# 5<sup>th</sup> International Conference on "Emerging Trends and Technologies on Intelligent Systems" (ETTIS-2025): Hybrid Mode

19th - 21st March, 2025

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

| Day 2: 20 <sup>th</sup> March 2025, Thursday |  |  |
|--|--|--|
| TIMINGS SESSIONS                             |  |  |
|  |  |  |
| 10:00 -11:00                                 | Invited Talk by Prof. Raj Kumar Buyya Director, Cloud Computing and Distributed Systems (CLOUDS) Lab, The University of Melbourne, Australia   |  |
| 11:00-11:30                                  | TEA BREAK  |  |
|  | PARALLEL SESSIONS  |  |
|  | Session 1: Information, Network & Cyber Security   |  |
| 11:30-13:30                                  | Session Chair: Prof. Abhijit Sen, Kwantlen Polytechnic University, Canada Invited Talk: "AI-Powered DevSecOps: Enhancing Security, Speed, and Compliance"  |  |
|  | Session 2: Emerging Trends and Technologies  |  |
|  | Session Chair: Prof. Anjana Gosain   |  |
| 13:30 - 14:30                                | LUNCH BREAK  |  |
| PARALLEL SESSIONS                            |  |  |
|  | Session 3: NLP and Object Detection Approaches   |  |
|  | Session Chair: Prof. Vishal Bhatnagar, NSUT Delhi  |  |
| 14:30-16:30                                  | Session 4: Al and ML   |  |
|  | Session Chair: Prof. Rolando Herrero, Northeastern University, Boston<br>Invited Talk: "Transforming Digital Twins into Cognitive Digital Twins to enable Future<br>Manufacturing"                 |  |
|  |  |  |
| 16:00 - 18:00                                | Session 5: Quantum Computing & Hybrid Intelligent Sys  Session Chair: Prof. Duc Pham, The University of Birmingham, UK Invited Talk: "Research into Robotic Disassembly for Smart Remanufacturing" |  |

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19<sup>th</sup> - 21<sup>st</sup> March, 2025

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

| Day 3: 21 <sup>st</sup> March 2025, Friday   |   |  |
|--|---|--|
| TIMINGS  | TIMINGS SESSIONS  |  |
| 10:00 - 11:00  | Invited Talk by Sh. Gauravjeet Singh Reen  Taylor and Francis Group |  |
| 11:00 - 11:30  | TEA BREAK   |  |
| Session 6: Emerging Trends and Technologies Session Chair: Prof. Emil Pricop, Petroleum-Gas University of Ploiesti, Romania Invited Talk: "Exploring the physical impact of cyber-attacks on industrial control systems"  Session-7: Deep Learning, Fuzzy and Neural Networks  Session Chair: Prof. Anil, Delhi Technological University (DTU) Invited Talk: "Transforming Healthcare with Intelligent Systems: The Impact of BERT, BioBERT, and Med-BERT in Biomedical Computing"  Session 8: AI and ML  Session Chair: Prof. Arvinder Kaur, USAR, GGSIPU, Delhi Session 9: Software Applications & Services in Healthcare  Session Chair: Dr. Herat Joshi, Great River Health Systems, USA Invited Talk: "Empowering Healthcare with Analytics & Decision Support: A Strategic Approach to Data Utilization and Business Intelligence" |   |  |
| 13:30-15:30  | LUNCH BREAK   |  |
| 15:30-16:30  | VALEDICTORY FUNCTION  |  |
| 16:30  | HIGH TEA  |  |
|  |   |  |

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

# Day 2: 20th March 2025 Schedule

|              | Day 2: 20 <sup>th</sup> March 2025, Thursday (11:30-13:30)  |  |  |  |
|--------------|---|--|--|--|
| Session 1:   | Session 1: Information, Network & Cyber Security LAB-1  |  |  |  |
| Invited Tall | Session Chair: Prof. Abhijit Sen, Kwantlen Polytechnic University, Canada Invited Talk: "AI-Powered DevSecOps: Enhancing Security, Speed, and Compliance" Session Coordinator: Ms. Rosy Verma |  |  |  |
| S. No.       | Author  | Paper Title  |  |  |
| 1            | Rahulkrishnan Ravindran, Sabarinath U,<br>Sidharth R Krishna and Namitha K  | Secure Data Transformation: AES-256 Encryption, Image-Based Storage, and Efficient Compression for Modern Data Management (1202) |  |  |
| 2            | Rochas Agus Sonata, Agung Stefanus<br>Kembau, Vincent Vincent, Jason Cuvario,<br>Christian Haposan Pangaribuan and Emanuel<br>Himawan Saptaputra  | Resilience (1359)  |  |  |
| 3            | Saritha Nagaraju, Nishanth Kumar Pathi and<br>Rashmi Agarwal  | Cyber Resilience for Containerized Workloads: A NIST-Based Approach to Incident Management and Recovery (5835)                   |  |  |
| 4            | Muhammed Abeed Nabith   | SECCODEPLT: A Unified Evaluation Platform for Code GenAI Security Risks (6810)   |  |  |
| 5            | Ryo Yamashita and Shingo Yamaguchi  | Methods for Reconnaissance and Elimination of Malicious Worms in Multiple Unobservable Regions Using Path Specified Worms (6858) |  |  |
| 6            | Emil Pricop and Sanda Florentina Mihalache  | Quishing - a review of QR code attacks and a framework design for safe scanning (9335)   |  |  |

| Day 2: 20 <sup>th</sup> March 2025, Thursday (11:30-13:30)                       |   |   |  |
|--|---|---|--|
| Session 2:   | Session 2: Emerging Trends and Technologies  LH-4     |   |  |
| Session Chair: Prof. Anjana Gosain, GGSIPU Session Coordinator: Mr. Munish Kumar |   |   |  |
| S.No.  | Author  | Paper Title   |  |
| 1  |   | Transforming Digital Twins into Cognitive Digital Twins to enable Future Manufacturing (2349)                               |  |
| 2  |   | SQL Query Optimization using Reinforcement Learning for Low-Power Computing System (2390)                                   |  |
| 3  | Arunima Tripathi and Poornima Mittal                  | Stability Analysis of Robust 7T SRAM Cell for 32nm CMOS (3092)  |  |
| 4  | Nitya Singh, Madhu Yadav, Pragya Gupta and Seeja K.R. | Waste forecasting for smart cities using Long Short-Term Memory (4940)  |  |
| 5  |   | Integrating Evolutionary Computing for En-hanced Earthquake Risk<br>Assessment (5797)                                       |  |
| 6  |   | Disaster Management in the Digital Era: A Survey on the Integration of AI and UAVs in Disaster Response and Recovery (7820) |  |

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## Day 2: 20th March 2025 Schedule

|         | Day 2: 20 <sup>th</sup> March 2025, Thursday (14:30-16:30) |  |  |
|---------|--|--|--|
| Session | Session 3: NLP and Object Detection Approaches LAB-2       |  |  |
| Session | Session Chair: Prof. Vishal Bhatnagar, NSUT Delhi          |  |  |
| Session | Coordinator: Mr. Rahul Mishra                              |  |  |
| S.No.   | Author   | Paper Title  |  |
| 1       | Ekta Ukey and Satishkumar L. Varma                         | Video Surveillance based on moving Vehicle Detection using |  |
|         |  | Adaptive Gaussian and Otsu Thresholding (0129)             |  |
| 2       | Piyal Roy, Rajat Pandit and Sudip Kumar                    | Towards Automated Complexity Analysis of Bengali Science   |  |
|         | Naskar   | Terms (1222)   |  |
| 3       | Minh-Thu Nguyen, Vinh-Phuc Mai, Thuan-                     | Detecting Missing Products in Trays by Edge Detection and  |  |
|         | Tien Tran and Quoc-Khanh Huynh                             | Shape Classification (1623)                                |  |
| 4       | Simanta Kalita, Khurshid Alam Borbora,                     | LSTM-based Event Detection in a Stream of Assamese Text    |  |
|         | Shikhar Kumar Sarma, Rup Kumar Deka,                       | (4826)   |  |
|         | Siddhartha Adhyapok and Utpal Barman                       |  |  |
| 5       | Rupa Tanikonda, J Loyola Jasmine, K                        | Virtual Sensing for Crop Safety from Animals (6278)        |  |
|         | Devisree and M Vinay Kumar                                 |  |  |
| 6       | Ansh Raj Sharma, Geetanshu Garg and Shilpa                 | Balancing Positivity: Predicting the Influence of Toxic    |  |
|         | Verma  | Positivity in Communication (7035)                         |  |

| Day 2:             | 20 <sup>th</sup> March 2025, Thursday (14:30-16:30) |      |
|--------------------|---|------|
| Session 4: AI & ML | L   | AB-3 |

Session Chair: Prof. Rolando Herrero, Northeastern University, Boston

Invited Talk: "Transforming Digital Twins into Cognitive Digital Twins to enable Future Manufacturing"

Session Coordinator: Mr. Manoi Purohit

| Session Coordinator: Mr. Manoj Puronit |  |  |
|--|--|--|
| S. No.                                 | Author   | Paper Title  |
| 1                                      | Md Abdullah Al Mahmud Pias, Abdul Ahad,<br>Mohammad Moinul Islam, Dewan Aminul Islam,<br>Ayon Mazumder, Maria Rahman, M Saif Sartaz<br>and Muhammad Shoyaibur Rahman Chowdhury | Predictive Modeling and Analysis of Software Engineers' Salary Using Machine Learning (0719)                           |
| 2                                      | Dr. Pawan Whig   | Evolutionary Computing in Promoting Sustainable Health through Fitness Tracker Data Analytics (1393)                   |
| 3                                      | Ajoy Kanti Das and Rajat Das   | An innovative machine learning algorithm using neutrosophic soft sets for water resource management (3108)             |
| 4                                      | Chengchen Huang and Shingo Yamaguchi   | A Structured and Reusable Function Generation Method by Encapsulating Code Generated by LLMs with Helper Object (3663) |
| 5                                      | Yash Gupta, Kaushal Surana, Mridul Madhav<br>Jindal, Shubh Kamra, Kuldeep Chaurasia and<br>Kaushal Bhardwaj  | Kisaan Bandhu: Machine Learning and Deep Learning Based Tools for Agro Based Predictions (4326)                        |
| 6                                      | Carbureanu Madalina and Rosca Cosmina-<br>Mihaela  | Evaluating Wastewater pH Prediction Solutions in Custom Python and C# Models (4795)                                    |
| 7                                      | Uma Ojha and Ajay Kumar Yadav  | Sarcasm Detection in Hindi-English Code-Mixed Language:<br>A Systematic Survey (3269)                                  |

## 5th International Conference on "Emerging Trends and Technologies on Intelligent Systems"

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# Day 2: 20th March 2025 Schedule

|   | Day 2: 20 <sup>th</sup> March 2025, Thursday (16:00-18:00)  |   |  |
|---|---|---|--|
| Session   | Session 5: Quantum Computing & Hybrid Intelligent Systems LH-4  |   |  |
| Session   | Session Chair: Prof. Duc Pham, The University of Birmingham, UK   |   |  |
| Invited Talk: "Research into Robotic Disassembly for Smart Remanufacturing" |   |   |  |
|   | Coordinator: Mr. Munish Kumar   | •   |  |
| S.No.   | Author  | Paper Title   |  |
| 1   | Simhadri Tanya, Talluri Harshitha,<br>Thadakaluru Jaswanthi, Puvvadi Harsha<br>Vardhan and D Radha                      | Knowledge, Self-Efficacy, and Motivation Predictors of Phishing Resilience (1164)                                     |  |
| 2   | •   | An Ameliorated Evaluation Framework for Standardizing Quantum Encryption Algorithms (5041)                            |  |
| 3   | Quoc-Khanh Huynh, Van-Cuong<br>Nguyen, Chi-Ngon Nguyen, Vinh-Phuc<br>Mai, Phuong-Lan Tran-Nguyen and<br>Minh-Thu Nguyen |   |  |
| 4   |   | Advances in Medical Image Classification using Quantum Machine Learning: A Survey (7835)                              |  |
| 5   |   | Dynamic Query Vision Transformers and Hierarchical Latent Compression: Advancing Real Time Surveillance system (8766) |  |
| 6   | Aniket Bembale, Nagendra Singh,<br>Vinayaka Poorma and Jitesh Choudhary   | Quantum Computing for Graph Optimization: An Approach to the Shortest Path Problem (9774)                             |  |

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## Day 3: 21st March 2025 Schedule

Day 3: 21st March 2025, Friday (11:30-13:30)

**Session 6:** Emerging Trends and Technologies

LAB-1

Session Chair: Prof. Emil Pricop, Petroleum-Gas University of Ploiesti, Romania

Invited Talk: "Exploring the physical impact of cyber-attacks on industrial control systems"

Session Coordinator: Ms. Rosy Verma

| S.No. | Author   | Paper Title  |
|-------|--|--|
| 1     |  | AI-driven Cyber-Physical System to support Selective Forward Error Correction in Digital Twin Emergency Medicine Real-Time Monitoring (0843) |
| 2     | Puvvada Kavya Sri, Bodduluri Asha<br>Jyothi and Puvvada Kavya Sri  | Robotic Vigilance: Autonomous Night Patrol Systems for Comprehensive Security (2612)   |
| 3     | Mohammad Rezaul Karim, Sohag<br>Kabir, Ci Lei and Raluca Lefticaru | Quantifying Security Events in IoT (5682)  |
| 4     | Priyanka Mahadik, Jyotshna Dongardive and Vinay Tawde              | Leveraging Large Language Models for Mental Health Diagnostic (7683)   |
| 5     |  | Statistical Analysis based Performance Evaluation of Secured Workflow Allocation Model in Cloud Environment (8358)                           |
| 6     |  | Enhancing Visual Simultaneous Localization and Mapping (VSLAM) Robustness in Dynamic Environments (8724)                                     |
| 7     | Ummar Bashir and M. Tariq Banday                                   | Exploring Security Vulnerabilities in Leading Large Language Models: A Comparative Study (8673)  |

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## Day 3: 21st March 2025 Schedule

#### Day 3: 21st March 2025, Friday (11:30-13:30)

Session 7: Deep Learning, Fuzzy and Neural Networks

LAB-2

Session Chair: Prof. Anil, Delhi Technological University (DTU)

Invited Talk: "Transforming Healthcare with Intelligent Systems: The Impact of BERT, BioBERT, and Med-BERT in Biomedical Computing"

Session Coordinator: Mr. Munish Kumar

| S.No. | Author  | Paper Title  |
|-------|---|--|
| 1     | Shilpa Pimpalkar, Archit Barve, Subrat<br>Acharya and Manjusree P   | Comparative Evaluation of Deep Learning based Object Detection Techniques for Aircraft Detection (0057)              |
| 2     |   | Real-Time Sign Language Recognition Using Deep Learning on Edge Devices: A Jetson Nano Implementation (1076)         |
| 3     | Sarthak Agrawal, Sonit Bahl, Divyansh<br>Pansari and Bhawana Tyagi  | Face Emotion Recognition using CNN and YOLOv8 (5576)   |
| 4     | Bhavana Natuva, Smitha Rajagopal,<br>Sasidhar Reddy Sakam, Harshitha Singara,<br>Venkata Ganesh Reddy and Sandeep Motte                       |  |
| 5     |   | Deep Learning-Driven MRI Stratification for Intracranial Tumor Subtype Resolution (6989)                             |
| 6     | Shanmukha Sudha Kiran Thotakura, Sai<br>Sravya Sri Machavarapu, Akshay Kumar<br>Kopparapu, Safuwan Shiblee, Suvarna B<br>and Jhansi Lakshmi P | A Dual-Model Approach Utilizing Convolutional Autoencoders and Deep Neural Networks for Lung Cancer Detection (7891) |

#### Day 3: 21st March 2025, Friday (11:30-13:30)

Session 8: AI and ML LAB-3

Session Chair: Prof. Arvinder Kaur, USAR, GGSIPU, Delhi

Session Coordinator: Mr. Manoj Purohit

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|-----------|---|---|
| S.No.     | Author  | Paper Title   |
| 1         | Sagar Gupta and Sandeep Voona   | AI-Driven Anomaly Detection for Enhanced Business Process<br>Orchestration (5677)                                   |
| 2         | Rushikesh Gaikwad, Maheswara Rao<br>Nalla, Soumyajit Gayen, Deepak Kumar<br>Sahu, Sivaraman J, Kunal Pal and Bala<br>Chakravarthy Neelapu |   |
| 3         | Mahendra Kumar Gurve, Yamuna<br>Prasad, Nitin and Marc Cahay  | A Machine Learning Approach to Detecting Phishing Attacks Using LLM-Based Embeddings (6636)                         |
| 4         |   | Flying High on Sustainability: A Global Analysis of Airport SDG Alignment and AI-Driven Innovations (7935)          |
| 5         | Balajee Maram and Rohan Raj Maram   | Boosting Breast Cancer Classification in Histopathological Images Through Federated Learning Techniques (8318)      |
| 6         | Rasyid Alim Aulia and Sy Yuliani  | Boosting Job Matching Accuracy: Implementing Content-Based Filtering in Job Applicant Recommendation Systems (9595) |

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## Day 3: 21st March 2025 Schedule

#### Day 3: 21st March 2025, Friday (11:30-13:30)

**Session 9: Software Applications & Services in Healthcare** 

LH 4

Session Chair: Dr. Herat Joshi, Great River Health Systems, USA

Invited Talk: "Empowering Healthcare with Analytics & Decision Support: A Strategic Approach to Data Utilization and Business Intelligence"

Session Coordinator: Mr. Rahul Mishra

| S.No. | Author   | Paper Title  |
|-------|--|--|
| 1     | Ankit Srivastava, Munesh Chandra, Ashim Saha and Sandipan Bhowmick | GEN AI in the Healthcare Industry: An Analysis of Privacy and Security Challenges, Emerging Models, Applications, and Limitations (0463)                 |
| 2     | Tanushka Guleria and Naveen Chauhan                                | Safeguarding Patient Privacy: Leveraging Federated Learning for Enhanced Anonymity and Identity Protection in Healthcare (3922)                          |
| 3     |  | Integrating CardioSense Technology and Predictive Analytics for Enhanced Cardiac Event Detection and Alerting (3947)                                     |
| 4     | Ibrahim Momin, Vipin Kumar, Akshansh<br>Gupta and Bharti Rana      | Optimal Radiomics Feature Selection to Enhance the Alzheimer's Disease Detection using Multi-view Learning Approach based-on Hippocampal MRI Data (4985) |
| 5     |  | Radiology Images to Text Synthesis Using Multimodal Large Language Models for Generating Clinical Summaries (6538)                                       |
| 6     | Soraisam Gobinkumar Singh, Dulumani<br>Das and Utpal Barman        | Integrating XAI with Optimized CNNs: A Novel Approach for Imbalanced Alzheimer's Disease Classification (9472)   |