

International Conference on Physics and Energy (ICPAE 2021)

Journal of Physics: Conference Series Volume 2040

Kancheepuram, India
24 March 2021

ISBN: 978-1-7138-5011-3
ISSN: 1742-6588

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

This work is licensed under a Creative Commons Attribution 3.0 International Licence.
Licence details: <http://creativecommons.org/licenses/by/3.0/>.

No changes have been made to the content of these proceedings. There may be changes to pagination and minor adjustments for aesthetics.

Printed with permission by Curran Associates, Inc. (2023)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

International Conference on Physics and Energy 2021(ICPAE 2021)	
Peer Review Declaration	
Lung Cancer Detection Using VGG NET 16 Architecture.....	1
<i>S Thanzeem Mohamed Sheriff, J Venkat Kumar, S Vigneshwaran, Aida Jones, Jose Anand</i>	
Wind Turbine Fault Monitoring System Using MQTT	9
<i>G Sasikala, Yadala Poorna Sai Chandra, Nallamilli Siva, Avilala Sai Vinesh</i>	
Control of Environmental Pollution by Utilizing Wastes from Industry on Fly Ash Based Geopolymer Concrete.....	19
<i>S Ispara Xavier, R Divahar, P S Aravind Raj, M Devi Saran, Varsha Manohar, Athul Sudhakaran</i>	
Fuzzy Logic Intelligent System for an Automatic Medical Waste Segregation.....	26
<i>V Ramani Bai Gopinath, S H Dhavarpanah, G Kangadharan, R Ruzaimah</i>	
(CSM2-RA-R2-TI): Cyber Security Maturity Model for Risk Assessment Using Risk Register for Threat Intelligence.....	36
<i>B Lakshmi Prasanna, M Saidireddy</i>	
Efficient Identification of Node Failure and Recovery Through End to End Probing Techniques.....	49
<i>Chitturi Sai Nikhil, Manjula Josephine Bollarapu, Kaja Sai Sree Neeraj, Alaparthi Praveen Kumar, Manchikalapudi Jaya Sesha Sai Raghuveer</i>	
Smart Battery Management System Using LiFePO4 Battery for Offline UPS	55
<i>B A Anandh, A Shankar Ganesh, R Sakthivel, D Maheshkumar, E Prem Kumar</i>	
A Study on Vulnerable Risks in Security of Cloud Computing and Proposal of Its Remedies	64
<i>Rashi Saxena, E. Gayathri</i>	
Face Recognition Using CNN and Tracking Locations Using Image Metadata	71
<i>Ch. Sushma, P Lalitha Surya Kumari</i>	
Agriculture Cloud System Based Emphatic Data Analysis and Crop Yield Prediction Using Hybrid Artificial Intelligence.....	76
<i>D. Naga Swetha, Savadam Balaji</i>	
Ant Colony Optimization Algorithm GPS Clustering Approach.....	89
<i>M. Grace Mercy, A. Kamala Kumari, A. Bhujangarao, V. Nooka Raju</i>	
Runoff Volume Prediction in the Megadrigadda Reservoir Catchment Due to Past Land Use/Land Cover Trends-A Case Study	95
<i>P Shiva Kumar, G Venkata Rao, Eswara Veera Raghava Rao, Ch Kannam Naidu</i>	
Design and Fabrication of Automatic Squeezing Machine for Food Industries	105
<i>A. Imthiyas, R. Mahesh, Emin Eldho, Nevin Baby, N S Hariprasath</i>	
Comparative Study on Soil Stabilization Using Industrial by Products and Coconut Coir	112
<i>S. S. S. Nitish, De Sangita, A. V. S. L Ramya, G Sudheer Kumar</i>	

Simulation of Real-Time Medicine Suggestion Box for COVID Screening.....	119
<i>J Vijay, D Sriram, B Hemanth Sai, R Kachana Santhosh Kumar</i>	
Design of Hybrid Deep Learning Approach for Covid-19 Infected Lung Image Segmentation	127
<i>M. R-Prabha, Ramkumar Prabhu, Su. Suganthi, S. Sridevi, G. A. Senthil, D. Vijendra Babu</i>	
Detection and Prevention from Different Attacks in VANET: A Survey	135
<i>Arun Singh Kaurav, Sushama Rani Dutta</i>	
Study on Flexural Behavior of Bubble Deck Slab Strengthened with FRP.....	145
<i>V. Abishek, G. R. Iyappan</i>	
Study on Flexural Behaviour of RC Beam Strengthened with FRP	154
<i>J Dinesh Kumar, A Sattainathan Sharma, K Suganya Devi</i>	
Sustainable Development on Ferrock Mortar Cubes	166
<i>S. Karthika, A. Leema Rose, G. Priyadarshini</i>	
Study on Behaviour of Deep Beam Strengthened with Gfrp Sheets	175
<i>A. Meena, K. Suganya Devi, A. Sattainathan Sharma</i>	
Machine Learning with Health Care: A Perspective.....	187
<i>Meenakshi Malik, Rekha Khatana, Aditi Kaushik</i>	
Analytical Study on Static Behaviour of a Transmission Tower Line Systems.....	196
<i>B. Menaka, Vinoth Kumar</i>	
Prediction of Undrained Shear Strength and Correlation in Between Soil Parameters	207
<i>Yimam Mohammed Yimer, A. Paul Makesh, Salihashukri Muhammed</i>	
Numerical Analysis of Cold Rolled Structural Steel Angle Sections Subjected to Tension Members	215
<i>A. Paulmakesh, Gizachew Markos Makebo</i>	
Analytical Study on Flexural Behaviour of Light Gauge Steel Corrugated Section Encased in Concrete	227
<i>K. Thilagar, S. Suresh Babu</i>	
The Effect of Glass Fiber on Concrete and Reinforced Concrete Beam Under Elevated Temperature.....	239
<i>A. Paulmakesh, Markos Gizachew Makebo</i>	
Study on Flexural Behaviour of High-Performance Concrete Beam Strengthened with Polyolefin Fibres.....	250
<i>B. Yuvashri, A. Sattainathan Sharma, K. Suganya Devi</i>	
Relationship Between California Bearing Ratio and Other Geotechnical Properties of Sub Grade Soils	262
<i>Yimam Mohammed, A. Paulmakesh, Bereket Admasu, Saliha Shukri</i>	
Study on Flexural Behaviour of Reinforced Concrete Beam with Effective Openings.....	271
<i>D. Sathiyapriya, K. Suganya Devi, A. Sattainathan Sharma</i>	
Design of Solar Charging Case for Mobile Phones.....	280
<i>R Gladwin Antony, S Hariharan, D Hari Haran, C Clement Raj</i>	
Intelligent Model for Reservoir Operation Through Data mining-A Case Study	286
<i>V Ramani Bai Gopinath, S Mohan, G Kangadharan, A Chun Kit, P Varadarajan</i>	

Design and Development of an Effective Smart Garbage System Using the Internet of Things	299
<i>V Vanitha, Cv Sangeerth Raj, Kk Mithun Kumar, Joseph Sebastian</i>	
Solar Power Based Positive Output Super-Lift Luo Converter Using Fuzzy Logic Controller	303
<i>K Pavithra, H Pooja, D Tamilselvan, TD Sudhakar</i>	
Voice Controlled Shopping Trolley Navigation with RFID Scanner and Live Billing Using IoT	315
<i>S Praveen, V Pugalenthiran, K. Jaraline Kirubavathy</i>	
Study on Engineering Behavior of Conventional Cement Concrete by Partially Replacing Sea Shell as Fine Aggregate	325
<i>D. Parthiban, D. S. Vijayan, Sachu Andrews, Sangsangrach Sangma, Arif Mohammed</i>	
Discernment and Diminution of Black Hole Attack in Mobile Ad-Hoc Network Using Artificial Intelligence	332
<i>K Srinivas, V Harsha Shastri, Vinay Kumar Nassa, Gudapati Syam Prasad, Prathipati Ratna Kumar</i>	
Role of Machine Learning in Software Project Management	349
<i>R. Mamatha, K. G. Suma</i>	
Study of Self Depuration Capability of River Pamba.....	354
<i>P S Aravind Raj, R Divahar, Arun R Nair, S Aswin, B Bipeesh</i>	
Design and Analysis of Zigzag Classifier in Food Industry Applications	362
<i>Yella Harshavardhan Reddy, K Purushothaman, M Sreenivasan, E R Sivakumar</i>	
Wearable Technology for Visually Challenged People Commutation Using Ultrasonic Mapping.....	372
<i>D. Vijendra Babu, R. Karthikeyan, Sai M Bharadwaj, Belly Ajay Sai</i>	
Optimization of Dissimilar Aluminum Alloy by Friction Stir Welding Process Control Variables with Multiple Objectives	378
<i>S. D. Kumar, R. Pugazhenthi, S. Ajith Arul Danial, G. Swaminathan</i>	
Design and Fabrication of Drainage Cleaning Equipment	391
<i>S. Kalyanakumar, R. Praveen, Arun Shaji, Diwakar</i>	
A Survey on Automatic Text Summarization Techniques	396
<i>S Hima Bindu Sri, Sushma Rani Dutta</i>	
Fuzzy Logic Algorithm and GSM IoT Based Fire Fighting Robot	406
<i>P Vasanthkumar, P V Arunraj, N Mohammed Bilal Khan, A V Akash, R. Mukunthan, R. Harish Babu</i>	
Influence of Nozzle Hole Geometry of CI Engines Performance and Emission Parameters Fuelled by Diesel and Biodiesel-A Review	414
<i>A. Imthiyas, M. Saravanan, B M Sanjaykumar, P Sujith Raj, M Udhaya Kumar</i>	
Novel Enhanced Algorithm Based on DNA Cryptography to Secure Data Transfer Over Network.....	425
<i>Samwal Idris, Anjali Mathur, Asdaque Hussain</i>	
A Comparative Study: Performance and Optimization of Artificial Neural Networks in Blood Cell Datasets	432
<i>K. Sivaraman, V. Khanna</i>	
Fabrication and Tribological Studies of Hybrid Composite Material.....	438
<i>K. Surendrababu, S Sathiyanaraj, M. Issac Premon, D. Gurumugilan, E. Sridharan</i>	

Improving the Mechanical Properties of Natural Fiber Reinforced Sponge Gourd Fiber Composites	447
<i>B Selva Babu, D Bubesh Kumar, K Arjun, A Arshad, Athul M Joy</i>	
Machine Learning Models for Prediction of Cardiovascular Diseases.....	462
<i>K. Sivaraman, V. Khanna</i>	
Performance Testing of VCR Engine Using Plastic Oil Produced by Pyrolysis Method	478
<i>B Samuvel Michael, K. G. Muthurajan, K. Surendrababu, B. Samuvel Michael</i>	
Characteristics Study on Leachate Samples of Laloor, Thrissur	485
<i>S Ispara Xavier, P S Aravind Raj, R Divahar, Arun Mohan, Nithin Tr, A C Shamsad</i>	
Design of Water Distribution System for Thirumitta Code Grama Panchayat	494
<i>S Ispara Xavier, R Divahar, P S Aravind Raj, Astoria Femy Roy, P R Athira, C B Maria Duna</i>	
Decolorization of Textile Wastewater with Activated Carbon Made of Coconut Shell.....	500
<i>S P Sangeetha, Susmita Bhowmick, Nawas Khan Md, M Akash</i>	
Performance of Pellucid Concrete by Using Optical Fibers	506
<i>P. Subathra, S. P. Sangeetha</i>	

Author Index