

Annexure 1

Resolution of the BPGS Meeting No. 03/2024, held on 01/06/2024

Offered Courses for the April 2024 PG Semester

Sl. no.	Course No.	Course Title	Course Teacher	Day and Time
1.	EEE 6208	Advanced Multimedia Communication	Dr. Md. Saifur Rahman	Sunday 2 – 5 pm
2.	EEE6410	Semiconductor Characterization Technology	Dr. Md. Shafiqul Islam	Tuesday 2 – 5 pm
3.	EEE 6203	Advanced Digital Signal Processing	Dr. Md. Kamrul Hasan	Sunday 10 – 1 pm
4.	EEE 6407	Carbon Nanotechnology	Dr. Sharif Mohammad Mominuzzaman	Saturday 10:30 - 1:30 pm
5.	EEE 6003	Solar Photovoltaic Systems	Dr. Md. Ziaur Rahman Khan	Sunday 10 – 1 pm
6.	EEE 6608	Machine Learning and Pattern Recognition	Dr. Shaikh Anowarul Fattah	Saturday 11 – 2 pm
7.	EEE6503	Laser Theory	Dr. Md. Nasim Ahmed Dewan	Tuesday 2 – 5 pm
8.	EEE 6904	Power System Stability	Dr. Abdul Hasib Chowdhury	Monday 5 – 8 pm
9.	EEE6009	Energy Planning	Dr. Farseem Mannan Mohammedy	Saturday 3 – 6 pm
10.	EEE 6614	Satellite Communication Systems	Dr. Mohammad Faisal	Monday 5 – 8 pm
11.	EEE 6207	Broadband Wireless Communications	Dr. Md. Forkan Uddin	Saturday 5 – 8 pm
12.	EEE 6512	Nanoscale Device Modeling and Simulation Techniques	Dr. Md. Kawsar Alam	Sunday 2 – 5 pm
13.	EEE6606	Optical Waveguide Theory	Dr. Md. Zahurul Islam	Saturday 2 – 5 pm
14.	EEE 6011	Semiconductor Detector for Image Sensors	Dr. Shaikh Asif Mahmood	Wednesday 5 – 8 pm
15.	EEE 6301	Power Semiconductor Circuits	Yeasir Arafat	Saturday 5 – 8 pm
16.	EEE 6615	<i>Advanced Electromagnetic Theory</i>	Dr. Md. Asiful Islam	Sunday 10 – 1 pm
17.	EEE 6002	Selected Topics in Electrical and Electronic Engineering (Quantum Computing and Quantum Photonics)*	Dr. Sajid Muhaimin Choudhury	Tuesday 10 – 1 pm
18.	EEE 6004	Medical Imaging	Dr. Maruf Ahmed	Tuesday 2 – 5 pm
19.	EEE 6509	Solar Cells	Dr. Ehsanur Rahman	Saturday 2 – 5 pm

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* EEE 6002 - Selected Topics in Electrical and Electronic Engineering

Topic Title: Quantum Computing and Quantum Photonics

Course Content: Introduction to quantum computing, circuits and single-qubit gates, Qubits, bra-ket notation, superposition, and measurements, Rotation gates, the Bloch sphere and quantum state preparation, Measurements and expectation values; Introduction to multi-qubit circuits and entanglement, Quantum Algorithms - No cloning theorem and quantum teleportation, Deutsch-Jozsa algorithm, Grover's algorithm, Quantum Fourier Transform (QFT), Shor's algorithm, quantum error correction. Quantum Algorithms simulation.

Introduction to quantum hardware - fault-tolerant architecture, Photonic quantum computers, Trapped ions, Superconducting qubits, Neutral-atom quantum computers, Pulse programming on Rydberg atom hardware, Introduction to quantum photonics and continuous variable Quantum Computing, Annihilation and creation, quadrature and number operators, Continuous-variable (CV) quantum circuits, Quantum photonics for information processing.