

**Name of the Society:**

IEEE Information Theory Society (ITS) BMSIT&M Student Branch

Date of Formation: August 2023

Coordinator:

Dr. Shobha M, CSE

Objective:

To foster research, development, and application of information theory, including processing, transmission, storage, and usage.

Frequency of Meetings:

Two team meetings per month, and an Annual General Meeting with all ITS members.

Social media link:

Instagram: https://www.instagram.com/its_bmsit/

Roles and Responsibilities:

Our society encompasses the processing, transmission, storage, and use of information, and the foundations of the communication process. It specifically encompasses theoretical and certain applied aspects of coding, communications and communications networks, complexity and cryptography, detection and estimation, learning, Shannon Theory, and stochastic processes. The society promotes the theory and practice of information technology by fostering research, education, and the exchange of technical information through conferences, publications, and other activities.

Activities conducted:**IEEE Annual General Meet**

Our Annual General Meet brought together the members of IEEE for a day of networking and presentations. The event featured leaders from each society who highlighted the year's achievements and future directions for our IEEE chapter.

IEEE Open Day

On March 21st 2025, IEEE Information Theory Society BMSIT&M showcased its flagship project OntoHDClass. Centered around the theme “Ontology-Driven Intelligence for HighDimensional Data,” we presented OntoHDClass—a novel classification framework combining semantic similarity measures and Recurrent Neural Networks (RNN) to enhance subspace clustering in sparse, high-dimensional datasets. Our demonstration featured an intelligent Ebook Recommendation System enriched by GPT-3.5, TF-IDF, and LDA, illustrating how ontological knowledge and information-theoretic techniques can drive smarter decisionmaking. The project drew significant engagement from researchers and students alike, with performance metrics surpassing conventional models like DBScan and SVM+Naïve Bayes. Through this initiative, IEEE ITS BMSIT&M reaffirmed its dedication to advancing the frontiers of information theory and intelligent systems.

Cognitive X

The Cognitive-X Hackathon, a collaborative initiative between the Epoch Society, BMSIT&M, IEEE Information Theory Society, BMSIT&M, and Smart Bridge, took place on November 5th and 6th, 2025, following a comprehensive three-day Generative AI bootcamp. Organized under a strategic MoU, the event challenged 108 students across 36 teams to develop innovative solutions for real-world issues using IBM Skills-Build frameworks. Participants tackled diverse tracks, including AI medical verification and financial chatbots, while receiving direct mentorship from industry experts. The 16-hour hybrid event featured two rigorous evaluation rounds focusing on technical feasibility, creativity, and practical impact. Team Trimurti secured the top spot, followed by teams Lexaris and Noob3, collectively sharing in a prize pool for their outstanding prototypes. Feedback from both students and partners highlighted the event's success in bridging the gap between academic theory and industry application. Ultimately, Cognitive-X successfully fostered a culture of problem-solving and technical excellence among the next generation of engineers.