



श्री चन्द्रशेखरेन्द्र सरस्वती विश्वमहाविद्यालयः
SRICHANDRASEKHARENDRASARASWATHIVISWAMAHAVIDYALAYA
(Accredited with 'A' Grade by NAAC)
(Deemed to be University under section 3 of the UGC Act 1956)
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Syllabus PhD – Entrance Examinations - Department of Electronics & Communication Engineering

UNIT-I VLSI & EMBEDDED SYSTEM

Basic components, Embedded System design flow, Hardware/Software co-design, selection of processor and memory device, ARM architecture, Peripherals, interfacing, applications and programming, VLSI-CMOS design-sub system design-Programmable logics.

UNIT-II SIGNAL AND IMAGE PROCESSING

Fourier series and Fourier transform, DFT, FFT, Z-transform, digital filter design techniques, Adaptive Filter Structures; Digital image Processing- Spatial and Frequency domain techniques, image enhancement, Segmentation, Restoration, Compression techniques.

UNIT-III COMMUNICATION NETWORKS

Communication networks – fundamentals-link layers-Network Layers, Routing and addressing scheme- Application layer protocols, Mobile &Ad-hoc Networks.

UNIT-IV WIRELESS COMMUNICATION

Wireless Channels- Multiple Access Techniques in wireless communication, Cellular Concepts-Multipath Mitigation Techniques-Recent wireless technologies-Multiple Antenna Techniques.

UNIT-V OPTICAL COMMUNICATION

Introduction to optical fibers-Dispersion Compensation Schemes in optical fiber-Optical sources and detectors, optical receiver circuit-optical power budgeting-optical networks and transmission.