Department of Computer Science
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Tribikram Pradhan

Best way to predict the future is to create it

Research Profiles

ORCID	0000-0001-5458-2286
Google Scholar	https://scholar.google.com/citations?user=XXXXXXXX
Scopus Author ID	56452660500
Semantic Scholar	https://www.semanticscholar.org/author/Tribikram-Pradhan
DBLP	https://dblp.org/pid/XX/XXXX.html
ResearchID	https://researchid.co/rid41484
ResearchGate	https://www.researchgate.net/profile/Tribikram-Pradhan

Research Interests

Data Science	Recommender Systems, Data Mining, Artificial Intelligence
Information Science	Information Retrieval, Information Extraction, Natural Language Processing
Network Science	Scholarly Network Analysis, Social Network Analysis, Network Visualization
Interdisciplinary Applications	Precision Nutrition, Healthcare Analytics, Agroinformatics

Current Position

July 2026 – Present **Assistant Professor (Gr-I)**, *Department of Computer Science*, Indian Institute of Science Education and Research (IISER) Berhampur.
Berhampur, Ganjam, Odisha

Professional Background & Experience

2022–2026 **Assistant Professor**, *Tezpur University*, Tezpur, Assam, India.
Worked as an Assistant Professor in the Department of Computer Science and Engineering (CSE), Tezpur University, Tezpur, Assam, India (From June 2022 to July 2026).

2020–2022 **Assistant Professor**, *MIT Manipal*, Manipal Academy of Higher Education (MAHE).
Worked as an Assistant Professor in the Department of Information and Communication Technology (ICT), Manipal Institute of Technology (MIT), Manipal Academy of Higher Education (MAHE), Manipal, Karnataka, India (From July 2020 to June 2022).

2019–2020 **Senior Research Fellow**, *Indian Institute of Technology (BHU)*, Varanasi-India.
Worked as a Ph.D. Research Scholar in the Department of Computer Science and Engineering, Indian Institute of Technology (BHU), Varanasi for conducting research under the guidance of Dr. Sukomal Pal in the Information Retrieval Laboratory (From January 2019 to May 2020).

2017–2019 **Junior Research Fellow**, *Indian Institute of Technology (BHU)*, Varanasi-India.
Joined the Ph.D. program in the Department of Computer Science and Engineering, Indian Institute of Technology (BHU), Varanasi, to carry out research under the guidance of Dr. Sukomal Pal in the Information Retrieval Laboratory, focusing on Information Retrieval, Recommender Systems, and related areas (From January 2017 to December 2018).

2013–2017 **Assistant Professor**, *MIT Manipal*, MAHE Manipal, Karnataka, India.
Worked as an Assistant Professor in the Department of Information and Communication Technology (ICT), Manipal Institute of Technology (MIT), Manipal Academy of Higher Education (MAHE), Manipal, Karnataka, India (From July 2013 to January 2017).

Educational Background

2017–2020 **Ph.D. in Computer Science & Engineering**, *Indian Institute of Technology (BHU)*, Varanasi, Uttar Pradesh, India *CGPA: 9.4/10*.
Thesis: A Multi-objective Academic Recommender Systems

2011–2013 **Master of Technology (M.Tech.) in Software Technology**, *VIT University*, Vellore, Tamil Nadu, India *CGPA: 8.96/10*.
Thesis: A Hybrid Approach for Rule Induction System using Rough Set Theory, Genetic Algorithm and Boolean Algebra

2006–2010 **Bachelor of Technology (B.Tech.) in Computer Science & Engineering**, *Biju Patnaik University of Technology (BPUT)*, Rourkela, Odisha, India *CGPA: 7.04/10*.

Research Vision

To contribute to excellence in research and teaching by advancing knowledge in Computer Science through innovative and impactful research. I aspire to build a strong research program in Artificial Intelligence, Natural Language Processing, Information Retrieval, Recommender Systems, and Data Science, while exploring interdisciplinary applications in areas such as healthcare, digital agriculture, and precision nutrition. I am committed to continuous learning, collaborating with researchers across disciplines, mentoring students, and fostering an engaging academic environment that promotes scientific inquiry, innovation, and academic excellence. To establish a globally recognized interdisciplinary AI and Computational Science Laboratory that advances scientific discovery through trustworthy, explainable, and data-driven AI across the natural sciences. My goal is to contribute meaningfully to the growth of the institute while continuously enhancing my professional and research capabilities.

Awards, Fellowships and Honours

2018 Recipient of ***Runner Up Prize*** to participate in ***poster presentation on topic "SNAVER : A social network analysis based scholarly venue recommender system"*** at Institute Day, Indian Institute of Technology (BHU), Varanasi.

2017 Recipient of **MHRD Doctoral Scholarship**, Ministry of Human Resource Development, Government of India, for Ph.D. at IIT (BHU), Varanasi.

2015 Awarded ***Best Student Paper*** on paper entitled ***"Enhancement of Turing Machine to Universal Turing Machine to Recursive Enumerable Language using J-Flap Simulation"*** at the 4th international Conference on science, engineering and technology (SET) Organized by VIT University, Vellore.

2012 Awarded **Merit Scholarship** for academic excellence in the 2nd Semester of M.Tech. in Software Technology, VIT University.

2011 Awarded **Merit Scholarship** for academic excellence in the 1st Semester of M.Tech. in Software Technology, VIT University.

Publications

Lists of Journals (SCI/SCIE)

2026 [J1] Manash Pratim Lahkar, **Tribikram Pradhan**, Utpal Sharma. Generative pre-training for low-resource question answering: Integrating morphological constraints in assamese language modeling. In *Information Sciences*, Elsevier, Volume 754, Pages-123645, ISSN: 0020-0255, 2026 (**SCI, Q1, IF 6**)

2026 [J2] Manash Pratim Lahkar, **Tribikram Pradhan**, Utpal Sharma. CAHG-CL: Contribution-Aware Highlight Generation with Contrastive Learning for Scientific Papers. In *Information Sciences*, Elsevier, ISSN: 0020-0255, 2026 (**Accepted, SCI, Q1, IF 6**)

2025 [J3] Manash Pratim Lahkar, **Tribikram Pradhan**, Utpal Sharma. Optimizing Assamese Information Retrieval Using Classification and Embedding Techniques. In *International Journal of Machine Learning and Cybernetics*, Springer, Volume 15, Issue 2, Pages 51 (**SCI, Q2, IF 3.4**)

2021 [J4] **Tribikram Pradhan**, Sukomal Pal. CLAVER: An integrated framework of Convolutional layer, bidirectional LSTM with Attention mechanism based scholarly VEnue Recommendation. In *Information Sciences, Elsevier, volume-559, pages-212-235, 2021, ISSN: 0020-0255 (**SCI, Q1, IF 6**)*

2021 [J5] **Tribikram Pradhan**, Suchit Sahoo, Utkarsh Singh, Sukomal Pal. A Proactive Decision Support System for Reviewer Recommendation in Academia. In *Expert Systems with Applications, Elsevier, volume- 169, pages-114331, 2021, ISSN: 1084-8045 (**SCI, Q1, IF 9.4**)*

2021 [J6] **Tribikram Pradhan**, Chaitanya Bhatia, Prashant Kumar, Sukomal Pal. A deep neural architecture based Meta-review Generation. In *Neurocomputing, Elsevier, volume-169, pages-114331, 2021, ISSN: 1084-8045 (**SCI, Q1, IF 6.7**)*

2020 [J7] **Tribikram Pradhan**, Abhinav Kumar, Sukomal Pal. HASVRec: A modularized Hierarchical Attention-based Scholarly Venue Recommendation. In *Knowledge-Based Systems, Elsevier, volume-204, pages-106181, 2020, ISSN: 0950-7051 (**SCI, Q1, IF 8**)*

2020 [J8] **Tribikram Pradhan**, Sukomal Pal. A multi-level fusion based decision support system for academic collaborator recommendation. In *Knowledge-Based Systems, Elsevier, ISSN: 0950-7051 (**SCI, Q1, IF 8**)*

2020 [J9] **Tribikram Pradhan**, Sukomal Pal. A hybrid personalized scholarly venue recommender system integrating social network analysis and contextual similarity. In *Future Generation Computer Systems, Elsevier, volume-110, pages: 1139–1166, 2020, ISSN: 0167-739X (**SCI, Q1, IF 5.9**)*

2019 [J10] **Tribikram Pradhan**, Sukomal Pal. CNAVER: A Content and Network-based Academic VEnue Recommender system. In *Knowledge-Based Systems, Elsevier, volume-189, pages-105092, 2019, ISSN: 0950-7051 (**SCI, Q1, IF 8**)*

Lists of Journals (Scopus/UGC-CARE)

2025 [J11] Manash Pratim Lahkar, Utpal Sharma, **Tribikram Pradhan**. AsTQA: A Benchmark Dataset and Generative Language Model for Tabular Question Answering in Assamese. In *Procedia Computer Science*, Volume-283, Pages:2072-2081, 2026 (**Scopus Indexed**).

2025 [J12] Manash Pratim Lahkar, Utpal Sharma, **Tribikram Pradhan**. MABPE: MORPHOLOGY-AWARE BYTE PAIR ENCODING FOR ASSAMESE TOKENIZATION. In Mathematical Forum, Vol. 33 (II), 2025, ISSN: 0972-9852. (**UGC-CARE Listed**).

2022 [J13] Rajesh Rao, Kolpe Adity, **Tribikram Pradhan**, Bruno Bogaz. An Efficient Solution to User Authorization Query Problem in RBAC Systems Using Hierarchal Clustering. In *Journal of Cyber Security and Mobility*, Vol-11, Issue-4, Pages-531–548, 2022. (**Scopus Indexed**).

2013 [J14] **Tribikram Pradhan**, Ajit Kumar Sahoo, Dharitri Talukdar, Pramod Kumar. A Solution for Network Life Time Problem Using Content Based Energy Efficient Routing Algorithm. In *International Journal of Engineering and Technology, Volume.5, Issue.2, pp.1731-1740, ISSN: 0975-4024 (**Scopus Indexed**)*

2013 [J15] **Tribikram Pradhan**, Pramod Kumar, N S Anil, Amit Bakshi. Design of Framework for Logic Synthesis Engine. In *International Journal of Engineering and Technology, Volume.5, Issue.2, pp.1710-1715, ISSN: 0975-4024 (**Scopus Indexed**)*

Communicated Journal Article

2026 [J16] **Tribikram Pradhan**, Chetan Dashora, Rohit Singh, Sukomal Pal. A Deep Reinforcement Learning-based Academic Collaborator Recommendation. In *Decision Support Systems, Elsevier, ISSN: 0167-9236 (**SCI, Q1, IF 7.5, Communicated**)*

2026 [J17] **Tribikram Pradhan**, Abhishek Singh, Surya Pratap Singh Parmarb, Sukomal Pal. DeepRec: A Stacked Generalization of Deep Convolution Neural Network (CNN) and LSTM based scholarly venue recommender system. In *Applied Soft Computing, Elsevier, ISSN: 1568-4946 (**SCIE, Q1, IF 7.8, Communicated**)*

Lists of Conferences (IEEE/ACM/Elsevier/Springer/CORE-ranked if applicable)

2026 [C1] Lahkar, M. P., Sharma, U., **Tribikram Pradhan** (2026, June). Evaluating Custom Assamese Word Embeddings through Analogy Benchmarks and Statistical Significance Testing. In Proceedings of the IEEE Guwahati Subsection Conference 2026, 03-05 June 2026, IIT Guwahati, Assam, India (**IEEE: Scopus Indexed**)

2026 [C2] Dhanjit Kalita, **Tribikram Pradhan** (2026, June). DeepBalance: A Multi-Objective Framework for Mitigating Personalization Challenges in News Recommendation Systems. In Proceedings of the IEEE Guwahati Subsection Conference 2026, 03-05 June 2026, IIT Guwahati, Assam, India (**IEEE: Scopus Indexed**)

2026 [C3] Talinungsang, **Tribikram Pradhan** (2026, June). HCD-ISF: A Hybrid Cross-Domain Item-Based Model for Cold-Start Symbolic Music Recommendation. In Proceedings of the 6th - International Conference on Intelligent Systems and Machine Learning, Nagaland University, India(**AIP Proceedings: Scopus Indexed**)

2026 [C4] Lahkar, M. P., Sharma, U., **Tribikram Pradhan** (2026, June). AsTQA: A Benchmark Dataset and Generative Language Model for Tabular Question Answering in Assamese. In 4th International Conference on Machine Learning and Data Engineering (ICMLDE-2025) (pp. 1-6) (**IEEE: Scopus Indexed**)

2025 [C5] Lahkar, M. P., Sharma, U., **Tribikram Pradhan** (2025, December). Cross-Lingual Transfer vs. Minimal Fine-Tuning for Indic Question Answering: An Empirical Study on the Indic-QA Benchmark. In Proceedings of the 17th annual meeting of the Forum for Information Retrieval Evaluation (pp. 88-92) (**ACM: Scopus Indexed**)

2025 [C6] Kalita, D., **Tribikram Pradhan** (2025, August). SEHRS: Sentiment-Enhanced Hybrid Recommender System for Personalized News Recommendation. In 2025 5th Asian Conference on Innovation in Technology (ASIANCON) (pp. 1-7).(**IEEE: Scopus Indexed**)

2025 [C7] Harsh Bartariya, Dibesh Agarwal,**Tribikram Pradhan** (2025, July). Personalized Tourism Recommendations using Graph-Based Community Detection and Deep Contextual Similarity. In 16th International Conference on Computing, Communication and Networking Technologies (ICCCNT), July 6th – 11th, 2025, IIT Indore. (**IEEE: Scopus Indexed**)

2025 [C8] Anamika Ray, **Tribikram Pradhan** (2025, July). ZS-ABSA: Zero-Shot Aspect-Based Sentiment Analysis for Social Media Reviews. In 16th International Conference on Computing, Communication and Networking Technologies (ICCCNT), July 6th – 11th, 2025, IIT Indore. (**IEEE: Scopus Indexed**)

2025 [C9] Lahkar, M. P., Sharma, U., **Tribikram Pradhan** (2025, March). When Graphs Meet Fine-Tuning: A Dual Approach to Low-Resource Assamese QA. In 2025 6th International Conference on Recent Advances in Information Technology (RAIT) (pp. 1-6). (**IEEE: Scopus Indexed**)

2024 [C10] Ranjan, A., Pandey, S. K., Singh, A. K., **Tribikram Pradhan** (2024, June). Brain-Inspired Software Architecture: An Adaptive Neural Network Systems. In 2024 IEEE 21st International Conference on Software Architecture Companion (ICSA-C) (pp. 69-73). (CORE Ranking: A)

2023 [C11] Rao, K. R.,**Tribikram Pradhan**, Krishna Prakasha, K. (2023, January). Attribute Based Federated-Reinforcement Learning Approach for Drone Authorization. In International Conference on Machine Intelligence and Smart Systems (pp. 14-28). Cham: Springer Nature Switzerland.(**IEEE: Scopus Indexed**)

2021 [C12] Singh, Ashwini Kumar; Kailasam, Lakshmanan; **Tribikram Pradhan**; and Gupta, Deepti. Context-Aware Influential Nodes Tracking in Online Social Networks (2021). in Pacific Asia Conference on Information Systems (PACIS), 2021 Proceedings. 177. (CORE Ranking: A)

2020 [C13] Chaitanya Bhatia, **Tribikram Pradhan**, Sukomal Pal. MetaGen: An academic meta-review generation system. In *43rd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2020), Xi'an, China, 25-30 Jul 2020, pp. 1653–1656. ISBN 9781450380164. (CORE Ranking: A*)*

2020 [C14] Anubhav Apurva, Aditya Singh Verma,**Tribikram Pradhan**. Relevance Feedback Based Citation Recommendation for Scholarly Publications. In *International Conference on Electronics, Computing and Communication Technologies, (CONECCT), Bangalore, India, 2020, pp. 1-6.(**IEEE: Scopus Indexed**)*

2017 [C15] Aman Chopra, Ashray Dimri, **Tribikram Pradhan**. Prediction of factors affecting amlodipine induced pedal edema and its classification. In *International Conference on Advances in Computing, Communications and Informatics (ICACCI), pages-1684–1689. (**IEEE: Scopus Indexed**)*

2017 [C16] Aakash Bhattacharya, Riju Khatri, **Tribikram Pradhan**. A proactive intelligent model for identification of reduced factors affecting severity of coronary artery disease and its prediction. In *International Conference on Advances in Computing, Communications and Informatics (ICACCI), pages-1519–1524. (**IEEE: Scopus Indexed**)*

2016 [C17] Vignesh R, **Tribikram Pradhan**. Merge sort enhanced in place sorting algorithm. In *International Conference on Advanced Communication Control and Computing Technologies (ICACCCT), pages-698–704. (**IEEE: Scopus Indexed**)*

2016 [C18] Siddharth Sahay, Suruchi Khetarpal, **Tribikram Pradhan**. Hybrid data mining algorithm in cloud computing using MapReduce framework. In *International Conference on Advanced Communication Control and Computing Technologies (ICACCCT), pages-507–511. (**IEEE: Scopus Indexed**)*

2016 [C19] KR Sai Vineeth, and Pandey, Ayush, **Tribikram Pradhan**. A novel approach for intelligent crime pattern discovery and prediction. In *International Conference on Advanced Communication Control and Computing Technologies (ICACCCT), pages-531–538. (**IEEE: Scopus Indexed**)*

2015 [C20] Mayank Khandelwal, Jayant Prakash, **Tribikram Pradhan**. Evaluation of IPL teams and players using association, correlation and classification rules. In *International Conference on Computer, Communication and Control (IC4), pages-1–6. (**IEEE: Scopus Indexed**)*

2015 [C21] Shivani Jakhmola, **Tribikram Pradhan**. A computational approach of data smoothening and prediction of diabetes dataset. In *Proceedings of the Third International Symposium on Women in Computing and Informatics, pages-744–748. (**ACM: Scopus Indexed**)*

2015 [C22] Shivani Jakhmola, **Tribikram Pradhan**. A new approach of controlled binning for data smoothening. In *Proceedings of the Michael Faraday IET International Summit, pages-107-112. (**IET: Scopus Indexed**)*

2014 [C23] Satvik Sachdev, Aparna Nayak, **Tribikram Pradhan**. Data hiding in halftone images using mathematical morphology and conjugate ordered dithering. In *International Conference on High Performance Computing and Applications (ICHPCA), pages-1–7. (**IEEE: Scopus Indexed**)*

2014 [C24] Arjun Chaudhary, Satvik Sachdev, **Tribikram Pradhan**. Improving performance of MANET via cooperative communication with selective cooperation method considering dynamic traffic pattern using NS2. In *International Conference on High Performance Computing and Applications (ICHPCA), pages-1–5. (**IEEE: Scopus Indexed**)*

2014 [C25] **Tribikram Pradhan**, Vaibhav Walia, Rohini Kapoor, Sameer Saran. Optimizing land use classification using decision tree approaches. In *International Conference on Data Mining and Intelligent Computing (ICDMIC), pages-1–5. (**IEEE: Scopus Indexed**)*

2014 [C26] **Tribikram Pradhan**, Satya Ranjan Mishra, Veerendra Kumar Jain. An effective way to achieve excellence in research based learning using association rules. In *International Conference on Data Mining and Intelligent Computing (ICDMIC), pages-1–4. (**IEEE: Scopus Indexed**)*

2014 [C27] **Tribikram Pradhan**, Akash Israni, Manish Sharma. Solving the 0–1 Knapsack problem using Genetic Algorithm and Rough Set Theory. In *International Conference on Advanced Communications, Control and Computing Technologies, pages-1120–1125. (**IEEE: Scopus Indexed**)*

2013 [C28] Amit Bakshi, Sudhanshu Pandey, **Tribikram Pradhan**, Ratnadip Dey. ASIC implementation of DDR SDRAM memory controller. In *International Conference ON Emerging Trends in Computing, Communication and Nanotechnology (ICECCN), pp.74–78. (**IEEE: Scopus Indexed**)*

Book Chapters/Conference Proceedings in Edited Volumes

2017 [C29] Swati Choudhary, Angkirat Singh Sandhu, **Tribikram Pradhan**. Genetic algorithm-based correlation enhanced prediction of online news popularity. In Computational Intelligence in Data Mining, Advances in Intelligent Systems and Computing, volume-556, pages-133–144. **(Springer: Scopus Indexed)**

2016 [C30] Saakshi Gusain, Kansal Kansal, **Tribikram Pradhan**. Genetic Algorithm Based Suggestion Approach for State Wise Crop Production in India. In International Symposium on Intelligent Systems Technologies and Applications, Advances in Intelligent Systems and Computing, volume-530, pages-771–787, 2017. **(Springer: Scopus Indexed)**

2016 [C31] Mayank Khandelwal, Jayant Prakash, **Tribikram Pradhan**. A Novel Approach for Performance Analysis and Optimal Selection of Players in Indian Premier League Auction. In International Conference on Emerging Research in Computing, Information, Communication and Applications, volume-3, pages-347–365, Springer, New Delhi. **(Springer: Scopus Indexed)**

2015 [C32] Prajwal Rao, Ritvik Sachdev, **Tribikram Pradhan**. A Hybrid Approach to Rainfall Classification and Prediction for Crop Sustainability. In International Conference on Advances in Signal Processing and Intelligent Recognition Systems, Advances in Intelligent Systems and Computing, volume-425, pages-457–471, 2015.**(Springer: Scopus Indexed)**

2015 [C33] Ritika Chadha, Shubhankar Mayank, Anurag Vardhan, **Tribikram Pradhan**. Application of data mining techniques on heart disease prediction: a survey. In International Conference on Emerging research in computing, information, communication and applications, volume-2, pages-413–426. **(Springer: Scopus Indexed)**

2015 [C34] Mayank Khandelwal, Jayant Prakash, **Tribikram Pradhan**. An Analysis of Best Player Selection Key Performance Indicator: The Case of Indian Premier League (IPL). In International Conference on Intelligent Systems Technologies and Applications, Advances in Intelligent Systems and Computing, volume-384, pages-173–190, 2015. **(Springer: Scopus Indexed)**

2013 [C35] **Tribikram Pradhan**, Harsh Anand and Akul Goyal. A Rule Mining using THA-Hybrid Approaches of Rough Set Theory, Genetic Algorithm and Boolean Algebra. In Proceedings of the Second International Conference on Emerging Research in Computing, Information, Communication and Applications (ERCICA), volume-13, pages-144–149. **(Elsevier Publications, ISBN: 9789351072638)**

2013 [C36] **Tribikram Pradhan**, Ankit Yadav and Santosh S. Patil. An Error Detection and Correction Technique Based on Graceful Code for Data Transfer. In Proceedings of the Second International Conference on Emerging Research in Computing, Information, Communication and Applications (ERCICA), volume-2, pages-159–164. **(Elsevier Publications, ISBN: 9789351072638)**

Research Projects, Grants & Consultancy

Sponsored Research Project

Project Title	Design and Development of a Multimodal Emotion-Aware System for Personalized Functional Bread Recommendation
Funding Agency	GloballyGi Experiences Private Limited (Industry Sponsored)
Role	Co-Principal Investigator (Co-PI)
Project Cost	68.71 Lakhs
Collaborators	Dr. S. R. Purohit (Tezpur University), Dr. Gayatri Mishra (IIT Kharagpur)
Objective	An industry-sponsored interdisciplinary project aimed at developing AI/ML-based multimodal emotion recognition models for personalized functional bread recommendation by integrating affective computing, nutritional science, and recommender systems.

Consultancy Project

Project Title	Development of Text-based Matching Algorithms for Bartering Software
Client	Ascon Softech India Pvt. Ltd.
Role	Technical Lead
Budget	11.62 Lakhs
Objective	Designed and developed an intelligent digital barter platform enabling direct exchange of goods and services without monetary transactions.

Student Guidance

Research Guidance

Manash P. Lahkar (CSP21104) — **Programme:** Ph.D. (Thesis Submited)
Thesis Title: Question Answering for Assamese: A Foundational Approach via Monolingual Pre-training and Morphology-Aware Modeling

Ph.D. Supervision

Neel Kamal Boro (CSP23106) — **Programme:** Ph.D. (Ongoing)
Research Area: Dynamic Multiplex Social Networks

Talinungsang (CSP24001) — **Programme:** Ph.D. (Ongoing)
Research Area: Multimodal Recommender Systems

Dhanjit Kalita (CSP24101) — **Programme:** Ph.D. (Ongoing)
Research Area: Explainable AI for Personalized Recommender Systems

Shyamal Jyoti Hazarika (CSP25004) **Programme:** Ph.D. (Ongoing)
Research Area: Multimodal Representation Learning for Search & Retrieval

PG Thesis Guided

2026 **Student:** Ujjal Maji (CSD24015)
Project Title: ECLIPSE-GNN: Evidential Causal learning with Integrated perturbation and Spectral Embeddingngs-A Causal Uncertainty-Aware Graph Neural Network
Programme: M.Tech. (Data Sciences)

2026 **Student:** Jayashree Phukon (CSE24024)
Project Title: Multimodal Emotion-Aware Food Recommendation System
Programme: M.Tech. (Computer Science & Engineering)

2026 **Student:** Diksha Chakraborty (CSM24016)
Project Title: Emotion-Aware Personalized Food Recommendation System
Programme: MCA

2025 **Student:** Rituparna Das (CSE23017)
Project Title: A Synergistic Framework for Cross-Domain Recommender Systems: Integrating Explainability, Scalability and Temporal Dynamics
Programme: M.Tech. (Computer Science & Engineering)

2025 **Student:** Anamika Ray (CSE23019)
Project Title: Zero-Shot Aspect-Based Sentiment Analysis
Programme: M.Tech. (Computer Science & Engineering)

2025 **Student:** Dibesh Agarwal (CSM23021) & Harsh Bartariya (CSM23045)
Project Title: Personalized Tourism Recommender System
Programme: MCA

2024 **Student:** Laxshmi (CSE22009)
Project Title: Influence Maximization in Social Network System
Programme: M.Tech. (Computer Science & Engineering)

2024 **Student:** Hirok Jyoti Dewri
Project Title: AutoRecSys Recommender System
Programme: M.Tech. (Computer Science & Engineering)

2024 **Student:** Pratik Kumar Mishra (CSM22004)
Project Title: Ecommerce Platform as a Service
Programme: MCA

2024 **Student:** Priya Das (CSM23056) & Subhrajyoti Paul (CSM22003)
Project Title: Diversified News Recommender System
Programme: MCA

2024 **Student:** Sourabh Garg (CSM22002)
Project Title: Meta Review Generation System
Programme: MCA

2024 **Student:** Aman Kumar (CSM22059)
Project Title: Academic Influence-Aware and Multidimensional Network Analysis for Research Collaboration Navigation Based on Scholarly Big Data
Programme: MCA

2023 **Student:** Biswajit Das (CSM21051) & Debasish Nath (CSM21046)
Project Title: Quotation and Invoice System for Admin Dashboard
Programme: MCA

Teaching Philosophy

Description Teaching is one of the most rewarding aspects of an academic career, as it provides an opportunity to inspire, mentor, and learn from students. Guiding students through their intellectual development is central to my teaching philosophy. I am committed to fostering an engaging, inclusive, and research-oriented learning environment that encourages curiosity, critical thinking, and innovation through collaborative and experiential learning. I strive to integrate strong theoretical foundations with practical problem-solving and research exposure, particularly in Artificial Intelligence and Data Science. I also believe that being approachable and available to students is essential for effective mentoring and academic growth. My goal is to equip students with the knowledge, research aptitude, and professional skills needed for successful careers while nurturing them into responsible scientists, innovators, and future leaders who contribute meaningfully to society.

Courses Taught

Spring, 2026: **CSMC422: Database Management Systems (PG)**, Tezpur University.
Spring, 2026: **CSMT546: Information Retrieval (PG)**, Tezpur University.
Spring, 2026: **MR707: Creative research reporting and uses of advanced tools (Ph.D)**, Tezpur University.

Aut, 2025: **CSMT537: Recommender Systems (PG)**, Tezpur University.
Aut, 2025: **CS513: Software Engineering (PG)**, Tezpur University.
Aut, 2025: **CS518: Software Engineering Lab (PG)**, Tezpur University.
Aut, 2025: **MR707: Creative research reporting and uses of advanced tools (Ph.D)**, Tezpur University).

Spring, 2025: **CS413: Database Management Systems (PG)**, Tezpur University.
Spring, 2025: **CS629: Information Retrieval (PG)**, Tezpur University.
Spring, 2025: **CS414: Database Management Systems Lab (PG)**, Tezpur University.

Aut, 2024: **CS614: Recommender Systems (PG)**, Tezpur University.
Aut, 2024: **CS513: Software Engineering (PG)**, Tezpur University.
Aut, 2025: **CS518: Software Engineering Lab (PG)**, Tezpur University.

Spring, 2024: **CS417: Operating System (PG)**, Tezpur University.
Spring, 2024: **CS413: Database Management Systems (PG)**, Tezpur University.

Aut, 2023: **CS422: Numerical Methods (PG)**, Tezpur University.

Aut, 2023: **CS513: Software Engineering (PG)**, Tezpur University.

Aut, 2023: **CS518: Software Engineering (PG)**, Tezpur University.

Spring, 2023: **CS417: Operating System (PG)**, Tezpur University.

Spring, 2023: **CS413: Database Management Systems (PG)**, Tezpur University.

Aut, 2022: **CO209: Computing Workshops (UG)**, Tezpur University.

Aut, 2022: **CS513: Software Engineering (PG)**, Tezpur University.

Aut, 2022: **CS518: Software Engineering (PG)**, Tezpur University).

Aut, 2022: **ICT-4033: Computer Graphics**, Manipal Academy of Higher Education (MAHE).

Spring, 2021: **ICT-4054: Social Network Analysis (UG)**, Manipal Academy of Higher Education (MAHE).

Spring, 2021: **ICT-4301: Computer Graphics and Animation (UG)**, Manipal Academy of Higher Education (MAHE).

Aut, 2021: **ICT-4033: Computer Graphics (UG)**, Manipal Academy of Higher Education (MAHE).

Spring, 2020: **ICT-4101: Business Intelligence (UG)**, Manipal Academy of Higher Education (MAHE).

Spring, 2016: **ICT-3253: Data Mining and Data Warehousing (UG)**, Manipal Academy of Higher Education (MAHE).

Aut, 2015: **ICT-3159: Software Engineering (UG)**, Manipal Academy of Higher Education (MAHE).

Spring, 2015: **ICT-3253: Data Mining and Data Warehousing (UG)**, Manipal Academy of Higher Education (MAHE).

Aut, 2016: **ICT 2271: Database Systems**, Manipal Academy of Higher Education (MAHE).

Spring, 2016: **ICT-3253: Data Mining and Data Warehousing (UG)**, Manipal Academy of Higher Education (MAHE).

Aut, 2015: **ICT-3159: Software Engineering (UG)**, Manipal Academy of Higher Education (MAHE).

Spring, 2015: **ICT-3253: Data Mining and Data Warehousing (UG)**, Manipal Academy of Higher Education (MAHE).

Aut, 2014: **ICT-2257: Design and Analysis of Algorithms (UG)**, Manipal Academy of Higher Education (MAHE).

Spring, 2014: **CSE-101: Problem Solving Using Computers (UG)**, Manipal Academy of Higher Education (MAHE).

Aut, 2013: **ICT-2257: Design and Analysis of Algorithms (UG)**, Manipal Academy of Higher Education (MAHE).

Conferences Attended & Presented

2025 [CP1] Personalized Tourism Recommendations using Graph-Based Community Detection and Deep Contextual Similarity. In 2025 16th International Conference on Computing Communication and Networking Technologies (ICCCNT) (pp. 1-7). (IEEE: Scopus Indexed)

2025 [CP2] ZS-ABSA: Zero-Shot Aspect-Based Sentiment Analysis for Social Media Reviews. In 2025 16th International Conference on Computing Communication and Networking Technologies (ICCCNT) (pp. 1-6). (IEEE: Scopus Indexed)

2025 [CP3] SEHRS: Sentiment-Enhanced Hybrid Recommender System for Personalized News Recommendation. In 2025 5th Asian Conference on Innovation in Technology (ASIANCON 2025). (IEEE: Scopus Indexed)

2017 [CP4] Genetic Algorithm Based Suggestion Approach for State Wise Crop Production in India. In International Symposium on Intelligent Systems Technologies and Applications, Advances in Intelligent Systems and Computing, volume-530, pages-771–787, 2017. (Springer: Scopus Indexed)

2015 [CP5] A Novel Approach for Performance Analysis and Optimal Selection of Players in Indian Premier League Auction. In International Conference on Emerging Research in Computing, Information, Communication and Applications, volume-3, pages-347–365, Springer, New Delhi. (Springer: Scopus Indexed)

2015 [CP6] Application of data mining techniques on heart disease prediction: a survey. In International Conference on Emerging research in computing, information, communication and applications, volume-2, pages-413–426. (Springer: Scopus Indexed)

2015 [CP7] An Analysis of Best Player Selection Key Performance Indicator: The Case of Indian Premier League (IPL). In International Conference on Intelligent Systems Technologies and Applications, Advances in Intelligent Systems and Computing, volume-384, pages-173–190, 2015. (Springer: Scopus Indexed)

2015 [CP8] A computational approach of data smoothening and prediction of diabetes dataset. In Proceedings of the Third International Symposium on Women in Computing and Informatics, pages-744–748, 2015. (ACM: Scopus Indexed)

2015 [CP9] Data hiding in halftone images using mathematical morphology and conjugate ordered dithering. In International Conference on High Performance Computing and Applications (ICHPCA), pages-1–7. (IEEE: Scopus Indexed)

2014 [CP10] A Rule Mining using THA-Hybrid Approaches of Rough Set Theory, Genetic Algorithm and Boolean Algebra. In Proceedings of the Second International Conference on Emerging Research in Computing, Information, Communication and Applications (ERCICA), volume-13, pages-144–149. (Elsevier Publications ISBN: 9789351072638)

2014 [CP11] An Error Detection and Correction Technique Based on Graceful Code for Data Transfer. In Proceedings of the Second International Conference on Emerging Research in Computing, Information, Communication and Applications (ERCICA), volume-2, pages-159–164. (Elsevier Publications ISBN: 9789351072638)

2014 [CP12] Improving performance of MANET via cooperative communication with selective cooperation method considering dynamic traffic pattern using NS2. In International Conference on High Performance Computing and Applications (ICHPCA), pages-1–5, 2014. (IEEE: Scopus Indexed)

Invited Talks and Seminars

May 2026 **Faculty Development Programme**, Central Agricultural University, Imphal, Manipur.
Resource Person
Talks: (i) Evidence Synthesis in Agricultural Research: Systematic Review, Bibliometric Analysis, and Meta-Analysis;
(ii) AI-Powered Research Toolkit: Hands-On Tools for Literature Review, Data Analysis and Scientific Productivity.

Feb 2026 **Seminar on Awareness of AI in Education & Research**, Nagaon University, Assam.
Invited Speaker
Talk: AI for Everyone: Empowering the Next Generation Through Educational Transformation.

Feb 2026 **Faculty Development Programme**, Central Agricultural University, Imphal, Manipur.
Resource Person
Talks: (i) Digital Transformation in Academia: Theory to Technology Integration;
(ii) ICT Tools for Teaching and Learning: Empowering Education in the Digital Era.

Oct 2025 **RUSA 2.0/PM-USHA Assam Sponsored Teachers' Training Programme**, UGC–MMTTC, Gauhati University in collaboration with Jagiroad College (Autonomous), Assam.
Invited Speaker
Talk: Prospects of Artificial Intelligence, Data Analytics & Machine Learning in Modern-day Research.

Nov 2024 **Interaction Talk for MS Students, VIT Vellore, Tamil Nadu, India**.
Invited Speaker
Talk: Next Generation Recommender Systems

Oct 2024 **One-Day Seminar on Harnessing AI Opportunities for Women**, Tetso College, Nagaland (Sponsored by NCW).
Resource Person
TalkS: (i) Generative AI for Personalized Learning;
(ii) Empowering the Next Generation.

Oct 2024 **Continuous Professional Development (CPD) Programme for PGT (Computer Science) Teachers**, KVS Guwahati Region, held at Kendriya Vidyalaya No. 4, Tezpur University, Assam.
Invited Speaker
Talk: Artificial Intelligence in Teaching and Education for PGT (Computer Science) Teachers.

Dec 2024 **Continuous Improvement Programme for Outcome based Education, Department of CSE, Tezpur University, Assam**.
Invited Speaker
Talk: Outcome-Based Education (OBE) in Higher Education: Principles, Practice, and Implementation.

Teaching Interest

Core	Database Systems, Design and Analysis of Algorithms, Operating Systems, Data Structures, Graph Theory, Software Engineering, Compiler Design, Computer Graphics, Numerical Methods, Optimization
Electives	Data Mining & Data Warehousing, Information Retrieval, Recommender Systems, NLP, Data Science, Social Network Analysis, Business Intelligence, Machine Learning

Membership

ACM	Association for Computing Machinery (ACM): Member No.4438045
IAENG	International Association of Engineers (IAENG): Member No.140593

Participation in Workshops/FDPs/FIPs/ Training Programmes

2025 [W1]	30 Days Master class Series on "Data Analytics with R Programming Masterclass" organized by Pantech e Learning Pvt Ltd. from 5th September, 2025-06th October, 2025.
2025 [W2]	30 Days Master class Series on "30 Day Masterclass on Prompt Engineering" organized by Pantech e Learning Pvt Ltd. from 25th July, 2025-24th August, 2025.
2025 [W3]	1-Week Faculty Development Program on "AI, ML & Deep Learning for Autonomous Vehicles" Organized by STEP- National Institute of Technology Karnataka from 28th July 2025-01st August, 2025.
2025 [W4]	1-Week Faculty Development Program on "Generative AI with LLM" Organized by STEP- National Institute of Technology Karnataka from 07th July 2025-11th July 2025.
2025 [W5]	Short Term Course on "NEP Orientation & Sensitization" under Malaviya Mission Teacher Training Programme (MM-TTP) of the University Grants Commission (UGC) organized by MMTTC, Tezpur University from 2nd June 2025-11th June 2025.
2025 [W6]	1-Week Faculty Development Program on "Artificial Intelligence and Machine Learning" Organized by STEP- National Institute of Technology Karnataka from 30th June 2025-04th July 2025.
2025 [W7]	Weeklong MeitY ISEA sponsored Faculty Development Program (FDP) on "Security concerns in SDN, IoT, Healthcare, 5G/6G Networks" Organized by Department of CSE, Tezpur University from 24th February, 2025-28th February, 2025.
2024 [W8]	1 Week Online workshop on "Advanced Statistical Data Analysis using SPSS" organized by Resilient Foundation for Academic Innovation & Scientific Research from 22nd June 2024-28th June 2024.
2024 [W9]	1 Week Online Faculty Development Program (FDP) on "Pathways to progress: AI Driven Education for Viksit Bharat@2047" organized by Delhi Teachers University from 10th June 2024-16th June 2024.
2024 [W10]	7 days Online International workshop on "Research Methodology and Data Analysis in Multi-disciplinary Research" organized by Department of Education, Kazi Nazrul University, West Bengal, during 15th February 2024-21st February 2024.

2023 [W11] Online Weeklong FDP on "ICT Tools for Effective Teaching and Learning" organized by Teaching Learning Centre, Tezpur University in association with Government Model College, Kaziranga during 22nd June 2023-28th June 2023.

2023 [W12] Online Weeklong Faculty Development Program (FDP) on "Academic Writing and Publication" Organized by Teaching Learning Centre Tezpur University in association with Doomdooma College, Tinsukia and Raha College, Nagaon from 25th November 2023-31st November 2023.

2023 [W13] Online Faculty Induction Program (FIP), Organized by Teaching Learning Centre Tezpur University from 01 February-02 March 2023.

2022 [W14] Faculty Induction Program (FIP) for newly recruited faculty members of Tezpur University organized by Internal Quality Assurance Cell, Tezpur University on 28th September 2022.

2022 [W15] Two-Day Workshop on "Outcome Based Education" with NBA compliant PO/PSOs for UG/PG programmes in Engineering Organized by School of Engineering, Tezpur University from 19th September 2022-20th September 2022.

2021 [W16] Participated 5-day online Faculty Development Program (FDP) on the theme "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education (AICTE) from 17th May 2021-21st May, 2021.

2020 [W17] Participated in the faculty development program on multiple strategies for Creativity, Problem Solving and Innovation at Manipal Institute of Technology, Manipal in association with Faculty of Management Studies at Charotar University of Science and Technology from 21st July 2020-28th July 2020.

2020 [W18] Participated in the ACM India Joint International Conference on Data Sciences and Management of Data (CoDS-COMAD 2020), the 7th ACM-IKDD CoDS and 25th COMAD, at Indian School of Business, Hyderabad, India from 5th January 2020-7th January 2020.

2017 [W19] Participated in the Workshop on Research Methodology for Research Student & Faculty Members at IIT (BHU), Varanasi, India from 24th March 2017-29th March 2017.

2014 [W20] Participated in the workshop on cloud computing organized by Indian Institute of Information Technology and Management-Kerala (IIITM-K), Technopark, Trivandrum in association with centre for development of advanced computing (CDAC),Chennai and Trivandrum professional chapter of association for computing machinery (ACM) from 15th March 2014-16th March 2014.

2013 [W21] Participated in the ACM India Main Event organized as a part of the ACM India annual Event, IIT Madras on 25th Januray 2013.

2012 [W22] Participated in the one day workshop on Big Data Analytics and Quality Assurance at VIT University, Vellore organized by high end computing and embedded systems Division, SITE, VIT University on 3rd November 2012.

2012 [W23] Participated in the one day workshop on Application Development for Windows Phone at VIT University, Vellore organized by Microsoft I-spark centre of excellence, VIT University on 18th September 2012.

Technical Skills

Programming Languages	Python, C, C++
AI & ML	PyTorch, TensorFlow, Keras, Scikit-learn
Data Science & NLP	Pandas, NumPy, NLTK, spaCy, Gensim, Stanza, TextBlob, BM25, Elasticsearch
Web Technologies	HTML5, CSS3, JavaScript, Angular, PHP
Databases	MySQL, PostgreSQL, Microsoft SQL Server, Neo4j
Software Engineering Tools	Git, GitHub, Maven, Jenkins, Agile Methodologies (Scrum)
Software Testing	Selenium, QTP, PyTest, JUnit
Operating Systems	Linux/Unix, Windows
Development Environments	Visual Studio Code, Jupyter Notebook, Google Colab, Anaconda

National-Level Competitive Examinations

2016 **National Eligibility Test (NET) for Assistant Professor**
2016 Qualified **Graduate Aptitude Test in Engineering (GATE)**
2012 Qualified **Graduate Aptitude Test in Engineering (GATE)**
2011 Qualified **Graduate Aptitude Test in Engineering (GATE)**

Extracurricular Achievements

2016 Receipt of **Gold Medal** in Manipal University Staff Swimming Free Styles
2016 Receipt of **Silver Medal** in Manipal University Staff Swimming BackStroke Styles
2016 Receipt of **Silver Medal** in Manipal University Staff Swimming Relay Race Styles
2016 Receipt of **Silver Medal** in Manipal University Staff Swimming BreastStroke Styles

Professional Service

Journal Reviewer	Future Generation Computer Systems, Knowledge-Based Systems, Information Sciences, Decision Support Systems, Artificial Intelligence, Applied Soft Computing, Electronic Commerce and Research Applications, Scientometrics, Expert Systems with Applications, SN Computer Science, Neurocomputing, Journal of Intelligent Information Systems, Information Processing & Management, Applied Intelligence
Conference Reviewer	ACL, ACM Conference on Recommender Systems (RecSys), EMNLP, European Conference on Information Retrieval (ECIR), Forum for Information Retrieval Evaluation (FIRE), Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)

Conferences & Workshops Organized

March 2026 **International Conference on Emerging Trends in Multidisciplinary Research for Sustainable Future (ICETMRSF-2026)**
Role: TPC & Faculty-Coordinator
Organizer: Organized by the Centre for Multidisciplinary Research (CMDR), Department of Design, School of Engineering, Tezpur University, Assam-784028, India
Duration: 12–13 March 2026.

Nov 2026 **International Symposium on Smart Systems, Algorithms and Applications (IS3A3 2026)**
Role: Publicity Chair & Organizing Committee
Organizer: Organized by Department of Computer Science and Engineering, Tezpur University, Assam-784028, India
Duration: 19–20 November 2026.

August 2025 **6 Day FDP on Deep Learning, Generative AI, & their Applications in Agriculture**
Role: Convener
Organizer: Department of Computer Science & Engineering, Tezpur University, Assam & Pantech e Learning Pvt Ltd.
Duration: 11-18 August 2025.

August 2025 **National Webinar on Deep Learning and Generative AI**
Role: Convener
Organizer: Department of Computer Science & Engineering, Tezpur University, Assam & Pantech e Learning Pvt Ltd.
Duration: 02nd August 2025.

March 2024 **Five-Day Workshop on Artificial Intelligence and Data Science**
Role: Convener
Organizer: Department of Computer Science & Engineering, Tezpur University, Assam.
Duration: 04-08 March, 2024.

Nov 2023 **Three-Day Workshop on Data Science and Artificial Intelligence using Python**
Role: Co-Coordinator
Organizer: Theoretical and Applied Sciences Unit, Indian Statistical Institute, North-East Centre, and Department of Computer Science & Engineering, Tezpur University, Assam.
Duration: 08–10 November 2023.

Academic Service and Administrative Responsibilities

2025-2026 **Project Coordinator-Project III (BTech)-Department of CSE, Tezpur University**, Tezpur, Assam.

2024-2025 **MTech Data Sciences Curriculum Preparation Committee, Department of CSE, Tezpur University**, Tezpur, Assam.

2022-2023 **Project Coordinator (MCA)-Department of CSE, Tezpur University**, Tezpur, Assam.

2024-2025 **Admission Committee for PhD, MTech CSE, MTech Data Sciences, Department of CSE, Tezpur University**, Tezpur, Assam.

2022-2026 **NBA Coordinator-Department of CSE, Tezpur University**, Tezpur, Assam.

2022-2026 **NAAC Coordinator-Department of CSE, Tezpur University**, Tezpur, Assam.

2022-2023 **Examination Coordinator-Department of CSE, Tezpur University**, Tezpur, Assam.

2020-2022 **Internships Coordinator in Department of Information and Communication Technology**, Manipal Academy of Higher Education, Manipal.

2013-2016 **Teacher Guardian, Manipal Academy of Higher Education**, Manipal.

2013-2016 **Placement Coordinator in Department of Information and Communication Technology**, Manipal Academy of Higher Education, Manipal.

Teaching Assistantship

Spring, 2020 : **CSE-363: Information Retrieval**, IIT BHU, Varanasi.

Aut, 2019: **CSE-425: Compiler Design**, IIT BHU, Varanasi.

Spring, 2019 : **CSE-363: Information Retrieval**, IIT BHU, Varanasi.

Aut, 2018 **CSE-425: Compiler Design**, IIT BHU, Varanasi.

Spring, 2018 : **CSE-363: Information Retrieval**, IIT BHU, Varanasi.

Aut, 2017: **CSE-438: Advanced Software Engineering Lab**, IIT BHU, Varanasi.

Referees

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Saharanpur-247001, Uttar Pradesh, India
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