0000, 0000000
00000000 : +00-00-
0000000, 0000000-00,



## Department of Electrical & Electronic Engineering Bangladesh University of Engineering and Technology

West Palashi, Dhaka-1205, Bangladesh Phone: +88-02-55155048 (Direct)

Phone: +88-02-55155048 (Direct)

PABX: +88-02-55167100, 55167228-57, Ext:6150

Fax: +880-02-55155048

Website: <u>eee.buet.ac.bd</u> Email: <u>headeee@eee.buet.ac.bd</u>

## **Seminar Notice**

Title: How to teach yourself AI/ML

Speaker: Dr. K. M. Masum Habib,

Software Research Engineer, Intel Corp. Former Faculty Member, Dept of EEE, BUET

Date: 03 January 2026, Saturday

**Time:** 3:30pm

Place: EEE 634 Seminar Room, ECE Building, BUET

**Abstract:** "Getting started with Artificial Intelligence (AI) and Machine Learning (ML) can be overwhelming, given the breadth of the subject and the number of resources available online. In this talk, I will share a curated learning path based on my own experience. I will discuss how to learn prerequisites like programming, statistics, and linear algebra, and their relative importance. Then I will share some tutorials and online courses on AI/ML for beginner, intermediate, and advanced levels. Finally, I'll outline my recommended step-by-step learning path. Hopefully, this talk will help you take the first steps toward AI/ML."

**Biography:**Dr. K. M. Masum Habib is a Software Research Engineer (TCAD Applications) at Intel, with a research and development track record spanning device modeling, quantum transport, and advanced semiconductor technology. He earned his B.Sc. in Electrical and Electronic Engineering from BUET in 2006, where he worked on a physics-based compact C–V model for MOS devices, and completed his M.Sc. in EEE from BUET in 2009, focusing on electrostatics of a four-gate transistor. He received his Ph.D. in Electrical Engineering from the University of California, Riverside in 2013, studying quantum transport in graphene and maintaining a DFT+NEGF solver developed in Prof. Roger Lake's group. He later joined Prof. Avik Ghosh's group at the University of Virginia to investigate topological insulators, and developed general-purpose NEGF and semi-classical Monte Carlo simulation codes in C++ to study magnetic-field effects on Dirac fermions. Over the years, he has (co-)authored 20 scientific publications in venues including *Science*, *Physical Review Letters*, and *Physical Review B*, and holds one patent.

Dr. Habib began his professional career at BUET, joining IICT in 2006 as a lecturer and leading the development of an Electronic Voting Machine and a Prepaid Energy Meter, before moving to the Department of EEE to teach undergraduate courses through 2009. Since joining Intel in 2015, he has contributed to the research and development of transistors for Intel's 7, 4, and 3 nm technology nodes using TCAD simulations and modeling, and has developed multiple software tools used in transistor design for Intel 4 nm and 3 nm, with continued impact on emerging 18A and 14A node development.

Outside of work, he enjoys reading, music, and long drives, and is an avid supporter of free and open-source software. A long-time Linux user, he runs a three-node high-availability home cluster to self-host open-source alternatives to commercial cloud services and to power his own smart-home software. A lifelong programmer who started with BASIC and C in high school, he has also explored OS development, co-founded Pi  $(\pi)$  Labs Bangladesh Limited, and built a 13-node Beowulf compute cluster for Prof. Roger Lake's research group at UCR.

Students and faculty members of the Department are cordially invited to join the above seminar organized by the Department of EEE, BUET:

Dr. A. B. M. Harun-Ur-Rashid

Professor and Head

Inoshe &

Department of EEE, BUET