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DIBRUGARH UNIVERSITY
নিয়তং কুৰু কৰ্ম DST-PURSE SUPPORTED & RECOGNIZED UNDER MERU OF PM-USHA

National Conference on
Multidisciplinary Approaches in Networks, and Computing (NCMNC-2025)

ORGANIZED BY
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING AND DEPARTMENT OF MATHEMATICS
DIBRUGARH UNIVERSITY, DIBRUGARH, ASSAM, INDIA
21st & 22nd FEBRUARY, 2025

PROGRAMME SCHEDULE

Day I (21.02.2025)

Time	Venue	Event/Programme	
09:00 am-09:40 am	DUIET Mini Auditorium (Second Floor, M Visvesvaraya Bhawan)	**Registration of Authors/Participants & Breakfast**	
09:40 am-10:30 am	-DO-	**Keynote Address by Prof. Swaroop Nandan Bora, IIT Guwahati, India.** *Topic: Modelling and Simulation of Time-dependent Problems in Large Water Bodies*	
10:30 am-11:30 am	-DO-	**Inauguration Ceremony**	
11:30 am-11:40 am	-DO-	**Tea Break**	
11:40 am-12:30 pm	-DO-	**Invited talk by Dr. Mukul Chandra Bora, Dibrugarh University, India.** *Topic: AI in Education: Technology Use and Integration and NEP2020*	
12:35 pm-01:20 pm Distinguished Speakers Session I: *Rapporteurs: R1 and R2*	DUIET Mini Auditorium	12:35 pm-01:20 pm	**Plenary talk by Dr. Nomi Baruah, Dibrugarh University, India.** *Topic: POS Tagging and its Importance in Computational Linguistics*
01.30 pm - 2.30 pm	**DUIET**	**Lunch Break**	

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02:35 pm-03:20 pm **Distinguished Speakers Session II:** *Rapporteurs:* *R1 and R2*	DUIET Mini Auditorium (Second Floor)	**Plenary talk by Prof. Nityananda Sarma, Tezpur University, India.** *Topic: Collaborative Approaches to Spectrum Sharing in CRNs: Issues and Challenges*			
Day-I 03:20 pm-05:30 pm	DUIET Mini Auditorium (Second Floor)	**Technical Session I**	**Slot**	**Paper Id**	**Paper Title**
			03:52 pm–04:37 pm	**Plenary Talk by Prof. Shikhar Kumar Sarma, Gauhati University, India.** *Topic:* Contemporary AI Research: Shaping the Future of North East India – Challenges, Opportunities, and Education Pathways.	
			04:38 pm–04:48 pm	**Tea Break**	

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Day-I 04:50 pm-05:30 pm	DUIET Mini Auditorium (Second Floor)	**(Track 2) Session Chair: Prof. Diganta Mukherjee ISI Kolkata, India.** *Rapporteurs: R3 and R4*	04:50 pm– 04:57 pm	NC19	*Optimal Pursuit-Evasion Strategies in the Lion and Man game induced by Penalty functions and Strict Betweenness Relations.*
			04:58 pm – 05:05 pm	NC 58	*MABPE: Morphology-Aware Byte Pair Encoding for Assamese Tokenization*
			05:22pm-05:30 pm		***Concluding Remarks by Session Chair and Vote of Thanks by Organising Secretary***

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			Slot	**Paper Id**	**Paper Title**
Day- I 02:35 pm-04:30 pm	Dept. of Mathematics Conference Hall (1st Floor)	**Technical Session II** **Session Chair: Prof. Manoj Kumar Deka (Track 2)** *Rapporteurs: R5 and R6*	02:35 pm – 03:20 pm		**Invited Talk by Prof. Manoj Kumar Deka, Assam Skills University, India.** *Topic: Use of AI tools and Techniques in Medical Research.*
			03:21 pm- 03:28 pm	NC42	*Deep Learning-Based Classification of Network Traffic for Enhanced Monitoring and Optimization*
			03:29 pm– 03:36 pm	NC60	*A class of Player Based Network Solidarity values: Characterizations and Implementation.*
			03:37 pm– 03:44 pm	NC48	*Effects of Imperfect Channel State Information on Receiver Performance over Fading Channels: A Comprehensive Review.*
			03:45 pm– 03:52 pm	NC54	*Evaluating the Effectiveness of k-NN in Diverse Wireless Sensor Network Applications.*
			03:52 pm– 04:02 pm	NC32	*Optimizing Educational Data Management: A Comparative Analysis of MySQL and PostgreSQL in a Dual-Interface Student Attendance System.*
			04:02 pm – 04:10 pm	NC57	*Fuzzy Time Series-Based Multivariate Forecasting of the TAIEX Index.*
			04:10 pm – 04:30 pm		***Concluding Remarks by Session Chair and Vote of Thanks by Organising Secretary (Tea Break)***
			07.30 pm-09.00 pm	**DUIET**	**Dinner for authors and speakers.**

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Day II (22.02.2025)

Time	Venue	Event/Programme	
09:00 am-09:40 am	**DUIET**	**Breakfast**	
10:00 am-01:30 pm **Distinguished Speakers Session III** *Rapporteurs: R7 and R8*	DUIET Mini Auditorium (Second Floor)	10:00 am-10:50 am	**Keynote Address by Prof. Diganta Mukherjee, ISI Kolkata, India.** *Topic: Modelling Market Microstructure with High- Frequency Data: A Graphical Perspective.*
		10:51 am-11:36 am	**Plenary talk by Prof. K. S. Mallikarjuna Rao, IIT Bombay, India.** *Topic: Network Games*
		11:37 am-12:22 pm	**Plenary talk by Prof. Surajit Borkotokey, Dibrugarh University, India.** *Topic: Who is more important in a network: the players or the network?*
		12:22 pm-12:32 pm	**Tea Break**
		12:33 pm-01:18 pm	**Plenary talk by Prof. G. P. Raja Sekhar, IIT Kharagpur, India.** *Topic: Computational Modelling of Composite Fluid -Porous Structures and Gravity Wave Interaction with Costal Structures.*
01.30 pm - 2.30 pm	**DUIET**	**Lunch Break**	

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Day	Venue	Session	Slot	Paper ID	Paper Title
Day II (22.02.2025) 02:30 pm-04:04 pm	Dept. of Mathematics Conference Hall (1st Floor)	**Technical Session III:** **Session Chair: Prof. Manoj Kumar Deka (Track 3)** *Rapporteurs: R9 and R10*	02:30 pm – 03:00 pm		**Invited talk by Dr. Debasish Dey, Dibrugarh University, India.** *Topic: Modelling an Application of Non-Newtonian Fluid Flows*
			03:01 pm – 03:25 pm		**Invited talk by Dr. Niranjan Bora, Dibrugarh University, India.** *Topic: Numerical Solution of Power Flow Equations of n-Bus System.*
			03:26 pm- 03:33 pm	NC04	*Exploring the Impact of Magnetic Fields on Blood Flow: Recent Developments and Future Perspectives.*
			03:34 pm – 03:41 pm	NC12	*Thermal Efficiency Improvement in Shell and Tube Heat Exchangers with ZnO Nanofluids.*
			03:42 pm– 03:48 pm	NC18	*Performance Enhancement of Unsteady State Heat Transfer in Cylinders Using Zinc Oxide Nanofluids with Lumped Capacitance Analysis.*
			03:49 pm– 03:56 pm	NC21	*Numerical Simulation Of Waterflooding Technique For Enhancing Oil Recovery.*

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Day II (22.02.2025) 04:11 pm-04:45 pm	Dept. of Mathematics Conference Hall (1st Floor)	**Technical Session III:** **Session Chair: Prof. Manoj Kumar Deka (Track 3)** *Rapporteurs: R9 and R10*	03:57 pm–04:04 pm	NC22	*CFD Analysis of The Impact of Wall Porosity on The Wind Flow In Gable Roof Buildings With Openings.*
			04:04 pm–04:10 pm		**Tea Break**
			04:11 pm–04:18 pm	NC24	*Integrated Computational modelling of Interior and External ballistic of a Mortar Shell.*
			04:19 pm – 04:26 pm	NC36	*Python-based Graphical User Interface Development for solving fourth-order Runge Kutta and Euler Equations.*
			04:27 pm – 04:34 pm	NC38	*Some results on Product Topology for M topological Space.*
			04:34 pm-04:45 pm		***Concluding Remarks by Session Chair and Vote of Thanks by Organising Secretary***

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Day II (22.02.2025) 02:30 pm-04:30 pm	DUIET Mini Auditorium (Second Floor)	**Technical Session IV** **Session Chair: Dr.Vaskar Deka, Gauhati University, India.** **(Track 1)** *Rapporteurs: R11 and R12*	02:30 pm – 03:25 pm	**Invited talk by Dr. Vaskar Deka, Gauhati University, India.** *Topic: Knowledge Graph-based Question-Answering System with respect to Low Resource Language*	
			03:26 pm- 03:33 pm	NC03	*Ensembling Inception-Residual Deep Convolutional Neural Networks for High Accuracy Scene Recognition: An AI-Driven Approach to Industrial and Societal Challenges.*
			03:34 pm – 03:41 pm	NC07	*Machine Learning Approach with Improved Pothole Detection Using YOLOv5.*
			03:42 am– 03:48 pm	NC11	*Optimizing MIMO Performance: A Machine Learning Approach to Adaptive Modulation.*
			03:57 pm– 04:04 pm	NC15	*The Evolution of E-Office Systems: Enhancing Policy Implementation and Stakeholder Engagement Through AI-Driven Digital Platforms.*

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			04:04 pm–04:14 pm	**Tea Break**	
Day II (22.02.2025) 02:30 pm-04:30 pm	DUIET Mini Auditorium (Second Floor)	**Technical Session IV** **Session Chair: Dr. Vaskar Deka, Gauhati University, India.** **(Track 1)** *Rapporteurs:* *R11 and R12*	04:15 pm–04:22 pm	NC27	*Language-Specific Sentiment Analysis: A CNN-based Approach for Assamese Text.*
			04:30 pm	*Concluding Remarks by Session Chair and Vote of Thanks by Organising Secretary.*	

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			Slot	Paper ID	Paper Title
Day II (22.02.2025) **02:30 pm - 04:30 pm**	Dept. of Computer Science and Engineering Class Room 2 (1st Floor)	**Technical Session V** **Session Chair: Dr. Purabi Gogoi, Dibrugarh University** **(Track 4)** *Rapporteurs:* *R13 and R14*	02:30 pm – 02:37 pm	NC08	*Sentiment Analysis of Twitter Data during the COVID-19 Pandemic Using BERT and RoBERTa Models*
			02:38 pm – 02:45 pm	NC26	*Factors Affecting Oral Cancer Prognosis in Assam: A Binary Logistic Regression Study.*
			02:46 pm – 02:53 pm	NC10	*Propagation of ion-acoustic solitons in an inhomogeneous unmagnetized plasma.*
			02:54 pm – 03:01 pm	NC09	*A Comprehensive Review on Computational Approaches to Metal Corrosion*
			03:02 pm – 03:09 pm		*Spot Registration*
			03:10 pm – 03:20 pm		**Tea Break**
			03:21 pm – 03:28 pm		*Spot Registration*

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			03:29 pm – 03:36 pm	NC25	*Supply chain management in healthcare using Blockchain Technology.*
Day II (22.02.2025) **02:30 pm - 04:30 pm**	Dept. of Computer Science and Engineering Class Room 2 (1st Floor)	**Technical Session V** **Session Chair: Dr. Purabi Gogoi, Dibrugarh University** **(Track 4)** *Rapporteurs:* *R13 and R14*	03:37 pm – 04:45 pm	NC40	*Cross-Linguistic Prosodic Feature Analysis: A Study of Tiwa and English.*
			03:46 pm – 03:53 pm		*Spot Registration*
			03:54 pm – 04:01 pm		*Spot Registration*
			04:02 pm – 04:09 pm		*Spot Registration*
			04:10 pm- 04:20 pm		*Concluding Remarks by Session Chair and Vote of Thanks by Organising Secretary*

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Day / Time	Venue	Session	Slot	Paper ID	Paper Title
Day II (22.02.2025) **02:30 pm – 04:55 pm**	Dept. of Computer Science and Engineering Class Room 3 (1st Floor)	**Technical Session VI** **Session Chair: Dr. Rizwan Rehman, Dibrugarh University.** **(Track 1)** *Rapporteurs: R15 and R16*	02:30 pm – 02:37 pm	NC28	*A Study on Pitch Intensity and MFCC as speech feature extractor with reference to Child Voice of Bodo Language.*
			02:38 pm – 02:45 pm	NC39	*Abnormality Analysis of Sensor Data using Machine learning Techniques.*
			02:46 pm – 02:53 pm	NC44	*Generating Toxic Text Dataset of Bodo Language written in Devanagari Script for Deep Neural Network Model.*
			02:54 pm – 03:01 pm	NC45	*Word Sense Disambiguation of Polysemous Words in Assamese Language.*
			03:02 pm – 03:09 pm		*Spot Registration*
			03:10 pm – 03:17 pm		*Spot Registration*

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Day II (22.02.2025) 02:30 pm – 04:55 pm	Dept. of Computer Science and Engineering Class Room 3 (1st Floor)	**Technical Session VI Session Chair: Dr. Rizwan Rehman, Dibrugarh University.** **(Track 1)** *Rapporteurs: R15 and R16*	03:26 pm – 03:36 pm		**Tea Break**
			03:37 pm – 03:44 pm	NC46	*Algorithmic Interventions: Detecting and Mitigating Abusive Language against Women in Digital Media.*
			03:45 pm – 03:52 pm	NC47	*Assamese Word Sense Disambiguation using Text Clustering.*
			03:53 pm – 04:00 pm	NC50	*A Comparative Analysis of Deep Learning Models for Underwater Image Segmentation.*
			04:01 pm – 04:08 pm	NC51	*Deep Learning for Protein Design: A CNN based Approach.*
			04:09 pm – 04:16 pm	NC52	*Machine Learning Approach to Parkinson's Disease Detection: A Comparative Review.*
			04:17 pm – 04:24 pm	NC55	*Use of Machine Learning Approach to Study the Ionospheric Variations: A Review Study.*
			04:25 pm – 04:32 pm		*Spot Registration*

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			04:33 pm – 04:40 pm		*Spot Registration*
			04.41 pm- 04.48 pm		*Spot Registration*
			04.49 pm- 04.55 pm	*Concluding Remarks by Session Chair and Vote of Thanks by Organising Secretary.*	
05:30 pm–06:30 pm	DUIET Mini Auditorium (Second Floor)	**Valedictory Session and High Tea**			
7:30 pm- 9.00 pm		**Dinner for authors and speakers.**			