FINAL YEAR COMPUTER SCIENCE AND ENGINEERING - CBCS PATTERN

SEMESTER - VII

Sr. No.	Course Subject / Title	TEACHING SCHEME							EXAMINATION SCHEME							
		THEORY			TUTORIAL		PRACTICAL		THEORY				ORAL / PRACTICAL		TERMWORK	
		Credits	N0. Of Lectures	Hours	Credits	No. of Hours	Credits	No. of Hours	mode	marks	Total Marks	MIN.	MAX	MIN.	MAX	MIN.
1	PCC-CS701 Advanced Computer Architecture	4	4	4	1	1			CIE	30	100	40			25	10
									ESE	70						
2	PCC- CS702 Cloud Computing	3	3	3			1	2	CIE	30	100	40			25	10
									ESE	70						
3	PCC- CS703 Advanced Database Systems	3	3	3			1	2	CIE	30	100	40	50	20	25	10
									ESE	70						
4	PCE- CS704 Elective-I	3	3	3	1	1			CIE	30	100	40			25	10
									ESE	70						
5	PCC- CS705 Web Technologies	3	3	3			2	4					50	20	50	20
6	PW- CS706 Project – I						2	4					50	20	50	20
7	SI-CS707 Internship						1								50	20
	Total (SEM –VII)	16	16	16	2	2	7	12			400		150		250	

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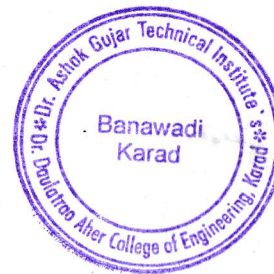Dr. Daulatrao Aher College of Engineering, Karad

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FINAL YEAR COMPUTER SCIENCE AND ENGINEERING - CBCS PATTERN

SEMESTER - VIII

Sr. No.	Course Subject / Title	TEACHING SCHEME							EXAMINATION SCHEME							
		THEORY			TUTORIAL		PRACTICAL		THEORY				ORAL / PRACTICAL		TERMWORK	
		Credits	N0. Of Lectures	No. of Hours	Credits	No. of Hours	Credits	No. of Hours	mode	marks	Total Marks	MIN.	MAX	MIN.	MAX	MIN.
1	PCC- CS801 Big Data Analytics	4	4	4			1	2	CIE	30	100	40	50	20	25	10
									ESE	70						
2	PCC- CS802 Deep Learning	3	3	3	1	1			CIE	30	100	40			25	10
									ESE	70						
3	PCE- CS803 Elective-II	3	3	3	1	1			CIE	30	100	40			25	10
									ESE	70						
4	PCE- CS804 Elective-III	3	3	3	1	1			CIE	30	100	40			25	10
									ESE	70						
5	PCC- CS805 Mobile Application Development	3	3	3			2	4					50	20	50	20
6	PW- CS806 Project – II						2	4					50	20	50	20
7	HM-CS807 Professional Skills				1	1									50	20
	Total (SEM –VIII)	16	16	16	4	4	5	10			400		150		250	
	Total	32	32	32	6	6	12	22			800		300		500	

CIE- Continuous Internal Evaluation

ESE – End Semester Examination

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Final Year B. Tech (Computer Science and Engineering) Sem– VII

8. Project-I (PW- CS706)

| TEACHING SCHEME	EXAMINATION SCHEME
Theory : NA	Theory : NA
Tutorial : NA	Term work: 50 Marks
Practical : 4 Hrs./Week	Demo & OE: 50 Marks

Pre-requisites: Software Engineering, Mini Project.

Course Objectives

1. Identify the area of project work

2. Recognize the need and ability to engage in lifelong learning

3. Function effectively on teams and to communicate effectively

4. Able to prepare the technical report

Course Outcomes

Upon successful completion of this course, the students will be able to:

1. Explain the need of a software project for the society

2. Identify requirement analysis like functional and technical requirements for the project

3. Come up with design documents for the project consisting of Architecture, Dataflow diagram, Class Diagram, Algorithmic descriptions of various modules, collaboration diagram, ER Diagrams, Database Design Documents, Sequence Diagram, Use Case Diagram

4. Able to demonstrate analysis and design.

5. Prepare the technical report consisting of Requirement specification, Analysis and Design of Project
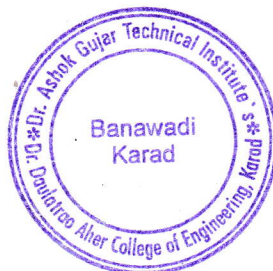
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Contents

The project work is to be carried out in two semesters of Final Year Computer Science and Engineering.

The project should be undertaken preferably by group of 4-5 students who will jointly work and implement the project in the two semesters.
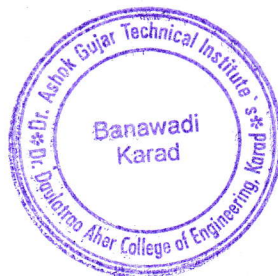
In Semester VII, the group will select a project with the approval of the Guide (staff member) and submit the Name of the project with a synopsis of the proposed work of not more than 02 to 08 pages before second week of August in the academic year. The group is expected to complete detailed system design, analysis, data flow design, procurement of hardware and/or software, implementation of a few modules of the proposed work at the end of semester –VIII as a part of the term work submission in the form of a joint report.

The term work assessment will be done jointly by teachers appointed by Head of the Institution.

The oral examination will be conducted by an internal and external examiner

Note:

1. Project work should be continually evaluated based on the contributions of the group members, originality of the work, innovations brought in, research and developmental efforts, depth and applicability, etc.

2. Two mid-term evaluations should be done, which includes presentations and demos of the work done.

3. Care should be taken to avoid copying and outsourcing of the project work.

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Final Year B. Tech (Computer Science and Engineering) Sem- VII

9. Internship (SI-CS707)

TEACHING SCHEME	EXAMINATION SCHEME
Theory : NA	Practical:1 Credit
Tutorial :NA	Term work: 50 Marks
Practical :Minimum4 Weeks duration	Mode of Evaluation : –Internship Report, Presentation and Project Review.

Pre-requisites: Completion of minimum of Six semesters, Knowledge of Basic Programming Languages, Database Software.

Course Objectives

The course is designed to expose the students to industry environment and to take up on-site assignment as trainees or interns.

Course Outcomes

At the end of this internship the student should be able to:
1. Have an exposure to industrial practices and to work in teams
2. Communicate effectively
3. Understand the impact of engineering solutions in a global, economic, environmental, and societal context
4. Develop the ability to engage in research and to involve in life-long learning
5. Comprehend contemporary issues
6. Engage in establishing his/her digital footprint

Duration: Minimum 4 Weeks
Details:
Four weeks of work at industry site.
Supervised by an expert at the industry.

Term Work

1. Mode of Evaluation: Internship Report, Presentation and Project Review.
2. Collect the Internship Completion Letter given by authorized industry.
3. Assess the work based on progress report (signed by industry expert).
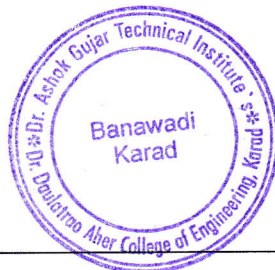
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Final Year B. Tech (Computer Science and Engineering) Sem– VIII

10. Project-II (PW- CS806)

| TEACHING SCHEME	EXAMINATION SCHEME
Theory : NA	Theory : NA
Tutorial : NA	Term work: 50 Marks
Practical : 4 Hrs./Week	Demo & OE : 50 Marks

Pre-requisites: Project - I.

Course Objectives

1. Students should learn to design and develop usable User Interface

2. Students should learn to analyze and apply emerging technologies in development of a project

3. Students should learn to test the modules in Project

4. Students should learn to demonstrate working of project

Course Outcomes

Upon successful completion of this course, the students will be able to:

1. Design and develop usable User Interface

2. Analyze and apply emerging technologies in development of a project

3. Test the modules in Project

4. Demonstrate working of project
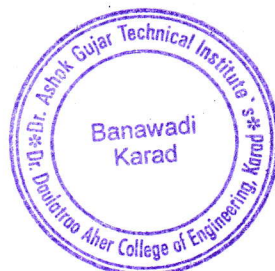
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Contents

The group will continue to work on the project selected during the semester VII and submit the completed
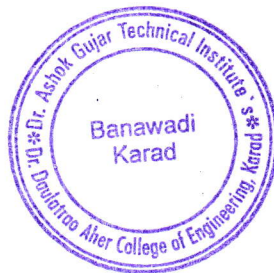
Project work to the department at the end of semester VIII as mentioned below.

1. The workable project.

2. The project report in the bound journal complete in all respect with the following : -

      i. Problem specifications

      ii. System definition – requirement analysis.

      iii. System design – dataflow diagrams, database design

      iv. System implementation – algorithm, code documentation

      v. Test results and test report.

      vi. In case of object oriented approach – appropriate process be followed.

CIE will be jointly assessed by a panel of teachers appointed by head of the Institution. SEE examination will

be conducted by internal and external examiners

Note:

1. Project work should be continually evaluated based on the contributions of the group members, originality of the work, innovations brought in, research and developmental efforts, depth and applicability, etc.

2. Two mid-term evaluations should be done, which includes presentations and demos of the work done.

**3. Care should be taken to avoid copying and outsourcing of the project work**

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THIRD YEAR COMPUTER SCIENCE AND ENGINEERING - CBCS PATTERN
SEMESTER - VI

Sr. No.	Course Subject / Title	TEACHING SCHEME							EXAMINATION SCHEME							
		THEORY			TUTORIAL		PRACTICAL		THEORY				ORAL / PRACTICAL		TERMWORK	
		Credits	No. Of Lectures	No. of Hours	Credits	No. of Hours	Credits	No. of Hours	mode	marks	Total Marks	MIN.	MAX	MIN.	MAX	MIN.
1	PCC-CS601 Compiler Construction	3	3	3			1	2	CIE	30	100	40			25	10
									ESE	70						
2	PCC- CS602 Operating System-II	4	4	4			1	2	CIE	30	100	40			25	10
									ESE	70						
3	PCC- CS603 Database Engineering	4	4	4			1	2	CIE	30	100	40	50	20	25	10
									ESE	70						
4	PCC- CS604 Machine Learning	3	3	3	1	1			CIE	30	100	40			25	10
									ESE	70						
5	OEC- CS605 E-Commerce & Digital Marketing OEC - CS606 ii) Cyber Security	3	3	3					CIE	30	100	40				
									ESE	70						
6	PCC- CS607 C# Programming	2	2	2			1	2					50	20	25	10
7	PW- CS608 Domain Specific Mini Project						1	2					50	20	25	10
	Total (SEM –VI)	19	19	19	1	1	5	10			500		150		150	
	Total (SEM - V+ SEM - VI)	38	38	38	3	4	9	18			1000		250		350	

CIE- Continuous Internal Evaluation
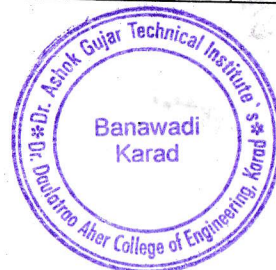
ESE – End Semester Examination

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T. Y. B. Tech (Computer Science and Engineering) Sem – VI

7. Domain Specific Mini-project (PW - CS608)

TEACHING SCHEME	EXAMINATION SCHEME
Theory : -----	Theory : -----
Tutorial : -----	Term work : 25 marks
Practical : 2 Hrs./Week	Practical : 50 marks

Pre-requisites:

1. Software Engineering Concepts
2. Object Oriented Concepts

Course Objectives

1. To expose the students to use engineering approach to solve domain specific real time problem.
2. To use the appropriate and newer technologies while developing the project.
3. To learn the skills of team building and team work.

Course Outcomes

Upon successful completion of this course, the student will be able to –

1. Identify specific problem statement from a selected domain.

2. Analyze the problem and prepare SRS and design document.

3. Write code and carry out testing.

4. Write a report covering details of the project and give presentation on a project.

Contents

The students should form group of 4 to 5 students and every group is supposed to choose a specific domain (preferably from Smart India Hackathon problem statement) to do the mini project. Further the group should identify the relevant problem in the selected domain and propose the solution, which can be implemented as a mini-project using suitable technology. The mini-project work should be evaluated by a team of teachers appointed by the department. The evaluation and marking should include Continuous Internal Evaluation (CIE) and Semester End Examination (SEE) during which the group should give presentation and demonstration of their work done. Care should be taken to avoid out-sourcing of the work.
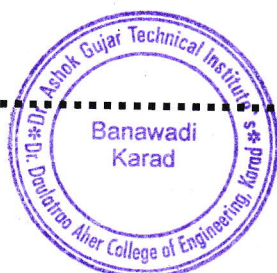
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#	Course										Exam	Marks	Total	Min					
1	PCC-CS401 Automata Theory	3	3	3	1	1	1				CIE ESE	30 70	100	40	AS PER BOS GUIDELINES			AS PER BOS GUIDELINES	25	10
2	PCC- CS402 Computer Networks - II	3	3	3				1	2	2	CIE ESE	30 70	100	40		50	20		25	10
3	PCC- CS403 Computer Organization and Architechture	3	3	3							CIE ESE	30 70	100	40						
4	PCC- CS404 Operating Systems - I	3	3	3	1	1	1				CIE ESE	30 70	100	40					25	10
5	PCC- CS405 Software Engineering	3	3	3							CIE ESE	30 70	100	40						
6	PCC- CS406 Object Oriented Programming	2	2	2				2	4	4						50	20		50	20
7	PW- CS407 Mini Project							1	2	2						25	10		50	10
8	MC-CS408	2	2	2				1	2	2										
	Total	19	19	19	2	2	2	5	10	10			500			125			175	
	Total	37	37	37	4	4	4	10	20	20			1000			250			350	

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S. Y. B.Tech (Computer Science and Engineering) Sem – III

PW-CS407– Mini Project

TEACHING SCHEME	EXAMINATION SCHEME
Theory : --	Term work: 25 marks
Tutorial : --	Theory : --
Practical: 2 Hrs/Week	Practical : 50 marks

Pre-requisites: Knowledge of software engineering and C/C++

Course Objectives:
1. To expose the students to solve the real world problems.
2. To utilize the techniques. Skills and modern Engineering tools for building the project.
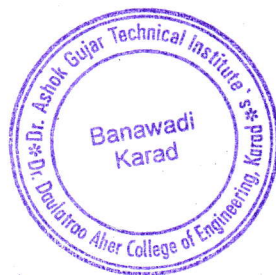3. To follow the methods and tasks as per SDOLC Approach

Course Outcomes:
1. Define the problem statement.
2. Organize, Plan and prepare the detailed project activities.
3. Construct Flowchart, System Architecture based on the project description
4. Implement the solution for their problem.

Platform: - C, C++

Course Contents/Description:-

      The Mini Project should be undertaken preferably by a group of 3-4 students who will jointly work together and implement the project. The Mini Project topic should be based on the any one subject concepts that students have studied for their Academic Year. The group will select the project with the approval of the guide and submit the name of the project with a synopsis of the proposed work not more than 02 to 03 pages. In the Synopsis they have to state Flowchart, Usage of the logic, algorithm, functions and suitable data structure for implementing the solution. They have to implement project using C, C++ languages.

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