

**4<sup>th</sup> International Conference on “Emerging Trends and Technologies on Intelligent Systems”  
(ETTIS-2024): Hybrid Mode  
27<sup>th</sup> - 28<sup>th</sup> March, 2024**

**Venue: CDAC Noida, B-30, Sector 62, Noida**

**Day 2: 28th March 2024, Thursday**

| <b>TIMINGS</b>           | <b>SESSIONS</b>   |
|--------------------------|---|
| 9:15 - 10:00             | Invited Talk by Prof. Rajkumar Buyya<br>The University of Melbourne, Australia<br>“Neoteric Frontiers in Cloud, Edge, and Quantum Computing”  |
| 10:00 - 10:45            | Invited Talk by Prof. Keshab Parhi<br>University of Minnesota, US<br>“Algorithm-Architecture Codesign in Modern Computing”  |
| 10:45-13:00              | <b>Session 6: Information, Network &amp; Cyber Security</b><br>Invited Talk by Session Chair: Prof. Rolando Herrero<br>Northeastern University, Boston<br>“Mist Computing in Multi-Hop LPWAN Cyber-Physical Systems”                        |
|                          | <b>Session-7: AI &amp; ML</b><br>Invited Talk by Session Chair: Prof. Abhijit Sen<br>Kwantlen Polytechnic University, Canada<br>"Next-Gen Connectivity: Generative AI's Role in Reshaping the IoT Paradigm"                                 |
| <b>PARALLEL SESSIONS</b> |   |
| 11:00-13:30              | <b>Session 8: Emerging Trends and Technologies</b><br>Invited Talk by Session Chair: Prof. Gaurav Trivedi<br>IIT Guwahati<br>“IndiRA (Indian RISC-V based AI Processor: First Swadeshi RISC-V Architecture based AI enabled Microprocessor” |
| 13:00-14:00              | <b>LUNCH BREAK</b>  |
| <b>PARALLEL SESSIONS</b> |   |
| 14:00 -16:30             | <b>Session 9: Deep Learning, Fuzzy and Neural Networks</b><br>Invited Talk by Session Chair: Prof. Emil Pricop<br>Petroleum-Gas University of Ploiesti, Romania<br>“An overview of home IoT devices cybersecurity challenges”               |
| 16:45                    | <b>VALEDICTORY FUNCTION</b>   |
| 17:30                    | <b>High Tea</b>   |
|                          |   |

# 4th International Conference on “Emerging Trends and Technologies on Intelligent Systems”

Day 2: 28<sup>th</sup> March 2024, Thursday (10:30-13:00)

## PARALLEL SESSIONS

### Session 6: Information, Network & Cyber Security

Session Chair & Invited Talk by: Prof. Rolando Herrero, Northeastern University, Boston

Topic: “Mist Computing in Multi-Hop LPWAN Cyber-Physical Systems”

| S. No. | Author   | Paper Title   |
|--------|--|---|
| 1      | Marian Popescu and Emil Pricop   | A simulation-based approach to evaluate the effects of cyberattacks targeting transducers in control systems (3380)                     |
| 2      | Upasana Singh, Sandeep Rathor and Manoj Kumar                                  | Deep Video Forensics: Unveiling Spatial Forgery Detection with Modified ResNet50 (3321)   |
| 3      | Muthukumarapandian Chandrasekaran and Chetana Tailor                           | Machine Learning based Network Attacks Detection (4196)   |
| 4      | Aravind Krishnan A, Gerard Deepak, Santhana Vijayan Arumugam and Venugopal K R | CKGLD: Curating Knowledge Graph for Linked Open Data Generation for Cyber Law and Ethics (4723)   |
| 5      | Rimpa Dutta and Sandip Karmakar  | RANSOMWARE DETECTION IN HEALTHCARE ORGANIZATIONS USING SUPERVISED LEARNING MODELS: RANDOM FOREST TECHNIQUE. (5452)                      |
| 6      | Himani Tyagi, Rajendra Kumar and Santosh Pandey                                | FUZZY LOGIC BASED TRUST EVALUATION AND MALICIOUS NODE DETECTION DURING DoS AND DDoS ATTACK IN IOT NETWORKS (5664)                       |
| 7      | Ram Prakash, Vinod Kumar and Khushboo Gupta                                    | A Lightweight mutual Authentication and Privacy-Preserving protocol for Secure message transmission in Vehicular Ad-hoc Networks (7787) |
| 8      | Ryutaro Matsumoto and Shingo Yamaguchi   | On Building a Firewall with White Hat Bots in the Neighborhood of Malicious Bots in Large-Scale Networks (8833)                         |

### Session 7: AI & ML

Session Chair & Invited Talk by: Prof. Abhijit Sen, Kwantlen Polytechnic University, Canada

Topic: "Next-Gen Connectivity: Generative AI's Role in Reshaping the IoT Paradigm"

| S.No. | Author  | Paper Title   |
|-------|---|---|
| 1     | Arkajit Banerjee and Bam Bahadur Sinha  | From Sparsity to Accuracy: Enhancing Recommendation Systems with Item-Based Collaborative Filtering and SVD Matrix Factorization (1063) |
| 2     | Shuchi Verma, Neelotpal Sharma and Gaurav Trivedi   | Geotagging in Livestock Farming: AI based Technologies, Applications, and Challenges (3367)   |
| 3     | Sourav Seal and Divyahasikha Sethia   | A Machine Learning Based Approach for Soil Chemical Property Estimation using Multispectral Data in Hungary (4060)                      |
| 4     | Neelotpal Sharma, Yashaswini Trivedi, Varist Tripathi, Bhargav Dewri, Hanumant Singh Shekhawat, Rajamoni Neog and Anamika Yadav | Classification, designs, and different factors involved in an AI enabled Aquaponics System: A Review (5789)                             |
| 5     | Sayantana Maji, Himadri Mukherjee, Ankita Dhar, Matteo Marciano and Kaushik Roy   | Identification of Sounds from Construction Sites: A Machine Learning Approach (6852)  |
| 6     | S Abhishek, Anjali T and Rina Barouch Bentov  | Dermatophytic Dynamics: A Holistic Approach to Superficial Mycosis Research (9361)  |
| 7     | Liaren Emani Aier, Sreya Bhowmick, Barasha Das, Arpita Nath Boruah and Mrinal Goswami   | Detection of Cross-Site Scripting Attack using Bagging Ensemble Learning (111)  |
| 8     | Aditi Paul, Shirashti Chaudhary and Somnath Sinha   | A Machine Learning based Cross-Layer DoS attack detection technique for IoT (138)   |

## 4th International Conference on “Emerging Trends and Technologies on Intelligent Systems”

Day 2: 28<sup>th</sup> March 2024, Thursday (11:00-13:30)

### Session 8: Emerging Trends and Technologies

**Session Chair & Invited Talk by:** Prof. Gaurav Trivedi, IIT Guwahati

**Topic:** “IndiRA (Indian RISC-V based AI Processor: First Swadeshi RISC-V Architecture based AI enabled Microprocessor”

| S.No. | Author  | Paper Title  |
|-------|---|--|
| 1     | Sanjoy Mitra, Parijata Majumdar, Diptendu Bhattacharya and Srijan Roy   | A Comprehensive Analysis of Artificial Intelligence Methods to Detect COVID-19 from Chest X-Rays and CT Scans (925)    |
| 2     | Rosca Cosmina-Mihaela, Bold Razvan-Alexandru and Gereca Alexandru Eduard  | A Comprehensive Patient Triage Algorithm Incorporating ChatGPT API for Symptom-Based Healthcare Decision-Making (2854) |
| 3     | Shivam Bhutiani, Param and Gaurav Chugh   | Comprehensive Mathematical Analysis and Derivation of Relationship between Azimuth and Elevation Angles (3665)         |
| 4     | Wilver Auccahuasi, Kitty Urbano, Oscar Linares, Karin Rojas, Grisi Bernardo, Madelaine Bernardo, Julia Sobrino-Mesias, Medalith Campos-Sobrino and Humberto Quispe-Peña | Method for the control and monitoring applied to the personnel working in mines (4025)                                 |
| 5     | Florin Zamfir and Emil Pricop   | A review of Digital Twin and the Metaverse from the standpoint of smart factories (2572)                               |
| 6     | Priti Bhardwaj, Nonita Sharma and Niyati Baliyan  | An Improved Medical Entity Extraction Method from Annotated Records (5799)   |
| 7     | Umang Sarda   | Optimising Video Conversion for Cost-Efficiency and Performance (6363)   |
| 8     | Shubham Pandey and Mitul Kumar Ahirwal  | Optimization of Energy Efficiency in 5G Network through RAO-I Algorithm (6581)   |
| 9     | Karl Aleksander Leoste, Johan Valdemar Leoste, Janika Leoste and Jose San Martin  | A location-based application for recording the video stream of urban traffic cameras (4706)                            |

## 4th International Conference on “Emerging Trends and Technologies on Intelligent Systems”

Day 2: 28<sup>th</sup> March 2024, Thursday (14:00-16:30)

### Session 9: Deep Learning, Fuzzy and Neural Networks

**Session Chair & Invited Talk by:** Prof. Emil Pricop, Petroleum-Gas University of Ploiesti, Romania

**Topic:** “An overview of home IoT devices cybersecurity challenges”

| S.No. | Author   | Paper Title   |
|-------|--|---|
| 1     | Simran Kumar, Hemanth Varma, Krina Limbachiya and Bhavika Salvi  | Deep Learning MRI Analysis for Automated Knee Injury Diagnosis (572)                          |
| 2     | Harsh Raj and Dilshad Shaik  | Investigate the properties of FTA through empirical experimentation (2168)                    |
| 3     | Ameesha Anil and Dhanya M  | Predicting Ocean Currents: A Deep Learning Approach. (3090)                                   |
| 4     | Soumya Konar, Babitha Cherukuri, Katherine Deborah and Divyansu Kumar  | Time Series Forecasting with LSTM Networks and Attention Mechanisms (6767)                    |
| 5     | Sunidhi Priyadarshini and Shyantani Maiti  | Deep Learning based Classification of Dietary Restricted Genes (8577)                         |
| 6     | Teisovi Angami and Themrichon Tuithung   | A Preliminary Work on Tenyidie Stemming Corpus Creation and Deep Learning Applications (8692) |
| 7     | Dr Suruchi Chawla  | Deep Semantic Content Analysis of Web Documents for Personalized Web Search (9337)            |
| 8     | Judeson Antony Kovilpillai J, Sulaiman Syed Mohamed, Pragya K, Mahmood Hussain Mir, Tinka Singh and Uday Kumar Singh | Deep Learning Models for Enhanced RUL Prediction in Turbofan Jet Engines (9477)               |