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RGPV B.Tech – ECE 8th Semester Syllabus



Core Subject

EC-801: Optical Fibre Communication

Fiber structure, signal degradation, sources & detectors, transceivers, BER analysis, and optical networks (SONET, SDH, WDM).



Departmental Electives (EC-802)

EC-802A: AI & Signal Processing

AI foundations, search strategies, logic, learning models, neural networks, and signal processing applications.

EC-802B: Wireless Communication

Propagation models, modulation, channel coding, multiple access techniques, and mobile system architecture.

EC-802C: 5G Technology

5G architecture, spectrum, MIMO, beamforming, network slicing, and IoT integration.



Open Electives (EC-803)

EC-803A: Wireless Networks

WLAN, Bluetooth, ZigBee, routing protocols, QoS, and network security.

EC-803B: Digital Image Processing

Image enhancement, filtering, segmentation, compression, and feature extraction.

EC-803C: Speech Processing

Speech production, analysis, coding, recognition, and synthesis techniques.



Labs & Projects

EC-804: Advanced Communication Engineering Lab

Experiments on optical fiber, wireless systems, and signal processing using MATLAB and hardware kits.

EC-805: Major Project Phase II

Final implementation, testing, documentation, and viva for major project initiated in Sem 7.



Download Official Syllabus

- [Career Shiksha – ECE 8th Sem Breakdown](#)
- [RGPV Official PDF – ECE Sem 8](#)