**Career after graduated**- Programmer  
- Web Developer  
- Software Tester  
- System Analyst  
- Software Architect  
- Project manager Assistant

**Branch Subjects**  
1. MOBILE DEVICE PROGRAMMING  
2. REQUIREMENT ENGINEERING  
3. SERVICE-ORIENTED PROGRAMMING  
4. SOFTWARE VERIFICATION AND VALIDATION  
5. CLOUD-BASED ENTERPRISE APPLICATION DEVELOPMENT  
6. SOFTWARE DEVELOPMENT TOOLS AND ENVIRONMENTS  
7. PROJECT IN SOFTWARE ENGINEERING 1  
8. PROJECT IN SOFTWARE ENGINEERING 2

**MOBILE DEVICE PROGRAMMING**  
Subject code: 06016323

Prerequisite: 06016317 OBJECT-ORIENTED PROGRAMMING

Credit: 3(2-2-5)

Introduction to technology and the programming of application for mobile computing including devices i.e. smart phones, pads, and tablets; developing mobile applications and using device emulators for coding and testing.

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**REQUIREMENT ENGINEERING**  
Subject code: 06016324

Prerequisite: NONE

Credit: 3(3-0-6)

Requirements management technique; problem analysis; stakeholder needs;  
document requirements with use-case model; document hierarchy and standard for define requirements level; system definition;  
scope managing; requirement attributes and traceability; manage change; using requirements to drive ongoing design, test, and user documentation.

**SERVICE-ORIENTED PROGRAMMING**  
Subject code: 06016325  
Prerequisite: NONE

Credit: 3(2-2-5)

Concepts and structures of web services; web services standards; development and deployment of web service applications; concept of Service-Oriented Architecture (SOA); features and benefits of enterprise service bus (ESB); business process management (BPM)

**SOFTWARE VERIFICATION AND VALIDATION**  
Subject code: 06016326  
Prerequisite: 06016306 INFORMATION SYSTEMS ANALYSISAND DESIGN

Credit: 3(3-0-6)

Role of V&V in software evolution; software technical reviews; levels of software testing; testing techniques; proof of correctness; simulation and prototyping; requirements tracing; software V&V planning; tracking  
test activities; problem tracking and assessment.

**Cloud-based enterprise application development**  
Subject code: 06016327  
Prerequisite: 06016325 SERVICES-ORIENTED PROGRAMMING

Credit: 3(2-2-5)

Introduction to cloud technology, cloud architecture, virtualization and  
multi-tenancy features, principles to develop enterprise application in cloud,  
declarative and problematic application development, governances limits, frequently encountered issues during cloud-based, application development, requirements or capability factors towards the selection of appropriate development paradigm, data analytics using cloud platforms, principle to  
cloud database management, NoSQL.

**SOFTWARE DEVELOPMENT TOOLS AND ENVIRONMENTS**  
Subject code: 06016328  
Prerequisite: NONE

Credit: 3(2-2-5)

Principles to software professionals, role of applications in software engineering tasks, agile software development tools, product  
development tracking, version and configuration management, build and  
continuous integration tools, program debugging and profiling tools, collaborative development environment, packaging and development tools.

**PROJECT IN SOFTWARE ENGINEERING 1**  
Subject code: 06016329  
Prerequisite: NONE

Credit: 3(0-9-0)

Study or research of interesting current topics in software engineering undertaking a work project based by applying the theoretical aspects of the information technology studies under the supervision of a faculty member to be able to present a project proposal and elementary result from practical solving or academic analysis.

**PROJECT IN SOFTWARE ENGINEERING 2**Subject code: 06016330  
Prerequisite: 06016329 PROJECT IN SOFTWARE ENGINEERING 1

Credit: 3(0-9-0)

Study or research of interesting current topics in software engineering undertaking a work project based by applying the theoretical aspects of the information technology studies under the supervision of a faculty member to be able to present a complete result of the proposed topic and study as continued from project I.