



# ISACC 2025

## 3RD INTERNATIONAL CONFERENCE ON INTELLIGENT SYSTEMS, ADVANCED COMPUTING AND COMMUNICATION 27 - 28 February, 2025

Department of Computer Science and Engineering  
Triguna Sen School of Technology  
Assam University, Silchar, Assam, India

### (Programme Schedule)

#### Day 1 27 February, 2025

Items	Timing (IST)	Venue
Registration	08:30 AM – 09:15 AM	BCP Auditorium Hall
Inaugural Session	09:30 AM – 10:30 AM	BCP Auditorium Hall
High Tea	10:30 AM – 11:00 AM	BCP Auditorium Hall
Plenary Session 1.1	11:00 AM – 12:15 PM	BCP Auditorium Hall
<b>Prof. Valentina Emilia Balas</b> <ul style="list-style-type: none"><li>Associate Professor, Department of Automatics and Applied Software Faculty of Engineering, Aurel Vlaicu University of Arad, Romania<ul style="list-style-type: none"><li>Academy of Romanian Scientists, Romania</li></ul></li></ul>		
Plenary Session 1.2	12:15 PM – 1:30 PM	BCP Auditorium Hall
<b>Prof. Lalit Mohan Patnaik</b> <ul style="list-style-type: none"><li>Adjunct Professor and NASI Senior Scientist, Consciousness Studies Program, National Institute of Advanced Studies, IISc Campus, Bangalore, India<ul style="list-style-type: none"><li>Former Professor, Indian Institute of Science, Bangalore</li></ul></li><li>Former Vice Chancellor, Defence Institute Advanced Technology (Govt of India, Min of Def, DRDO) Deemed University, Pune</li></ul>		
Lunch	01:30 PM – 02:30 PM	IGH, AUS
Plenary Session 1.3	02:30 PM – 03:45 PM	BCP Auditorium Hall
<b>Prof. Dhruba Kumar Bhattacharyya</b> Senior Professor, Dept. of Computer Science and Engineering Tezpur University, Assam, India		

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Department of Computer Science and Engineering  
Triguna Sen School of Technology  
Assam University, Silchar, Assam, India

Technical Session: 1.1.1

04:00 PM – 06:30 PM

Online

### Track: Intelligent Systems

#### Session Chair:

**Dr. Debashish Chakraborty**

ISRO Kolkata,  
West Bengal, India

#### Coordinator:

**Mr. Rohit Kumar Kasera**, PhD Scholar

Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	1	Automation of Traffic Signal for better commutation of vehicles	Aarzoo Vaghela, Padaya Maruf, Naorem Yaipharenba Meitei, <b>Laiphrakpam Dolendro Singh</b>
2	16	ClipXpert: Automated Clip Mining from Video Data for High-Demand Content	Rajdeep Chatterjee, <b>Sudip Chakrabarty</b> , Pappu Bishwas
3	67	15 Puzzle Problem Solving By Using Heuristic-Based Approaches	<b>Piyusha Bhadange</b> , Revati Keskar, Vaibhavi Kolhe, Roshani Raut
4	23	U-SwinTrans: Automated Skin Lesion Segmentation Using Swin Transformer	<b>Aaditya Lochan Sharma</b> , Kalpana Sharma, Utkarsh Srivastava, Palash Ghosal
5	144	Generative Adversarial Networks for Synthetic Data Generation in Privacy-Preserving Health Informatics	Vineet Kumar, Hassan Safi Ahmed, M.Shailaja, B Karthikeyan, Malik Bader Alazzam, <b>R Saravanakumar</b>
6	35	Integrative Personalized Oncology: Leveraging Multi-Source Data and Drug Solubility for Optimal Cancer Treatment	Mrs. M. Manju, Mrs. Sujataroy, T. Anuratha, <b>S. Dhanasri</b> , V. Thirumalaivasan,
7	50	Efficient Detection of Runways, Taxiways, and Aprons in Commercial Airports Using YOLOv8 and High-Resolution Satellite Imagery	P.Ramesh Kumar, Shaik Mohammed Yasen, Sundarapalli Hanish Venkat, <b>Gandham Kumar N S L Prakash</b>
8	64	Automated Assessment of Pizza Quality Using Computer Vision and Deep Learning Techniques	<b>Megha Arakeri</b> , Lakshmana B,
9	90	Enhancing Image Retrieval: A Survey and Insights on Feature Descriptor Preparation Methods	<b>Srikanth Lukka</b> , Satya Keerthi Gorripati
10	619	SafeDriveMetrics - A Comprehensive Database for Visual, Cognitive, and Manual Distractions Using a Driving Simulator	<b>Rahimul I. Mazumdar</b> , Anirban Dasgupta, Parijat Bhowmick

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Technical Session: 1.1.2

04:00 PM – 06:30 PM

Online

### Track: Intelligent Systems

#### Session Chair:

**Dr. Chayan Paul**  
Swami Vivekananda University  
West Bengal, India

#### Coordinator:

**Mr. Vishal Gour**, PhD Scholar  
Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	75	Advancing Phishing Detection with Random Forest: A Machine Learning Approach for Enhanced Cybersecurity	Sucheta Chandra, Priyanka Das, Ankita Mandal, <b>Sriparno Chakroborty</b> , Ishika Chowdhury, Kathamrita Ghosh
2	78	A No-Code Approach to Classifying Neurological Disorders Using Orange Data Mining	<b>Yabez Davidraj P</b> , Elavarasan S, Vivek T, Ramesh Munirathinam
3	89	Optimizing Production and Inventory Management for Defective Items in Manufacturing Systems	<b>Khandakar Rabbi Ahmed</b> , Arafat Hossain, MD Amaddus Bepary Asif, Mahathir Mohammad, Mustafizur Rahaman, MD Arafat Dewan
4	267	Lung Cancer Identification from CT Scans using a Soft-attention enabled Deep Transfer Learning Model	<b>Shubhro Dev</b> , Pragyaaditya Sinha Roy, Ram Sarkar, Neelotpal Chakraborty
5	109	Multi-level ensemble for enhanced prognosis of ovarian cancer from histopathological images	<b>Samridhi Singh</b> , Dr. Rajeev Kumar, Dr. Nagendra Pratap Singh, Dr. Malti Kumari Maurya
6	119	Noise Pollution Control System For Effective Learning And Teaching	Mrs.Elavarasi.K, <b>Aravindharaaj.B</b> , <b>Chandru.J</b>
7	133	Real-Time Pedestrian Detection in Diverse Environments Using YOLO for Intelligent Video Surveillance	Aatrey Anand V, <b>Gautham B</b> , Sangeetha K
8	274	Enhancing Investment Decisions: A Machine Learning Approach to Recommending Stocks and Mutual Funds	<b>Mrinmoy Borah</b> , Afsana Laskar
9	32	Evaluating UNet Performance and Showcasing the Computational Benefits of SwinUNet for Liver Tumor Segmentation	Sekar K, Arun VS, <b>Kamalesh P</b>
10	400	EcoSync: A Comprehensive Study on Water Quality Prediction and Waste Image Recognition	Ahana Mukherjee, Bipasha Chatterjee, Indrakshi Das, <b>Koushiki Chakraborty</b> , Madhushree Pramanik, Anjan Kumar Payra

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Assam University, Silchar, Assam, India

Technical Session: 1.1.3

04:00 PM – 06:30 PM

Online

### Track: Intelligent Systems

#### Session Chair:

**Prof. Ashish Khare**

Allahabad University,  
Uttar Pradesh, India

#### Coordinator:

**Mr. Pragyat Jyoti Baruah**, PhD Scholar

Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	161	AI-Driven Vegetation Monitoring and Fire Risk Mitigation for Wildfire Prevention and Powerline Safety	<b>Harini B</b> , Gouri MP, Manju M,
2	162	Blood Group Typing Using CNN	S Hemalatha, <b>Nimalanantham N</b> , Pawin A
3	171	Web application for real-time enhancement of low-light images using Zero-DCE and hybrid optimization	Kumaran U, <b>Ashwin ER</b> , Naveenkumar V
4	191	Modular Approaches to Complex Reasoning in Visual Question Answering Systems	<b>Akshay Bhosal</b> , Sagar Chavan, Ketan Waje, Sujit Wandre, Dr. Sandeep Pande
5	192	Stock Market Growth and Decline Using ARIMA Model and Sentiment Analysis	Sandipan Biswas, Bhaskar Roy, Sujit Kumar Singh, Nitin, Saroj Kumar Sahoo, <b>Sanjaya Kumar Sarangi</b>
6	215	A Hybrid Model for Detection of Grey Blight Disease Using Deep Learning	<b>Parthiv Kashyap</b> , Dhiman Nath, Ayush Raj Medhi, Dr. Samarjit Das, Raj Paul
7	243	VenoScan: AI-Powered Classification of Venomous and Non-Venomous Snakes	Ch.Rajendra Prasad, Srinivas Samala, Ramu Moola, Aggadi Meghana, <b>Bongu Akshaya</b> , Madipeddi Sai Harshitha
8	246	Innovative Approaches to Sentiment Detection: Exploring Gated Recurrent Units and Decision Trees in Social Media	Seema Johar, Nisha Misra, Ruchi Tandon, Dayal Pyari, S.Suma Christal Mary, <b>B.Anitha Vijayalakshmi</b>
9	2	An Algorithmic and Machine Learning Approach for Yoga Asanas Feedback	Prakhar Saxena, Vishnu Sharma, Anuj Yadav, <b>Rohit Pratap Singh</b> , Laiphrakpam Dolendro Singh
10	477	Cultural Intelligence in AI Ethics: A Systematic Framework for Implementation Across Global Contexts	<b>Devesh Kumar</b> , Kamlesh Kumar, Rahul Kumar Choudhary, Varnika Singh

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Assam University, Silchar, Assam, India

Technical Session: 1.1.4

04:00 PM – 06:30 PM

Online

### Track: Intelligent Systems

#### Session Chair:

**Prof. Swarup Roy**

Sikkim University,  
Sikkim, India

#### Coordinator:

**Ms. Dimpimoni Kalita**, PhD Scholar

Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	249	Machine Learning-Based Crop Recommendation System for Mizoram	V.D. Ambeth Kumar, Ajoy Kumar Khan, Vanlalhruaia, Saithantluanga, Ramesh Prabhakaran R, <b>Zaitinkhuma</b>
2	250	Smart Agriculture: Enhancing Crop and Weed Detection Using MobileNetV2 for Autonomous Farming Systems	<b>Pranav S</b> , Sutharson Ma, Vignesh V, Uma P
3	254	Drug Inventory and Supply Chain Tracking System	Manojini S, Thanusiya C, <b>Sandhya Sree S</b> , Vinoparkavi D, Mythily V
4	247	Leveraging AI to Personalize HR Marketing Campaigns: A Data-Driven Approach	Moath Mahmoud Alshar, Ameet Sao, Manish Sharma, Sunil Kadyan, Vuda Sreenivasa Rao, <b>B. Anitha Vijayalakshmi</b>
5	293	Classification of North Eastern Plant Leaf Species Using Deep Learning	<b>Sazid Ahmed</b> , Rabinder Prasad, Himangsu Borah, Ratnadeep Baruah, Tiken Singh, Chandan Kalita
6	302	Intelligent Public Surveillance System	Pushkar Joglekar, <b>Divyanshu Jha</b> , Prathamesh Dhorage, Dhruv Thakkar, Om Dhumal,
7	333	Predicting Tax Defaults Through Feature Transformation and XGBoost Optimization	Vinod Waiker, Malik Bader Alazzam, Sakar Fatah Sulaiman, Deepak Gupta, Himanshu Gohokar, <b>Dr B Kiran Bala</b>
8	338	The Future of Business with Generative AI Models and Insights	Manish Sharma, V. Selvi, Rahul Chauhan, Shamim Ahmad khan, Ayasha siddiqua, <b>A. Balakumar</b>
9	620	Recent Advances in Human Activity Recognition:A comprehensive Review	<b>Sukanya Saha</b> , Debapriya Banik
10	816	A Context-Aware Framework for Sensor Placement Using PSO and Voronoi in Dynamic Scenarios	<b>Prithwish Manna</b> , Dr. Sudipta Majumder, N. Hemarjit Singh, Rajesh Bose

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Technical Session: 1.2.1

04:00 PM – 06:30 PM

Online

### Track: Advanced Computing

#### Session Chair:

**Prof. Hiren Kumar Deva Sarma**

Gauhati University,  
Assam, India

#### Coordinator:

**Ms. Aparna Bhattacharjee**, PhD Scholar

Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	53	Generative Adversarial Networks for Melanoma Detection	<b>Kripang Kanwar Kashyap</b> , Sudhanshu Makharia, S. Poornima
2	163	Revolutionizing Healthcare: Advance Ai-Driven Multi-Disease Prediction And Personalized Nutrition Guidance Through Retinal Biomarkers	Sreesubha S, Sowmia kr, Nikhilesh V, <b>Nithyashree KP</b>
3	173	Enhancing Healthcare Services with Fuzzy Algorithms and Fog Computing	<b>Dr. Akash Kumar Gupta</b> , Dr. Chinmay Chakraborty, Dr. Bharat Gupta
4	451	An Efficient Feature Selection Strategy for Enriching the Precision of Machine Learning Models	<b>Subrata Pan</b>
5	188	Monkeypox Disease Classification from Skin Lesion Images using Deep Convolution Neural Network	Rajasekaran Thangaraj, <b>Balasubramaniam Vadivel</b> , S. Manoj Kumar, S. Sades, P Karunakaran ,Prakash P
6	471	Optimizing Data Movement in Heterogeneous Computing: A LASSA-based Approach for Efficient Nucleation List Precomputation	Biswajit Bhowmik, <b>Girish K K</b> , Himanshu Pandey, Piyus Prabhanjans
7	282	Brief Mantra Meditation Increases Theta Power in Frontal Regions	<b>Daisy Das</b> , Bhabesh Kalita, Nabamita Deb, Saswati Sanyal Choudhury
8	284	Detection of Brain Tumors from MRI Images using Novel DeepCNN	<b>Mohebbanaaz</b> , P. Deepthi Jordhana, G Vamsi Krishna
9	312	Oppositional artificial rabbit optimization for the optimal tuning of single input power system stabilizer	<b>Arnab Chakraborty</b> , Devchayan Mukherjee, Sourav Paul, Sneha Sultana, Susanta Dutta, Provas Kumar Roy
10	508	Real time multimodal diagnosis and treatment planning for comprehensive oncological care	K. Priyadharshini, Divya Mohan, Mayank Sharma, <b>Sai Priyaa</b>



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Technical Session: 1.2.2

04:00 PM – 06:30 PM

Online

### Track: Advanced Computing Session Chair:

**Prof. Jyotsna K. Mandal**

University of Kalyani,  
West Bengal, India

### Coordinator:

**Mr. Anand Kumar Singha**, PhD Scholar

Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	320	Using quasi-oppositional butterfly optimization algorithm, a probabilistic optimal power flow for a combined tidal and electric vehicle renewable energy system	<b>Arijit Chakraborty</b> , Dibakar Sarkar, Arka Ghosal, Sourav Paul, Sneha Sultana, Susanta Dutta, Provas Kumar Roy
2	321	Taskgraph Framework: A Competitive Alternative to the OpenMP Thread Model	Snehal Chavan, Prathamesh Nile, <b>Sunil Kumar</b> , Biswajit Bhowmik
3	326	Aspect-Based Sentiment Analysis using Machine Learning	<b>Riju Ray</b> , Srijoni Dey, Debalina Bagchi, Gargee Das, Pratibha Dutta, Anjan Kumar Payra
4	587	Landsat8-9 Satellite Image Classification with ERDAS for Mapping the Urban Spaces of East Sikkim	<b>Chunnu Khawas</b> , Mohan P Pradhan, Ratika Pradhan, Ashis Pradhan
5	336	Segmentation of Brain Tumor Magnetic Resonance Imaging using Convolutional Neural Networks	<b>Anuj Gupta</b> , Dr. Anita
6	371	A Hybrid Framework for Secure Group Communication Using Quantum-Classical Cryptography and Reinforcement Learning	<b>Renisha.P.S</b> , Bhawana Rudra
7	189	Automatic Detection for Peacock Using Modified YOLOv5	Rajasekaran Thangaraj, P.Jaisankar, Lakshana S, <b>Devadharshini G</b> , Jeyabharathi P
8	656	Hybrid Feature Engineering and Sampling Strategies for Enhanced Diabetic Retinopathy Classification	<b>C Vanlalnunpuia</b> , Lalhmingliana, V. D. Ambeth Kumar, R Vanlalawmpuia, David Lalmuanpuia Khiangte, Ajoy Kumar Khan
9	459	Edu-Metaverse: A Structured Architecture and Workflow Model for Digital and Blended Learning	Sanskar Garg, Sahil Sahani, Ashwini Kumar Singh, Kiran Kumari, Rishi Dev, <b>Anjan Bandyopadhyay</b>
10	694	Sentiment Analysis Review: Methods and Challenges	<b>C. Lalrinawma</b> , Morrel V.L. Nunsanga

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Technical Session: 1.2.3

04:00 PM – 06:30 PM

Online

### Track: Advanced Computing

#### Session Chair:

**Prof. Paramartha Dutta**

Visva Bharati,  
West Bengal, India

#### Coordinator:

**Ms. Suryatapa Hom Chowdhury,**

B. Tech (Final Year)  
Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	480	Pyramidal Gravitational Search clustering for Hybrid Gene Expression Data	<i>Swapnil Kukreti</i> , Urshi Singh
2	558	Empowering Leather Quality Assurance: Leveraging Convolutional Neural Networks For Precise Defect Detection And Classification	Logeswaran K, Suresh P, Savitha S, Swati Sah, Prasanna Kumar Kr, Rajadevi R, Vasugi M, <i>Sujit B</i> , Akilesh T
3	572	An Enhanced LSTM-CRF based approach for Knowledge Integration based Sentiment Analysis	Allam Balaram, M. SilpaRaj, <i>K. Likhitha Sree</i> , V. Pramodh Kumar, D. Vinay Kumar, K. Venu Kumar Reddy
4	624	AngLPCM: An Enhanced Similarity Measure	<i>Pallabi Patowary</i> , Dhruba K Bhattacharyya
5	639	Hand Mudras and Indian Classical Dances: Techniques, Dataset and Future Direction	<i>Chayanika Sarmah</i> , Parismita Sarma
6	652	DNA Sequence Alignment Exploring All Potential Optimal Solutions	<i>Rittija Ghosh</i> , Sanchita Saha Ray
7	93	Securing IoT-enabled Metaverse with Authentication and Threat Classification Framework Using DL	Krishna Darji, <i>Chinmay Trivedi</i> , Rajesh Gupta, Fenil Ramoliya, Sudeep Tanwar, Smita Agrawal
8	932	Study And Experimental Analysis Of Metaheuristic Based Optimizers With Respect To P2P Botnet Detection	<i>Meghna Dasgupta</i> , Dubari Sarma, Vaskar Deka, Dipankar Das, MD. Golam Rashed
9	785	A Survey On Publicly Available Fundus Image Datasets For Diabetic Retinopathy Screening	<i>Bhuvaneswari S</i> , Subashini P
10	992	Melanoma Detection with MobileNetV2 and Channel Attention: Addressing the Diverse Skin Tone Challenge	<i>Sharmina Al-Azad</i> , Safin Ahmmed



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Technical Session: 1.2.4

04:00 PM – 06:30 PM

CSE, TSSOT, AUS

### Track: Advanced Computing

#### Session Chairs:

<b>Prof. Shahin Ara Begum</b> Assam University, Silchar, Assam, India	<b>Dr. Purnendu Das</b> Assam University, Silchar, Assam, India
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#### Coordinator:

<b>Mr. Sheikh Wakie Masood, JRF</b> Dept. of Computer Science and Engineering Assam University, Silchar, Assam, India
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Sl#	Paper ID	Paper Title	Authors
1	545	Comprehensive Security Analysis and Threat Mitigation Strategies for Software-Defined Networking (SDN) Environments	<i>Ajit Karki</i> , Raktim Deb
2	601	Augmentation of topic modeling: Comparing the traditional and their word embedding oriented approaches	<i>Gobind Kumar Das, Panthadeep Bhattacharjee</i>
3	432	Biomedical Lay Summarization: Research Progress and Challenges	<i>Souramita Bhowmik</i> , Anupam Jamatia, Dwijen Rudrapal, Kunal Chakma
4	433	A Dataset Development for Fake News Detection in Low Resource Romanized Manipuri	<i>Takhellambam Babylon Devi</i> , Anupam Jamatia, Dwijen Rudrapal, Kunal Chakma
5	795	Deep Learning-Powered Retinal Vein Occlusion Classification: Performance Benchmarking Across State-of-the-Art Neural Network Architectures Using a Novel Private Dataset	<i>Rahul Chatterjee</i> , Nibedita Kalita, Ripunjay Jaiswar, Dr. Samir kr. Borgohain, Dr. Rajneel Bhattacharjee
6	654	Advancing Diabetic Retinopathy Research with a Dataset from Aizawl region of Mizoram	C Vanlalnunpuia, Lalhmingliana, V.D. Ambeth Kumar, Ajoy Kumar Khan, <i>R Vanlalawmpuia</i> , David Lalmuanpuia Khiangte, R. Lalchhanhima

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Department of Computer Science and Engineering  
Triguna Sen School of Technology  
Assam University, Silchar, Assam, India

Technical Session: 1.3.1

04:00 PM – 06:30 PM

Online

### Track: Communication

#### Session Chairs:

<b>Dr. Prativa Rai</b> Sikkim Institute of Science & Technology, Sikkim, India	<b>Dr. Tasher Ali Sheikh</b> NIELIT, Bhubaneswar, Odisha, India
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#### Coordinator:

<b>Mr. Sajjadur Rahman Laskar</b> , PhD Scholar Dept. of Computer Science and Engineering Assam University, Silchar, Assam, India
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Sl#	Paper ID	Paper Title	Authors
1	92	Tiny ML-based Secure and Energy Efficient Unmanned Aerial Vehicles Surveillance Framework for Smart Cities	<b>Aditya Shah</b> , Vanera Vivek, Dishant Savaliya, Rajesh Gupta, Sudeep Tanwar, Jitendra Bhatia
2	122	RSA Performance and Low Hamming Weight Small Prime Public Exponent	Dr. Soram Ranbir, <b>Santosh Sharma Kongbrailatpam</b> , Haobijam Jina Devi, Takhellambam Sonamani, Naorem Natasha, Dr. Sapam Jitu
3	271	A Proactive Approach for Securing VANETs Against Gray-Hole Attacks	<b>Ms. Janaranjani M</b> , Mr.Arunkumar M, Pavithra K
4	287	Enhanced Clustering Framework for Unveiling Hidden Patterns in IoT-Based Structured and Unstructured Data	<b>Prabhat Das</b> , Karthik Kovuri, Sajal Saha
5	299	A Hybrid PSO and K-Means Clustering Approach for Enhanced Sensor Localization in WSNs	<b>Ningombam Hemarjit singh</b> , Prithwish Manna, Sudipta Majumder, Rajesh Bose
6	361	Mobile-Based Video Assessment for Speaking Skills: Improving Pronunciation, Fluency, and Confidence in ESL Learners	T. Sugadev, P. Santhosh, J. Azad Mohamed, N. Sheik Hameed, S. Vijayakumar, <b>Ponni Valavan M</b>
7	511	A Review of Signature Schemes for Enhanced Information Retrieval and Privacy in Blockchain Systems.	<b>Mustak Sheikh</b> , Chandan Kalita
8	586	Mobile-Based Peer Assessment in English Language Learning: Facilitating Collaborative Feedback in ESL Classrooms	Janjhyam Venkata Naga Ramesh, Malik Bader Alazzam, Haider Sharif Mahdi, Sazan Kamal Sulaiman, Salah Farhan A Sharif, <b>I Infant raj</b>
9	447	1-Bit Coding Metasurface for RCS Reduction	<b>Priyanka r ravi</b> , Sreeja T K, Sowmy I, Sreedevi M G
10	434	Frequency Encoding of High Cardinality Categorical Features to Detect SPAM Botnet Activity	Daffa Muhamad Azhar, Tohari Ahmad, <b>Muhammad Aidiel Rachman Putra</b> , Adifa Widyadhani Chanda D'Layla
11	653	HAQM: A Hybrid SDN controller-based Architecture for effective QoS Management in Edge-IoT Network	Nogaye LO, Ibrahima NIANG, <b>Cheikh Saliou Mbacke BABOU</b>



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Technical Session: 1.3.2

04:00 PM – 06:30 PM

CSE, TSSOT, AUS

### Track: Communication

#### Session Chair:

**Prof. Prodipto Das**

Assam University, Silchar,  
Assam, India

#### Coordinator:

**Ms. Nandita Louriya**, PhD Scholar

Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	245	Data Privacy and Security in Healthcare Systems Using Blockchain: A Review	<i>Bijit Barman</i> , Satyajit Sarmah
2	273	Towards Finding Hybrid Machine Learning models for detection of IoT Botnets.	<i>Miss Richy Laskar</i> , Mr. Rakesh Das, Mr. Rahnak Laskar, Dr. Samarjit Das, Ms. Meghna Dasgupta.
3	469	Multi-Wavelength Enhanced Optical Half-Adder Circuit Using MRR assisted with Mach-Zehnder Interferometric Structure	Srikanta Das, Suman Debnath, Nitish Sinha, <i>Bishanka Brata Bhowmik</i>
4	827	Leveraging Blockchain for Authentication in Internet of Medical Things	<i>Biswajit Debnath</i> , Priyanka Biswas, Anurag Mathur, Nirmalya Kar
5	1027	Reliable Communication in Opportunistic Network based on Trust: A Review	<i>Amrita Bose Paul</i> , <i>Mala Ahmed</i> , <i>Jyoti Prokash Goswami</i>

Cultural Programme

06:30 PM – 08:00 PM

BCP Auditorium Hall

Dinner

08:00 PM – 09:30 PM

IGH, AUS

**\*\* All timings are in Indian Standard Time (IST).**

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### Day 2 28 February, 2025

Items	Timing (IST)	Venue
Breakfast	09:30 AM – 10:00 AM	BCP Auditorium Hall
Plenary Session 2.1	10:00 AM – 11:15 AM	BCP Auditorium Hall
<b>Prof. Shahar Kvatinsky</b> Full Professor, Andrew and Erna Viterbi Faculty of Electrical and Computer Engineering, Technion – Israel Institute of Technology, Israel		
Plenary Session 2.2	11:15 AM – 12:30 PM	BCP Auditorium Hall
<b>Dr. Raghavendra Kune</b> Scientist (SG), Head of High-Performance Computing Systems and Drones, Advanced Data Processing Research Institute (ADRIN), Indian Space Research Organisation (ISRO), Department of Space, Government of India.		
Invited Lecture 2.1	12:30 PM – 1:20 PM	BCP Auditorium Hall
<b>Dr. Avinash Chalumuri</b> AI/QML Scientist, Quantum AI Global, Hyderabad, India		
Lunch	01:20 PM – 02:10 PM	IGH, AUS
Invited Lecture 2.2	02:10 PM – 03:10 PM	Online
<b>Dr. Rashmi Dutta Baruah</b> Associate Professor, Department of Computer Science and Engineering, Indian Institute of Technology Guwahati, Assam, India		
Invited Lecture 2.3	03:10 PM – 03:45 PM	BCP Auditorium Hall
<b>Dr. Barnali Dey</b> Assistant Professor (Selection Grade), Department of Information Technology, Sikkim Manipal Institute of Technology, India		

# ISACC 2025

## 3RD INTERNATIONAL CONFERENCE ON INTELLIGENT SYSTEMS, ADVANCED COMPUTING AND COMMUNICATION 27 - 28 February, 2025

Department of Computer Science and Engineering  
Triguna Sen School of Technology  
Assam University, Silchar, Assam, India

Technical Session: 2.1.1

03:45 PM – 06:45 PM

Online

### Track: Intelligent Systems

#### Session Chair:

**Dr. Rajeev Rajkumar**

Manipur Institute of Technology,  
Manipur, India

#### Coordinator:

**Ms. Aparna Bhattacharjee**, PhD Scholar

Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	436	Autoencoder-LSTM Framework for Accurate Foreign Exchange Volatility Prediction	Dr. Parijat Saurabh, Malik Bader Alazzam, Nagarajan S, Dr.D.Harikishan Reddy, Sakar Fatah Sulaiman, <b>Dr B Kiran Bala</b>
2	381	AI-Driven Thermal Imaging: A Comprehensive Web-Based Tool for Non-Invasive Medical Diagnostics	Aniruddha Ghosh, Sayan Snigdha Pal, <b>Sumedha Das</b> , Spandan Bhattacharya, Arijit Bhattacharya, Nilanjana De, Sudipta Sahana
3	390	Enhancing English Language Assessment in Educational Settings using Natural Language Processing Techniques	V Moses Jayakumar, R.Rajakumari, Purnachandra Rao Alapati, Santiago Otero-Potosi, D.Naga Malleswari, <b>M.Karthik</b>
4	398	Federated Learning Based Neural Machine Translation	<b>Parvez Aziz Boruah</b> , Hiren Kumar Deva Sarma, Shikhar Kumar Sarma
5	403	Localized Forgery Detection: Integrating Deeplabv3 With Error Level Analysis	<b>Akshara A</b> , Gayathri R, Alex Raj S M
6	453	Resilient 3D Object Recognition using GR-Net in Sparse Point Clouds	Premanand Ghadekar, Pratik Dhame, Soham Dixit, Arpit Patil, <b>Rushikesh Sanjekar</b> , Siddhesh Shinde
7	458	Drones in Defense: Real-Time Vision-Based Military Target Surveillance and Tracking	<b>Sudip Chakrabarty</b> , Rajdeep Chatterjee, Sorup Chakraborty, Sourov Roy Shuvo, Rajesh Chowdhury,
8	461	A Novel Approach for Heart Disease Prediction Using Ensemble Machine Learning Techniques	<b>Pratyush Banerjee</b> , Navamani T M, Mitali Gopinath Paul, Nalam Guna Sri Krishna, Sristi Agarwal
9	632	A Visionary Analysis on Ways and Techniques Used for Identification of Citrus Plant Disease	<b>Arundhati Bora</b> , Parismita Sarma
10	351	Deep Learning-Based Detection of Traffic Accidents Using CNN and VGG16 on Accident and Foggy Image Datasets	Kiran Sree Pokkuluri, <b>Manthena Sivanjani</b> , M. Prasad, Raja Rao PBV, P. J R Shalem Raju, Anuj Rapaka

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Department of Computer Science and Engineering  
Triguna Sen School of Technology  
Assam University, Silchar, Assam, India

Technical Session: 2.1.2

03:45 PM – 06:45 PM

Online

**Track: Intelligent Systems**

**Session Chairs:**

<b>Dr. Satyajit Sarmah</b> Gauhati University, Assam, India	<b>Dr. Sinam AjitKumar Singh</b> Dhanamanjuri University, Manipur, India
---	--

**Coordinator:**

<b>Mr. Vishal Gour</b> , PhD Scholar Dept. of Computer Science and Engineering Assam University, Silchar, Assam, India
--

Sl#	Paper ID	Paper Title	Authors
1	501	IsharaVerse: A Bidirectional, Context-Aware, Multilingual Sign Language System	Kashish, Chelsi, Ramjas Langdi, <b>Amit Kumar Trivedi</b>
2	510	Enhancing Blood Disease Diagnosis Using Artificial Neural Networks: A Predictive Model with Robust Performance	<b>Ramesh Dadi</b> , Rizwana, Madhu shalini Baira
3	517	EfficientNet-Based Feature Extraction and Ensemble Learning for Tomato Quality Classification	S Shanthini, <b>Dheeran S</b> , Anish Partho M
4	529	Footprint-Based Animal Identification : A Hybrid Model Combining CNN, SVM, and Transfer Learning for Wildlife Encroachment	<b>Jerlin Joy C G</b> , Subhashree S, Jasmine Mystica K
5	530	Cloud-Based AI Robotics for Precision Pruning of Fruit Trees to Improve Sustainable Farming	R.C. Ilambirai, Barkathulla. A, G. Mahalakshmi, J. Jagan Babu, <b>Prabu K</b> , C. Srinivasan
6	536	Revolutionizing Legal Intelligence: Advances in Neural Networks and Language Models for Legal NLP	<b>Raoul Samuel Noronha</b> , Alex Stanley Alenchery, Deepa S, Jayapriya J, Vinay M
7	563	A Unified Model for Summarizing and Querying Multi-Format Content in English using Natural Language Processing	Godi Amulya, <b>Goli Venkata Sai Manjunath</b> , Jamana Upendra, B. V. Prasanthi, Sanapathi Anusha, Pedamallu Krishna Madhuri
8	807	EchoVision: RealTime Object Detection and Voice Assistance for the Visually Impaired	<b>Penumarthi Hima Varshini</b> , Swati V, D. Navya
9	567	Predicting Vocal Pathologies: A Multi-Dataset Machine Learning Framework for Healthcare Applications	Nitin Pal, <b>Avinash Shrivastava</b> , Rachit Roy, Sachet Shetty, Girish Gidaye, Shrinivas Deshpande
10	642	Comparative Analysis of Machine Learning Models for Satellite Image Classification with Explainable AI Visualization	Jennyfer Susan M B, <b>Nishanthini S</b>
11	19	Potential of Vision Transformer in Leukemia Detection	Rayan Ahmed, Laraib Nadeem, <b>Maryam Shafique</b> , Zameera Saleem, Ayesha Iqbal, Hafsa Iqbal



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Department of Computer Science and Engineering  
Triguna Sen School of Technology  
Assam University, Silchar, Assam, India

Technical Session: 2.1.3

03:45 PM – 06:45 PM

Online

### Track: Intelligent Systems Session Chair:

**Dr. Neelam Chaplot**

Manipal University Jaipur,  
Rajasthan, India

### Coordinator:

**Ms. Sagata Bala,**

B. Tech (Final Year)  
Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	573	RL based Smart Energy Management System for Indoor Lighting	<i>Himanshu Ladhiya</i> , Rajib Malik,
2	584	Enhancing Smart Healthcare Services Through Deep Learning-Based Medical Data Analysis	Sheik Jamil Ahmed, Dr Saira Banu Atham, Hajar Kadhim, Dr. Deepak Gupta, Aaied Eqab Muraay Majed, <i>M.K. Mohamed Faizal</i>
3	593	A Hybrid Approach for Detection and Reduction of different types of noises in gray scale images	<i>Amanpreet Kaur Sandhu</i>
4	609	Attention-Enhanced Residual Network for Breast Cancer Detection in Histopathological Images	<i>Annada Dash</i> , Payel Pramanik, Ram Sarkar
5	56	Improving English Text Machine Translation Quality with Cutting-Edge Neural Network Systems	Janjhyam Venkata Naga Ramesh, <i>Vimochana.M</i> , Vasantha Aruna, P.Kavitha, T.Jayasudha
6	622	Performance Analysis of Tesseract and EasyOCR for Bangla Optical Character Recognition on the Novel Bangla-CrossHair Dataset	<i>Abdulla Nasir Chowdhury</i> , Aftar Ahmad Sami, Shah Masud Parvej Mamun, Shakib Absar, Fuad Rahman Biswas, Md. Saidur Rahman Kohinoor
7	655	Early Intervention in Autism Spectrum Disorder: Hybridizing Convolutional Neural Networks with Ensemble Methods for Enhanced Detection Using Facial Imagery	<i>Anupam Das</i> , Prasant kumar Pattnaik, Anjan Bandyopadhyay,
8	674	Knee Osteoarthritis detection and classification using a customized CenterNet with DenseNet201	N. Shirisha, <i>K. Shilpa</i> , CH. Meghana, Mohammed Abdul Rahman
9	690	Development of an Automatic Speech Recognition System for Irula Language: A Machine Learning Approach	Dr. M. Krishnaveni, Dr. P. Subashini, <i>Dr.R. Janani</i> , Ms. R.Komalavalli, Dr.P.Prabhusundhar, Dr.G.T. Prabavathi
10	693	A Comprehensive Survey of Technologies for Wildlife Detection and Accident Prevention	<i>Kadali Anjali</i> , Dumpa Charmika Reddy, B.V. Prasanthi, S Mahaboob Hussain, Lakshmi Veenadhari CH, Ravindra Bharathi Budithi

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Department of Computer Science and Engineering  
Triguna Sen School of Technology  
Assam University, Silchar, Assam, India

Technical Session: 2.1.4

03:45 PM – 06:45 PM

Online

### Track: Intelligent Systems

#### Session Chair:

**Dr. Chandan Kalita**

Gauhati University,  
Assam, India

#### Coordinator:

**Mr. Sajjadur Rahman Laskar**, PhD Scholar

Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	699	EpiCNN-LSTMDetect: A Combined Deep Learning Method for Identifying Epileptic Seizures	<b>Priyaranjan Kumar</b> , Prabhat Kumar Upadhyay
2	995	Network Intrusion Detection by Integrating BI-LSTM for Enhanced Security	<b>Lohith Kandibanda</b> , Lakshmi Priya P, Joel M Johnson, Jyotsna C, Aiswariya Milan K
3	705	An Intelligent Lane, Object Detection and Speed Estimation for Ego-Vehicles using Perception Algorithms	<b>Kukkamudi Sunidhi</b> , J. N.V.R. Swarup Kumar, Gorla Srinivas, <b>Cetty Yamini</b>
4	709	Improving Sleep Health Through Data-Driven Machine Learning Insights	<b>Ananya Kapoor</b> , Priyanka Suyal, Rakhi Bhardwaj, Kamal Kumar Gola, Mohit Kumar, Aman Verma
5	730	Multi-Agent Systems for Autonomous IoT Network Management Using Distributed Reinforcement Learning	Neelamegam G, Rajaram Venkatesan, Ramya SR, Ramya R.S., Akshya J, <b>Sundarrajan M</b> , Mani Deepak Choudhry
6	744	VedicFusion: Bridging Ancient Wisdom and Modern AI Through Natural Language Processing	Chintan Kasundra, <b>Shreekumar Kariya</b> , Meet Dhaduk, Khushi Rupda, Griva Vachhani, Rituraj Jain, Damodharan Palaniappan,
7	759	Revolutionizing Athletic Training with Machine Learning: Injury Prediction Using Predictive Analytics and Customized Workouts Through Personalization Algorithms	Tushar Dhar Shukla, Shaik Balkhis Banu, Malik Bader Alazzam, Vijay Kumar, Ajmeera Kiran, <b>A. Balakumar</b>
8	801	Uniting the Power of Text and Emojis to Revolutionizing Sentiment Analysis of Twitter Data	<b>Adalbert Musengamana</b> , Kunjesh Patadiya, Jay Moteriya, Shreyal Faldu, Damodharan Palaniappan, Rituraj Jain, Kumar Parmar,
9	781	Intelligent Computing for Healthcare: A Survey	<b>KM Vijeta Singh</b> , Ashish Singh
10	968	Early Detection and Classification of Alzheimer's through Integration of 3D Local Binary Patterns and SVM classifier	<b>Komal Singh</b> , Ashish Khare, Reddy Mounika Bommisetty

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Assam University, Silchar, Assam, India

Technical Session: 2.1.5

03:45 PM – 06:45 PM

Online

### Track: Intelligent Systems

#### Session Chair:

**Dr. Arindam Pal**

Optym,  
Sydney, Australia

#### Coordinator:

**Mr. Jibitesh Bora,**

B. Tech (Final Year)  
Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	833	Improving Potato Disease Classification with Convolutional Neural Networks and Feature Fusion	<i>Miss Sakshi Deshmukh</i> , Miss Anushka Parkhi, Miss Shravani Gandhi, Dr. Diptee Ghusse
2	843	Prediction of patients' survivability in Uterine Cancer using machine learning models	<i>Arpan Saha Mondal</i> , Banani Saha, Sudipto Saha
3	850	Medical Chatbot using Gamma LLMV2 and Comparison Using BERT Models	Girish Amrutkar, <i>Omkar Awari</i> , Diptee Chikmurge, Sharmila Kharat
4	861	Real-Time Underwater Trash Object Detection Using Enhanced YOLOv8	Raghuvira Pratap Adimulam, <i>Rampraveen Reddy Thumu</i> , Nikhila Lanke
5	862	Enhancing Underwater Tunnel Safety through Smart Inspection: An ROV-based System with AI-Powered Crack Detection using Canny Edge Detection	<i>Ruba M</i> , Deebika Sri V, Ponkarthika M, Parameshwari V, Girinath V P, Soundarya B, Janani M, Santhini C,
6	875	An Efficient Chromosome Abnormal Detection using Yolo-v8 model	V.UmaRani, Augustian Isaac, K. Premnath, <i>Kannan G</i> , Sanjay A, Hari Haran L K
7	880	Support Vector-Based Grey Wolf Optimizer for Optimal Scheduling of Generators in Thermal Power Plants	M Venkateswarlu, <i>Kanike Krishna</i> , Vadde Srikanth, Barella Chakali Sanjeeva Kumar.
8	883	Decision Support System for Crop Management using Convolutional Neural Network	Immaculate Mercy A, Ruby D, Logesh T, <i>Shahidha Shireen S</i>
9	817	Enhancing classification accuracy through a cluster-based training approach: A case study of butterfly species classification	<i>Manjuchethan N</i> , H S Nagendraswamy, Somanna M, Chethana Kumara B M
10	275	Boosting Algorithms Empowering Heart Disease Prediction for Enhanced Medical Accuracy	<i>Urvashi Sharma</i> , Kanak Saxena

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Department of Computer Science and Engineering  
Triguna Sen School of Technology  
Assam University, Silchar, Assam, India

Technical Session: 2.1.6

03:45 PM – 06:45 PM

Online

### Track: Intelligent Systems

#### Session Chair:

**Dr. Arnab Kumar Maji**

North Eastern Hill University,  
Meghalaya India

#### Coordinator:

**Mr. Anand Kumar Singha**, PhD Scholar

Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	885	Underwater Object Detection Using Deep Learning Techniques	<i>Sayan Samanta</i> , Parveen Malik, Pravin Kumar Samanta
2	889	Medical Prescription Generator using Natural Language Processing	<i>Siddhesh Paithankar</i> , Snehal Patil, Ashlesha Shivgan, Mandar Mahabudhe, Pramod Dharmadhikari,
3	894	An Intelligent Disaster Management System: Integrating Technology for Effective Response and Recovery	<i>Nandini Pandey</i> , Priya Rani, Sumana Kundu,
4	903	Adapting Vision Transformers for Effective Facial Expression Recognition	<i>Anurag Joardar</i> , Ningthoujam Johny Singh
5	934	Classification of Structures and Monuments based on Indian Architectural Styles	<i>Deivanai Saravanan</i> , Sneha T Raghavan, Ananya Ganapathi, Jyotsna C, Aiswariya Milan K
6	944	PoseSmart: AI-Driven Dress Recommendations with Pose Estimation	Dubba Hima Bindu, <i>Siri M</i> , Muvvala Sri Venkata Satya Shanvitha, Aiswariya Milan K
7	948	Enhancing Air Quality Index Forecasting through Machine Learning Models	<i>Kamalapuram Vigneswara Reddy</i> , Chimakurthy Mounika Begum, Adhi Neeraja, Jyotsna C.
8	954	Integrating Region Proposals with Recurrent Neural Networks for Image Paragraph Captioning	<i>Riya Hulule</i> , Yogita Ambure, Sakshi Paste, Samriddhi Datir, <i>Sharmila Kharat</i>
9	976	Attack Prediction in Supply Chain Management Systems Using Hybrid Quantum-Classical Generative Adversarial Network with War Strategy Optimizer	<i>P Hanumantha Rao</i> , Sreeram Gutha, Endrala Krithika Goud, Gande Mokshagna Teja, E Sankethan, G karteek
10	842	A Comparative Study of Various Clustering Methods on Dengue Microarray Gene Expression Dataset and Pathway Enrichment Analysis	<i>Epsita Das</i> , Piyali Chatterjee

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Department of Computer Science and Engineering  
Triguna Sen School of Technology  
Assam University, Silchar, Assam, India

Technical Session: 2.1.7

03:45 PM – 06:45 PM

Online

### Track: Intelligent Systems

#### Session Chair:

**Dr. Khuraijam Nelson Singh**

IIIT Nagpur,  
Maharashtra, India

#### Coordinator:

**Mr. Sheikh Wakie Masood, JRF**

Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	989	Interactive Agent Foundation Model: A Meta-Learning Strategy	<b>Mani dwivedi</b> , Anuj Dwivedi
2	991	Explainable AI-based Detection and Interpretation of Abnormalities in Chest X-rays	<b>Trisha V</b> , Bhavika Gandham, Sai Smrithi Muthukumar, Jyotsna C, Aiswariya Milan K.
3	1023	AI Driven Classification of Diabetes Patients' Health Behavior	<b>Jennifer Gurung</b> , Parvaty Nandy, Bibeth Sharma, Saibal Kumar, Ajeya Jha
4	997	Flex Sensor Enabled Glove based Manual Wheelchair for Elderly and Speech-Impaired Assistance	Abhishek Tripathi, <b>Kasu V S Gopi Reddy</b> , K Amarnath, C Baves, Bestha Vardhan, Sumitra Singh
5	1010	Optimizing Smart Hospital Management with Cooperative Robots and Game-Theoretic Approaches	Gandhimathi G, Chellaswamy C, Geetha T S, <b>Arthi C S</b> , Deepa S, Padmapriya D
6	1013	Deep Learning Approaches for Automated Tooth Identification and Segmentation in X-rays	Julakanti Sai Yasanwath, <b>Kanderi Johith Kumar</b> , Rimjhim Padam Singh
7	1015	Revolutionary Land Registry System Powered By Blockchain	<b>Varun Kaushik</b> , Niyati Singh, Sarthak Bhatnagar, Pratham Shukla, Dr. Anuradha Taluja
8	1016	Optimisation Techniques in Investment Risk Management: Scipy, SLSQP and Modern Portfolio Theory	Anuradha Taluja, <b>Aayushi Garg</b> , Aditya Pratap Singh, Anushka Saraswat, Avnish Kumar
9	1017	A Novel 3D-CNN with DAG Framework for Enhanced Alzheimer's Disease Diagnosis Using Structural MRI	<b>D. Prasad</b> , K. Jayanthi, Dr. Pradeep Thilakan
10	512	Speech Recognition and Machine Learning: Revolutionizing English Language Oral Assessments	A. Sathiya Jothi, Malik Bader Alazzam, Sakar Fatah Sulaiman, Abirami K, R.Saranya, <b>Dr B Kiran Bala</b>

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Triguna Sen School of Technology  
Assam University, Silchar, Assam, India

Technical Session: 2.1.8

03:45 PM – 06:45 PM

Online

### Track: Intelligent Systems

#### Session Chair:

**Dr. Sorokhaibam Nilakanta Meitei**

National Institute of Technology Manipur,  
Manipur, India

#### Coordinator:

**Mr. Pragyat Jyoti Baruah**, PhD Scholar

Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	362	Artificial Intelligence in Mobile Computing for English Language Testing: Redefining Automated Language Assessment	Muththamizh Selvi S.I, Senthamarai. T, S. Karthik Kumar, N. Sheik Hameed, S. Vijayakumar, <b>I Infant raj</b>
2	695	Efficient Parallel Algorithm for Detecting Longest Flow Paths in Flow Direction Grids	Karunamuni Jayarukshi, Shivali Agarwal, <b>Girish K K</b> , Santosh Goudar, Biswajit Bhowmik
3	1022	Relationship Between Interpersonal Conflict, Stress and Burnout in Nurses- ML Classification	<b>Sangeetha Pai</b> , Saibal Kumar Saha, Ajeya Jha
4	1026	Neural Network-Based Author Attribution for Assamese Language: Insights from RNN and GRU Architectures.	<b>Ms. Smriti Priya Medhi</b> , Prof. Shikhar Kumar Sarma,
5	905	Comparative Analyais of CNN Architectures for Deep Fake Detection	<b>Parth Wani</b> , Sachin Chavan, Siddhesh Paithankar, Diptee Ghusse, Sunita Barve
6	146	Customer Retention in Banking: Utilizing AI and Machine Learning for Predictive Churn Analysis	Anurag Agnihotri, <b>R Saravanakumar</b>
7	920	Low Resolution Deepfake Face Detection using Multi-Scale Discrete Cosine Transform and Vision Transformer	<b>Main Uddin</b> , Zhangjie Fu, Xiang Zhang, Abu Bakor Hayat Arnob
8	1003	A Unified IoT-based Smart Home System: Integration of Security and Convenience Features for Consumer	<b>Moslema Hoque Oeishee</b> , Munyem Ahammad Muyeed, Mishkat Alvi, Md. Rejoan Mehedi, Md. Shariar Emon Shaikat, Md Nayan Molla



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Triguna Sen School of Technology  
Assam University, Silchar, Assam, India

9	323	Android Malware Detection Based on CTGAN and LightGBM	Zydhann Linnar Putra, Tohari Ahmad, <b>Muhammad Aidiel Rachman Putra</b> , Adifa Widyadhani Chanda D'Layla,
10	1020	Performance Enhancement of DBSCAN Density-Based Clustering Algorithm in Data Mining	<b>Neha Tyagi</b> , Rashmi Mishra, Sitanshu Kumar Patel, Somraj Karki

Technical Session: 2.1.9

03:45 PM – 06:45 PM

CSE, TSSOT, AUS

### Track: Intelligent Systems

#### Session Chairs:

<b>Prof. Arun Jyoti Nath</b> Assam University, Silchar, India	<b>Dr. Saptarshi Paul</b> Assam University, Silchar, Assam, India
---	---

#### Coordinator:

<b>Ms. Nandita Louriyam</b> , PhD Scholar Dept. of Computer Science and Engineering Assam University, Silchar, Assam, India
---

Sl#	Paper ID	Paper Title	Authors
1	638	From Image to Insight: Transformer-Based Multimodal Feature Fusion for Enhanced Chest X-Ray Report Generation	<b>Jayashree Das</b> , Partha Garai
2	698	A Data-Driven Analysis on the Impact of Instagram on Loneliness, Happiness, and Social Comparison	<b>Sushma Acharya</b> , Ganga Shrestha, Sabina Kumari Saru, Amrita Bhandari, Shailesh Bahadur Pandey
3	960	Agricultural Question Answering Dataset Creation And Its Evaluation Through Bert Based Experimental Analysis	<b>Dubari Sarma</b> , Meghna Dasgupta, Dr. Vaskar Deka, Dr. Dipankar Das, Md. Golam Rashed
4	940	Applications of Machine Learning and Deep Learning in Intrusion Detection System: A Comprehensive Survey	<b>Moge Riba</b> , Md S Askari , Rabinder Kr. Prasad
5	543	Detection And Identification of Ethnic Attires Using Deep Learning And GI Tags	<b>Mittem Ratan</b> , Debajit Nath, Nilakshi Deka

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Department of Computer Science and Engineering  
Triguna Sen School of Technology  
Assam University, Silchar, Assam, India

Technical Session: 2.2.1

03:45 PM – 06:45 PM

Online

### Track: Advanced Computing

#### Session Chair:

**Prof. Kaushik Roy**  
West Bengal State University,  
West Bengal, India

#### Coordinator:

**Ms. Suryatapa Hom Chowdhury,**  
B. Tech (Final Year)  
Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	667	Vgg-Resnet Hybrid (VRH) Model for Automated Classification of Cotton Leaf Diseases	<b>Bhumika S Prajapati</b> , Jaina M Patel
2	682	A Hybrid CNN-GNN approach for enhanced early detection of schizophrenia using EEG data	<b>L.Reetha</b> , Dr. R. Gnanajeyaraman
3	712	Performance Analysis of Transformer Models in Text Summarization with Insights for Future Ensemble Techniques	<b>Subhojit Ghosh</b> , Aritra Ghosh, Anupam Mondal
4	714	Resolving optimal power flow issue on IEEE 57 bus system having renewable energies by MMKE algorithm	<b>Argha Sutradhar</b> , Tushnik Sarkar, Chandan Paul, Susanta Dutta, Provas Kumar Roy
5	725	Optimizing the Efficiency of Computational Platforms: Traditional vs. Containerized Setups	<b>Haranath Rakshit</b> , Subhasis Banerjee
6	746	Neural Machine Translation for Punjabi-English language pair using word-based tokenization	<b>Harmanpreet Singh</b> , Arun Kumar Yadav, Mohit Kumar
7	919	Advancements and Challenges in Quantum Machine Learning for Medical Image Classification: A Comprehensive Review	<b>Md. Farhan Shahriyar</b> , Gazi Tanbhir P Vigneshwaran, <b>V Buvanesh Pandian</b> , M Radha, B Mohan, R Santhana Krishnan, J Relin Francis Raj
8	747	Development of an Expert System for Advanced Podiatric Treatments and Ergonomics	Dr.Nagagopiraju Vullam, Gummadi Sudha Rani, T.Prabhakara Rao, Vunnava Dinesh Babu, Venkata Subbaiah Desanamukula, <b>A.Lakshmana Rao</b>
9	754	Enhancing Skin Cancer Detection with Novel Data Augmentation and Transfer Learning Techniques	Keyur Ninama, Jainamkumar Patel, <b>Girish K K</b> , Manideep Raya VSRS Reddy, Biswajit Bhowmik
10	717	Performance Analysis of Hybrid MPI and OpenMP on Smith-Waterman Algorithm	

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Department of Computer Science and Engineering  
Triguna Sen School of Technology  
Assam University, Silchar, Assam, India

Technical Session: 2.2.2

03:45 PM – 06:45 PM

Online

### Track: Advanced Computing

#### Session Chair:

**Dr. Samarjit Borah,**  
Sikkim Manipal Institute of Technology,  
Sikkim, India

#### Coordinator:

**Mr. Suprodip Bhattacharjee,**  
B. Tech (Final Year)  
Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	329	Adaptive Dictionary Optimization for LSTM-Based Detection of Low-Rate FTP Attacks with Noisy Training Sets	Angela Oryza Prabowo, Tohari Ahmad, <b>Muhammad Aidiel Rachman Putra</b> , Adifa Widyadhani Chanda D'Layla,
2	779	Time-Series Forecasting Using ARIMA and SARIMA Models for Solar NASA POWER Data	<b>Yashwant Patil</b> , Tanya Shruti, Kannan Rajeswari
3	791	Hybrid Framework for Parking Slot Allocation Using Double Auction and Cooperative Game Theory in Fog-Based Systems	<b>Pijush Bairi</b> , Sujata Swain, Anjan Bandyopadhyay
4	803	SVM-based Detection of Bone Fracture using Weighed Local Binary Pattern Features	<b>N. Sathish Balaji</b> , Hemachandran. M, Pawan Kumar. B, Sriram Kumar. S, R. Jansi
5	841	Cervical Cancer Classification Using TransferLearning with Hybrid SVM Kernels and ResNet-50	Anauksa Das, <b>Basab Nath</b> , Joshika Choudhury, Neelvie Chhteri, Hilal Ahmad Shah, Niyaz Ahmad Wani
6	844	Secure I-Voting using Proof of Authority Blockchain with Reputation Assigned Blockchain Clients	<b>Aniruddha Ganesh</b> , Adri Jovin John Joseph
7	847	A Personalized Content Filter for Mental Health Apps Using BiLSTM	<b>Kaustubh Bhavsar</b> , Aditya Joshi, Nitesh Rajput, Diptee Ghusse, Sharmila Kharat, Piyush Deollikar
8	947	A Comprehensive Survey on Breast Cancer Diagnostics: From Artificial Intelligence to Quantum Machine Learning	Manideep Raya VSRS Reddy, <b>Sunil Kumar</b> , Biswajit Bhowmik
9	322	Using the quasi-oppositional artificial hummingbird algorithm, a probabilistic optimal power flow for an integrated renewable power system comprising wind and solar.	Manas Mahato, <b>Alok Kumar</b> , Manish Kumar Singh, Sneha Sultana, Sourav Paul, Susanta Dutta, Provas Kumar Roy

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Assam University, Silchar, Assam, India

10	925	Breaking Language Barriers for Real-Time Translation Solutions in Tourism Using Cloud Computing and AI	S. Lourdu Jame, C. Shobana Nageswari, S. Jayaprakash, E. Punarselvam, <b>R. Meenakshi</b> , M. Muthulekshmi
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Technical Session: 2.2.3

03:45 PM – 06:45 PM

Online

### Track: Advanced Computing Session Chairs:

**Dr. Amitabha Nath**

North Eastern Hill University,  
Meghalaya, India

### Coordinator:

**Mr. Rahul Hirawat,**

B. Tech (Final Year)  
Dept. of Computer Science and Engineering  
Assam University, Silchar, Assam, India

Sl#	Paper ID	Paper Title	Authors
1	958	Predicting Heartbeats: The Intersection of Machine Learning and Cardiac Health using Ensemble Learning	<b>Maitreyee Deshmukh</b> , Pratham Patharkar, Arnav Lahane, Prachi Satpute, Rajeshwari Goudar
2	963	Challenges and Future Perspectives in Explainable AI: A Roadmap for New Scholars	<b>Chumki Sil</b> , Papri Ghosh, Subhram Das, Md Ashifuddin Mondal
3	967	PhishVQC: Optimizing Phishing URL Detection with Correlation Based Feature Selection and Variational Quantum Classifier	<b>Md. Farhan Shahriyar</b> , Gazi Tanbhir, Abdullah Md Raihan Chy, Mohammed Abdul Al Arafat Tanzin, Md. Jisan Mashrafi
4	978	Physics-Infused Framework for Strengthening Decentralized Security and Data Integrity in Distributed Blockchain Networks	Gangidi Srikanth Reddy, Sreeram Gutha, Brahmanapally Satya Gaayathri, <b>Gottapu Shrivani</b> , Kotha Suma Reddy, P Hanumantha Rao
5	1011	A federated approach towards fine-tuning LLMs for abstractive summarization	Saraswati Patil, <b>Atharva Jayappa</b> , Pranav Joshi, Akash Ingle, Ojas Ketkar
6	650	A Review on Detection and Mitigation Strategies of DDoS Attack in SDN Environment using Machine Learning and Deep Learning	<b>Maram Smriti Boruah</b> , Satyajit Sarmah



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Department of Computer Science and Engineering  
Triguna Sen School of Technology  
Assam University, Silchar, Assam, India

Technical Session: 2.2.4

03:45 PM – 06:45 PM

CSE, TSSOT, AUS

### Track: Advanced Computing

#### Session Chairs:

<b>Prof. Pankaj Kumar Deva Sarma</b> Assam University, Silchar, Assam, India	<b>Dr. Rinku Rabidas</b> Assam University, Silchar, Assam, India
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#### Coordinator:

<b>Mr. Shiddhant Das</b> , B. Tech (Final Year) Dept. of Computer Science and Engineering Assam University, Silchar, Assam, India
---

Sl#	Paper ID	Paper Title	Authors
1	256	Multi-Model Hybrid MI-DI Framework For Early Detection Of Skin Cancer	Seikh Aftave, <b>Aman Dutta</b> , Dr. Sumi Kankana Dewan, Ms. Meghna Dasgupta, Dr. Ishita Chakraborty
2	289	Low Power Low Leakage Domino Circuit for Wide Fan-in Gates: A Review	<b>Dalvi Talukdar</b> , Akho John Richa, Pranab Kishore Dutta
3	343	Radiographic Imaging and AI: A Systematic Review on Applications in Medical Imaging	Partha Garai, <b>Jayashree Das</b>
4	513	A Classification Analysis-based Approach to Internet Adoption in Nepal	<b>Kamala Rai Danuwar</b> , Manish Bhomjan, Jayant Maharjan, Nischal Regmi
5	707	Hybrid Quantum Approximate Optimization Algorithm (HQAOA) for Efficient Blockchain Transaction Scheduling	Soumyadip Paul, <b>Sarit Chakraborty</b>
6	719	TelMeMood: A Multimodal Dataset for Sentiment Analysis of Telugu Memes	Karnati Vivek, Sai Mani Garrepalli, P V S Ajay Krishna, Inti Charan Kumar, <b>Ravi Teja Gedela</b> , Sasibhushara Rao Pappu

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Department of Computer Science and Engineering  
Triguna Sen School of Technology  
Assam University, Silchar, Assam, India

Technical Session: 2.3.1

03:45 PM – 06:45 PM

Online

**Track: Communication**

**Session Chairs:**

<b>Dr. Khoirom Johnson Singh</b> Dhanamanjuri University, Manipur, India	<b>Dr. Sabyasachi Bhattacharyya</b> Residential Girls' Polytechnic Golaghat, Assam, India
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**Coordinator:**

<b>Ms. Rishti Suman Dey</b> B. Tech (Final Year) Dept. of Computer Science and Engineering Assam University, Silchar, Assam, India
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Sl#	Paper ID	Paper Title	Authors
1	576	A Hybrid Optimization Strategy for k-Coverage Maximization in Wireless Sensor and IoT Networks	<b>Prithwish Manna</b> , Dr.Sudipta Majumder, N.Hemarjit Singh
2	670	Multilevel Discrete Cosine Transform and CNN-Based Image Steganography	Brindha Subburaj, <b>Aditya Sai</b> , Shanthanu s, Daehan Won
3	770	FPGA implementation of Hardware Accelerated 64-bit Floating Point Matrix-Multiplier for GNSS Data processing	<b>Durga Digdarsini</b> , <b>Hemraj Shau</b> , Nilay Jadav, Guru Vignesh G
4	808	BHCAM: Blockchain-assisted Hadoop Clusters with Access Management	<b>Kausthav Pratim Kalita</b> , Debojit Boro, Dhruva Kumar Bhattacharyya,
5	890	Ensemble-Based Lightweight Machine Learning Optimization for IoT Network Intrusion Detection	<b>Milan Samantaray</b> , Ram Chandra Barik, Anil Kumar Biswal.
6	924	Efficient Design and Implementation of a 4-Tap FIR Filter Using Braun Multiplier and Ripple Carry Adder (RCA)	Jesmin Akter, <b>Rahimul I. Mazumdar</b>
7	966	A Patient-Centric Blockchain-Based Framework with Layer-2 Integration for Secure and Scalable Healthcare Data Management	<b>Wajda Tarannum</b> , Shafiqul Abidin
8	984	Detection of Moving Objects with Ultrasonic Radar	Suresh Nalla, K.Rakshitha, <b>K.Sai Kumar</b> , MD.Samad
9	367	Mobile Applications for Self-Assessment in English Language Learning: Enhancing Learner Autonomy and Reflection	P. Suria Thilagam, MD. Sahidul Islam, Tamilarasan P, S. Vijayakumar, N. Sheik Hameed, <b>I Infant raj</b>
10	350	Lightweight Botnet Detection for IoT: Autoencoder-Based Approach Using Packet Length	Muhammad Arifuddin Aljufri, Tohari Ahmad, <b>Muhammad Aidiel Rachman Putra</b> , Adifa Widyadhani Chanda D'Layla
11	1006	Design and Development of Smart Monitoring System for Reducing Early Chicken Mortality	<b>Moslema Hoque Oeishiee</b> , Munyem Ahammad Muyeed, Md. Rejoan Mehedi, Md Nayan Molla, Mishkat Alvi



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Assam University, Silchar, Assam, India

12	1012	A Comprehensive and Systematic Analysis of One-Way Hashing and Its Advancements	<b>Abhilash Chakraborty</b> , Anupam Biswas
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<b>Panel Discussion</b>	<b>06:45 PM – 07:30 PM</b>	<b>BCP Auditorium Hall</b>
<b>Moderators:</b> <b>Dr. Mousum Handique and Dr. Somnath Mukhopadhyay</b>		
<b>Valedictory</b>	<b>07:30 PM – 08:00 PM</b>	<b>BCP Auditorium Hall</b>
<b>Dinner</b>	<b>08:00 PM – 09:30 PM</b>	<b>IGH, AUS</b>

**\*\* All timings are in Indian Standard Time (IST).**

**\*\* Duration of each Technical Paper Presentation is 12 minutes including QA.**

**\*\* Acronyms:**

**BCP Auditorium Hall – Bipin Chandra Pal Auditorium Hall, Assam University, Silchar**

**CSE, TSSOT, AUS – Department of Computer Science & Engineering, Triguna Sen School of Technology, Assam University, Silchar**

**IGH, AUS – International Guest House, Assam University, Silchar**