

Dadi Institute of Engineering & Technology



Approved by AICTE & Permanently Affiliated to JNTUK
NAAC Accredited Institute & Inclusion under Section 2(f) & 12(B) of the UGC Act
NH-16, Anakapalle, Visakhapatnam-531002, Andhra Pradesh.

(IOTDA-2K21)

17-18 Dec, 2021

**Department of Computer Science & Engineering
and Electronics & Communication Engineering**

Proceedings of Two Day Online National Conference on Internet of Things : Design & Applications

Sponsored by



Chief Patron : Sri Dadi Ratnakar, Chairman

Patron : Dr. Challa Narasimham, Principal

Convenor : Dr. K. Sujatha, Professor, CSE

Conference Website Link

diet.edu.in/iotda2k21



Content

Description	Pg. No.
Agriculture Applications of Internet of Things: A Survey Comparison of Clustering Algorithm S.Sindhu,L.Arockiam	5
Comparison of Clustering Algorithm RugadaVaikuntaRao,N.Sireesha, Mrs.J.Nalini	6
Structural Health Monitoring Using IoT B Satheesh, VelamuriManasa ,Y.Jaswanth, B. SaiLikitha, K. Sri Sahithi, K.Trivani	7
Sensor Based Frisking P Sireesha, Archana B T, , M. PratyushaJyothi, J. Tallababu, Ch. Harika, G. Madhavi	8
Automatic Smart Irrigation System Using IOT Technology Kishore Buddha, K.Poojitha, G.Pavan, Rahul Kumar, D.Devi , V.N SaiRohini Kumar, D. Jaswanth	9
Optimal Time Table Generation Using Genetic Algorithm N G S Raju, B.G.PoornimaHimaketan, M.Tejasri , K. Komali , T. SaiHarika, R. Lohit Kumar	10
Hydrogen Fuel Cell Based Energy Production for Domestic Appliances A Swetha'M.Hemanth Kumar, Suraj Nahak, Manda Sravan Kumar, Vara Prasad	11
Passive Target Tracking Using Sonar Measurements M S B Deepthi, KausarJahan, MallaMounika Naga Lakshmi, Piradula Suresh, Routhulapudi Lalitha Lakshmi S Praveenya, PentakotaSwarjan	12
IoT Based Home Thief Movement Detection and Alerting System Using GSM Technology Matta Sankara Sastry, Srinivasa Rao, N. Prudhivi, P. Jyothi, M. Srinivas, K. Bhagya Lakshmi	13
Wavelet Signal and Image Denoising R. V. S. Lakshmi Kumari , R. Suneel Kumar, B. Pavani, G. Tejasri, Ch. Latha, V.Moulika	14

Design and Implementation of Underground Cable Fault Detector review on control strategies in micro grid to smart	15
R.SrideviAravelli S L K Gopalamma, Kusul Kumar K, N. Srinivas, Sumanth Kumar, S. LaxmanRao	
No Death in India over Usage of EMS Application	16
SulochanaKengam,M RVSG Guptha, Mr. Raj PavanPolisetti	
Role of Smart Technique in Irrigation System	17
G Rajasekharam , K. Srinivasarao, S. Srinowshya, G. Manoharsri, B. Pydiraju, J. Yaswanth	
Study on Green Concrete for the Future	18
Y H PrasannaRaju,B. Sudheerkumar, N. Vamsikrishna, V. Venkatesh	
Dynamic Electric Vehicle Charging System	19
Ramesh Surisetty,CH Ravi Kumar, P Gnanendra Kumar, V Ganesh, P Teja, V Sai Kumar	
Switched Reluctance Motor for Hybrid Electric Vehicle using IoT Cloud	20
L.V.Rajesh Kumar, Alfoni Jose K, K.S.S.Jahnavi,K.NarayanaMurthy,M.Savan Kumar, M.S.D kiran	
Generating Electricity by Using Heating Panel	21
B. V. Suresh, K Vijay Kumar, B P S PrakashRao, B Siva Sai, D S Siva Kumar, B RakeshYadav	
Health Care System for Home Quarantine People Using Raspberry Pi, GSM and IOT Technology	22
GiridharBabu, Sheik Shabeena, Karri Jayasri, Lanka VenkataSaiTejaswini, AneLokesh, Kobbari Rajesh	
Covid-19 Fencing and Contact Traceability	23
M.G. Varaprasad A.S.N.Varma T.Divya,P.Yamini ,I.Sreelekhyaa, K.Teja	
Smart Power Factor Smart Power Factor Controller	24
G Jyothi, T. Ramesh babu, B.Lohidhar ,E.Mohan,CH. Sri harsha ,K .Vamsikrishna	
Autonomous Delivery Robot	25
B. Siva Prasad, K.S.N.VSomesheswararao,`K.Mytri,R.Indraja, K.Thriveni, D.Ajay Kumar	
Accident Detection and Alert System using Arduino	26
A Vasudeva Rao, P. Amrutha, V. Moulika,M.Manju, K.BhagyaDharani, B.Kedharsai	

A Comprehensive Approach to Develop Pavement Bricks from IoT(Iron Ore Tailings) and Solid Plastic Waste to Generate Green And Cyclic Economy Towards Waste To Wealth Mission	27
Rugada Vaikunta Rao	
Solar Powered BLDC Motor with HCC Fed Water Pumping System for Irrigation	28
J. Deleep Kumar, S. Sai Kumar	
A Review on Control Strategies in Micro grid to Smart	29
O. Lakshmi Bhavana, Aravelli S L K Gopalamma	
Capturing Human Categorization of Natural Images by Combining Deep Networks and Cognitive Model	30
VenkataKalyaniVangapandu, NamrathaPadiyar	
IOT Applications with Secured Light Weight Cryptography	31
Namratha Padiyar, Venkata KalyaniVangapandu	
Implementation of Cloud Technology in Education	32
V. Manasa, B.G. Poornima	
Elliptic Cryptography Curve for Secured Text Encryption	33
Likitha.K, M.Srinivasa Rao	
Study of Seismic Analysis of Multi Story Buildings With and Without Basement	34
Y Hemanth Kumar	
Renewable Energy Based Integrated Automated Full Body Sanitizing System	35
B. V. Veeranjanyulu	
An Approach for Reconstruction of Unavailable Data in Cloud Storage System Using Partially Distributed File System with Parity	36
Ramaraju. S V S V.P, Komali K	
Predicting the Hydrogen Storage Capacity of Lithium Doped MWCNTs Nano particles using Machine Learning Techniques	37
Madhavi Konni Soma Sekhar Kadiyala, Challa Narasimham	

Vehicle Accident Prevention and Detection System	38
Alfoni Jose K, B V Siva Prasad	
Appraisal of An Employee's Performance at Work With Reference To Coromandal International Ltd, Visakhapatnam	39
Dr. Rama Kumar P.B., Prof. Dr. Jaladi Ravi, Mr. P. Kiran Kumar	
Detection of cancer cells using Image processing	40
P.PoornaPriya,S. Harshita ,M. Soujanya,V. Bindu , P. Jhansi	
A Study on Employees Satisfaction on Welfare & Safety Measures adopted in Power Sector Companies	41
Y. Babji,P.B.RamKumar,A.Kiran Kumar	
Pattern Synthesis using Fourier Transform Method	42
J Babu, AdariBhargavi,MandapatiPavitra, KoiladaChanakya, Buddha Bhanusree	
Comparative Study on Text Pre-Processing Techniques	43
SampathiraoSuneetha, Prasanna Kumar Lakineni	
PAPR Reduction Using Hybrid Ps-Gw Optimization	44
P.Amrutha, Shiva Kumari	
Design of A Compact Mimo Antenna For Fifth Generation Applications	45
Dr. P. PoornaPriya, B. Sirisha, D. Gowri, S. Mounavi, B. Sravani	
Measuring Platelet Count by Using contour Aware Segmentation	46
K Vani,R.Suneelkumar ,R.Latha, P.SriRamya, K.Yamini , A.Ramjagan	
An automatic toll ticketing system using image processing	47
K Vijaya Pasamsa, M.Kishore kumar,Y. Durga lakshmi, B.Maraju, P.harish, S.Tejasri	

Autonomous Delivery Robot

¹B. Siva Prasad²K.S.N.VSomeshevarao³K.Mytri,³R.Indraja,³K.Thriveni, ³D.Ajay Kumar

¹Associate Professor, NSRIT

²Associate Professor, Department of ECE, Dadi Institute of Engineering and Technology, Anakapalle

³Students, Department of ECE, Dadi Institute of Engineering and Technology, Anakapalle
indrajampilli22@gmail.com

Abstract. E-Commerce and package deliveries are growing at a fast pace and several start-ups have already began pilot studies to deliver packages and groceries to consumers utilizing Autonomous Delivery Robots (ADRs). Two research questions guide this research effort: (a) What are the existing capabilities of ADRs? and (b) What are the energy and emissions reductions that ADRs can bring about? A model to understand potential ADR energy and emissions reductions is presented and several scenarios are analyzed. Results, insights, and potential implications are discussed. The results show that ADRs have the potential to significantly reduce energy consumption and CO₂ emissions in urban areas

Keywords: Last mile; delivery; robot; travel; energy; emissions; parking