



The Bombay Salesian Society's

Don Bosco Institute of Technology

Department of Electronics and Telecommunication Engineering

BE Syllabus- Internal Assessment – II

Even Semester:- AY 2024-25

Date: 1/4/2025

Day-Date	Course Code	Course Name	Syllabus
11 April 2025	ECC801	Optical Communication and Networks	<p>Mod 3: Optical Communication Systems 3.1 Working principle and characteristics of sources Edge emitting LED,, Edge emitting LASER, Optical amplifiers . 3.2 Working principle and characteristics of detectors (PIN, APD) 3.3 Point to point links system considerations, link power budget, and rise time budget</p> <p>Mod 4 : Optical Network System Components and Optical Networks 4.1 Couplers, isolators , circulators, multiplexers, Optical filters - fiber gratings, Fabry ,switches and wavelength converters .Add drop multiplexers 4.2 SONET and SDH standards, architecture of optical transport networks (OTNs), protection schemes in SONET/SDH, PDH 4.3 Operational principle of WDM, WDM network elements and Architectures.</p>
15 April 2025	ILO 8011	Project Management	<p>Module 3: Project Planning and Scheduling: Work Breakdown structure (WBS) and linear responsibility chart. Interface Co-ordination and concurrent engineering, Project cost estimation and budgeting, Top down and bottoms up budgeting, Networking and Scheduling techniques. PERT, CPM, GANTT chart, Introduction to Project Management Information System (PMIS)</p> <p>Module 4: Planning Projects: Crashing project time, Resource loading and levelling, Goldratt's critical chain, Project Stakeholders and Communication plan Risk Management in projects: Risk management planning, Risk identification and risk register, Qualitative and quantitative risk assessment, Probability and impact matrix. Risk response strategies for positive and negative risks</p>
	ILO 8012	Finance Management	<p>Module 3 Overview of corporate finance: objectives of corporate finance: functions of corporate finance, investment decision, financing decision & dividend decision. Financial Ratio Analysis: over view of financial statements balance sheet, profit & loss a/c cash flow statement, purpose of financial statement analysis, liquidity ratio, efficiency or activity ratio, profitability ratio, capital structure ratio, stock market ratio, limitation of ratio analysis.</p> <p>Module 4 working capital management: concept of meaning working capital, Importance of working capital management, factors affecting an entry's working capital needs, estimation of working capital requirements; management of Inventories, management of receivables & management of cash & marketable securities.</p>
	ILO 8019	Environmental Management	<p>Module 2: Global Environmental concerns: Global Warming, Acid Rain, Ozone Depletion, Hazardous Wastes, Endangered life-species, Loss of Biodiversity, Industrial/Manmade disasters, Atomic/Biomedical hazards</p> <p>Module 4: Scope of Environment Management: Role and functions of Government as a planning and regulating agency, Environment Quality Management and Corporate Environmental Responsibility</p> <p>Module 6: General overview of major legislations: like Environment Protection Act, Air (P &CP) Act, Water (P & CP) Act, Wildlife Protection Act, Forest Act, Factories Act,</p>

Dati
11/4/2025
Ms. Hemanta Mote/ Mr. Kishore B
IA- Exam Coordinator

Ms. Madhavi Pednekar
01/04/2025
Ms. Madhavi Pednekar
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P-R. Dumane
Ms. Pratibha Dumane
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Dr. Sudhakar Mande
Dr. Sudhakar Mande
Principal





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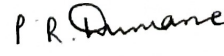
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Day-Date	Course Code	Course Name	Syllabus
15/04/25	HioTC801	Industrial IoT	Module 3: Industrial Data Transmission and Industrial Data Acquisition Module 6: IIOT Applications and Securities
	HCSC801	Application Security	Module 4: - Secure Application Design and Architecture Secure Software Development Lifecycle , Averting Disaster Before It Starts, Team Roles for Security, Security in the Software Development Lifecycle, Design Flaw vs. Security Bug, Secure Design Concepts, Segregation of Production Data, Application Security Activities Module 5:- Testing Your Code, Testing Your Application, Testing Your Infrastructure, Testing Your Database, Testing Your APIs and Web Services, Testing Your Integrations, Testing Your Network, Dynamic Web Application Profiling
	HAIMLC801	Text, Web and Social Media Analytics	Module 3: Introduction to Web-Mining: Inverted indices and Compression, Latent Semantic Indexing, Web Search, Meta Search: Using Similarity Scores, Rank Positions, Web Spamming: Content Spamming, Link Spamming, hiding Techniques, and Combating Spam. Module 4 Web Usage Mining: Data Collection and Pre-processing, Sources and types of Data, Data Modelling, Session and Visitor Analysis, Cluster Analysis and Visitor segmentation, Association and Correlation Analysis, Analysis of Sequential and Navigational Patterns, Classification and Prediction based on Web User Transactions
	HDSC801	Text, Web and Social Media Analytics	MODULE 4: Web Usage Mining: Data Collection and Preprocessing, Sources and types of Data, Data Modelling, Session and Visitor Analysis, Cluster Analysis and Visitor segmentation, Association and Correlation Analysis, Analysis of Sequential and Navigational Patterns, Classification and Prediction based on Web User Transactions. MODULE 5: Social Media Mining Mining Social Media: Influence and Homophily, Behaviour Analytics, Recommendation in Social Media: Challenges, Classical recommendation Algorithms, Recommendation using Social Context, Evaluating recommendations MODULE 6: Web-Mining: Opinion Lexicon Expansion: Dictionary based, Corpus based Opinion Spam Detection: Supervised Learning, Abnormal Behaviours, Group Spam Detection.


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
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Day-Date	Course Code	Course Name	Syllabus
16 April 2025	ECCDLO 8013	Wireless Networks (DLO)	Module 3: Wireless Local Area Network & Wireless Adhoc Networks 3.1 Wireless Local Area Network: Equipment, Topologies, Technologies, Applications, Main features of IEEE802.11a,b, i and n, Protocol Architecture of WLAN 3.2 Wireless Adhoc Networks: Features, advantages Mobile Adhoc Networks: Network Architecture, MAC Protocol, & Applications Module 4 Wireless Metropolitan & Vehicular Adhoc Networks 4.1 WMAN(IEEE802.16):Introduction, WMAN Network Architecture, Network Protocols, Broadband Wireless Networks, Applications 4.2 Vehicular Adhoc Networks (VANETs): Characteristics, Protocols & Applications Module 5 Wireless Wide Area Networks 5.1 Planning and design of Wireless Networks, Radio design for a cellular Network 5.2 Receiver sensitivity, Link budget for GSM and CDMA Systems, HSDPA
17 April 2025	ECCDLO8023	Network Management in Telecommunication(DLO)	Mod 3: Internet Management 3.1 SNMP model: SNMP Organizational model, System overview, Information model, Management of Information Base 3.2 SNMP v1: SNMP Communication model- SNMP architecture, Administrative model, SNMP Protocol specifications, SNMP operations, SNMP Functional model 3.3 SNMPv2: Major changes in SNMPv2, SNMPv2 architecture, SNMPv2 Management Information Base, SNMPv2 protocol, Compatibility with SNMPv1 3.4 SNMPv3:Key features, SNMPv3 architecture, SNMPv3 applications, Security, security model, message format, SNMPv3 User- based Security Model, Access control (VACM) 3.5 RMON: What is RMON? RMON 1, RMON 2 Mod 4: Telecommunication Management Networks(TMN) 4.1 Definition of TMN , TMN framework, TMN functional model 4.2 TMN Conceptual model, OSI functionality in TMN 4.3 TMN management services architecture and TMN implementation


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