



KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE

Opp : Yerragattu Gutta, Hasanparthy (Mandal), WARANGAL - 506 015, Telangana, INDIA.

काकतीय प्रैद्योगिकी एवं विज्ञान संस्थान, वरंगल - ५०६ ०१५ तेलंगाना, भारत

కాకతీయ సాంకేతిక విజ్ఞాన శాస్త్ర విద్యాలయం, వరంగల్ - ౫౦౬ ౦౧౫ తెలంగాణ, భారతదేశము

(An Autonomous Institute under Kakatiya University, Warangal)

(Approved by AICTE, New Delhi; Recognised by UGC under 2(f) & 12(B); Sponsored by EKASILA EDUCATION SOCIETY)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

PG - M.Tech. (SOFTWARE ENGINEERING)

PRR - 20

SCHEME OF INSTRUCTION & EVALUATION

(I Semester to IV Semester)

(Applicable from the Academic Year 2020-21)



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VISION OF THE INSTITUTE

- To make our students technologically superior and ethically strong by providing quality education with the help of our dedicated faculty and staff and thus improve the quality of human life

MISSION OF THE INSTITUTE

- To provide latest technical knowledge, analytical and practical skills, managerial competence and interactive abilities to students, so that their employability is enhanced
- To provide a strong human resource base for catering to the changing needs of the Industry and Commerce
- To inculcate a sense of brotherhood and national integrity

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VISION OF THE DEPARTMENT

- Attaining centre of excellence status in various fields of Computer Science and Engineering by offering worth full education, training and research to improve quality of software services for ever growing needs of the industry and society.

MISSION OF THE DEPARTMENT

- Practice qualitative approach and standards to provide students better understanding and profound knowledge in the fundamentals and concepts of computer science with its allied disciplines.
- Motivate students in continuous learning to enhance their technical, communicational, and managerial skills to make them competent and cope with the latest trends, technologies, and improvements in computer science to have a successful career with professional ethics.
- Involve students in analyze, design and experimenting with contemporary research problems in computer science to impact socio-economic, political and environmental aspects of the globe.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)	
PG - M.Tech. (SOFTWARE ENGINEERING)	
PROGRAM EDUCATIONAL OBJECTIVES (PEOs)	The post graduates of SOFTWARE ENGINEERING will be able to
PEO1 (Research and Innovation)	Enhance the computer science and software engineering technologies by contributing in research and developing the innovative software applications.
PEO2 (Technical Expertise & Successful Career)	Perform well in industry profession, teaching and entrepreneurship with rapid adaptation of current trends in software engineering and computer science domains.
PEO3 (Soft skills and Life Long Learning)	Demonstrate professional ethics, project management principles, communication and technical report writing abilities in solving real world problems by adapting the current research for the sustainable development of society.

PROGRAM OUTCOMES (POs) & PROGRAM SPECIFIC OUTCOMES (PSOs)	
PG - M.Tech. (SOFTWARE ENGINEERING)	
PROGRAM OUTCOMES (POs)	At the time of graduation, the post graduates of SOFTWARE ENGINEERING will be able to ...
PO1	<i>independently carry out research /investigation and development work to solve practical problems</i>
PO2	<i>to write and present an effective technical report/document</i>
PO3	<i>demonstrate competence in the area of specialization offered.</i>
PROGRAM SPECIFIC OUTCOMES (PSOs):	
PSO1 (Research Orientation)	Apply appropriate software design, tools, techniques, report writing skills and conduct experiments to solve research issues in contemporary domains of computer science.
PSO2 (Industry ready)	Demonstrate comprehensive knowledge of various stages of software development life cycle in solving real world problems by adapting the current software engineering tools and principles from the literature.



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE:: WARANGAL - 15
(An Autonomous Institute under Kakatiya University, Warangal)

PRR-20

SCHEME OF INSTRUCTION & EVALUATION OF M.Tech. (SOFTWARE ENGINEERING)
I-SEMESTER OF 2-YEAR M.TECH DEGREE PROGRAMME

[4 Th+2 P+1 MC+1 AC]

S. No.	Course Category	Course Code	Course Title	Teaching scheme			Credits	Evaluation Scheme								
								CIE						ESE	Total Marks	
				L	T	P		PRE - TA				Minor	MSE			Total
								ATLP	CRP	CP	PPT					
1	PC	P20SE101	Professional Core-1: Service Oriented Architecture	3	-	-	3	8	8	8	6	10	20	60	40	100
2	PC	P20SE102	Professional Core-2: Advanced Data Structures & Algorithms	3	-	-	3	8	8	8	6	10	20	60	40	100
3	PE	P20SE103	Professional Elective-I/ MOOC-I	3	-	-	3	8	8	8	6	10	20	60	40	100
4	PE	P20SE104	Professional Elective-II/ MOOC-II	3	-	-	3	8	8	8	6	10	20	60	40	100
5	PC	P20SE105	Core Lab-I: CASE Tools Laboratory	-	-	4	2	-	-	-	-	-	-	60	40	100
6	PC	P20SE106	Core Lab-II: Advanced Algorithms through Python Laboratory	-	-	4	2	-	-	-	-	-	-	60	40	100
7	MC	P20MC107	Research Methodology & IPR	2	-	-	2	8	8	8	6	10	20	60	40	100
8	AC	P20AC108	Audit Course 1	2	-	-	1	8	8	8	6	10	20	60	40	100
Total				16	-	8	19	48	48	48	36	60	120	480	320	800

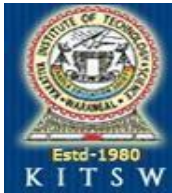
[L= [Lecture, T = Tutorials, P = Practicals, C = Credits, ATLP = Assignments, CRP = Course Research Paper, CP = Course Patent, PPT = Course Presentation, Minor=Minor Examination, MSE=Mid Semester Examination and ESE=End Semester Examination]

Professional Elective 1	Professional Elective 2	Audit Course 1
P20SE103A: Software Quality Assurance & Testing	P20SE104A: Secure Software Engineering	P20AC108A: English for Research Paper Writing
P20SE103B: Object Oriented Software Engineering	P20SE104B: Cyber Security and Forensic Laws	P20AC108B: Sanskrit for Technical Knowledge
P20SE103C: Software Architecture and Design patterns	P20SE104C: Cloud Computing	P20AC108C: Constitution of India
P20SE104D: MOOCs	P20SE104D: MOOCs	P20AC108D: Pedagogy Studies

Total Contact Periods/Week: 24

Total Credits: 19

Additional Learning: Students are advised to do MOOCs to bridge the gap in the curriculum as suggested in the DAC. The credits will be provided in the grade sheet.



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SCHEME OF INSTRUCTION & EVALUATION OF M.Tech. (SOFTWARE ENGINEERING)
II-SEMESTER OF 2-YEAR M.TECH DEGREE PROGRAMME

PRR-20

[4 Th+2 P+1 Mini Project +1 AC]

S. No.	Course Category	Course Code	Course Title	Teaching scheme			Credits	Evaluation Scheme								
				L	T	P		CIE							ESE	Total Marks
								PRE - TA				Minor	MSE	Total		
								ATLP	CRP	CP	PPT					
1	PC	P20SE201	Professional Core-3: Agile Development Methodologies	3	-	-	3	8	8	8	6	10	20	60	40	100
2	PC	P20SE202	Professional Core-4: Data Science	3	-	-	3	8	8	8	6	10	20	60	40	100
3	PE	P20SE203	Professional Elective-III/ MOOC-III	3	-	-	3	8	8	8	6	10	20	60	40	100
4	PE	P20SE204	Professional Elective-IV/ MOOC-IV	3	-	-	3	8	8	8	6	10	20	60	40	100
5	PC	P20SE205	Core Lab-III: Agile Development and DevOps Laboratory	-	-	4	2	-	-	-	-	-	-	60	40	100
6	PC	P20SE206	Core Lab-IV: Data Science Laboratory	-	-	4	2	-	-	-	-	-	-	60	40	100
7	PROJ	P20SE207	Mini Project with Seminar	-	-	4	2	-	-	-	-	-	-	100	-	100
8	AC	P20AC208	Audit Course 2	2	-	-	1	8	8	8	6	10	20	60	40	100
Total				14	-	12	19	40	40	40	30	50	100	520	280	800

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Professional Elective3	Professional Elective 4	Audit Course 2
P20SE203A: Software Configuration Management	P20SE204A: Bigdata Analytics	P20AC208A: Stress Management by Yoga
P20SE203B: Web Services Testing	P20SE204B: Block chain Technologies and Applications	P20AC208B: Value Education
P20SE203C: Software Reliability Engineering	P20SE204C: Internet of Things	P20AC208C: Personality Development through Life Enlightenment Skills
P20SE203D: MOOCs	P20DS204D: MOOCs	P20AC208D: Disaster Management

Total Contact Periods/Week: 26

Total Credits: 19

Note: The students shall undergo mandatory Industrial training/ Internship for at least 6 to 8 weeks during summer vacation at Industry/R&D organization. Internship evaluation will be done during the III semester.



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SCHEME OF INSTRUCTION & EVALUATION OF M.Tech. (SOFTWARE ENGINEERING)
III-SEMESTER OF 2-YEAR M.TECH DEGREE PROGRAMME

[2 Th+1 Dissertation+1 Internship]

S. No.	Course Category	Course Code	Course Title	Teaching scheme			Credits	Evaluation Scheme								
				CIE									ESE	Total Marks		
				PRE - TA				Minor	MSE	Total						
				L	T	P					ATLP	CRP			CP	PPT
1	PE	P20DS301	Professional Elective 5	3	-	-	3	8	8	8	6	10	20	60	40	100
2	OE	P20OE302	Open Elective	3	-	-	3	8	8	8	6	10	20	60	40	100
3	PROJ	P20DS303	Dissertation <i>Phase-I</i>	-	-	18	9	-	-	-	-	-	-	100	-	100
4	PROJ	P20DS304	Internship Evaluation	-	-	2	-	-	-	-	-	-	-	100	-	100
Total				6	-	20	15	16	16	16	12	20	40	320	80	400

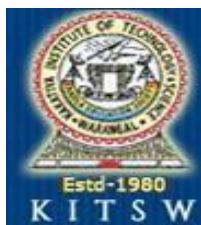
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Professional Elective 5	Open Elective
P20SE301A: Data Visualization	P20OE302A: Business Analytics
P20SE301B: Social Network Analysis	P20OE302B: Industrial Safety
P20SE301C: Deep Learning	P20OE302C: Operations Research
P20DS301D: MOOCs	P20OE302D: Cost Management of Engineering Projects
	P20OE302E: Composite Materials
	P20OE302F: Waste to Energy

Total Contact Periods/Week: 26

Total Credits: 15

Additional Learning: Students are advised to do MOOCs to bridge the gap in the curriculum as suggested in the DAC. The credits will be provided in the grade sheet.



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SCHEME OF INSTRUCTION & EVALUATION OF M.Tech. (SOFTWARE ENGINEERING)

IV-SEMESTER OF 2-YEAR M.TECH DEGREE PROGRAMME

[1 Dissertation]

S. No.	Course Category	Course Code	Course Title	Teaching scheme			Credits	Evaluation Scheme								
								CIE				ESE	Total Marks			
				PRE - TA				TA	MSE	Total						
				L	T	P					ATLP	CRP	CP	PPT		
1	PROJ	P20SE401	Dissertation <i>Phase-II</i>	-	-	30	15	-	-	-	-	-	-	60	40	100
Total				-	-	30	15	-	-	-	-	-	-	60	40	100

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Total Contact Periods/Week: 30

Total Credits: 15