**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

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.

**REQUIREMENT ENGINEERING**  
Subject code: 06016324  
Prerequisite: NONE

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

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

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

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

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

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

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.