

BUET ACM Chapter
presents

Enhancing Energy-Efficiency and Visual Understanding of Deep Neural Networks

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Dr. Sayeed Shafayet Chowdhury is a Visiting Assistant Professor in Computer Science at Purdue University. He received his PhD from Purdue ECE in 2024. Sayeed's research spans efficient machine learning, spiking neural networks, computer vision, and biomedical AI. He has published in NeurIPS, ICCV, ECCV, EMNLP, IJCNN, ICMLA, Nature Communications Engineering, Neurocomputing, various IEEE Transactions and IEEE Access. He enjoys teaching, mentoring, and building collaborative learning environments.

Abstract

This talk will cover algorithms (DCT-based input encoding, temporal pruning) for brain-inspired Spiking Neural Networks (SNNs) for ultra-low latency, energy-efficient computation, and novel deep learning methods for unsupervised visual understanding of complex procedures. Future directions include exploring SNN-ANN hybrids for event-camera driven tasks, embodied AI and advancing machine learning techniques to advance biomedical predictive modeling.

When: [Saturday, 13th December, 2025 \(12:00 PM\)](#)

Where: [Graduate Seminar Room \(ECE 503\)](#)

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