



MIZORAM UNIVERSITY
INTERNATIONAL CONFERENCE ON
ADVANCED INNOVATIVE RESEARCH IN ENGINEERING
AND TECHNOLOGY
(ICAIRET 2024)



SCHOOL OF ENGINEERING AND TECHNOLOGY

**TRACK 1 - Advancing Research in Intelligent Systems and
Sustainable Computing
Under
Department of Computer Engineering**

PAPER PRESENTATION

Day 1- 13/03/2024 (Wednesday) Session- I Timing: 3.00 P.M - 4:00 P.M

**Venue: Computer Engineering
(meet.google.com/fwo-fcck-wdp)**

Session Chair: Prof. G. Nalini Priya, Saveetha University

PAPER NO	TITLE	AUTHORS	COLLEGE NAME
8	Empowering Inclusive Knowledge Access: A Device for Individuals with Physical Disabilities	CS MANIGANDAA	Animalar Engineering College
10	Application of SAFARI in Prediction of Heart Disease	Irfan Rajab Bhat	University of Kashmir
25	Extraction of signal features in Speech Signals to train machine learning-based Classifier Algorithms for Emotion Detection.	BHISAJI C Surve	Mukesh Patel School of Technology Management & Engineering
36	Detection of Lung cancer using Deep Learning Algorithms	Susmita Das	Tripura University
37	A recommender system based on Deep Learning model for assessment of emotional stability of a student	Amit Garg	Mahila Engineering College Ajmer
46	Detection and Recognition of printed kannada text in scene images using machine learning	Mahadeva prasad Y N	MIT Thandavapura
112	A Transfer Learning Framework for Sentiment Analysis in Indian Vernaculars	Kunal Kumar	Mizoram University



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PAPER PRESENTATION

Day 2- 14/03/2024 (Thursday) Session- II Timing: 12.00 P.M - 1:30 P.M
Venue: Computer Engineering
(meet.google.com/nuw-ycyq-nzz)
Session Chair: Dr.S.Prabhu, Pondichery University

PAPER NO	TITLE	AUTHORS	COLLEGE NAME
48	Visualizing Alzheimer's Prediction: An Ensembled Deep Learning and Grad-CAM Approach	Archana Menon P	Karpagam Academy of Higher Education
49	Content distribution strategy of Fog computing-A Review	Senbagavalli Marimuthu	Alliance University
52	Anomaly Detection using Particle Swarm Optimization for Intrusion Detection	M. Sushilata Devi,	Mizoram University
56	k-NN(DMTD): Distance Of Mixed Type Data Classification Using k-NN	Khumukcham Robindro	Manipur University
64	Dynamic Trust Management in the Social IoT: A Review of Machine Learning-based Solutions	Alan Lalhriatpuia	Mizoram University
72	GBC_DA: A Privacy-preserved Platform for Storage and Analysis of Gallbladder Cancer Image Dataset	Dr. Rosy Sarmah	Tezpur University
91	Detecting Counterfeit Currency With Image Processing	Trupthi P	Maharaja Institute of Technology, Thandavapura



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SCHOOL OF ENGINEERING AND TECHNOLOGY

TRACK 3 - Electronics and Communication
Under
Department of Electronics and Communication Engineering

PAPER PRESENTATION

Day 2- 14/03/2024 (Thursday) Session- III Timing: 12.00 P.M - 1:30 P.M

Venue: Electronics and Communication
(<https://meet.google.com/xnu-faun-akh>)
Session Chair: Prof. Dr.Niladri Pratap, NITTTR Kolkata

PAPER NO	Title	Authors	College name
132	Cutting-Edge Security: Real-Time Weapon Recognition in Surveillance Videos with Deep Learning	KISHORE REDDY ADURI	Mizoram university
133	IOT Based ICU Patient Monitoring System	NARAYANAM SRI PRAKASH	MIZORAM UNIVERSITY
EC01	Modeling and Simulation of a square membrane MEMS transducer using COMSOL Multiphysics	Bijit	Mizoram University
EC02	Investigation on MEMs Based Hexagonal Capacitance Micromachined Ultrasonic Transducer	C Hmingthansanga	Mizoram University
EC03	The Parametric Studies of a Clamped-to-Clamped Single Beam Accelerometer	Mrinmoy Singha	Mizoram University
EC04	Behavioral changes in a single fixed to fixed resonator on actuation of micro machined Accelerometer	Pragyani Patra	Mizoram University
EC05	Capacitive Modelling of CMUT	Annu Kumari	Mizoram University



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SCHOOL OF ENGINEERING AND TECHNOLOGY
TRACK 4 - Electrical Engineering

Under
Department of Electrical Engineering
PAPER PRESENTATION

Day 2- 14/03/2024 (Thursday) Session- IV Timing: 12.00 P.M - 1:30 P.M

Venue: Electrical Engineering

(<https://meet.google.com/nkq-bxjb-ixf>)

Session Chair: Pabitra Kumar Biswas, NIT Mizoram

PAPER NO	Title	Authors	College name
5	Next –Gen Energy Conservation through Advanced Data Fusion in Clustered Wireless Sensor Networks	CS MANIGANDAA	Panimalar Engineering College
65	Quality Assessment of Rice using Convolution Neural Network	Nilutpal Phukon	Mizoram University
23	Towards a Greener Future: Analyzing the Trends and Influences in Sustainable Energy Literature	Alpesh Kumar Dauda	SAMBALPUR UNIVERSITY INSTITUTE OF INFORMATION TECHNOLOGY (SUIT)
24	An Overview of Performance Validation, Testing Protocols, and Standards for Smart Meters	Vikram Kulkarni	Mukesh Patel School of Technology Management and Engineering, SVKM's NMIMS University
28	Enhancing Classroom Environment's Sustainability and Efficiency through AI - Driven Measures	Sundaram S	Kumaraguru College of Technology
33	AUTOMATIC LOAD FREQUENCY CONTROL IN MULTI-AREA SYSTEM INCORPORATING RENEWABLE SOURCES USING CLASSICAL CONTROLLER UNDER DEREGULATED MARKET	F. LALHMANGAIHZUALA	Mizoram University
100	Reduction of Losses in Radial Distribution System by placement and sizing of Shunt Capacitor using Moth Flame Optimization	F.Lalawrrpuia	Mizoram University
106	Investigation on Solar Refrigeration System	Sonu Kumar	Erode Sengunthar Engineering College
108	A Review of Electrical Generators for Wind Energy Conversion system	Y. Bonish Singh	Mizoram University



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SCHOOL OF ENGINEERING AND TECHNOLOGY

TRACK 5 – Emerging Trends in Civil Engineering
Under
Department of Civil Engineering

PAPER PRESENTATION

Day 2- 14/03/2024 (Friday) Session- V Timing: 12.00 P.M - 1:30 P.M

Venue: Civil Engineering
Session Chair: Mr.R.Lalpeka, Asst. Engineer. , PWD Officer

PAPER NO	Title	Authors	College name
141	ASSESSMENT OF SELECTED HILL SLOPES STABILITY.	K. Zirsangzeli	Mizoram University
142	NATURAL SAND REPLACEMENT WITH DIFFERENT GRADATION OF CRUSHED SAND IN CEMENT CONCRETE	Lalrinchhana	Mizoram University
143	Recent Advancement towards the Application of Drinking Water Supply Distribution System in Hilly Terrains	R.Lalthangmawii	Mizoram University
145	ANALYSIS OF HUNTHAR SLOPE STABILITY	C T Lalrotluanga	Mizoram University
122	Use of Renewable energy towards sustainable water distribution systems in Mountain Terrains	Vanlaldiki	Mizoram University
CV01	DESIGN AND ANALYSIS OF RCC T-BEAM BRIDGE	Pratima Mahata	Mizoram University
59	Rubberized Geopolymer concrete with fly Ash Based - Eco-friendly Environment	manjula	Adamas University,
148	Investigating the Geological and Hydrological Characteristics of Sustainable GroundWater Recharge zone for Aizawl City	ASHOK KUMAR MAHAWAR	MIZORAM UNIVERSITY



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SCHOOL OF ENGINEERING AND TECHNOLOGY

**TRACK 2 - Data Communication and Computer Networking
Under**

Department of Information Technology

PAPER PRESENTATION

Day 2- 14/03/2024 (Thursday) Session- VI Timing: 3.00 P.M - 4:00 P.M

**Venue: Information Technology
(meet.google.com/wnt-tshr-tfe)**

Session Chair: Dr. Somen Debnath, Tripura University

PAPER NO	Title	Authors	College name
30	A Review to Evaluate the Effectiveness and Impact of IoT in Improving Soil Health Monitoring and Management Practices in Hilly Areas	Vanlalsiama Ralte	Mizoram University
32	Big Data Analytics in Healthcare: Transforming Patient Care, Operational Efficiency, and Stroke Management	Anusha Palagati	Guru Nanak Institute of Technology
62	Leveraging Internet Of Battlefield Things For Networked Warfare	Rachit Ahluwalia	Mizoram University
126	Sybil Attack Detection Techniques in Wireless Network: A Comprehensive Review	Lalzeitluanga Khangte	Mizoram University
140	Machine Learning Intrusion Detection Systems related to Smart Metering Protection	Otisitse Kebotogetse	Botswana International University of Science and Technology, Palapye, Botswana



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**TRACK 1 - Advancing Research in Intelligent Systems and
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**Under
Department of Computer Engineering**

PAPER PRESENTATION

Day 2- 14/03/2024 (Thursday) Session- VII Timing: 3.00 P.M - 4:00 P.M

**Venue: Computer Engineering
(meet.google.com/xcw-ubrd-xkn)**

Session Chair: Prof. Dr.S.Malathi, Panimalar Engineering College

PAPER NO	Title	Authors	College name
77	A Voice-Driven Indian Sign Language Interpreter for Deaf Accessibility using Speech Recognition and Image Processing	Bhuvan Gowda U	Maharaja Institute Of Technology, Thandavapura
82	Weapon Detection and Alert System in ATM Using Deep Learning	Rajashree P	Maharaja institute of technology Thandavapura
83	UNI - A Retrieval Augmented Generation powered Virtual Assistant for college related queries	Sanjana J	Maharaja Institute of Technology Thandavapura
86	CLASSIFICATION OF BULK RICE GRAIN USING CONVOLUTIONAL NEURAL NETWORK	Anurag Bhattacharjee	Mizoram University
87	A Deep Learning- Based Learning Speech Assistance System for the Visually Impaired People	Sharath D S	Maharaja Institute of Technology, Thandavapura
105	Fuzzy time series forecasting based on overlapping partitions	Abhijit Gogoi	Tezpur University



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TRACK 6 - Food Technology
Under
Department of Food Technology

PAPER PRESENTATION

Day 3- 15/03/2024 (Friday) Session- VIII Timing: 12.00 P.M - 1:30 P.M

Venue: Food Technology
(<https://meet.google.com/oho-opxn-sbq>)
Session Chair: Dr. Raju SasiKumar, North Eastern Hill
University

PAPER NO	Title	Authors	College Name
FT 01	Assessment of comprehensive nutritional composition of common Indian fruits by-products	Anwasha Mahajan	ICMR-National Institute of Nutrition, Hyderabad,
FT02	Statistical modelling-based optimization of a convenient product from pigmented rice	Gunjana Deka ^{1*} and Himjyoti Dutta ¹	Mizoram University
FT03	Value addition of citrus beverage through a novel non-destructive technique	Sayantana Chakraborty	Mizoram University
137	Effect of microwave roasting and pressure cooking on polyphenolic content and antioxidant activity of Indian pigmented maize	Pallabika Gogoi	ICMR-National Institute of Nutrition, Hyderabad,
FT04	Development of ready-to-fry snack from underutilize elephant foot yam	Nabam Kuttu	Mizoram University



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Under**

**Department of Computer Engineering
PAPER PRESENTATION**

Day 3- 15/03/2024 (Friday) Session- IX Timing: 12.00 P.M - 1:30 P.M

**Venue: Computer Engineering
(meet.google.com/yfg-wuni-fzx)**

Session Chair: Prof. Dr.Chitra Selvi, Anna University

PAPER NO	Title	Authors	College name
92	Personalized Music Playlists via Deep Learning Emotion Detection	Spoorthi M	Maharaja Institute of Technology, Thandavapura
94	Toxic Comment Classification System: a survey	Madhan S MADHAN Kumar G S	MAHARAJA INSTITUTE OF TECHNOLOGY MYSURU
96	DEFENSE AGAINST ADVERSARIAL AI	Soundarya S	Panimalar Engineering College
98	IntelliCare: Integrating IoT and Machine Learning for Remote Patient Monitoring in Healthcare: A Comprehensive Framework	Gautham Praveen Ramalingam	Syed Ammal Engineering College
99	Emotion Detection by Speech Signal using Supervised Learning through SVM & KNN	Ashwin Shrivastava	Shri G.S. Institute of Technology & Science, Indore
144	Dynamic Association Mining Techniques for the Faster Extraction of High Utility Itemset for the Incremental Databases	Shravani Mahesh Shinde	Sanjivani College of Engineering
139	Automated Attendance Management With CNN-Based Facial Recognition	Sukrutha M J	Maharaja institute of technology
CE01	A HYBRID MODEL FOR HEART DISEASE PREDICTION USING MACHINE LEARNING ALGORITHM	Danish Quamar	Mizoram University

CE02	An approach for initial truth discovery preprocessor of crowd sensed data using clustering and data fusion	Nungleppam Gopil Singh	Mizoram University
CE03	Comparison of Clustering-Based Techniques for Outlier Detectio	Lalramnunkima	Mizoram University