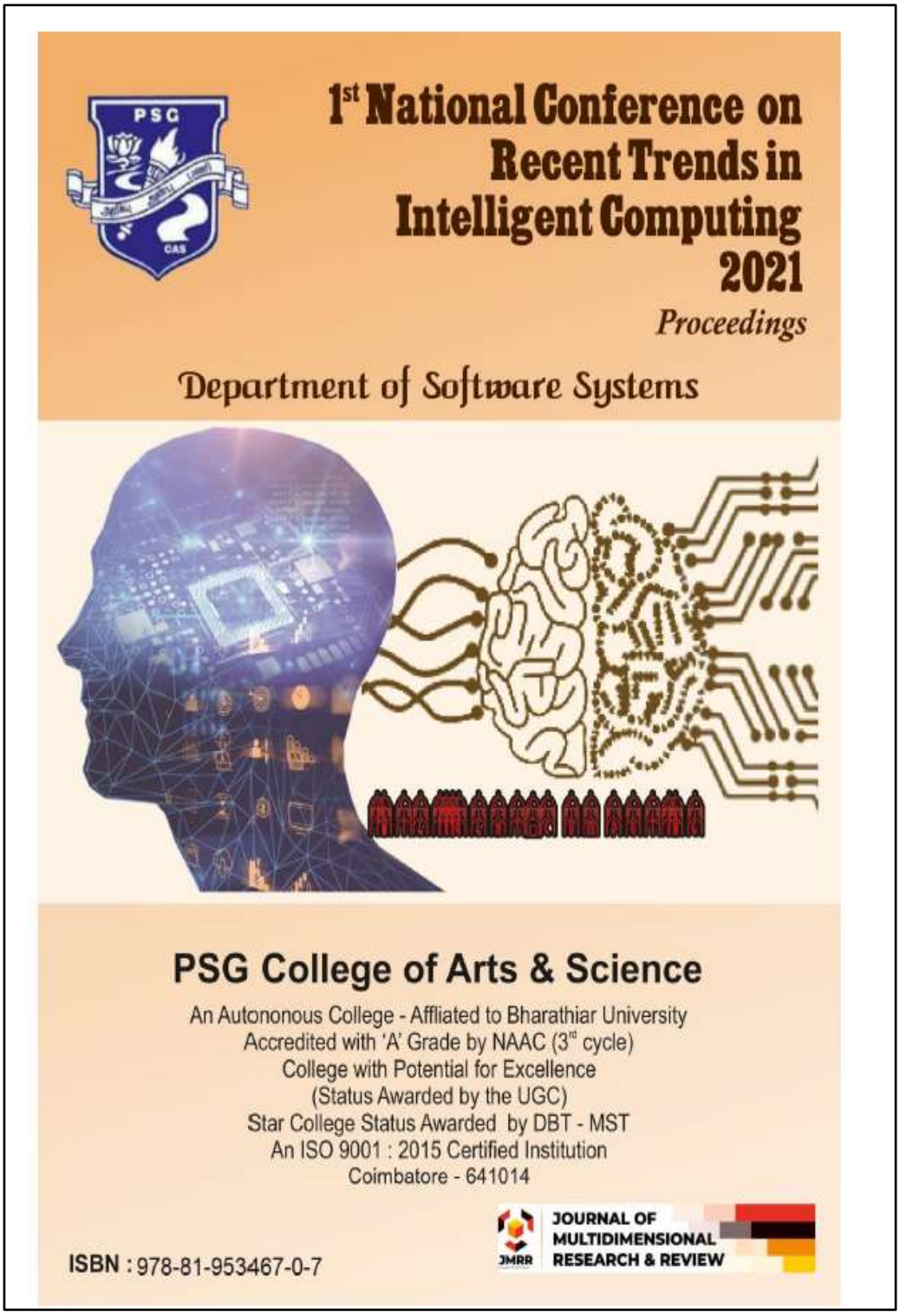
S.No: 6 Paper ID : NCRTIC210062(AC)

SOFTWARE QUALITY ASSURANCE THROUGH ARTIFICIAL INTELLIGENCE IN SOFTWARE TESTING

V.Sathyavathy,
Assistant Professor,
KG College of Arts and Science
E-mail: Sathyavathy.V@kgcas.com

*Abstract:-*Today's growth of software applications, quality assurance of developed software attains the new heights. Software Testing plays an important role in the software development life cycle. Artificial Intelligence (AI) in software testing aims to make testing smarter and more efficient. AI and machine learning apply reasoning and problem solving to automate and improve testing. AI in software testing helps reduce time-consuming manual testing, so teams can focus on more complex tasks, like creating innovative new features. A more complex software applications have been built, time is becoming a critical factor to release applications that must be fully tested and comply with Business Requirements. AI plays a key role in Software Testing and can get more accurate results and saves time. This paper discusses the Artificial Intelligence key pillars that can be used in Software Testing. It also opens a window on how the future will look like in terms of Artificial Intelligence and the Software Testing. The results show that AI can achieve better results in Software Testing and AI-driven testing will lead the new era of the quality assurance (QA) work in the near future. AI Software Testing will reduce time to market and will increase the efficiency of the organization to produce more sophisticated software.

Keywords: Software Testing, Quality Assurance, Artificial Intelligence, Testing Automation


1st National Conference on Recent Trends in Intelligent Computing 2021
Proceedings
Department of Software Systems
PSG College of Arts & Science
An Autononous College - Affliated to Bharathiar University
Accredited with 'A' Grade by NAAC (3rd cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT - MST
An ISO 9001 : 2015 Certified Institution
Coimbatore - 641014
ISBN : 978-81-953467-0-7
JOURNAL OF MULTIDIMENSIONAL RESEARCH & REVIEW

Since - 1947

PSG College of Arts & Science

An Autonomous College- Affiliated to
Bharathiar University
Accredited with 'A' Grade by NAAC (3rd Cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT- MST
An ISO 9001: 2015 Certified Institution
Coimbatore - 641014

Conference Proceeding

(ISBN: 978-81-953467-0-7)

National Conference on Recent Trends in Intelligent Computing

(NCRTIC'21)

Organized by

Department of Software Systems

on

25.03.2021

Editorial Members

Dr. D. Saraswathi –Assistant Professor , Department of Software Systems

Lt. Dr. D. Antony Arul Raj –Associate Professor, Department of Software Systems

Table of the Content

S.No	Paper ID	Title & Author Details	Page No
1	NCRTIC210007	IOT Sensor-Based Abnormal Behavior Detection for Elderly People Ms.G.Preethi Ms.K.Abhirami Ms.K.Divya Shree, Ms.S.Liashini	1
2	NCRTIC210015	An Enriched Classification of Images of People by Gender and Age Dr.D.Shanmuga Priyaa	1
3	NCRTIC210035	Challenges in Iot: A Survey Vinitha . A	2
4	NCRTIC210046	An Embedded Device to Detect Diabetic Retinopathy and Cardiovascular Disease using AI Dr. P. Ajitha Dr. S. Vidhya	2
5	NCRTIC210057	A Conceptual View of Biometric usage in IoT Dr.G.Yashodha	3
6	NCRTIC210062	Software Quality Assurance through Artificial Intelligence in Software Testing V.Sathyavathy,	3
7	NCRTIC210063	DDOS Attacks in Cloud Environment Detection Techniques Review A.Lavanya,	4
8	NCRTIC210068	Cloud Security by Format Preserving Encryption Dr. S. Vidhya, Dr. P. Ajitha	4
9	NCRTIC210070	Study on Security Issues and Countermeasures in Wireless Sensor Networks Sowndharya N, Jeevitha Priya, Deepan Kumar S	5
10	NCRTIC210074	Managing Personal Networking during Repgrid Networking Ms.P.R.PameelaRani	6
11	NCRTIC210094	Hyper Heuristics for Big Data Cyber Security Aswanandini.R, Dr.Deepa.C,	6
12	NCRTIC210107	An Intelligent System for Coronary Artery Disease Prediction using improved Density based Spatial Clustering G.PriyaDarshini,	7
13	NCRTIC210114	Microprocessor based Power Generation using Mechanical Force in Piezoelectric Sensor Prof R. Arthi, Ms S.Ashicka, Ms V.M. Sowmiya	7
14	NCRTIC210108	Diagnosing the Preferred Practice of Ophthalmology during Covid-19 Pandemic Dr. R. Deepa, Ms. S.Vaishnavi	8
15	NCRTIC210109	Text Mining: Techniques, Applications and Issues R. Romela Elizabeth Preena	8

NCRTIC'2021 ISBN: 978-81-953467-0-7

S.No: 10 Paper ID : NCRTIC210074(AC)

MANAGING PERSONAL NETWORKING DURING REPGRID NETWORKING

Ms.P.R.PameelaRani
Assistant Professor, Department of Computer Technology
KG College of Arts and Science
Coimbatore

Abstract:- RepGrid-Net is a computer-based message system that integrates conventional electronic mail and bulletin board facilities with repertory grid elicitation and analysis facilities to provide both unstructured and structured communications supporting the formation and operation of special interest networks. Users see a mail system in which special-interest networks are purposely supported. The coordinators of such a network provide a basic focus for it through statements of intent, topics and issues which are handled on a bulletin board basis. They also provide one or more core grids listing exact topics and the concepts which they apply to them. These kernel grids can be developed by others interested in the groups, using the stated topics and concepts, and adding to them. broad similarities between grids are analyzed to provide a socio net of people with common viewpoints, and this may be used to access the mail system to be in touch with them. Detailed comparisons of similarities and differences among viewpoints may be made, and personality concept structures can be analyzed.

Keywords: RepGrid, Message System, networks

S.No: 11 Paper ID : NCRTIC210094(AC)

HYPER HEURISTICS FOR BIG DATA CYBER SECURITY

Aswanandini.R,
Assistant Professor, Department of Computer Science, KG College of Arts and Science, Ph.D Scholar, Sri Ramakrishna College of Arts and Science, Coimbatore

Dr.Deepa.C,
Associate Professor, Department of Information Technology,
Sri Ramakrishna College of Arts and Science

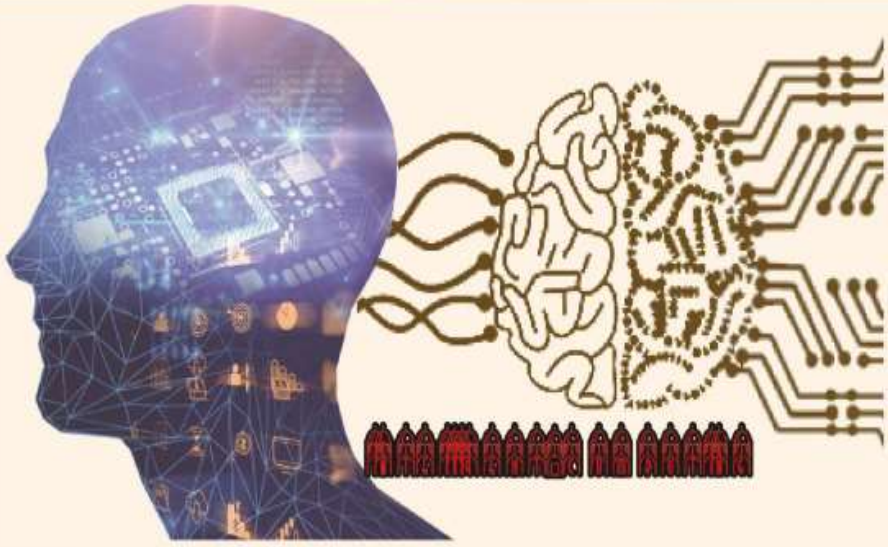
*Abstract:-*The need to solve large problems with large number of possible states and to increase the efficiency of search algorithms, problem-specific knowledge like heuristic search needs to be added. Heuristic search is a technique to solve a problem faster than classic methods. Using this search the solution will have accuracy, completeness or precision for speed. In each iteration, it evaluates the available information and chooses the next path to follow. The problem solving method using various heuristic search techniques are discussed here.

Keywords : Hyperheuristic, cyber security, malware, perturbation heuristics.

1st National Conference on Recent Trends in Intelligent Computing 2021

Proceedings

Department of Software Systems



PSG College of Arts & Science

An Autononous College - Affliated to Bharathiar University
Accredited with 'A' Grade by NAAC (3rd cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT - MST
An ISO 9001 : 2015 Certified Institution
Coimbatore - 641014

ISBN : 978-81-953467-0-7

JOURNAL OF MULTIDIMENSIONAL RESEARCH & REVIEW

Since - 1947

PSG College of Arts & Science

An Autonomous College- Affiliated to
Bharathiar University
Accredited with 'A' Grade by NAAC (3rd Cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT- MST
An ISO 9001: 2015 Certified Institution
Coimbatore - 641014

Conference Proceeding

(ISBN: 978-81-953467-0-7)

National Conference on Recent Trends in Intelligent Computing

(NCRTIC'21)

Organized by

Department of Software Systems

on

25.03.2021

Editorial Members

Dr. D. Saraswathi –Assistant Professor , Department of Software Systems

Lt. Dr. D. Antony Arul Raj –Associate Professor, Department of Software Systems

Table of the Content

S.No	Paper ID	Title & Author Details	Page No
1	NCRTIC210007	IOT Sensor-Based Abnormal Behavior Detection for Elderly People Ms.G.Preethi Ms.K.Abhirami Ms.K.Divya Shree, Ms.S.Liashini	1
2	NCRTIC210015	An Enriched Classification of Images of People by Gender and Age Dr.D.Shanmuga Priyaa	1
3	NCRTIC210035	Challenges in Iot: A Survey Vinitha . A	2
4	NCRTIC210046	An Embedded Device to Detect Diabetic Retinopathy and Cardiovascular Disease using AI Dr. P. Ajitha Dr. S. Vidhya	2
5	NCRTIC210057	A Conceptual View of Biometric usage in IoT Dr.G.Yashodha	3
6	NCRTIC210062	Software Quality Assurance through Artificial Intelligence in Software Testing V.Sathyavathy,	3
7	NCRTIC210063	DDOS Attacks in Cloud Environment Detection Techniques Review A.Lavanya,	4
8	NCRTIC210068	Cloud Security by Format Preserving Encryption Dr. S. Vidhya, Dr. P. Ajitha	4
9	NCRTIC210070	Study on Security Issues and Countermeasures in Wireless Sensor Networks Sowndharya N, Jeevitha Priya, Deepan Kumar S	5
10	NCRTIC210074	Managing Personal Networking during Repgrid Networking Ms.P.R.PameelaRani	6
11	NCRTIC210094	Hyper Heuristics for Big Data Cyber Security Aswanandini.R, Dr.Deepa.C,	6
12	NCRTIC210107	An Intelligent System for Coronary Artery Disease Prediction using improved Density based Spatial Clustering G.PriyaDarshini,	7
13	NCRTIC210114	Microprocessor based Power Generation using Mechanical Force in Piezoelectric Sensor Prof R. Arthi, Ms S.Ashicka, Ms V.M. Sowmiya	7
14	NCRTIC210108	Diagnosing the Preferred Practice of Ophthalmology during Covid-19 Pandemic Dr. R. Deepa, Ms. S.Vaishnavi	8
15	NCRTIC210109	Text Mining: Techniques, Applications and Issues R. Romela Elizabeth Preena	8

NCRTIC'2021 ISBN: 978-81-953467-0-7

S.No: 7 Paper ID : NCRTIC210063(AC)

DDOS ATTACKS IN CLOUD ENVIRONMENT DETECTION TECHNIQUES REVIEW PAPER

A.Lavanya, Assistant Professor,
KG College of Arts and Science,
Coimbatore
lavanyasamymsc@gmail.com

Abstract:-Distributed computing security remains the objective of both cloud administration supportive of viders and clients. With huge numbers of the security dangers to the security of distributed computing, Distributed Denial of Service (DDoS) assaults is one of the most wor-risome. The risk presented by the DDoS assaults are as of now known and keep on being the transcendent security challenge in arriving at an impenetrable and guaran-teed safe distributed computing assets and administration conveyance. Numerous specialists have proposed numerous location and safeguard methods to ensure distributed computing against DDoS assaults. In this paper, we present an audit of numerous identification tech-niques that are helpful in spotting DDoS assaults that are cloud-based and make near investigation between them to locate a reasonable strategy for recognizing these distributed computing based DDoS assaults.

Keywords:Cloud Computing, Distributed Denial of Service (DDoS), Detection Techniques, Prevention Technique.

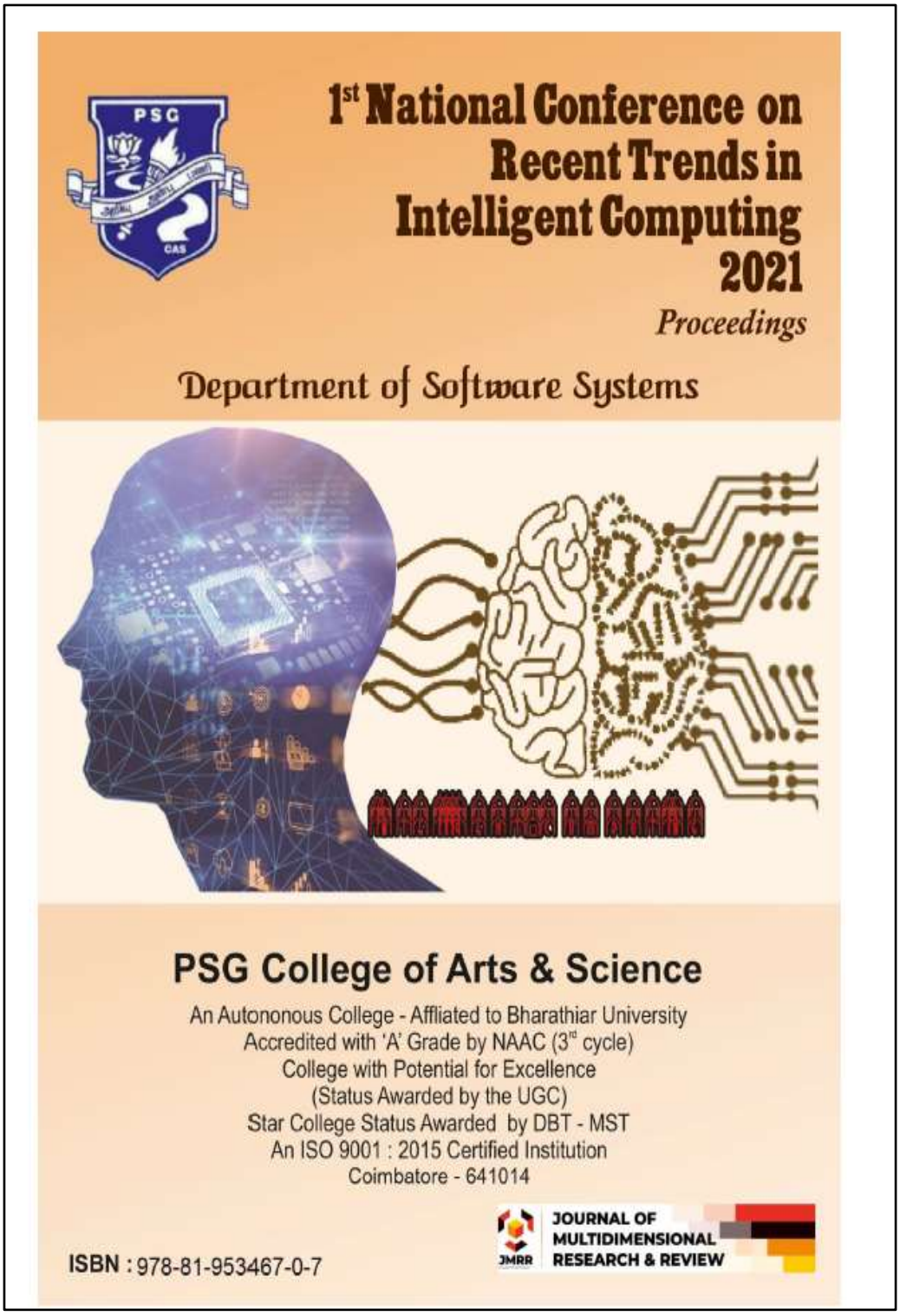
S.No: 8 Paper ID : NCRTIC210068(AC)

CLOUD SECURITY BY FORMAT PRESERVING ENCRYPTION

Dr. S. Vidhya
[1]Assistant Professor, Department of Information Technology, KG College of Arts and Science, Coimbatore
Email : vidhya.s@kgcas.com

Dr. P. Ajitha
[2]Assistant Professor, Department of Software Systems, Science, KG College of Arts and Science, Coimbatore
Email:ajitha.p@kgcas.com

Abstract:-In recent years, cloud computing is a widely used technology. Cloud computing provides service to the user over an internet. Cloud computing means storing and accessing programs and data on internet instead of our computer memory. A several number of data types are used in cloud computing such as audio, video, decimal, image, date, Boolean etc. Cloud computing uses both structured and unstructured data. Cryptography is applied for both type of data. While using traditional database encryption algorithms, the length and format of the structured data is changed. The original field on the table and the encrypted field are different in size, format and datatype. Especially the traditional encryption algorithms are not suitable for the field which is used as an index field. It leads to some additional work to handle the encrypted field. Format Preserving Encryption or Datatype Preserving Encryption is special type of encryption in which the original and encrypted field are same in datatype and format. After encryption, the encrypted filed is never changed. The format and data type are same as original filed. In this paper we proposed a special type of encryption that is AES based Format Preserving Encryption for structured data types on cloud.


1st National Conference on
Recent Trends in
Intelligent Computing
2021
Proceedings
Department of Software Systems
PSG College of Arts & Science
An Autononous College - Affliated to Bharathiar University
Accredited with 'A' Grade by NAAC (3rd cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT - MST
An ISO 9001 : 2015 Certified Institution
Coimbatore - 641014
JOURNAL OF
MULTIDIMENSIONAL
RESEARCH & REVIEW
ISBN : 978-81-953467-0-7

Since - 1947

PSG College of Arts & Science

An Autonomous College- Affiliated to
Bharathiar University
Accredited with 'A' Grade by NAAC (3rd Cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT- MST
An ISO 9001: 2015 Certified Institution
Coimbatore - 641014

Conference Proceeding

(ISBN: 978-81-953467-0-7)

National Conference on Recent Trends in Intelligent Computing

(NCRTIC'21)

Organized by

Department of Software Systems

on

25.03.2021

Editorial Members

Dr. D. Saraswathi –Assistant Professor , Department of Software Systems

Lt. Dr. D. Antony Arul Raj –Associate Professor, Department of Software Systems

Table of the Content

S.No	Paper ID	Title & Author Details	Page No
1	NCRTIC210007	IOT Sensor-Based Abnormal Behavior Detection for Elderly People Ms.G.Preethi Ms.K.Abhirami Ms.K.Divya Shree, Ms.S.Liashini	1
2	NCRTIC210015	An Enriched Classification of Images of People by Gender and Age Dr.D.Shanmuga Priyaa	1
3	NCRTIC210035	Challenges in Iot: A Survey Vinitha . A	2
4	NCRTIC210046	An Embedded Device to Detect Diabetic Retinopathy and Cardiovascular Disease using AI Dr. P. Ajitha Dr. S. Vidhya	2
5	NCRTIC210057	A Conceptual View of Biometric usage in IoT Dr.G.Yashodha	3
6	NCRTIC210062	Software Quality Assurance through Artificial Intelligence in Software Testing V.Sathyavathy,	3
7	NCRTIC210063	DDOS Attacks in Cloud Environment Detection Techniques Review A.Lavanya,	4
8	NCRTIC210068	Cloud Security by Format Preserving Encryption Dr. S. Vidhya, Dr. P. Ajitha	4
9	NCRTIC210070	Study on Security Issues and Countermeasures in Wireless Sensor Networks Sowndharya N, Jeevitha Priya, Deepan Kumar S	5
10	NCRTIC210074	Managing Personal Networking during Repgrid Networking Ms.P.R.PameelaRani	6
11	NCRTIC210094	Hyper Heuristics for Big Data Cyber Security Aswanandini.R, Dr.Deepa.C,	6
12	NCRTIC210107	An Intelligent System for Coronary Artery Disease Prediction using improved Density based Spatial Clustering G.PriyaDarshini,	7
13	NCRTIC210114	Microprocessor based Power Generation using Mechanical Force in Piezoelectric Sensor Prof R. Arthi, Ms S.Ashicka, Ms V.M. Sowmiya	7
14	NCRTIC210108	Diagnosing the Preferred Practice of Ophthalmology during Covid-19 Pandemic Dr. R. Deepa, Ms. S.Vaishnavi	8

S.No: 5 Paper ID : NCRTIC210057(AC)

A Conceptual View of Biometric usage in IoT

Dr.G.Yashodha
Department of Computer Technology
KG College of Arts and Science
Coimbatore
yashosubha@gmail.com

Abstract:- Internet of Things (IoT) is a catchword, where all digital devices are linking with each other to talk some information. These devices are encroaching on our daily life including home appliances, offices, health etc. Safety is the major concern for the Internet of Things (IoT). Whenever devices are linked then authentication is required for secure communication. So, authentication forms the gateway for a secure communication system. Authentication with text PINs still widely used but have become uncertain. Therefore, it is an vital concern to discourse by using biometric authentication. This paper presents the conceptual idea of securing internet of Things network using biometric authentication.

Keywords: IoT, Biometric, Secure, Authentication, Digital devices

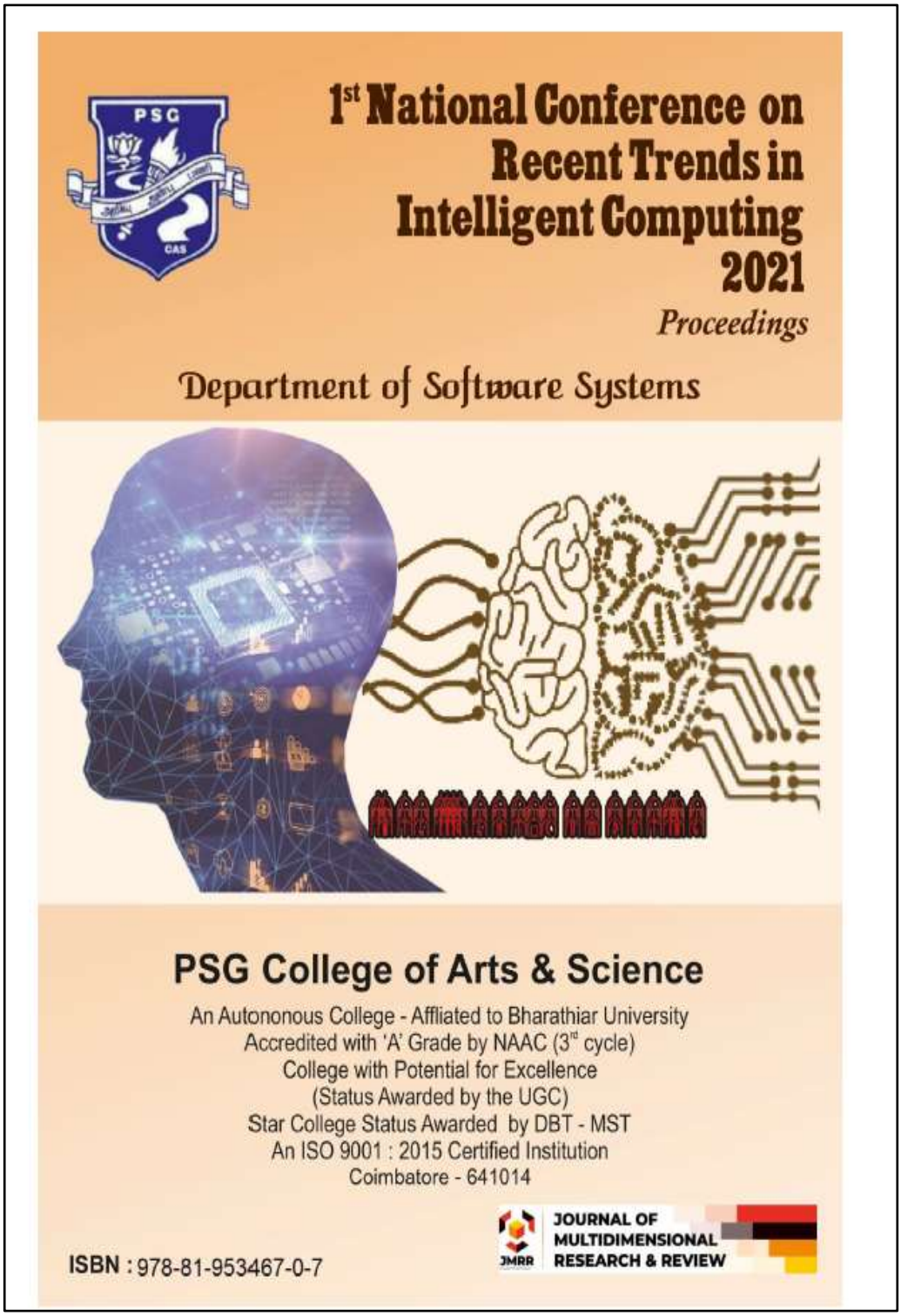
S.No: 6 Paper ID : NCRTIC210062(AC)

SOFTWARE QUALITY ASSURANCE THROUGH ARTIFICIAL INTELLIGENCE IN SOFTWARE TESTING

V.Sathyavathy,
Assistant Professor,
KG College of Arts and Science
E-mail: Sathyavathy.V@kgcas.com

*Abstract:-*Today's growth of software applications, quality assurance of developed software attains the new heights. Software Testing plays an important role in the software development life cycle. Artificial Intelligence (AI) in software testing aims to make testing smarter and more efficient. AI and machine learning apply reasoning and problem solving to automate and improve testing. AI in software testing helps reduce time-consuming manual testing, so teams can focus on more complex tasks, like creating innovative new features. A more complex software applications have been built, time is becoming a critical factor to release applications that must be fully tested and comply with Business Requirements. AI plays a key role in Software Testing and can get more accurate results and saves time. This paper discusses the Artificial Intelligence key pillars that can be used in Software Testing. It also opens a window on how the future will look like in terms of Artificial Intelligence and the Software Testing. The results show that AI can achieve better results in Software Testing and AI-driven testing will lead the new era of the quality assurance (QA) work in the near future. AI Software Testing will reduce time to market and will increase the efficiency of the organization to produce more sophisticated software.

Keywords: Software Testing, Quality Assurance, Artificial Intelligence, Testing Automation


1st National Conference on Recent Trends in Intelligent Computing 2021
Proceedings
Department of Software Systems
PSG College of Arts & Science
An Autononous College - Affliated to Bharathiar University
Accredited with 'A' Grade by NAAC (3rd cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT - MST
An ISO 9001 : 2015 Certified Institution
Coimbatore - 641014
ISBN : 978-81-953467-0-7
JOURNAL OF MULTIDIMENSIONAL RESEARCH & REVIEW

PSG College of Arts & Science

An Autonomous College- Affiliated to
Bharathiar University
Accredited with 'A' Grade by NAAC (3rd Cycle)
College with Potential for Excellence
(Status Awarded by the UGC)
Star College Status Awarded by DBT- MST
An ISO 9001: 2015 Certified Institution
Coimbatore - 641014

Since - 1947

Conference Proceeding

(ISBN: 978-81-953467-0-7)

National Conference on Recent Trends in Intelligent Computing

(NCRTIC'21)

Organized by

Department of Software Systems

on

25.03.2021

Editorial Members

Dr. D. Saraswathi –Assistant Professor , Department of Software Systems

Lt. Dr. D. Antony Arul Raj –Associate Professor, Department of Software Systems

Table of the Content

S.No	Paper ID	Title & Author Details	Page No
1	NCRTIC210007	IOT Sensor-Based Abnormal Behavior Detection for Elderly People Ms.G.Preethi Ms.K.Abhirami Ms.K.Divya Shree, Ms.S.Liashini	1
2	NCRTIC210015	An Enriched Classification of Images of People by Gender and Age Dr.D.Shanmuga Priyaa	1
3	NCRTIC210035	Challenges in Iot: A Survey Vinitha . A	2
4	NCRTIC210046	An Embedded Device to Detect Diabetic Retinopathy and Cardiovascular Disease using AI Dr. P. Ajitha Dr. S. Vidhya	2
5	NCRTIC210057	A Conceptual View of Biometric usage in IoT Dr.G.Yashodha	3
6	NCRTIC210062	Software Quality Assurance through Artificial Intelligence in Software Testing V.Sathyavathy,	3
7	NCRTIC210063	DDOS Attacks in Cloud Environment Detection Techniques Review A.Lavanya,	4
8	NCRTIC210068	Cloud Security by Format Preserving Encryption Dr. S. Vidhya, Dr. P. Ajitha	4
9	NCRTIC210070	Study on Security Issues and Countermeasures in Wireless Sensor Networks Sowndharya N, Jeevitha Priya, Deepan Kumar S	5
10	NCRTIC210074	Managing Personal Networking during Repgrid Networking Ms.P.R.PameelaRani	6
11	NCRTIC210094	Hyper Heuristics for Big Data Cyber Security Aswanandini.R, Dr.Deepa.C,	6
12	NCRTIC210107	An Intelligent System for Coronary Artery Disease Prediction using improved Density based Spatial Clustering G.PriyaDarshini,	7
13	NCRTIC210114	Microprocessor based Power Generation using Mechanical Force in Piezoelectric Sensor Prof R. Arthi, Ms S.Ashicka, Ms V.M. Sowmiya	7
14	NCRTIC210108	Diagnosing the Preferred Practice of Ophthalmology during Covid-19 Pandemic Dr. R. Deepa, Ms. S.Vaishnavi	8
15	NCRTIC210109	Text Mining: Techniques, Applications and Issues R. Romela Elizabeth Preena	8

NCRTIC'2021 ISBN: 978-81-953467-0-7

S.No: 9 Paper ID : NCRTIC210070(AC)

STUDY ON SECURITY ISSUES AND COUNTERMEASURES IN WIRELESS SENSOR NETWORKS

Sowndharya N1
Department of Computer Technology
KG College of Arts and Science,
Coimbatore, Tamilnadu, India
sowndharya19@gmail.com1.

Jeevitha Priya
Department of Computer Technology
KG College of Arts and Science,
Coimbatore, Tamilnadu, India

Deepan Kumar S3
Department of Computer Technology
KG College of Arts and Science,
Coimbatore, Tamilnadu, India

Abstract:- Wireless Sensor Networks are the most widely used monitoring system. The classic sensor nodes are deployed in the environment to sense the environmental information in remote locations. Different kinds of components are used for sensing, processing, and transmitting data. WSNs are applied to many applications and it should meet basic security measures. WSNs must be secured from the attackers hampering while distributing the sensed information and unauthorized changes in the sensed data may guide the system with the wrong information to the decision-makers. This paper illustrates the comparison of different kinds of security threats and protocols to achieve security in the network. The restriction of the wireless sensor node is their qualities which include low memory, low computation power, they are deployed in hostile areas and left unattended, a small range of communication capability, and low energy capabilities. Base on those aspects makes this network vulnerable to several attacks.

Keywords : WSNs, Attack, Secure communication.

Proceedings of the

International Virtual Conference on

Interdisciplinary Research Innovations in Science and Humanities

IC-IRISH 2020

29th & 30th November 2020

Organized by

Nehru Arts and Science College

An autonomous Institution Affiliated to Bharathiar University
(Reaccredited with 'A' Grade by NAAC, Under Stare College Scheme by DBT, Govt. of India)
Nehru Gardens, Thirumalayampalayam, Coimbatore – 641 105.
Tamil Nadu, India.

In Association with

KES'B K Shroff College of Arts & M H Shroff College of Commerce
Mumbai, India.
AVINASH College of Commerce
Hyderabad, India.

Published by

THE CHARULATHA PUBLICATIONS
Books & IT Solutions Company
Old No.22/1, New No.52/1, Babu Rajendra Prasad 1st Street,
West Mambalam, Chennai – 33.
Mobile : 93453 81624 / 98848 19497 / 99404 45319 / 044-79640499
Email : thecharulathapublicationsit@gmail.com

All Rights Reserved.

Original English Language Edition © Copyright by **The Charulatha Publications Books & IT Solutions Company.**

This book may not be duplicated in any way without the express written consent of the publisher, except in the form of brief excerpts or quotations for the purpose of review. The information contained herein is for the personal use of the reader and may not be incorporated in any commercial programs, other books, database, or any kind of software without written consent of the publisher. Making copies of this book or any portion thereof for any purpose other than your own is a violation of copyright laws.

This edition has been published by **The Charulatha Publications Books & IT Solutions Company.**

Limits of Liability/Disclaimer of Warranty: The author and publisher have used their effort in preparing this IC-IRISH 2020 book and author makes no representation or warranties with respect to accuracy or completeness of the contents of this book, and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. There are no warranties which extend beyond the descriptions contained in this paragraph. No warranty may be created or extended by sales representatives or written sales materials. Neither CiiT Software Research Institute nor author shall be liable for any loss of profit or any other commercial damage, including but limited to special, incidental, consequential, or other damages.

Trademarks: All brand names and product names used in this book are trademarks, registered trademarks, or trade names of their respective holders.

ISBN 978-81-948555-3-8

THE CHARULATHA PUBLICATIONS

Books & IT Solutions Company

Old No.22/1, New No.52/1, Babu Rajendra Prasad 1st Street,
West Mambalam, Chennai – 33.
Mobile : 93453 81624 / 98848 19497 / 99404 45319 / 044-79640499
Email : thecharulathapublicationsit@gmail.com

12.	**Efficacy of aloe gel Coating on Quality and Shelf life of tomato (*LycopersiconEsculentum*Mill.) fruits** *A. Anitha, A. Sakthiraja and R. KavithaSaraswathi*	73
13.	**Bioremediation of oil Contaminated Landfills – Biosurfactants, the Biodegradation Ability of the Microbial Population** *R. Boobal and S. Dinesh Kumar*	82
14.	**Prevention of Biofilm Associated Infections using Drug Eluting Medical Implants and Catheters** *P. Kanimozhi and S. MeenatchiSundaram*	87
15.	**In vitro Studies on Antivenom Potential of Leucaszeylanica / Copper Nanocomposite (LZCNC) Against Echiscarinatus venom** *Pooja, S. Dev and S. Meenatchisundaram*	98
16.	**Antivenom Potential of *Cleome Gynandra* / Copper Nano Composite (CGCNC) Against *Daboiarusselli* Venom.** *K. U. Hima and S. Meenatchisundaram*	103
17.	**Seed Germination, Evaluation of Anti-oxidant Potency and Chemical Compostion of leaf oils of *Myristicamalabarica* Lam** *Jyothylakshmy Rajan and N. Saranya*	109
18.	**A Study on Antimicrobial Activity of *Averrhoabilimbi* leaf Extracts** *A.S. Jayasree and S. Nisy*	113
19.	**Algal-Made Pharmaceuticals: Current Status and Future Prospects** *P.T. Pratheesh and S. Cristy*	118
20.	**The Menopause Transition: a Systematic Review in Indian Perspective** *P. Aarsha Geetha and P.R. Janci Rani*	124
21.	**Synthesis and Influence of Ca^{2+}, Cd^{2+} and Mg^{2+} doped ions in Zinc Hydrogen Phosphate Crystals in Silica gel medium using single diffusion Technique** *A.Tony Dhiwahar and T. Jayaprakash*	130
22.	**MC-LMAC Protocol for Energy Harvesting Wireless Sensor Networks** *D.AntonyPradeesh and N. P.Subiramaniyam*	139
23.	**Noise Removal in Digital Images using Digital Signal Processing** *M.Arun Prasad and N.P.Subiramaniyam*	147
	COMPUTER SCIENCE	
24.	**Smart Agent Mining for Distributed Environment in Trade** *N. Priyadharshini, and H.VigneshRamamoorthy*	152

International Virtual Conference on Interdisciplinary Research Innovations in Science and Humanities (IC – IRISH' 20), 29th and 30th November 2020

NOISE REMOVAL IN DIGITAL IMAGES USING DIGITAL SIGNAL PROCESSING

M. Arun Prasad[1], N.P. Subiramaniyam[2]

[1]*Assistant Professor& Head,*
Department of Electronics, KG College of Arts and Science, Coimbatore, Tamil Nadu, India.
[2]*Professor and Head, Department of Electronics*
Nehru Arts and Science College, Coimbatore, TamilNadu, India.
E-mail: arunprasad@kgcas.com

Abstract

This paper introduces the concept of image fusion of filtered noisy images for impulse noise reduction. Image fusion is the process of combining two or more images into a single image while retaining the important features of each image. Multiple image fusion is an important technique used in military, remote sensing and medical applications. Five different filtering algorithms are used individually for filtering the image captured from the sensor. The filtered images are fused to obtain a high quality image compared to individually denoised images. In-order to better appraise the noise cancellation behavior of our fusion technique from the point of view of human perception, an edge detection is performed using canny filter for the fused image. Experimental results show that this method is capable of producing better results compared to individually denoisedimages.

Keywords

Impulse Noise, Image Enhancement, Image Restoration, Image Processing, Image Fusion.

1. INTRODUCTION

Order statistics filters exhibit better performance as compared to linear filters when restoring images corrupted by impulse noise. Impulse noises are short duration noises which degrade an image. They may occur during image acquisition, due to switching, sensor temperature. They may also occur due to interference in the channel and due to atmospheric disturbances during imagetransmission.

The goal of the filtering action is to cancel noise while preserving the integrity of edge and detail information. In this paper, we propose a novel technique for impulse noise reduction. In our technique, first an image in captured by a sensor. The image is filtered in parallel with five different smoothing filters. The denoised images obtained from five different filters are fused them to obtain a high quality image free from impulse noise.

The rest of the paper is organized as follows. Section II analyzes the impulse noise in images, , Section III presents the image fusion technique with five different smoothing filters, Section IV presents the experimental results and finally Section V report conclusions.

2. IMPULSE NOISE INIMAGES

Impulse noise [4] corruption is very common in digital images. Impulse noise is always independent and distributed over the image. Hence unlike Gaussian noise, for an impulse noise corrupted image all the image pixels are not noisy, a number of image pixels will be noisy and the rest of pixels will be noise free. There are different types of impulse noise namely salt and pepper type of noise and random valued impulsenoise.

In salt and pepper type of noise the noisy pixels takes either salt value (gray level -225) or pepper value (grey level -0) and it appears as black and white spots on the images. If p is the total noise density then salt noise and pepper noise will have a noise density of p/2.This can be mathematically represented by(1)

y_{ij}= zero or 255 with probability p

ISBN 978-81-948555-3-8 © 2020 Published by The Charulatha Publications Books & IT Solutions Company

International Virtual Conference on Recent Trends in Electrical Energy, Artificial Intelligence, Internet of Things and Nanomaterials

(IVCRTEAIN 2021)

Editors in Chief:

Dr. C. Kumar, Professor

Editors

Dr. K. Sundararaju, Professor
Dr. R. Karthikeyan, Professor
Dr. S. Banumathi, Professor
Dr. J. Uma, Professor
Dr. S. Sathish Kumar, Professor
Dr. K. Umapathi, Associate Professor

Organized By

Department of Electrical and Electronics Engineering
M.Kumarasamy College of Engineering,
Thalavapalayam Karur,Tamilnadu ,India

Nitya Publications, Bhopal

Proceedings of the International Virtual Conference on Recent Trends in Electrical Energy, Artificial Intelligence, Internet of Things and Nanomaterial(IVC-RTEAIN 2021) on 29th – 30th April, 2021.

First Edition 2020

This book or any part thereof may not be reproduced in any form without written permission of the publisher. Publisher's Disclaimer: Due care has been taken while publishing this book, but the Author, Publisher; Printers are not responsible in any manner for any mistake that may have inadvertently crept in.

All rights reserved. No part of this book may be reprinted or reproduced or utilized in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system without permission in writing from the publishers.

Any comments or suggestions should be sent to author and no other place including public domain.

ISBN : 978-93-90699-85-8
Price : INR 300.00

Published by:
Nitya Publications
Gulmohar, Bhopal MP India
web : www.nityapublications.com
Email: info@nityapublications.com
Ph.No. : +91-900-929-1840

38	Smart Security and Home Automation [1]M.S.Dhanyamithi, [2]N.Arul Prakash and [3]K.Chandraprakash	67
39	Body Temperature and Blood Oxygen Level Monitoring Device [1]P.Yuvarani, [2]S.Kowshika, [3]B.Lavanya and [4]K.Snekha	68
40	Recent Trends in Indian Electric Vehicle Market [1]S.S.Gowarthana, [2]N.Mydeen Afath, [3]N.Jeevaram and [4]M.Sri Surya	69
41	Iot Based Intelligent Monitoring Plant and Drip Irrigation System to Minimize the Water Usage. [1]N.Raja Sekaran, [2]S.Manigandan, [3]B.Manjurekha, [4]R.Thiruppathi Raja and [5]K.Vasanth	70
42	Electric Vehicle [1]S.Gowtham, [2]P.Bharathi Kannan, [3]T.K.Jayaprakash and [4]L.Karthikeyan	71
43	Artificial Intelligence Based Sander Machine for Performance Improvement and Enhancement of Labour's Health [1]M.K.Elango, [2]M.Sridhar, [3]R.Santhamoorthi and [4]M.Sivashankar	72
44	Impact of Gate Length (Lg) On In0.7ga0.3as/Inas/In0.7ga0.3as Based Composite Channel E-Mode Hemt Device for High Switching Speed Applications [1]M.M.Rahool, [2]M.Vijay Krishna, [3]K.Dinesh Kumar, [4]R.Saravana Kumar R and [5]A.Daniel Raj.	73
45	Economic Load Dispatch Using Different Topologies of Artificial Neural Network [1]Pratyush Rastogi, [2]Ronak Malik, [3]Piyush Jain, [4]Uma Nangia and [5]N.K Jain	74
46	Bi-directional DC-DC Converter Using Zero Voltage Switching for Hybrid Electric Vehicle Application. [1]G.Subramaniam, [2]R.Aswitha, [3]M.Gugapriya and [4]K.E.Soundharya	75
47	Computer Aided Emergency Service System [1]Ashik Farhaan, and [2]V.V.Gomathi	76
48	IoT Based DC Power Converter Control [1]J.Uma,[2]S.Nisha,[3]B.Nivetha and [4]S.Sharmila	77
49	Luo Converter Design in Electric Vehicle for Power Quality Improvement [1]J.Uma, [2]S.Dharanishri, [3]R.Madhumitha and [4]M.Rajalakshmi	78

ISBN: 978-93-90699-85-8

Proceedings of the International Virtual Conference on Recent Trends in Electrical Energy, Artificial Intelligence, Internet of Things and Nanomaterial(IVC-RTEAIN 2021) on 29th – 30th April, 2021.

COMPUTER AIDED EMERGENCY SERVICE SYSTEM

[1]Ashik Farhaan, and [2]V.V.Gomathi

[1]*Scholar, Department of Computer Science, Department of Computer Science, K G College of Arts and Science, Coimbatore, Tamilnadu India*
[2]*Professor, Department of Computer Science, K G College of Arts and Science, Coimbatore, Tamilnadu India*

ABSTRACT:

The large numbers of sick persons in different diseases are very dreaded, and when there are needed to travel it is hard for them to travel, if there is any emergency need when they are not at the proper time it may lead to make us to lose the person. This system offers a beneficial system controlled by the patient based on the patients' location. In this emergency system the person will send an emergency request contains his ID and coordinates (Longitude and Latitude) via Global Positioning System (GPS) network to the web server, in this step the server will locate the sick person on Google map and retrieve the person's information from the database which is stored by the hospital employees. Based on these information our system will send facility and at the same time informing the hospital.This system relied on the dedicated tracking technology to identify the location of the patient. These dedicated alert systems used Global Positioning System GPS to provide the tracking facility. The system allow the user's mobility to be tracked using dedicated GPS or mobile phone which are equipped with an internal GPS receiver and a GPRS transmitter, i.e. most of the applications so far use a handheld GPS receiver device for tracking the location, and ISP are busy in the interval of tracking.To overcome the problems above and to enhance the performance, throughput, of this type of system, the motivation is reached to system for the patients can achieve easy registration (from their homes) can select the nearest Emergency Service Center (ESC) when the patient need in emergency cases wherever her/his location the scouring facility can reach to her/his location. The proposed system is the first tracking system using mobile GIS based on webservice technology to offer online emergency request, which really works only when the patient sends request for the health center.

Keywords: Emergencyservice, medicalcommunication, emergencyservicesviamobileapp, first-aid.

Proceedings of the

International Conference on Data Analytics and Computational Mathematics

DACM 2020

29th February 2020

Organized by

Department of Computer Science &
Department of Mathematics

SRI RAMAKRISHNA
College of Arts & Science for Women
Affiliated to Bharathiar University Approved by AICTE
Accredited by NAAC & An ISO Certified Institution
Coimbatore – 641044

Published by

Coimbatore Institute of Information Technology
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamil Nadu, India.
Website: www.ciitresearch.org

All Rights Reserved.
Original English Language Edition © Copyright by **Coimbatore Institute of Information Technology.**

This book may not be duplicated in any way without the express written consent of the publisher, except in the form of brief excerpts or quotations for the purpose of review. The information contained herein is for the personal use of the reader and may not be incorporated in any commercial programs, other books, database, or any kind of software without written consent of the publisher. Making copies of this book or any portion thereof for any purpose other than your own is a violation of copyright laws.

This edition has been published by **Coimbatore Institute of Information Technology, Coimbatore.**

Limits of Liability/Disclaimer of Warranty: The author and publisher have used their effort in preparing this DACM 2020 book and author makes no representation or warranties with respect to accuracy or completeness of the contents of this book, and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. There are no warranties which extend beyond the descriptions contained in this paragraph. No warranty may be created or extended by sales representatives or written sales materials. Neither CiiT Software Research Institute nor author shall be liable for any loss of profit or any other commercial damage, including but limited to special, incidental, consequential, or other damages.

Trademarks: All brand names and product names used in this book are trademarks, registered trademarks, or trade names of their respective holders.

ISBN 978-93-89105-40-7

Coimbatore Institute of Information Technology,
#156, 3rd Floor, Kalidas Road, Ramnagar,
Coimbatore – 641009, Tamil Nadu, India.
Phone: 0422-4377821
www.ciitresearch.org

DACM 20 – DIP02	Warning System for Drivers Using Image Processing Techniques *M. Pavithra, M. Sushmitha and Dr. D. Anitha*	60
DACM 20 – DIP03	A Study on Content Based Image Retrieval Systems *N. Abirami and Dr. S. Gavaskar*	63
DACM 20 – DM02	Bicluster Based Synthetic Minority Over-Sampling Technique (B-Smote) and Multi-Label Classification for Imbalanced Samples *M. Priyadharshini and Dr. L. Pavithira*	66
DACM 20 – DM03	Adulteration in Fruits and Vegetables *Dr. S. Preetha, N. Sukanya, S. Keerthana and S. Nivedha*	72
DACM 20 – DM04	Artificial Intelligence in Machine Learning Technology *R. Ramya and S. Threka*	75
DACM 20 – DM05	A Study on Recent Classification Techniques in Cancer Biomarkers *M. Divyavani and Dr. G. Kalpana*	78
DACM 20 – DM06	Consensus Algorithms - The Kernel of Disruptive Decentralized Distributed, Blockchain Technology *M. P. Swapna and Dr. G. Satyavathy*	84
DACM 20 – DM07	Educational Data Mining (EDM) Using Different Data Mining Techniques: A Review *K. Nandini and Dr. T. Deepa*	89
DACM 20 – DM08	A Survey on Text Mining *S. Geethamani, A. Pearline Mercy, B. Shahin*	92
DACM 20 – DM09	Implementation of Machine Learning in Higher Education *N. Vaishnavi and Dr. R. Ravichandran*	95
DACM 20 – DM10	Travel and Tourism Management *N. Nivetha, A. Ragavi and Dr. S. Vijayalakshmi*	99
DACM 20 – DM11	Data Science in Real Life *T. Rakhitha, S. C. Sarojini and C. Rathika*	102
DACM 20 – DM12	Data Visualization on Power BI *C. Selvapriya, M. Logadharshni, K. Dayana and Dr. D. Gayathridevi*	107
DACM 20 – ICI01	ICT and its Role in Student Learning *S. Nirmala Grace Rani and Dr. Joseph Catherine*	109
DACM 20 – IOT01	Fraud Detection through CCTV Using Jetson *P. Nithi sree, S. Sindhuja, H. Reihana Begum and Dr. S. Preetha*	113
DACM 20 – IOT02	A Survey on Fraud Detection Techniques *R. S. Akshaya, S. Poornima and S. R. Lavanya*	116
DACM 20 - IOT03	ATM Fraud Detection *Dr. S. Preetha, R. G. Devadarshini, G. Mounika and B. M. Varsha*	119

International Conference on Data Analytics & Computational Mathematics DACM 2020, 29th February, 2020

Implementation of Machine Learning in Higher Education

N. Vaishnavi[1] and Dr. R. Ravichandran[2]

[1]*Research Scholar, Department of Computer Science, KG College of Arts and Science, Coimbatore.*
[2]*Secretary and Director, KGiSL Institutions, Coimbatore-35.*

***Abstract*—**Machine Learning (ML) is one in every of the fastest emerging technologies today. It is a sub-set of computing technology. Machine learning is employed to show machines the way to handle the information more efficiently. It's a scientific study of statistical models and algorithms to assist a computer system to accomplish designated tasks efficiently and independently by relying solely on inferences and patterns extracted from the training or acquired data[1]. The aim of this paper is to guage the probabilities of applying and using machine learning within the education area. This paper identifies and analyses suitable literature, research papers and articles so as to see their categorization within the field of education, to see this trends of using machine learning in education, and to see its current and future applications.

***Keywords*—**Machine Learning, Algorithms, Education, Student Performance, Student Retention.

I. Introduction

MACHINE learning may be considered part of computing (AI). Machine learning is, at its core, the method of granting a machine or model access to data and letting it learn for itself. In 1959, Arthur Samuel came up with the brilliant concept that we should always not need to teach computers, but rather, we could allow them to learn on their own. He coined the term "machine learning" to explain his theory, which is now a regular definition for the flexibility of computers to be told autonomously [2]. Pattern recognition, education, computer vision, bioinformatics, natural language processing, etc. are just a few of fields where machine learning is applied. The best way to describe the potential of machine learning is to explore how people and corporations are currently taking advantage of it. Some examples could be:

Natural language processing: Google Translate is created from a bunch of machine learning algorithms that updates the service over time supported input from users, like new words and syntax. Siri, Alexa, Cortana, and, last, Google Assistant all rely upon natural language processing to acknowledge speech and synthesis, allowing them to grasp or pronounce words they have never encountered before..

Healthcare: AI increases the flexibleness for healthcare professionals to raised understand the day-to-day patterns and desires of the people they be sure of, and therewith understanding they're ready to provide better feedback, guidance and support for staying healthy. Variety of the ML algorithms utilized in health care application are cardiopathy Diagnosis, Predicting Diabetes, Cancer Detection and Prediction, Robotic Surgery, Smart Electronic Health Recorder.

Trading: Machine Learning is one step above Algorithmic trading. The Algorithmic trading involves feeding the buy/sell rules to the computer. The financiers cannot predict all of that behavior, machine learning algorithms can — and that they answer changes within the market much faster than human.

Online shopping: Everything that is recommended to you depends on your search activity. The e-shopping websites deliver recommendations across platforms, devices, and apps. Machines match buyers with sellers and their products, digital content with viewers who want to to figure out them - all of which improves our online experiences significantly.

II. Machine Learning Algorithms In Education Area

A. Supervised Learning Algorithm

Supervised learning is that the task of inferring a function from labeled training data. It involves supervision of human or developer. Although the system records the past operations of the students, still the programmer/teacher must train the system with new sets of information to be prepared for the subsequent level of prediction of students and will make modifications within the preferences, to teach the system for brand new possibilities of problems which students might face. the scholars are given suggested reading/study which is to guide the realm during which they need to reinforce.

B. Unsupervised Learning Algorithm

Unsupervised learning models are used once we only have the input variables (X) and no corresponding output variables. They use unlabeled training data to model the underlying structure of the data. This approach doesn't involve any data classifications, and also the system encompasses a more comprehensive algorithm, due to which it can evaluate the data to acknowledge a replacement set of patterns.

C. Reinforcement Learning Algorithm

Reinforcement learning could also be a range of learning which makes decisions supported which actions to need specified the tip result's more positive. This approach is that the foremost appropriate approach which could be adapted in teaching and learning. In this, the machine is about

ISBN 978-93-89105-40-7 © 2020 Published by Coimbatore Institute of Information Technology