



List of Courses focuses on Professional Ethics, Gender, Human Values, Environment & Sustainability and other value framework

Department : *Electronics & Communication Engineering*

Programme Name : *B.Tech.*

Academic Year : 2017-18

Courses which focus on Professional Ethics, Gender, Human Values, Environment & Sustainability and other value framework:

Sr. No.	Course Code	Name of the Course
01.	ECETH4202	Principal of Management
02.	EC5TOE14	Project Management
03.	EC06TOE23	Knowledge Management



Scheme and Syllabus

ELECTRONICS & COMMUNICATION ENGINEERING

Effective From 2017-18 (CBCS)

V SEM. (Split up of Subject areas)

Sl No	Subject Area	Credits
1	PC	16
2	PE	8
	OE	3
Semester Credits		27

VI SEM. (Split up of Subject areas)

Sl No	Subject Area	Credits
1	PC	10
2	PE	8
3	OE	3
4	SEMINAR	2
Semester Credits		23

V SEMESTER B.Tech

S. No.	Subject Code	Subjects	Periods / Week			Total Credit
			L ¹	T ²	P ³	
1	EC5TPC07	LIC & ITS APPLICATION	3	1	0	4
2	EC5TPC08	CS-II	3	1	0	4
3	EC5TPC09	EMFT	3	1	0	4
4	EC5TPE01	Microprocessor & Its Application	3	0	0	3
5	EC5TPE02	DS&OS	3	0	0	3
6	EC5TOE11- EC5TOE15	1. Computer Architecture, 2.OOP in C++, 3.Introduction to Information Security, 4.Project Management, 5. Rural Technology and Community Development	3	0	0	3
PRACTICAL						
1	EC5PPC07	LIC & ITS APPLICATION	-	-	3	2
2	EC5PPE01	Microprocessor & Its Application	-	-	3	2
3	EC5PPC08	CS-II	-	-	3	2
Total Credits						27



INSTITUTE OF TECHNOLOGY
GURU GHASIDAS CENTRAL UNIVERSITY, BILASPUR
SCHEME OF B.Tech. IIIrd SEMESTER
ELECTRONICS & COMMUNICATION ENGINEERING

VIIIth SEMESTER

S. No.	Sub Code	Subject	Periods			Evaluation Scheme			Credit
			I	T	P	IA	ESE	Sub Total	
1.	ECETH 4201	Satellite & Radar Communication	3	1		40	60	100	4
2.	ECETH 4202	Principle of Management	3	1		40	60	100	4
3.	ECETH 4203	Optical Fiber Communication	3	1		40	60	100	4
4.	ECETH 4204	Elective - II			6	30	20	50	2
5.	ECETH 4201	Project-2					50	50	2
6.	ECETH 4202	Comprehensive Viva-voce			3	30	20	50	2
7.	ECETH 4203	Circuit Simulation Lab			3	30	20	50	2
8.	ECETH 4204	Optical Fiber Communication Lab			3	30	20	50	2
			12	4	12	250	350	600	24

List of Subjects for Elective - II:

S.No.	Code	Name of Subject
1.	ECETH4204	Digital Image Processing
2.	ECETH4205	Cryptography & Network Security
3.	ECETH4206	Radar Engineering
4.	ECETH4207	Mobile Computing
5.	ECETH4208	NanoTechnology
6.	ECETH4209	Vacuum Technology
7.	ECETH4210	Optimization Techniques
8.	ECETH4211	Stochastic Process



ELECTRONICS & COMMUNICATION ENGINEERING

Effective From 2017-18 (CBCS)

VI SEMESTER B.Tech						
S.	Subject		Periods /			Total
No.	Code	Subjects	Week			Credit
			L ¹	T ²	P ³	
1	EC6TPC10	DSP	3	1	0	4
2	EC6TPC11	Antenna & wave propagation	3	1	0	4
3	EC6TPE03	Data Communication & Computer Networking	3	0	0	3
4	EC6TPE04	Fundamental of VLSI Design	3	0	0	3
5	EC6TOE21-25	1. UNIX, Operating System 2. Probability & Stochastic Process 3. Advanced Instrumentation, 4. Knowledge management, 5. Engineering System Design Optimization,	3	0	0	3
PRACTICAL						
1	EC6PPE02	VHDL	-	-	3	2
2	EC6PPC06	DSP	-	-	3	2
3	EC6PSP01	SEMINAR				2
					Total credit	23



ELECTRONICS & COMMUNICATION ENGINEERING

Effective From 2017-18 (CBCS)

Sub Code	L	T	P	Duration	IA	ESE	Credits
EC5TOE14	3	0		3 hours	40	60	3

Course Objective

1. To make them understand the concepts of Project Management for planning to execution of projects.
2. To make them understand the feasibility analysis in Project Management and network analysis tools for cost and time estimation.
3. To enable them to comprehend the fundamentals of Contract Administration, Costing and Budgeting.
4. Make them capable to analyze, apply and appreciate contemporary project management tools and methodologies.

PROJECT MANAGEMENT

UNIT-I, Basics of Project Management: Introduction, Characteristics of projects, Definition and objectives of Project Management, Stages of Project Management, Project Management Processes, Project Management Principles

UNIT-II, Project Identification and Selection: Introduction, Project Identification Process, Project Initiation, Pre-Feasibility Study, Feasibility Studies, Project Break-even point

Project Planning: Introduction, Project Planning, Need of Project Planning, Project Life Cycle, Roles, Responsibility and Team Work, Project Planning Process, Work Breakdown Structure (WBS)

UNIT-III, Resources Considerations in Projects: Introduction, Resource Allocation, Scheduling, Project Cost Estimate and Budgets, Cost Forecasts

PERT and CPM: Introduction, Development of Project Network, Time Estimation, Determination of the Critical Path, PERT Model, Measures of variability, CPM Model, Network Cost System

UNIT-IV, Project Management Information System: Introduction, Project Management Information System (PMIS), Planning of PMIS, Design of PMIS

Project Management Software: Introduction, Advantages of Using Project Management Software, Common Features Available In Most of the Project Management Software.

UNIT-V, Post-Project Analysis: Project review and control- Initial review, performance evaluation, abandonment analysis and its behavioral issues.

SUGGESTED BOOKS & REFERENCE:-

1. Shtub, Bard and Globerson, *Project Management: Engineering, Technology, and Implementation*, PHI
2. Lock, Gower, *Project Management Handbook*.
3. Cleland and King, *VNR Project Management Handbook*.
4. Wiest and Levy, *Management guide to PERT/CPM*, Prentice Hall, India
5. Horald Kerzner, *Project Management: A Systemic Approach to Planning, Scheduling and Controlling*, CBS Publishers, 2002.
6. S. Choudhury, *Project Scheduling and Monitoring in Practice*.
7. P. K. Joy, *Total Project Management: The Indian Context*, Macmillan India Ltd.
8. *Project planning, analysis, selection, implementation and review by Prasanna Chandra, TMH.*



Sub Code	L	T	P	Duration	IA	ESI	Credits
ECETH1202	3	1		3 hours	40	60	4

PRINCIPLE OF MANAGEMENT

UNIT - I

Management concepts, Nature, Scope, Significance, Function and Principle of Management Concepts. Evolution of Management: Early Contribution, Taylor and Scientific management, Fayol's administrative management, Bureaucracy, Hawthorne Experiments and Human Relations.

UNIT - II

Planning: Concepts, Objectives, Goals, Components and Steps involved in planning process, MBO, Decision making process, Individual and Group Decision Making.

UNIT - III

Organizing: principles, Organization theories, Line & Staff Authority, Centralization, Decentralization, Delegation, Employee's empowerment, Span of control, Departmentation, Authority and Responsibility.

UNIT - IV

Staffing: Recruitment & Selection, Training & Development, Performance Appraisal Directing: Concept Direction and Supervision, Co-ordination.

UNIT - V

Communication: Communication Process, Importance of Communication, Barriers to Communication Controlling: nature, scope, functions, steps and process, control techniques.

SUGGESTED BOOKS & REFERENCE:

1. Management, Stoner & Freeman, PHI
2. Principles of Management, Koontz, O'Donnell Wehrich, McGraw Hill
3. The Practice of Management, P F Drucker, Allied Pub
4. Essentials of Management, Massie, AITBS
5. Principles of Management, Terry and Franklin, AITBS
6. Organization and Management, R D Agarwal, TMH
7. Management, H Koontz, McGraw Hill
8. Fundamentals of Management, Robbins & Dinzo, Pearson India



ELECTRONICS & COMMUNICATION ENGINEERING

Effective From 2017-18 (CBCS)

Sub Code	L	T	P	Duration	IA	ESE	Credits
EC6TOE24	3	0		3 hours	40	60	3

Course Objective

1. Promoting enhanced knowledge dissemination within the organization with the help of internal as well as external learning processes and systems.
2. Transforming individual knowledge into the structural capital of the enterprise and organization.
3. Aligning business strategy with the existing core competencies of the organization and its capabilities.

Knowledge Management

Unit 1: Introduction: Definition, evolution, need, drivers, scope, approaches in Organizations, strategies in organizations, components and functions, understanding knowledge; Learning organization: five components of learning organization, knowledge sources, and documentation.

Unit 2: Essentials of Knowledge Management; knowledge creation process, knowledge management techniques, systems and tools.

Unit 3: Organizational knowledge management; architecture and implementation strategies, building the knowledge corporation and implementing knowledge management in organization.

Unit 4: Knowledge management system life cycle, managing knowledge workers, knowledge audit, and knowledge management practices in organizations, few case studies.

Unit 5: Futuristic KM: Knowledge Engineering, Theory of Computation, Data Structure.

SUGGESTED BOOKS & REFERENCE:-

1. Knowledge Management – a resource book – A Thothathri Raman, Excel, 2004.
2. Knowledge Management- Elias M. Awad Hasan M. Ghazri, Pearson Education
3. The KM Toolkit – Orchestrating IT, Strategy & Knowledge Platforms, Amrit Tiwana, Pearson, PHI, II Edn.
4. The Fifth Discipline Field Book – Strategies & Tools For Building A learning Organization – Peter Senge et al. Nicholas Brealey 1994
5. Knowledge Management – Sudhir Warier, Vikas publications
6. Leading with Knowledge, Madanmohan Rao, Tata Mc-Graw Hill.