

Kakatiya Institute of Technology & Science

(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)
Opp: Yerragattu Gutta, Hasanparthy (Mandal), WARANGAL - 506 015, Telangana, INDIA.
काकतीय प्रेद्योगिकी एवं विज्ञान संस्थान, वरंगल - ५०६ ०९५

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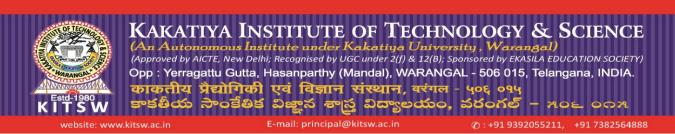
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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

B.Tech-ELECTRONICS COMMUNICATION & INSTRUMENTATION ENGINEERING (ECI)

URR18 SCHEME (I to VIII SEMESTERS)

(Applicable from the Academic Year 2018-19)



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 ELECTRONICS AND COMMUNICATION ENGINEERING

VISION OF THE DEPARTMENT

• Develop the department into a full-fledged center of learning in various fields of Electronics and Communication Engineering in pursuit of excellence in Education, Research, Entrepreneurship and Technological services to the society

MISSION OF THE DEPARTMENT

- Imparting quality education to develop innovative and entrepreneurial professionals fit for globally competitive environment
- To nurture the students in the field of Electronics and Communication Engineering with an overall background suitable for attaining a successful career in higher education, research and industry

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)									
UG - ELECTRON	NICS COMMUNICATION AND INSTRUMENTATION								
ENGINEERING – ECI									
PROGRAM EDUCATIONAL	Within first few years after graduation, the Electronics								
OBJECTIVES (PEOs)	Communication and Instrumentation Engineering graduates will be								
	able to								
PEO1: apply the knowledge of core courses of electronics communication and									
Technical Expertise	instrumentation engineering for development of effective and innovative								
	solutions to engineering problems								
PEO2:	excel in profession, higher education and entrepreneurship with updated								
Successful Career	technologies in communication, signal processing, vlsi, embedded systems, and								
	instrumentation domains								
PEO3:	PEO3: exhibit professional ethics, effective communication, and teamwork in solving								
Soft Skills and Life Long	engineering problems by adapting contemporary research towards sustainable								
Learning	development of society.								

PROGRAM OUTCOMES (POs) & PROGRAM SPECIFIC OUTCOMES (PSOs)

UG - ELECTRONICS COMMUNICATION AND INSTRUMENTATION ENGINEERING - ECI

	ENGINEEMING - ECI
PROGRAM	At the time of graduation, the Electronics and Communication Engineering
OUTCOMES (POs)	graduates will be able to
PO1: Engineering	apply the knowledge of mathematics, science, engineering fundamentals, and an engineering
knowledge	specialization to the solution of complex engineering problems.
PO2: Problem	identify, formulate, review research literature, and analyze complex engineering problems reaching
analysis	substantiated conclusions using first principles of mathematics, natural sciences, and engineering
	sciences
PO3:Design/	design solutions for complex engineering problems and design system components or processes that
development of	meet the specified needs with appropriate consideration for the public health and safety, and the
solutions	cultural, societal, and environmental considerations.
PO4: Conduct	use research-based knowledge and research methods including design of experiments, analysis and
investigations of	interpretation of data, and synthesis of the information to provide valid conclusions.
complex problems	
PO5: Modern tool	create, select, and apply appropriate techniques, resources, and modern engineering and it tools
usage	including prediction and modeling to complex engineering activities with an understanding of the
	limitations.
PO6: The engineer	apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and
and society	cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7: Environment	understand the impact of the professional engineering solutions in societal and environmental
and sustainability	contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8: Ethics	apply ethical principles and commit to professional ethics, responsibilities, and norms of the
	engineering practice
PO9: Individual and	function effectively as an individual, and as a member or leader in diverse teams, and in
team work	multidisciplinary settings
PO10:	communicate effectively on complex engineering activities with the engineering community and
Communication	with society at large, such as, being able to comprehend and write effective reports and design
P044 P	documentation, make effective presentations, and give and receive clear instructions
PO11: Project	demonstrate knowledge and understanding of the engineering and management principles and
management and	apply these to one's own work, as a member and leader in a team, to manage projects and in
finance	multidisciplinary environments
PO12: Life-long	recognize the need for, and have the preparation and ability to engage in independent and life-long
learning	learning in the broadest context of technological change
	IC OUTCOMES (PSOs):
PSO1	Apply the fundamentals of Electronics, Communication Signal processing, VLSI, Embedded
	Systems and Instrumentation in development of hardware and software prototypes and systems for
	complex engineering problems.
PSO2	Apply appropriate methodology, contemporary hardware and software tools to solve complex
	engineering problems related to embedded systems.



DEPARTMENT OF ELELCTRONICS & COMMUNICATION ENGINEERING SCHEME OF INSTRUCTION & EVALUATION I - SEMESTER OF 4-YEAR B.TECH ECI DEGREE PROGRAMME

BRANCH: B.Tech. - CE / EEE / ECE/ECI/CSE (AI &ML) (Stream -II) SEMESTER: FIRST [First year]

S1.No	Category	Course Code	C T'I		our pe eek	r	Credits	Evalu	ation S	cheme						
		Couc	Course Title				_	C	CIE		CIE		CIE		ESE	Total
				L	T	P	С	TA	MSE	Total		Marks				
1	BSC	U18MH101	Engineering Mathematics – I	3	1	-	4	10	30	40	60	100				
2	ESC	U18CS102	Programming for Problem Solving using C	3	-	-	3	10	30	40	60	100				
3	BSC	U18CH103	Engineering Chemistry	3	1	-	4	10	30	40	60	100				
4	ESC	U18ME104	Engineering Drawing	2	-	4	4	10	30	40	60	100				
5	ESC	U18CE105	Engineering Mechanics	3	1	-	4	10	30	40	60	100				
6	ESC	U18CS107	Programming for Problem Solving using C Laboratory	-	-	2	1	40	-	40	60	100				
7	BSC	U18CH108	Engineering Chemistry Laboratory	-	-	2	1	40	-	40	60	100				
8	MC	U18CH109	Environmental Studies*	2	-	-	-	10	30	40	60	100				
9	MC	U18EA110	EAA*: Sports/Yoga/NSS	-	-	2	_	100	-	100	-	100				
10	MC	U18MH111	Universal Human Values -I (Induction program)	-	-	-	-	-	-	-	-	-				
			Total	16	3	10	21	240	180	420	480	900				

L - Lectures; T - Tutorials; P - PracticalsC = Credits

EAA - Extra Academic Activity

Contact hours per Week : 29 TotalCredits : 21

^{*} indicates mandatory non-credit course



DEPARTMENT OF ELELCTRONICS & COMMUNICATION ENGINEERING SCHEME OF INSTRUCTION & EVALUATION II - SEMESTER OF 4-YEAR B.TECH ECI DEGREE PROGRAMME

BRANCH: B.Tech. - CE / EEE / ECE/ECI/CSE (AI &ML) (Stream -II) SEMESTER: SECOND [First year]

Sl.No	Category	Course Code	Course Title		Hour per week				. 1				Credits		Evalı	aation S	cheme	
			Course Title	_	T	Ъ		C	ΙE		ECE	Total						
				L	1	P	С	TA	MSE	Total	ESE	Marks						
1	BSC	U18MH201	Engineering Mathematics - II	3	1	-	4	10	30	40	60	100						
2	ESC	U18CS202	Data Structures through C	3	-	-	3	10	30	40	60	100						
3	BSC	U18PH203	Engineering Physics	3	1	-	4	10	30	40	60	100						
4	HSMC	U18MH204	English for Communication	2	-	2	3	10	30	40	60	100						
5	ESC	U18EE205	Basic Electrical Engineering	3	1	-	4	10	30	40	60	100						
6	ESC	U18EE206	Basic Electrical Engineering Laboratory	-	-	2	1	40	-	40	60	100						
7	ESC	U18CS207	Data Structures through C Laboratory	-	-	2	1	40	-	40	60	100						
8	BSC	U18PH208	Engineering Physics Laboratory	-	-	2	1	40	-	40	60	100						
9	ESC	U18ME209	Workshop Practice	-	-	2	1	40	-	40	60	100						
10	MC	U18EA210	EAA*: Sports/Yoga/NSS	-	-	2	-	100	-	100	-	100						
		·	Total	14	3	12	22	310	150	460	540	1000						

L - Lectures; T - Tutorials; P - Practicals& Credits

EAA - Extra Academic Activity

Contact hours per Week : 29 Total Credits : 22

^{*} indicates mandatory non-credit course



DEPARTMENT OF ELELCTRONICS & COMMUNICATION ENGINEERING

SCHEME OF INSTRUCTION & EVALUATION III - SEMESTER OF 4-YEAR B.TECH ECI DEGREE PROGRAMME

[6+2+1M]

Sl.No	Category	Course Code	Course Title	Hour per week			Credits	Evaluation Scheme					
				L	T	P		CIE			ESE	Total	
								TA	MSE	Total		Marks	
1	BSC	U18MH301	Engineering Mathematics - III	3	1	-	4	10	30	40	60	100	
2	HSMC	U18TP302	Soft and Interpersonal Skills	-	-	2	1	100	-	100	-	100	
3	OE	U18OE303	Open Elective-I	3	-	-	3	10	30	40	60	100	
4	PCC	U18CI304	Signals Systems and Random Processes	3	1	-	4	10	30	40	60	100	
5	PCC	U18CI305	Electronic Devices and Applications	3	-	-	3	10	30	40	60	100	
6	PCC	U18CI306	Electronic Measurements and Sensors	3	-	-	3	10	30	40	60	100	
7	PCC	U18CI307	Digital Circuits and Logic Design	3	-	-	3	10	30	40	60	100	
8	PCC	U18CI308	Electronic Measurements and Sensors	-	-	2	1	40	-	40	60	100	
			Laboratory										
9	OE	U18OE311	Open Elective-I based Laboratory	-	-	2	1	40	-	40	60	100	
			Total:	18	2	6	23	240	180	420	480	900	

L= Lecture, T = Tutorials, P = Practicals& C = Credits

Open Elective-I:	Open Elective-I based Laboratory
U18OE303A: Object Oriented Programming (CSE)	U18OE311A: Object Oriented Programming Lab (CSE)
U18OE303B: Fluid Mechanics and Hydraulic Machines (CE)	U18OE311B: Fluid Mechanics and Hydraulic Machines Lab (CE)
U18OE303C: Fundamentals of Mechatronics (ME)	U18OE311C: Mechatronics Lab (ME)
U18OE303D: Web Programming (IT)	U18OE311D: Web Programming Lab (IT)
U18OE303F: Strength of Materials (CE)	U18OE311F: Strength of Materials Lab (CE)

Contact hours per week : 26 Total Credits : 23



AICTE-CII: GOLD Category Institute NAAC-'A' Grade Institute (CGPA: 3.21) NIRF-2020 Rank Band: 201-250

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DEPARTMENT OF ELELCTRONICS & COMMUNICATION ENGINEERING

SCHEME OF INSTRUCTION & EVALUATION

IV - SEMESTER OF 4-YEAR B.TECH ECI DEGREE PROGRAMME

[5Th+3P+2M]

S.N o	Category	Course Code	Course Title		Hour per week								Evaluation Scheme				
				L	T	P		(CIE		ESE	Total					
								TA	MSE	Total		Marks					
1	OE	U18OE401	Open Elective-II	3	1	-	4	10	30	40	60	100					
2	HSMC	U18MH402	Professional English	-	-	2	1	100	-	100	-	100					
3	PCC	U18CI403	Electromagnetic Theory and Transmission Lines	3	1	1	4	10	30	40	60	100					
4	PCC	U18CI404	Analog Electronic Circuits	3	-		3	10	30	40	60	100					
5	PCC	U18CI405	Digital Signal Processing	3	-	-	3	10	30	40	60	100					
6	PCC	U18CI410	Microprocessor Systems and Interfacing	3	-	-	3	10	30	40	60	100					
7	MC	U18MH415	Essence of Indian Traditional Knowledge	2	-	ı	-	10	30	40	60	100					
8	PCC	U18CI407	Programming with Python Laboratory	-	-	2	1	40	-	40	60	100					
9	PCC	U18CI408	Electronic Devices and Circuits Laboratory	-	-	2	1	40	-	40	60	100					
10	PCC	U18CI409	Signal Processing and Applications Laboratory	-	-	2	1	40	-	40	60	100					
			Total	17	2	8	21	280	180	460	540	1000					
11	MC	U18CH416	Environmental Studies *	2	-	-	0	10	30	40	60	100					

L= Lecture, T = Tutorials, P = Practicals& C = Credits

Open Elective-II

U18OE401A: Applicable Mathematics (M&H) U18OE401C: Elements of Mech. Engg. (ME) U18OE401E: Computers Networks (IT)

U18OE401F: Renewable Energy Resources (EEE)

Contact hours per week : 27 Total Credits : 21

^{*} indicates Mandatory Non-Credit course for Lateral EntryStudentsOnly

ISO 9001:2015 AICTE-CII: GOLD Category Institute NAAC-'A' Grade Institute (CGPA: 3.21) NIRF-2020 Rank Band: 201-250

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Opp . Terragattu Guita, Hasarpattry (Marida), WARANGAL - 506 015, Terangaria, INDIA. काकतीय प्रेद्योगिकी एवं विज्ञान संस्थान, वरंगल - ५०६ ०९५ तेलंगाना, भारत కాకతీయ సాంతేతిక విజ్ఞాన శాస్త్ర విద్యాలయం, కరంగర్ - ఇం౬ ంది. తెలంగాణ, ఖారకదేశము (An Autonomous Institute under Kakatiya University, Warangal)

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DEPARTMENT OF ELELCTRONICS & COMMUNICATION ENGINEERING

SCHEME OF INSTRUCTION & EVALUATION V - SEMESTER OF 4-YEAR B.TECH ECI DEGREE PROGRAMME

[5Th+3P+1MC]

Sl.No Category Code Course Title Credits Cre	Total ESE M	Total
Week Credits CIE TA MSE	Total ESE M	
1 MC U18MH501 Universal Human Values - II 2 - - - 10 30 2 PE U18CI502 Professional Elective - I / MOOCs - I 3 - - 3 10 30 3 PCC U18CI503 Analog and Digital Communications 3 1 - 4 10 30 4 ESC U18EE511 Linear Control Systems 3 - - 3 10 30 5 PCC U18CI509 Microcontrollers and Embedded Systems 3 - - 3 10 30	Total ESE M	
1 MC U18MH501 Universal Human Values - II 2 - - - 10 30 2 PE U18CI502 Professional Elective - I / MOOCs - I 3 - - 3 10 30 3 PCC U18CI503 Analog and Digital Communications 3 1 - 4 10 30 4 ESC U18EE511 Linear Control Systems 3 - - 3 10 30 5 PCC U18CI509 Microcontrollers and Embedded Systems 3 - - 3 10 30	l'otal M	/ anles
2 PE U18CI502 Professional Elective - I / MOOCs - I 3 3 10 30 3 PCC U18CI503 Analog and Digital Communications 3 1 - 4 10 30 4 ESC U18EE511 Linear Control Systems 3 3 10 30 5 PCC U18CI509 Microcontrollers and Embedded Systems 3 3 10 30		Marks
3 PCC U18CI503 Analog and Digital Communications 3 1 - 4 10 30 4 ESC U18EE511 Linear Control Systems 3 - - 3 10 30 5 PCC U18CI509 Microcontrollers and Embedded Systems 3 - - 3 10 30	40 60 1	100
4 ESC U18EE511 Linear Control Systems 3 3 10 30 5 PCC U18CI509 Microcontrollers and Embedded Systems 3 3 10 30	40 60 1	100
5 PCC U18CI509 Microcontrollers and Embedded Systems 3 3 10 30	40 60 1	100
	40 60 1	100
6 PCC U18CI505 Linear Integrated Circuits and Applications 3 3 10 30	40 60 1	100
	40 60 1	100
7 PCC U18CI506 Embedded Firmware Development Laboratory 2 1 40 -	40 60 1	100
8 PCC U18CI507 Analog and Digital Communications Laboratory 2 1 40 -	40 60 1	100
9 PCC U18CI508 Linear and Digital Integrated Circuits Laboratory 2 1 40 -	40 60 1	100
11 PROJ U18CI510 Seminar 2 1 100 -	100 - 1	100
Total: 17 1 8 20 280 180	460 540 1	1000

L= Lecture, T = Tutorials, P = Practical's & C = Credits

Professional Elective-I/MOOCs-I:

U18CI502A: Internet of things

U18CI502B: Wireless and Data Communication

U18CI502C: Data Acquisition And Signal Conditioning

U18CI502M: MOOC Course

Contact hours per week : 26 Total Credits : 20

MOOCs: Students are encouraged to do Massive Open Online Courses (MOOCs) on SWAYAM platform (https://www.swayam.gov.in) offered by NPTEL, CEC, IIM-B, IGNOU. Students shall contact the HoD to get their interested MOOCs approved by the HoD/ Dean Academic Affairs for proper transfer the credits for the MOOCs.

ISO 9001:2015 AICTE-CII: GOLD Category Institute NAAC-'A' Grade Institute (CGFA: 3.21) NIRF-2020 Rank Band: 201-250

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DEPARTMENT OF ELELCTRONICS & COMMUNICATION ENGINEERING SCHEME OF INSTRUCTION & EVALUATION VI - SEMESTER OF 4-YEAR B.TECH ECI DEGREE PROGRAMME

[5Th+3P+2MC]

Sl.No	Category	Course Code	Course Title	Hour per week		Credits		Evalu	cheme			
				L	T	P			CIE		ESE	Total
								TA	MSE	Total	ESE	Marks
1	HSMC	U18TP601	Quantitative Aptitude and Logical Reasoning	2	-	-	1	10	30	40	60	100
2	HSMC	U18MH602	Management Economics and Accountancy	3	-	-	3	10	30	40	60	100
3	PE	U18CI603	Professional Elective -II / MOOCs-II	3	-	-	3	10	30	40	60	100
4	PCC	U18CI 604	Embedded Systems with ARM Processor	3	-	-	3	10	30	40	60	100
5	PCC	U18CI 605	VLSI System Design	3	-	-	3	10	30	40	60	100
6	PCC	U18CI 606	Artificial Intelligence and Machine Learning	3	-	-	3	10	30	40	60	100
7	PCC	U18CI 607	Digital Design Laboratory	-	-	2	1	40	-	40	60	100
8	PCC	U18CI 608	Embedded Systems with ARM Processor Laboratory	-	-	2	1	40	-	40	60	100
9	PCC	U18CI 609	IoT and Data Acquisition Laboratory	-	-	2	1	40	-	40	60	100
10	PROJ	U18CI610	Mini Project	-	-	2	1	100	-	100	1	100
			Total:	17	-	8	20	280	180	460	540	1000

L= Lecture, T = Tutorials, P = Practicals& C = Credits

Professional Elective-II / MOOCs-II:

U18CI 603A: Antennas and Wave Propagation

U18CI 603B: Wireless Sensor Networks and Applications

U18CI 603C: Biomedical Instrumentation

U18CI 603M: MOOC Course

Contact hours per week : 25

Total Credits: 20

MOOCs: Students are encouraged to do Massive Open Online Courses (MOOCs) on SWAYAM platform (https://www.swayam.gov.in) offered by NPTEL, CEC, IIM-B, IGNOU. Students shall contact the HoD to get their interested MOOCs approved by the HoD/Dean Academic Affairs for proper transfer the credits for the MOOCs.



DEPARTMENT OF ELELCTRONICS & COMMUNICATION ENGINEERING SCHEME OF INSTRUCTION & EVALUATION VII - SEMESTER OF 4-YEAR B.TECH ECI DEGREE PROGRAMME

[4Th+2P+1MC]

S. No	Category	Course Code	Course Title	Но	ur per we	ek			Evaluation		ı Scheme	
				т	т	D	Credits		CIE		ESE	Total
				L	1	r		TA	MSE	Total	ESE	Marks
1	OE	U18OE701	Open Elective- III	3	ı	-	3	10	30	40	60	100
2	PE	U18CI 702	Professional Elective - III/ MOOCs - III	3	-	-	3	10	30	40	60	100
3	PE	U18CI 703	Professional Elective - IV/ MOOCs - IV	3	ı	-	3	10	30	40	60	100
4	PCC	U18CI 704	Industrial Process Control	3	ı	-	3	10	30	40	60	100
5	PCC	U18CI 705	Industrial Process Control Laboratory	-	-	2	1	40	-	40	60	100
6	PCC	U18CI 706	Biomedical Instrumentation Laboratory	-	ı	2	1	40	-	40	60	100
7	PROJ	U18CI 707	Major Project Phase - I	-	ı	6	3	100	•	100	ı	100
8	MC	U18CI 708	Internship Evaluation	-	-	2	-	100	-	100	-	100
			Total:	12	-	12	17	320	120	440	360	800

L= Lecture, T = Tutorials, P = Practical's & C = Credits

Open Elective-III:		Professional I	Elective-III:	SWAYAM - NPTEL Equivalent course	Professional I	Elective-IV:	SWAYAM - NPTEL Equivalent
		(offered by department)		_	(offered by depa	rtment)	course
U18OE701A:	Disaster Management	U18CI702A:	Digital Image Processing	Digital Image Processing	U18CI703A:	Embedded and Real time	-
(offered by CED)			Techniques			Operating Systems	
U18OE701B: (offered by ECED)	Project Management	U18CI702B:	Microwave and Optical Fiber Communication	(i) Microwave Engineering (ii) Fibre Optic Communication Technology	U18CI703B:	Low Power VLSI Design	VLSI Interconnects
U18OE701C: (offered by EEED)	Professional Ethics in Engineering	U18CI702C:	Biomedical Signal Processing	-	U18CI703C:	FPGA Design	-
U18OE701D: (offered by MED)	Rural Technology and Community Development	MOOC-III: U18CI702M SWAYAM -MO	OOC course	(i) Introduction to Biomedical Imaging systems (ii) Artificial Intelligence: Search methods for problem solving	MOOC-IV: U18CI703M SWAYAM -MOOC course		(i) Introductory Neuroscience & Neuro-Instrumentation (ii) Python for Data Science

MOOCs: Students are encouraged to do Massive Open Online Courses (MOOCs) on SWAYAM platform (https://www.swayam.gov.in) offered by NPTEL, CEC, IIM-B, IGNOU. Students shall contact the HoD to get their interested MOOCs approved by the HoD/ Dean Academic Affairs for proper transfer the credits for the MOOCs.

Internship: All Students should plan for mandatory 6-8 weeks internship, from end of II semester to commencement of VII semester, at industry/R&D organizations/ institutes of national importance (IITs/IIITs/NITs). As part of Internship evaluation in VII semester, students are expected to submit a well-documented internship report and give an informative PPT presentation.

Contact hours per week: 24; Total Credits: 17



DEPARTMENT OF ELELCTRONICS & COMMUNICATION ENGINEERING

SCHEME OF INSTRUCTION & EVALUATION VIII - SEMESTER OF 4-YEAR B.TECH ECI DEGREE PROGRAMME

[3Th+0P+0MC]

S. No	Category	Course Code	Course Title	Hour per week			Evaluation Scheme					
				т	Т	D	Credits		CIE		ESE	Total
				L	1	Г		TA	MSE	Total	ESE	Marks
1	PE	U18CI801	Professional Elective - V / MOOCs-V	3	-	-	3	10	30	40	60	100
2	PE	U18CI802	Professional Elective - VI /MOOCs-VI	3	-	-	3	10	30	40	60	100
3	OE	U18OE803	Open Elective - IV / MOOCs-VII	3	-	-	3	10	30	40	60	100
4	PROJ	U18CI804	Major Project - Phase - II	-	-	14	7	40	-	40	60	100
			Total:	9	-	14	16	70	90	160	240	400

L= Lecture, T = Tutorials, P = Practicals & C = Credits

Professional Elective-V: (offered by department)		SWAYAM - NPTEL Equivalent course	Professional Elective-VI: (offered by department)		SWAYAM - NPTEL Equivalent course	Open Elective-IV:		SWAYAM - NPTEL Equivalent course
U18CI801A:	IoT Industrial Applications	Introduction to Industry 4.0 and Industrial Internet of Things	U18CI802A:	Cloud Computing	Cloud Computing	U18OE803A: (offered by M&HD)	Operations Research	Operations Research
U18CI801B:	Satellite communication s	-	U18CI802B:	Mobile and Wireless Networks	-	U18OE803B: (offered by MBAD)	Management Information Systems	Management Information System
U18CI801C:	Cyber Security	-	U18CI802C:	Robotics	Robotics	U18OE803C: (offered by ECED)	Entrepreneurship Development	Innovation, Business Models and Entrepreneurship/ Entrepreneurship/ Entrepreneurship and IP practice
-	-	-	-	-	-	U18OE803D: (offered by MBAD)	Forex and Foreign Trade	International Trade - Theory and Empirics
MOOCs-V: U18CI801M SWAYAM -MOOC course		(i) VLSI Signal Processing (ii) Computer Vision and Image – Fundamentals and Applications	MOOCs-VI: U18CI802M SWAYAM -MOOC course		(i) Optical fiber sensors (ii)Deep learning	MOOCs-VII: U18CI803M SWAYAM -MOOC course		(i) Patent Search and Analysis (ii)Numerical Methods for Engineers

MOOCs: Students are encouraged to do Massive Open Online Courses (MOOCs) on SWAYAM platform (https://www.swayam.gov.in) offered by NPTEL, CEC, IIM-B, IGNOU. Students shall contact the HoD to get their interested MOOCs approved by the HoD/Dean Academic Affairs for proper transfer the credits for the MOOCs.

Contact hours per week: 23; Total Credits: 16



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE: WARANGAL-15

(An Autonomous Institute under Kakatiya University, Warangal)

SCHEME OF INSTRUCTION & EVALUATION of 4-YEAR B.TECH ECI DEGREE PROGRAMME SEMESTER WISE CREDITS DISTRIBUTION

SEM	No. of Credits	Contact hours	
I	21	29	
II	22	29	
III	23	26	
IV	21	27	
V	20	26	
VI	20	25	
VII	17	24	
VIII	16	23	
Total	160	209	

SEMESTER Vs COURSE CATEGORY WEIGHTAGE for 4-YEAR B.TECH ECI DEGREE PROGRAMME

(in terms of Total No. of Courses/Total No. Credits)

Semester	Number of Courses / Number of Credits (Course Category wise)								
Semester	BSC	ESC	HSMC	PCC	OE	PE	PROJ	MC	TOTAL
I	3/9	4/12	-	-	-	-	-	2/0	9/21
II	3/9	5/10	1/3	-	-	-	-	1/0	22
III	1/4	-	1/1	5/14	2/4	-	-	-	9/23
IV	-	-	1/1	7/16	1/4	-	-	2/0	11/21
V	-	1/3	1/0	6/13	-	1/3	1/1	-	10/20
VI	-	-	2/4	6/12	-	1/3	1/1	-	10/20
VII	-	-	-	3/5	1/3	2/6	1/3	1/0	8/17
VIII	-	-	-	-	1/3	2/6	1/7	-	4/16
Total	7/22	10/25	6/9	27/60	5/14	6/18	4/12	6/0	71/160
% Weightage of Course Category	13.75 % (22/160)	15.625 % (25/160)	5.625 % (9/160)	37.5 % (60/160)	8.75 % (14/160)	11.25 % (18/160)	7.5 % (12/160)	0 %	100 % (160/160)