MALNAD COLLEGE OF ENGINEERING, HASSAN
(An Autonomous Institution Affiliated to VTU, Belagavi)

Autonomous Programme
Bachelor of Engineering

Department Of
INFORMATION SCIENCE AND ENGINEERING

SCHEME AND SYLLABUS
(2023 Admitted Batch)

Academic Year 2025-2026

VISION OF THE INSTITUTE

To be an institute of excellence in engineering education and research, producing socially responsible professionals.

MISSION OF THE INSTITUTE

- Create conducive environment for learning and research
- Establish industry and academia collaborations
- Ensure professional and ethical values in all institutional endeavors

VISION OF THE INFORMATION SCIENCE AND ENGINEERING DEPARTMENT

The department will be a premier centre focusing on knowledge dissemination and generation to address the emerging needs of information technology in diverse fields.

MISSION OF THE INFORMATION SCIENCE AND ENGINEERING DEPARTMENT

- To make students competent to contribute towards the development of IT field.
- Promote learning and practice of latest tools and technologies among students.
- Collaborate with industry and institutes of higher learning for R&D.;
- Develop capacity of teachers in terms of their teaching and research abilities.
- Develop software applications to solve engineering and societal problems.

PROGRAM OUTCOMES (POs)

1. Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

2. Problem Analysis: Identify, formulate, research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

3. Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health and safety and the societal, environmental and economic contexts.

4. Conduct Investigations: Conduct investigations of complex problems using research-based knowledge and research methods.

5. Modern Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering and IT tools.

6. The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues.

7. Environment and Sustainability: Understand the impact of professional engineering solutions in environmental contexts and demonstrate knowledge of and need for sustainable development.

8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities.

9. Individual and Team Work: Function effectively as an individual and as a member in diverse teams.

10. Communication: Communicate effectively on complex engineering activities with diverse audiences.

11. Project Management and Finance: Apply knowledge of project management and finance to manage engineering projects.

12. Life-long Learning: Recognize the need for and engage in independent and life-long learning.

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1: Design and Develop efficient information systems for organizational needs.

PSO2: Communicate proficiently and collaborate successfully with peers, colleagues and organizations.

PSO3: Ability to adopt software engineering principles and work with various standards of Computing Systems.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

Graduates will:

PEO1: Be successful professionals in IT industry with good design, coding and testing skills, capable of assimilating new information and solving new problems.

PEO2: Pursue advanced studies and research opportunities in diversified fields including entrepreneurship.

PEO3: Be critical and responsible members of the computing profession and society.

PEO4: Acquire necessary skills for research, higher studies, entrepreneurship and continued learning to adopt and create new applications.

COURSE TYPES

Course Type	Abbreviation
Basic Science Course	BSC
Engineering Science Course	ESC
Emerging Technology Course	ETC
Programming Language Course	PLC
Professional Core Course	PCC
Integrated Professional Core Course	IPCC
Professional Core Course Laboratory	PCCL
Professional Elective Course	PEC
Open Elective Course	OEC
Project/Mini Project/Internship	PI
Humanities and Social Sciences, Management Course	HSMC
Ability Enhancement Course	AEC
Skill Enhancement Course	SEC
Universal Human Value Course	UHV
Non-credit Mandatory Course	MC

INFORMATION SCIENCE AND ENGINEERING — SEMESTER 3 — 2025

Sl. No	Course Category	Course Code	Course Title	L	T	P	Total	CIE	SEE	Total	Credits	Assign Faculty
1	OEC	23NYP	NSS,YOGA,PE	0	2	0	2	100	0	100	0	
2	PCC	23RIP	RESEARCH METHODOLOGY & INTELLECTUAL PROPERTY RIGHTS	3	0	0	3	50	50	100	3.0	
3	BSC	23MAIS301	Mathematics for Information Science Engineering-I	1	2	1	4	50	50	100	4	faculty1
4	PLC	23IS302	Digital Design & Computer Organization	1	2	1	4	50	50	100	4	faculty2

Elective/Enhancement Courses

Engineering Science Course (ESC)

Course Code	Course Title	Assign Faculty
23IS306A	OOP with Java	faculty2

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