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RGPV B.Tech – ECE 5th Semester Syllabus



Core Subjects

EC-501: Microprocessor & Applications

Covers Intel 8086 architecture, assembly language programming, interfacing peripherals (ADC, DAC, 8255, 8253, 8259), and introduction to 8051 microcontroller.

EC-502: Digital Communication

Sampling, PCM, modulation techniques (ASK, PSK, QAM), encoding schemes, matched filters, error probability, and signal space concepts.



Departmental Electives (EC-503)

EC-503A: Communication Network & Transmission Lines

Network topologies, transmission line theory, impedance matching, and signal propagation.

EC-503B: Mobile Communication

Cellular concepts, frequency reuse, handoff strategies, and mobile system architecture.

EC-503C: Advanced Control Systems

State-space analysis, controllability, observability, and advanced feedback design.



Open Electives (EC-504)

EC-504A: Electromagnetic Theory

Maxwell's equations, wave propagation, transmission lines, and antenna basics.

EC-504B: Computer System Organization

CPU architecture, memory hierarchy, instruction cycle, and I/O systems.

EC-504C: Process Control Instrumentation

Industrial control systems, sensors, actuators, and feedback mechanisms.



Download Official Syllabus

- [Career Shiksha – ECE 5th Sem Breakdown](#)
- [RGPV Official PDF – ECE Sem 5](#)

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