Computer Engineering (Bachelor)

I. Fundamental Training Areas and Disciplines

♦ Mathematics
- Mathematics

♦ Physics
- Physics

♦ Electrical Engineering and Electronics
- Electrical Engineering and Electronics

♦ Discrete Structures
- Discrete Structures

♦ Programming Fundamentals
- Programming Fundamentals

♦ Principles of Management
- Introduction to Management
- Management in Computer Engineering

♦ Social and Professional Issues
- History of Computing
- Social Context of Computing
- Professional and Ethical Responsibilities
- Intellectual Property

II. Special Training Areas and Disciplines

♦ Algorithms and Complexity
- Algorithms and Data Structures
- Algorithm Design and Analysis

♦ Computer Architecture and Architectures
- Theory of Logical Design
- Computer Organization (Processors)
- Microprocessors and Microprocessor Systems
- Assembly Language Programming
- Computer Architectures
- Computer Peripherals
- Digital Signal Processing (Signal Processors) – *elective*
- Testing and Fault Tolerance – *elective*

♦ Operating Systems
- Theory of Operating Systems
- Operating Systems – User Level – *elective*
- Operating systems – Administration – *elective*

♦ Database Management Systems (DBMS)
- Databases
- Information Systems
- Statistical Data Analysis – *elective)*

♦ Computer Networks

Computer Networks
Computer Network Planning, Reliability and Testing
Information and Coding Theory – *elective*

♦ Computer Security

Cryptographic Methods, Algorithms and Protocols
Network Security

♦ VLSI Design

Computer-Aided Circuit Design
Computer Systems Design (Systems on a Chip) – *elective*
VLSI Design Techniques – *elective*

♦ Embedded Systems

Embedded Systems

♦ Software Engineering

Software Development and System Programming

♦ Intelligent Systems

Intelligent Systems
Neural Networks – *elective*
Genetic Algorithms – *elective*