

**1.2.2(B) Structure of the program clearly indicating courses, credits/Electives and Minutes of relevant Academic Council/BOS meetings highlighting the relevant documents to this metric**

**Department of Computer Science and Engineering**

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### Department of Computer Science and Engineering

Minimum Credits to be earned: 160 (for Regular Students) 123 (for Lateral Entry Students)

#### First Semester

No	Course Code	Course Name	POs	L	T	P	C
1	21HSX01	Communicative English	1,6,,10,11,12	2	-	-	2
2	21MAX01	Engineering Mathematics I	1,2,3,12,PSO1,PSO2	3	-	-	3
3	21PYX01 21CYX01	Engineering Physics / Engineering Chemistry	1,2,3,6,7,12 / 1,2,3,6,7,12	3/3	-	-	3/3
4	21BEX01 21BEX06	Basics of Engineering / IT Workshop	1,2,3,6,7,12 PSO1,PSO2/ 3,4,5,6,7,8,9,10,11,12	3/-	-	-/ 3	3/1.5
5	21BEX02	Problem Solving and Programming Skills	1,2,3,12,PSO1	3	-	-	3
6	21BEX03	Problem Solving and Programming Skills Lab	1,2,3,4,12,PSO1	-	-	3	1.5
7	21BEX04/ 21BEX05	Engineering Drawing / Engineering Workshop	1,2,3,4,5,9,10,11,12/ 1,2,3,4,9,10,11,12	-	-	3/3	1.5/1.5
8	21PYX02/ 21CYX02	Engineering Physics Lab /Engineering Chemistry Lab	1,2,3,4,5,9,11,12/ 1,2,3,4,5,7,9,11,12	-	-	3/3	1.5
9	21HSX02/-	Communicative English Lab/-	1,4,5,9,10,11,12	-	-	3/-	1.5/-
			<b>Total</b>	<b>14/11</b>	-	<b>12/1</b>	<b>20/17</b>

#### Second Semester

1		Language Elective	6,9,10,11,12	2	-	-	2
2	21MAX02	Engineering Mathematics II	1,2,3,12, PSO1,PSO2	3	-	-	3
3	21CYX01/ 21PYX01	Engineering Chemistry /Engineering Physics	1,2,3,6,7,12/ 1,2,3,6,7,12	3/3	-	-	3/3
4	21BEX01/ 21BEX06	Basics of Engineering/ IT Workshop	1,2,3,6,7,12 PSO1,PSO2/ 3,4,5,6,7,8,9,10,11,12	-/3	-	3/-	1.5/3
5	21BEX07	Python Programming	1,2,3,12,PSO1	3	-	-	3
6	21BEX08	Python Programming Lab	1,2,3,4,5,12,PSO1	-	-	3	1.5
7	21BEX05/ 21BEX04	Engineering Workshop / Engineering Drawing	1,2,3,4,5,9,10,11,12/ 1,2,3,4,9,10,11,12	-	-	3/3	1.5/1.5
8	21CYX02/ 21PYX02	Engineering Chemistry Lab/Engineering Physics Lab	1,2,3,4,5,9,11,12/ 1,2,3,4,5,7,9,11,12	-	-	3/3	1.5/1.5
9	-/21HSX02	-/Communicative English Lab	1,4,5,9,10,11,12	-	-	-/3	-/1.5
			<b>Total</b>	<b>11/14</b>	-	<b>12/1</b>	<b>17/20</b>

#### Third Semester

1	21MA304	Probability and Statistics using Python	1,2,4,10,12	3	-	2	4
2	21HSX10	Engineering Economics and Project Management	1,2,10,11,PSO2	3	-	-	3
3	21CS303	Data Structures	1,2,3,12,PSO2	3	-	-	3
4	21CS304	Digital Logic Design	1,2,3,4,5,PSO1	3	-	2	4
5	21CS305	Discrete Mathematical Structures	1,2,3,12,PSO1	3	-	-	3
6	21CS306	Object Oriented Programming with JAVA	1,2,3,12,PSO2	3	-	-	3
7	21CS307	Data Structures Lab	1,2,3,4,10,12,PSO1	-	-	3	1.5
8	21CS308	JAVA Lab	1,2,3,4,10,12,PSO2	-	-	3	1.5

9	21ESX01	Employability Skills I	1,2,3,4,5,9,10,11,--	0	-	2	-
10	21HSX11	CC & EC Activities I	9,10,12	-	-	1	-
			<b>Total</b>	<b>18</b>	-	<b>13</b>	<b>23</b>

**Fourth Semester**

1	21IT304	Database Management Systems	1,2,3,10,12,PSO2	3	-	-	3
2	21IT403	Operating Systems	1,2,12,PSO1,PSO2	3	-	-	3
3	21CS403	Computer Organization and Architecture	1,2,3,12,PSO1	3	-	-	3
4	21CS404	Design and Analysis of Algorithms	1,2,3,4,12,PSO1	3	-	2	4
5	21CS405	Web Coding and Development	1,2, 3, 5, 8,PSO2	3	-	-	3
6	21IT308	Database Management Systems Lab	1,2,3,4,8,10,12,PSO2	-	-	3	1.5
7	21CS407	Web Coding and Development Lab	1,2,3,4,5,8,10,PSO2	-	-	3	1.5
8	21ESX01	Employability Skills I	1,2,3,4,5,9,10,11,12	0	-	2	2
9	21HSX11	CC & EC Activities I	9,10,12	-	-	1	1
			<b>Total</b>	<b>15</b>	-	<b>11</b>	<b>22</b>

**Fifth Semester**

1	21EC502	Microprocessors and Microcontroller Programming (Integrated)	1,2,3,4,5,PSO1	3	-	2	4
2	21CS502	Artificial Intelligence and Machine Learning	1,2,3,4,12,PSO1,PSO2	3	-	-	3
3	21CS503	Computer Networks (Integrated)	1,2,4,5,7,12,PSO1	3	-	2	4
4	21CS504	Theory of Computation	1, 2, 3, 12,PSO1	3	-	-	3
5		Elective I (Professional Elective)		3	-	-	3
6		Elective II (Open Elective I)		3	-	-	3
7	21CS507	Artificial Intelligence and Machine Learning Lab	1,2,4,5,12,PSO1,PSO2	-	-	3	1.5
8	21TPX01	Term Paper	1,2,4,5,8,9,10,11,12,PSO1,PSO2	-	-	3	1.5
9	21ESX02	Employability Skills II	1,2,3,4,5,9,10,11,12	0	-	2	-
10	21HSX12	CC & EC Activities II	9,10,12	-	-	1	-
11	21SIX01	Summer Internship I	1,2,3,6,7,8,9,10,11,12,PSO1,PSO2	-	-	-	1
			<b>Total</b>	<b>18</b>	-	<b>12</b>	<b>24</b>

**Sixth Semester**

1	21CS601	Compiler Design	1, 2, 3, 12, PSO1	3	-	-	3
2	21CS602	Internet of Things	1, 2, 3, 4, 7, PSO1	3	-	-	3
3	21CS603	Software Engineering	1,2,3,5,11,PSO1	3	-	-	3
4		Elective III (Professional Elective)		3	-	2	4
5		Elective IV (Open Elective II)		3	-	-	3
6	21CS606	Case Tools Lab	1,2,3, 4, 5,10,11,PSO1	-	-	3	1.5
7	21MPX01	Mini Project	All POs & PSOs	-	-	3	1.5
8	21ESX02	Employability Skills II	1,2,3,4,5,9,10,11,12	0	-	2	2
9	21HSX12	CC & EC Activities II	9,10,12	-	-	1	1
10	21ATX01	Environmental Studies	1,3,6,7	-	-	-	-
11	21ATX02	Professional Ethics and Human Values	----	-	-	-	-
12	21ATX---	Audit Course	----	-	-	-	-
			<b>Total</b>	<b>15</b>	-	<b>8</b>	<b>22</b>

**Seventh Semester**

1		Elective V (Professional Elective)		3	-	-	3
2		Elective VI (Professional Elective)		3	-	-	3
3		Elective VII (Open Elective III)		3	-	-	3
4	21SIX02	Summer Internship II	All POs & PSOs	-	-	-	1
5	21PWX01	Project	All POs& PSOs	-	-	16	8

			Total	9	-	16	18
<b>Eighth Semester</b>							
1		Elective VIII (Professional Elective)		-	-	-	3
2		Elective IX (Open Elective IV)		-	-	-	3
3	21FIX01	Full Semester Internship (FSI)	1,2,5,8,9,10, PSO1,PSO2	-	-	-	8
			<b>Total</b>	<b>6</b>	-	-	<b>14</b>
<b>Language Electives</b>							
1	21HSX03	Advanced Communicative English	6,9,10,11,12	2	-	-	2
2	21HSX04	Communicative German	6,9,10,11,12	2	-	-	2
3	21HSX05	Communicative French	6,9,10,11,12	2	-	-	2
4	21HSX06	Communicative Japanese	6,9,10,11,12	2	-	-	2
5	21HSX07	Communicative Spanish	6,9,10,11,12	2	-	-	2
6	21HSX08	Communicative Korean	6,9,10,11,12	2	-	-	2
7	21HSX09	Communicative Hindi	6,9,10,11,12	2	-	-	2
<b>Elective I: Professional Elective I</b>							
<b>Career Path I, II, III</b>							
1	21CSC11	Exploratory Data Analytics (AI&ML)	1,2,4,10,12,PSO2	3	-	-	3
2	21CSC21	Web Programming Languages (Full Stack Developer)	1,2,3,5,PSO1, PSO2	3	-	-	3
3	21ITC31	Fundamentals of Security (Cyber Security)	1,2,5,PSO1, PSO2	3	-	-	3
<b>Non-Career Path (Core Electives)</b>							
4	21CS004	Principles of Programming Languages	1, 2, 3, 4	3	-	-	3
5	21CS005	Mobile Computing	1,2,3,7	3	-	-	3
6	21CS006	Distributed Operating Systems	1,2,3,12	3	-	-	3
7		MOOCs/Honors		3	-	-	3
<b>Elective III: Professional Elective II</b>							
<b>Career Path I, II, III</b>							
1	21CSC12	Deep Learning (AI&ML)	1,2,3,4,5,12, PSO1	3	-	2	4
2	21CSC22	Web Application Developments Framework (Full Stack Developer)	1,2, 3,5,12,PSO2	3	-	2	4
3	21ITC32	Cybernet Security (Cyber Security)	1,3,4, 5, 12,PSO1,PSO2	3	-	2	4
<b>Non-Career Path (Core Electives)</b>							
4	21CS007	Cloud Computing Essentials	2,5,6,7,8	3	-	2	4
5	21CS008	Cryptography and Network Security	3, 6,8	3	-	2	4
<b>Elective V: Professional Elective III</b>							
<b>Career Path I, II, III</b>							
1	21CSC13	Natural Language Processing (AI&ML)	1,2,3,4,12, PSO2	3	-	-	3
2	21CSC23	Web Application Databases (Full Stack Developer)	1,2,3,5,12,PSO2	3	-	-	3
3	21ITC33	Cloud Security (Cyber Security)	1,2,4,5,8	3	-	-	3
<b>Non-Career Path (Core Electives)</b>							
4	21IT008	Social Network Analysis	1,2,3,4,5	3	-	-	3
5	21CS011	Optimization Techniques	1,2, 3, 5,12	3	-	-	3
6	21CS012	Wireless Adhoc Networks	1,2, 3,10,12	3	-	-	3
<b>Elective VI: Professional Elective IV</b>							
1	21CS014	Green Computing	1,2,3,6,7	3	-	-	3
2	21CS015	Software Project Management	1,2,3,11,12, PSO2	3	-	-	3
3	21CS016	Soft Computing	1,2,3,4,12,PSO1	3	-	-	3
<b>Elective VIII: Professional Elective</b>							
1	21CS017	Fundamentals of Social Network	1,2,3, 4,5,PSO2	-	-	-	3

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		Analysis				
2	21CS018	Information Retrieval Systems	1,2,3,4,5,12	-	-	-
3	21CS019	Fundamentals of Devops	1,3, 5,11,PSO2	-	-	-
4		MOOCs/Honors		-	-	-
<b>Open Elective I, II, III, and IV (Elective II, IV, VII, and IX)</b>						
1	21CE001	Disaster Management	2,7	3	-	-
2	21EE001	Electrical Installation, Safety and Auditing	2,3,6,8	3	-	-
3	21ME001	Fundamentals of Optimization Techniques	1,2,3,5	3	-	-
4	21EC001	Sensors for Engineering Applications	1	3	-	-
5	21CS001	Fundamentals of Artificial Intelligence	1,2,3	3	-	-
6	21CH001	Energy Conversion and Storage Devices	1,3,6,7	3	-	-
7	21IT001	Fundamentals of Multimedia	3,5,7	3	-	-
8	21BS001	Nano Materials and Technology	1,12	3	-	-
9	21DS001	Fundamentals of Data Science	1,2	3	-	-
10	21CE002	Air Pollution and Environmental Impact Assessment	6,7,12	3	-	-
11	21EE002	Renewable Energy Sources	2,7	3	-	-
12	21ME002	Principles of Entrepreneurship	1,5,8,11	3	-	-
13	21EC002	Electronics for Agriculture	1,2	3	-	-
14	21CS002	Fundamentals of Machine Learning	2,5	3	-	-
15	21CH002	Industrial Safety and Hazard Management	1,2,3,6,8	3	-	-
16	21IT002	Fundamentals of Cloud Computing	2,6,7,8,12	3	-	-
17	21BS002	Advanced Numerical Techniques	1,2	3	-	-
18	21BS003	Functional Materials and Applications	1,7	3	-	-
19	21CE003	Solid Waste Management	3,7,12	3	-	-
20	21EE003	Fundamentals of Electrical Vehicle Technology	2,3,12	3	-	-
21	21ME003	Industrial Engineering and Management	1,11	3	-	-
22	21EC003	Interfacing and Programming with Arduino	1,2	3	-	-
21	21CS003	Data Science for Engineering Applications	2,3,4	3	-	-
24	21CH003	Industrial Ecology for Sustainable Development	2,6,7	3	-	-
25	21IT003	Fundamentals of Mobile Computing	1,7	3	-	-
26	21BS004	Advanced Materials of Renewable Energy	1,7	3	-	-
27	21BS005	Applied Linear Algebra for Engineers	1,12	3	-	-
28	21CE019	Green Buildings	1,7,12	3	-	-
29	21EE017	Sustainable Energy	2,3,12	3	-	-
30	21ME019	Total Quality Management	1,11	3	-	-
31	21EC011	Communication Technologies	1,2	3	-	-
32	21CS020	Applications of Artificial Intelligence	2,3,6,7	3	-	-
33	21CH016	Green Technologies	2,6,7	3	-	-
34	21IT015	Human Computer Interaction	1,7	3	-	-
35	21BS006	Handling of Industrial waste and waste water	1,7	3	-	-
36	21OE001	Robotics and Automation	5,6,7	3	-	-
37	21OE002	Introduction to IoT	1,2	3	-	-
38	21OE003	Fundamentals of Image processing	1,2	3	-	-

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39	21OE004	Fundamentals of Data Acquisition systems	1,2	3	-	-	3
40	21OE005	Airport Operations Management	2,4,11,12	3	-	-	3
41	21OE006	Fundamentals of Embedded Systems	1,2	3	-	-	3
42	21OE007	Remote Sensing and GIS	1,2,5,7,10	3	-	-	3
43	21OE008	Big Data Analytics	1,7	3	-	-	3
44	21OE009	Fundamentals of Cyber Security	3,6,8	3	-	-	3
45	21OE010	Smart Cities	7,12	3	-	-	3
46	21OE011	Nano Materials and Thin Film Technology	1,12				
47	21CSMC1	Cloud computing	2,3	3	-	-	3
48	21CSMC2	Ethical Hacking	1,2,3	3	-	-	3
49	21CSMC3	Fundamentals of Web Development	2,3,5	4	-	-	4
50	21OE012	Business Intelligence & Analytics	2,3,5	3	-	-	3
51	21OE013	Introduction To Industry 4.0 And Industrial Internet Of Things	2,3	3	-	-	3
52	21OE014	Natural Language Processing	2,3	3	-	-	3
53	21OE015	Affective Computing	1,2,3,4	3			
<b>Audit Course</b>							
1	21AT001	Communication Etiquette in Workplaces	-	-	-	-	-
2	21AT002	Contemporary India: Economy, Policy and Society	-	-	-	-	-
3	21AT003	Design The Thinking	-	-	-	-	-
4	21AT004	Ethics and Integrity	-	-	-	-	-
5	21AT005	Indian Heritage and Culture	-	-	-	-	-
6	21AT006	Intellectual Property Rights and Patents	-	-	-	-	-
7	21AT007	Introduction to Journalism	-	-	-	-	-
8	21AT008	Mass Media Communication	-	-	-	-	-
9	21AT009	Science, Technology and Development	-	-	-	-	-
10	21AT010	Social Responsibility	-	-	-	-	-
11	21AT011	The Art of Photography and Film Making	-	-	-	-	-
12	21AT012	Gender Equality for Sustainability	-	-	-	-	-
13	21AT013	Women in Leadership	-	-	-	-	-
14	21AT014	Introduction to Research Methodology	-	-	-	-	-
15	21AT015	Climate Change and Circular Economy	-	-	-	-	-
<b>B. Tech. (Honors)</b>							
<b>Domain I (Data Engineering)</b>							
01	21CSH11	Advanced Data Structures	1,2,3,12,PSO2	4	-	-	4
02	21CSH12	Advanced Databases	1,2,3,10,12,PSO2	4	-	-	4
03	21CSH13	Programming, Data Structures and Algorithms Using Python	1,2,3,4,5,PSO2	4	-	-	4
04	21CSH14	Bioinformatics	1,2,3,4,5,PSO2	4	-	-	4
<b>Domain II (Modern Software Engineering)</b>							
01	21CSH21	DevOps	1,2,3,5,8,10,PSO1, PSO2	4	-	-	4
02	21CSH22	Design Patterns	1,2,3,5,10,PSO1	4	-	-	4
03	21CSH23	Advanced Software Engineering	1,2,3,5,11, PSO1	4	-	-	4
04	21CSH24	Robotic Process Automation	1,2,3,4,5, 6, 8, 10,PSO1	4	-	-	4
<b>Domain III (Security)</b>							
01	21CSH31	Computer Systems Security	1,2,3,5,6	4	-	-	4

02	21CSH32	Python Programming for Security	1,2,3,4,5	4	-	-	4
03	21CSH33	Management of Information Security	1,2,3,6,7,11	4	-	-	4
04	21CSH34	Computer Forensics	1,2,3,4,5,6,8,10,PSO1	4	-	-	4
<b>Domain IV (User Interface Design)</b>							
01	21CSH41	Computer Graphics	1,2,3,4,5,10,12,PSO1, PSO2	4	-	-	4
02	21CSH42	Multimedia Systems	1,2,3,4,5,10,12,PSO1, PSO2	4	-	-	4
03	21CSH43	Human Computer Interaction	1,2,3,4,5,6,8,10,12, PSO1,PSO2	4	-	-	4
04	21CSH44	Mobile Programming	1,2,3,4,5,6,7,8,10,12, PSO1,PSO2	4	-	-	4

<b>B. Tech. (Minors)</b>							
<b>Energy Science &amp; Technology</b>							
01	21CHM11	Foundation of Energy Science and Technology	1,2,3,5,7, 12	4	-	-	4
02	21CHM12	Energy Generation from Waste	1,2,3,4,5	4	-	-	4
03	21CHM13	Energy Storage Systems	1,2,3,6,7	4	-	-	4
04	21CHM14	Hydrogen Energy and Fuel Cells	1,2,3,7	4	-	-	4
<b>Nano Science &amp; Technology</b>							
01	21CHM21	Introduction and Characterization of Nano-Materials	1,2,3,7	4	-	-	4
02	21CHM22	Carbon Nano-Structures and Applications	1,3,4,5	4	-	-	4
03	21CHM23	Energy, Environmental and Biomedical Nanotechnology	1,2,3,7	4	-	-	4
04	21CHM24	Industrial Application of Nanotechnology	2,3,5,7	4	-	-	4
<b>Environment Engineering</b>							
01	21CEM11	Watershed Management	6,7	4	-	-	4
02	21CEM12	Industrial Pollution Control and Engineering	3,6,7,12	4	-	-	4
03	21CEM13	Solid and Hazardous Waste Management	1,3,6,7	4	-	-	4
04	21CEM14	Ecology and Environmental Assessment	1,3,6,7	4	-	-	4
05	21CEM15	Environmental Pollution	2,3,6	4	-	-	4
<b>Artificial Intelligence &amp; Machine Learning</b>							
01	21CSM11	Fundamentals of AI & Machine Learning	1,12	4	-	-	4
02	21CSM12	Feature Engineering for Machine Learning	1,2,3	4	-	-	4
03	21CSM13	Exploratory Data Analytics	1,4	4	-	-	4
04	21CSM14	Deep Learning	1,2,4	4	-	-	4
<b>Cyber Security</b>							
01	21CSM21	Fundamentals of Security	1,2	4	-	-	4
02	21CSM22	Management of Information Security	3,6,7	4	-	-	4
03	21CSM23	Cyber Security	1,3,4	4	-	-	4
04	21CSM24	Cloud Security	2,3	4	-	-	4
<b>Data Science &amp; Analytics</b>							
01	21CSM31	Data Cleaning	2,3,4	4	-	-	4
02	21CSM32	Data Engineering	1,2,3,4	4	-	-	4

03	21CSM33	Text Analytics	1,2,4	4	-	-	4
04	21CSM34	Social Network Semantic Analysis	2,4	4	-	-	4
<b>Computer Systems Programming</b>							
01	21CSM41	Programming Fundamentals	1,2,3	4	-	-	4
02	21CSM42	Data Structures & Algorithms	1,2,3,4	4	-	-	4
03	21CSM43	Fundamentals of Databases	1,4	4	-	-	4
04	21CSM44	Fundamentals of Computer Networks & Operating Systems	1,2,3	4	-	-	4
<b>Digital IC Design</b>							
01	21ECM11	Fundamentals of VLSI Design	1,2,3	4	-	-	4
02	21ECM12	Digital Design using HDL	1,2,3	4	-	-	4
03	21ECM13	FPGA Technology	1,2	4	-	-	4
04	21ECM14	Analog and Mixed Signal Design	1,2	4	-	-	4
<b>Industrial Automation</b>							
01	21ECM21	Microcontrollers and Interfacing	1,2,3	4	-	-	4
02	21ECM22	Sensors and Data Acquisition System	1,2	4	-	-	4
03	21ECM23	Fundamentals of Lab view	1,2	4	-	-	4
04	21ECM24	Medical Robotics	1,2,3	4	-	-	4
<b>Communications and Networking</b>							
01	21ECM31	Principles of Communications	1,2	4	-	-	4
02	21ECM32	Coding Theory and Practice	1,2	4	-	-	4
03	21ECM33	Ad-hoc and Wireless Sensor Networks	1,2,3	4	-	-	4
04	21ECM34	Fundamentals of Multimedia Networking	1,2,3	4	-	-	4
<b>Avionics</b>							
01	21ECM41	Principles of Aerodynamics	1,2	4	-	-	4
02	21ECM42	Aircraft Electrical Systems	1,2	4	-	-	4
03	21ECM43	Aircraft Instrument Systems	1,2	4	-	-	4
04	21ECM44	Aircraft Communication and Navigation Systems	1,2	4	-	-	4
<b>Geographic Information System</b>							
01	21ECM51	Sensors and Sensing Technology	1,2	4	-	-	4
02	21ECM52	Geographic Information Systems	1,2	4	-	-	4
03	21ECM53	Digital Image Processing	1,2	4	-	-	4
04	21ECM54	Lidar Systems	1,2	4	-	-	4
<b>Electric Vehicles Technology</b>							
01	21EEM11	Introduction to Electric Vehicles Technologies	2,3	4	-	-	4
02	21EEM12	Electrical Drives and Controllers for Electric Vehicles	2,3	4	-	-	4
03	21EEM13	Charging Technology in Electric Vehicles	2,3	4	-	-	4
04	21EEM14	Computer Vision in Electric Vehicles	2,3	4	-	-	4
<b>Smart City Management</b>							
01	21EEM21	Fundamentals of Smart City	2,3	4	-	-	4
02	21EEM22	Smart City Infrastructure	2,3,5,6,7, 11	4	-	-	4
03	21EEM23	Computational Methods for Smart City Management	3,5	4	-	-	4
04	21EEM24	Communication Technologies and Mobility for Smart City	2,3	4	-	-	4
<b>Industrial Applications and Control</b>							

01	21EEM31	Modelling and Simulations of Industrial Applications	2,3	4	-	-	4
02	21EEM32	Industrial Sensors and Actuators	2,3	4	-	-	4
03	21EEM33	Programmable Logic Controllers	2,3	4	-	-	4
04	21EEM34	Control Design for Industrial Applications	2,3	4	-	-	4
<b>Cloud Application Development</b>							
01	21ITM11	Introduction to Cloud Computing	6,7,12	4	-	-	4
02	21ITM12	Introduction to Web Development with HTML, CSS, JavaScript	1,2,3,9,12	4	-	-	4
03	21ITM13	Developing Cloud Native Applications	5,8,10	4	-	-	4
04	21ITM14	Developing Cloud Apps with Node.js and React	5,8,10	4	-	-	4
<b>Robotics and Automation</b>							
01	21MEM11	Introduction to Robotics	1,2,3	4	-	-	4
02	21MEM12	Drives and Sensors	1,2,3,4	4	-	-	4
03	21MEM13	Control Systems for Robotics	1,2,3,4	4	-	-	4
04	21MEM14	Machine Learning for Robotics	2,5	4	-	-	4
<b>Industrial Systems Engineering</b>							
01	21MEM21	Industrial Engineering	1,10,11,12	4	-	-	4
02	21MEM22	Fundamentals of Operations Research	1,2,3,5	4	-	-	4
03	21MEM23	Enterprise Resource Planning	1,2,3,5,11,12	4	-	-	4
04	21MEM24	Production Planning and Control	1,2,3,5,11,12	4	-	-	4

## MINUTES OF THE 18<sup>th</sup> ACADEMIC COUNCIL MEETING

Media : Zoom (Online Meeting)  
 Date : 13.07.2022 (Wednesday)  
 Time : 03:00 PM – 05:00 PM

### MEMBERS PRESENT

Dr. C. L. V. R. S. V. Prasad	- Chairman (Principal)
Dr. KVSG Murali Krishna	- Member
Dr. B. Bala Krishna	- Member
Dr. R.Rajeswara Rao	- Member
Dr. A.Venugopal	- Member
Dr. K. V. L. Subramaniam	- Member
Dr. P. Mallikarjuna Rao	- Member
Dr. P. K. Jain	- Member
Chair Person (BoS : Civil Engg.)	- Member
Chair Person (BoS : EEE)	- Member
Chair Person (BoS : Mech Engg.)	- Member
Chair Person (BoS : ECE)	- Member
Chair Person (BoS : CSE)	- Member
Chair Person (BoS : Chem Engg.)	- Member
Chair Person (BoS : IT)	- Member
Chair Person (BoS : BS&H)	- Member
Dr.S.N.Dash(CDC-Head)	- Member
Dr.G.Sasi Kumar(Asso.Dean-Student Affairs)	- Member
Dr.P.S.Venkata Narayana(Asso.Dean-R&D)	- Member
Dr.T.Prabhakar (Controller of Examinations)	- Member
Dr. L.Govinda Rao(IQAC Coordinator)	- Member
Dr. M.V.Nageswara Rao(Asso.Dean-Academics)	- Member Secretary

### GRANT OF LEAVE OF ABSENCE

Mr. V. Paradesi Naidu - Member

Chairman welcomed all the members of the academic council and requested for the grant leave of absence for the above referred members. **(Item #1)**

Subsequently, the Chairman presented the action taken report for the 17<sup>th</sup> academic council meeting and received the confirmation for the minutes of 17<sup>th</sup> academic council meeting held on 11<sup>th</sup> Sep 2021 from all the esteemed members. **(Item #2&3)**.



Chairman presented the details of the overall Operations and performance of the Institution (Academic-Operations, Ranking, Achievements, Placements and Research) (**Item #4**).

Academic council members appreciated the efforts and initiatives taken up by the institute for the overall development and the ranking achieved. Congratulated the students who achieved credential in curricular and co-curricular activities.

#### **ITEM No.: 5**

**Ratification of Semester end result for regular and supplementary examination for the academic year 2020-21(II, IV, VI semesters) and 2021-22 (I, III, VI, VII, VIII semesters) held during September 2021 to July 2022 for Students in B. Tech. Programs.**

Chairman presented the results declared for the regular and supplementary examinations pertaining to semesters mentioned above for the students admitted during the different academic years under Academic Regulation AR16, AR19, AR20 and AR 21 and requested for the ratification of the results which were declared by the College academic committee in the presence of the JNTUK representative.

The members after the detailed review, ratified the results of all the regular and supply examinations declared by the college academic committee as per the **Annexure I**.

#### **ITEM No.: 6**

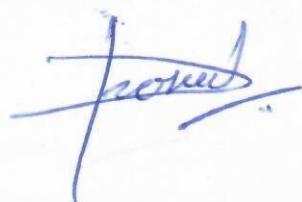
**Ratification of results of 2<sup>nd</sup> phase semester end exams for all the COVID-19 infected students during 2021-22.**

Chairman presented the list of students infected with COVID-19 and could not appear for the 7<sup>th</sup> semester examinations. These students were permitted to appear in the 2<sup>nd</sup> phase as per the university directions considering it as a first attempt.

The members after the detailed review, ratified the Class and CGPA declared by the college academic committee as per the **Annexure II**.

#### **ITEM No.: 7**

**Ratification of the PC eligibility list of the students admitted during the Academic Year 2018-19 and earlier batches who have successfully acquired the graduation requirements for the award of B. Tech. Degree as per the respective academic regulations at the time of admission.**



Chairman presented the (semester-wise & branch-wise) results of the 2018 admitted batch for all the semesters' i.e from 1<sup>st</sup> to 8<sup>th</sup> semesters under Academic Regulation AR16 and who have acquired the graduation requirements and eligible for the issue of Provisional certificate. Further, details of the students who have acquired graduation requirements and eligible for the issue of PCs pertaining to the batches admitted earlier to 2018 are presented.

The members reviewed the results (1<sup>st</sup> semester to 8<sup>th</sup> semester) of 2018 admitted batch students and approved the PC eligibility list of the student who will be getting graduated by July 2022 as per the academic regulations AR16. Apart from this, the PC eligible students from the earlier admitted students who have acquired graduation requirements were also approved as per the **Annexure III**.

#### **ITEM No.: 8**

**Ratification of the AR21 regulations for UG and PG programs that are approved by circulation wide the circulars dated 15-11-2021, 30-12-2021 & 30-03-2022 (In compliance with the JNTUK common guidelines)**

Chairman presented the Academic Regulations 2021 (AR21) and Curriculum recommended by the respective BoS and which are in line with JNTUK common guidelines majorly in the context of incorporating the changes relate to the marks division between internal and External marks (30+70), Absolute grading in the place of Hybrid grading and Award of Class of degree (Division/Class) for UG and PG programs.

The members after deliberation ratified the Academic Regulations 2021 (AR21), Curriculum for UG and PG programs as per **Annexure IV &V**.

#### **ITEM NO.:9**

**Approval of course structure, 3<sup>rd</sup> & 4<sup>th</sup> semesters syllabus for the new programs B.Tech CSE(AIML) and B.Tech CSE(AIDS) as per Academic Regulations 2021.**

Chairman presented the recommendations of the Board of Studies CSE(AIDS) and CSE (AIML) with regard to the course structure and detailed Syllabi for 3<sup>rd</sup> and 4<sup>th</sup> semesters as per AR21 for the B. Tech. (Regular), B. Tech. (Honors) and B. Tech (Minor) Programs for the ratification of Academic Council

Members after deliberation ratified the syllabi for the 3<sup>rd</sup> and 4<sup>th</sup> semesters as per the **Annexure VI & VII**.



**ITEM NO.:10****Ratification of the syllabus for the 7<sup>th</sup> and 8<sup>th</sup> semesters as per AR19 and AR20 academic regulations**

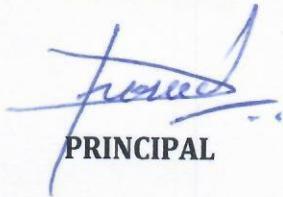
Chairman presented the recommendations of all the seven Board of Studies with regard to the detailed Syllabi for 7<sup>th</sup> and 8<sup>th</sup> semesters under the Academic Regulation AR 19 and AR 20 for the B. Tech. (Regular), B. Tech. (Honors) and B. Tech (Minor) Programs for the ratification of Academic Council

Members after deliberation ratified the syllabi for the 7<sup>th</sup> and 8<sup>th</sup> semesters as per the **Annexure VIII to XIV**

**ITEM NO.:11****Ratification for readmitted students under transitory Regulations**

As per the transitory regulations, with regard to the students re-admitted under, AR19/AR20 moving from AR16/AR19, Board of Studies of the respective departments discussed the issues case to case and recommended the substitute courses balancing the credit requirements. The details of the students are presented by the chairman before the council for formal ratification

Members ratified the recommendations of the respective BoS as per the **Annexure XV**

  
**PRINCIPAL**

**Encl. (a) Annexure A (b) Annexure B (c) Annexure C (d) Annexure D**

**Copy to:**

- All Members of the Academic Council
- Autonomous Coordinator (Institute Level)
- Assoc.Dean(Academics)
- Controller of Examinations (CoE)
- File

## **MINUTES OF THE 18<sup>th</sup> ACADEMIC COUNCIL MEETING**

### **Annexure IV:**

[http://www.gmrit.org/Autonomy\\_Regulations\\_UGPrograms\\_2021.pdf](http://www.gmrit.org/Autonomy_Regulations_UGPrograms_2021.pdf)

### **Annexure V:**

[http://www.gmrit.org/Autonomy\\_Regulations\\_PGPrograms\\_2021.pdf](http://www.gmrit.org/Autonomy_Regulations_PGPrograms_2021.pdf)

### **Annexure VI:**

[http://www.gmrit.org/resources/CSE-AI&DS\\_Course\\_Structure.pdf](http://www.gmrit.org/resources/CSE-AI&DS_Course_Structure.pdf)

### **Annexure VII:**

[http://www.gmrit.org/resources/CSE-AI&ML\\_Course\\_structure.pdf](http://www.gmrit.org/resources/CSE-AI&ML_Course_structure.pdf)

### **Annexure VIII: CIVIL Engineering**

[http://www.gmrit.org/resources/B.Tech\\_Civil\\_Syllabus\\_AR19.pdf](http://www.gmrit.org/resources/B.Tech_Civil_Syllabus_AR19.pdf)

[http://www.gmrit.org/resources/B.Tech\\_Civil\\_Syllabus\\_AR20.pdf](http://www.gmrit.org/resources/B.Tech_Civil_Syllabus_AR20.pdf)

### **Annexure IX: CHEMIAL Engineering**

[http://www.gmrit.org/resources/B.Tech\\_Chem\\_Syllabus\\_AR20.pdf](http://www.gmrit.org/resources/B.Tech_Chem_Syllabus_AR20.pdf)

[http://www.gmrit.org/resources/B.Tech\\_Chem\\_Syllabus\\_AR19.pdf](http://www.gmrit.org/resources/B.Tech_Chem_Syllabus_AR19.pdf)

### **Annexure X: Computer Science Engineering**

[http://www.gmrit.org/resources/B.Tech\\_CSE\\_Syllabus\\_AR20.pdf](http://www.gmrit.org/resources/B.Tech_CSE_Syllabus_AR20.pdf)

[http://www.gmrit.org/resources/B.Tech\\_CSE\\_Syllabus\\_AR19.pdf](http://www.gmrit.org/resources/B.Tech_CSE_Syllabus_AR19.pdf)

### **Annexure XI: Information Technology**

[http://www.gmrit.org/resources/B.Tech\\_IT\\_Syllabus\\_AR20.pdf](http://www.gmrit.org/resources/B.Tech_IT_Syllabus_AR20.pdf)

[http://www.gmrit.org/resources/B.Tech\\_IT\\_Syllabus\\_AR19.pdf](http://www.gmrit.org/resources/B.Tech_IT_Syllabus_AR19.pdf)

### **Annexure XII: Electronics and Communication Engineering**

[http://www.gmrit.org/resources/B.Tech\\_ECE\\_Syllabus\\_AR20.pdf](http://www.gmrit.org/resources/B.Tech_ECE_Syllabus_AR20.pdf)

[http://www.gmrit.org/resources/B.Tech\\_ECE\\_Syllabus\\_AR19.pdf](http://www.gmrit.org/resources/B.Tech_ECE_Syllabus_AR19.pdf)

### **Annexure XIII: Electrical and Electronics Engineering**

[http://www.gmrit.org/resources/B.Tech\\_EEE\\_Syllabus\\_AR20.pdf](http://www.gmrit.org/resources/B.Tech_EEE_Syllabus_AR20.pdf)

[http://www.gmrit.org/resources/B.Tech\\_EEE\\_Syllabus\\_AR19.pdf](http://www.gmrit.org/resources/B.Tech_EEE_Syllabus_AR19.pdf)

### **Annexure XIV: Electrical and Electronics Engineering**

[http://www.gmrit.org/resources/B.Tech\\_Mech\\_Syllabus\\_AR20.pdf](http://www.gmrit.org/resources/B.Tech_Mech_Syllabus_AR20.pdf)

[http://www.gmrit.org/resources/B.Tech\\_Mech\\_Syllabus\\_AR19.pdf](http://www.gmrit.org/resources/B.Tech_Mech_Syllabus_AR19.pdf)



### Department of Computer Science and Engineering

Minimum Credits to be earned: 160 (for Regular Students) 120 (for Lateral Entry Students)

First Semester (Pattern-I/Pattern-II)							
No.	Course Code	Course	POs	L	T	P	Credits
1	23PYX01/23CYX01	Engineering Physics/Chemistry	1,2,7,10,12/1,2,6,7,12	3/3	0	0	3/3
2	23MAX01/23MAX02	Linear Algebra& Calculus/Differential Equations and Vector calculus	1,2,3,4,12/1,2,3,4,12	3/3	0	0	3/3
3	23BEX01/23BEX02	Basic Electrical and Electronics Engineering/ Basic Civil & Mechanical Engineering	1,3,6,7,9,12/1,2,3,6,7,8,12	3/3	0	0	3/3
4	23BEX03	Introduction to Programming	1,2,3,12	3	0	0	3
5	23BEX04/23HSX01	Engineering Graphics/Communicative English	1,5,10,12/1,9,10,11,12	2/2	0	2/0	3/2
6	23PYX02/23CYX03	Engineering Physics Lab/Chemistry Lab	4,6,9,11,12/1,6,7,9,12	0	0	2/2	1/1
7	23BEX05/23BEX06	Electrical & Electronics Engineering workshop/Engineering Workshop	4,5,6,9,12/1,9,12	0	0	3/3	1.5/1.5
8	23BEX07	Computer Programming Lab	2,3,4,12	0	0	3	1.5
9	23HSX11	-/ECA (Yoga / Sports)	-	-	-	-/1	-/0.5
10	23HSX12	-/CCA (NSS/NCC/Community Service)	-	-	-	-/1	-/0.5
11	23BEX08	IT Workshop/-	1,2,3,4,9,12	0	0	2/-	1/-
12	23HSX02	- /Communicative English Lab	1,9,10,11,12	0	0	-/2	-/1
		<b>Total</b>	<b>14/14</b>	<b>0</b>	<b>12/12</b>	<b>20/20</b>	

Second Semester(Pattern-I/Pattern-II)							
1	23HSX01/23BEX04	Communicative English/ Engineering Graphics	10,12/1,5,10	2/2	0	0/2	2/3
2	23MAX02/23MAX01	Differential Equations and Vector calculus/Linear Algebra & Calculus	1,2,3,4,12/1,2,3,4,12/	3/3	0	0	3/3
3	23CYX01/23PYX01	Chemistry /Engineering Physics	1,2,6,7,12/1,2,7,10,12	3/3	0	0	3/3
4	23BEX02/23BEX01	Basic Civil & Mechanical Engineering/ Basic Electrical and Electronics Engineering	1,2,3,6,7,8,12/1,3,6,7,9,12	3/3	0	0	3/3
5	23CS201	Data Structures (CSE, CSE-AI&DS, CSE-AI&ML, IT)	1,2,3,12,PS01	3/3	0	0	3/3
6	23CYX03/23PYX02	Chemistry Lab / Engineering Physics Lab	1,6,7,9,12/4,6,9,11,12	0	0	2/2	1/1
7	23BEX06/23BEX05	Engineering Workshop/Electrical & Electronics Engineering workshop	1,9,12/1,4,5	0	0	3/3	1.5/1.5
8	23BEX08	IT Workshop/-	1,2,3,4,9,12	0	0	2/-	1/-
9	23HSX02	Communicative English Lab/-	1,9,10,11,12	0	0	2/-	1/-
10	23CS202	Data Structures Lab (CSE, CSE-AI&DS, CSE-AI&ML, IT)	2,3,4,12,PS01	0	0	3/3	1.5/1.5

11	23HSX11	-/ECA (Yoga/ Sports)	-	-	-/1	-/0.5
12	23HSX12	-/CCA (NSS/NCC/Community Service)	-	-	-/1	-/0.5
<b>Total</b>			<b>14/14</b>	<b>0</b>	<b>12/12</b>	<b>20/20</b>

#### Third Semester

No	Course Code	Course	POs	L	T	P	Credits
1	23CS301	Problem solving using Python	1,2,3,5,12	3	-	2	4
2	23HSX10	Engineering Economics and Project Management	1,2,10,11,PSO2	3	-		3
3	23CS303	Design and Analysis of Algorithms	1,2,3,PO12,PSO1	3	-	-	3
4	23CS304	Digital Logic Design	1,2,3,4,5,PSO1	3	-	2	4
5	23CS305	Discrete Mathematical Structures	1,2,3,12,PSO1	3	-	-	3
6	23CS306	Object Oriented Programming with JAVA	1,2,3,PO12,PSO2	3	-	-	3
7	23CS307	Design and Analysis of Algorithms Lab	1,2,3,4,10,12,PSO1	-	-	3	1.5
8	23CS308	JAVA Lab	1,2,3,4,10,12,PSO2	-	-	3	1.5
9	23ESX01	Employability Skills I	1,2,3,4,5,9,10,11,12	0	-	2	-
<b>Total</b>			<b>18</b>	-	<b>12</b>	<b>23</b>	

#### Fourth Semester

1	23IT304	Database Management Systems	1,2,3,10,12,PSO2	3	-	-	3
2	23IT403	Operating Systems	1,2,12,PSO1,PSO2	3	-	-	3
3	23CS403	Computer Organization and Architecture	1,2,3,12,PSO1	3	-	-	3
4	23MA404	Probability and Statistics using Python	1,2,4,10,12	3	-	2	4
5	23CS405	Web Coding and Development	1,2,3,5,8,PSO2	3	-	-	3
6	23IT308	Database Management Systems Lab	1,2,3,8,10,12,PSO2	-	-	3	1.5
7	23CS407	Web Coding and Development Lab	1,2,3,4,5,8,10,PSO2	-	-	3	1.5
8	23ESX01	Employability Skills I	1,2,3,4,5,9,10,11,12	0	-	2	2
<b>Total</b>			<b>15</b>	-	<b>10</b>	<b>21</b>	

#### Fifth Semester

1	23EC502	Microprocessors and Microcontroller Programming (Integrated)	1,2,3,4,5	3	-	2	4
2	23CS502	Artificial Intelligence and Machine Learning	1,2,3,4,PSO1,PSO2	3	-	-	3
3	23CS503	Computer Networks (Integrated)	1,2,4,5,PSO1	3	-	2	4
4	23CS504	Theory of Computation	1, 2,3,PSO1	3	-	-	3
5		Elective I (Professional Elective)		3	-	-	3
6		Elective II (Open Elective I)		3	-	-	3
7	23CS507	Artificial Intelligence and Machine Learning Lab	1,4,5,12,PSO1,PSO2	-	-	3	1.5
8	23TPX01	Term Paper	1,4,10,12	-	-	3	1.5
9	23ESX02	Employability Skills II	1,2,3,58,10,12	0	-	2	-
10	23SIX01	Summer Internship I	1,2,8,10,12	-	-	-	1
<b>Total</b>			<b>18</b>	-	<b>12</b>	<b>24</b>	

#### Sixth Semester

1	23CS601	Compiler Design	1, 2,12,PSO1	3	-	-	3
2	23CS602	Cryptography and Network Security	3, 6,8,12	3	-	-	3
3	23CS603	Software Engineering	1,2,3,5,11,PSO1	3	-	-	3
4		Elective III (Professional Elective)		3	-	2	4
5		Elective IV (Open Elective II)		3	-	-	3
6	23CS606	Case Tools Lab	3,4,5,11,PSO1	-	-	3	1.5
7	23MPX01	Mini Project	All POs & PSOs	-	-	3	1.5

8	23ESX02	Employability Skills II	1,2,5,8,10,12	0	-	2	2
9	23ATX01	Environmental Studies	1,7	-	-	-	-
10	23ATX02	Professional Ethics and Human Values	----	-	-	-	-
11	23ATX---	Audit Course	----	-	-	-	-
				<b>Total</b>	<b>15</b>	<b>-</b>	<b>10</b>
							<b>21</b>

**Seventh Semester**

1		Elective V (Professional Elective)		3	-	-	3
2		Elective VI (Professional Elective)		3	-	-	3
3		Elective VII (Open Elective III)		3	-	-	3
4	23SIX02	Summer Internship II	1,2,5,6,10,12	-	-	-	1
5	23PWX01	Project	All POs& PSOs	-	-	16	8
				<b>Total</b>	<b>9</b>	<b>-</b>	<b>16</b>
							<b>18</b>

**Eighth Semester**

1		Elective VIII (Professional Elective)		-	-	-	3
2		Elective IX (Open Elective IV)		-	-	-	2
3	23FIX01	Full Semester Internship (FSI)	1,2,5,8,9,10, PSO1,PSO2	-	-	-	8
				<b>Total</b>	<b>-</b>	<b>-</b>	<b>13</b>

**List of Electives**

**Elective I**

**Career Path I ,II,III and other Core Electives**

1	23CSC11	Neural Networks ( AI&ML)	1,2,4,5,12	3	-	-	3
2	23CSC21	Backend Programming Languages (Full Stack Developer)	1,2,3,5,PSO1,PSO2	3	-	-	3
3	23ITC31	Fundamentals of Security (Cyber Security)	1,2,3,4,PSO1,PSO2	3	-	-	3
4	23CS004	Principles of Programming Languages	1, 2, 3, 4	3	-	-	3
5	23CS005	Mobile Computing	1,3,8	3	-	-	3
6	23CS006	Distributed Operating Systems	1,2,3,12	3	-	-	3

**Commented [ab1]:** Approved in the 16<sup>th</sup> BOS Meeting Minutes

**Elective II**

**Open Electives**

1	230EX11	Data Wrangling and Preprocessing	1,2,3,5,12,PSO1	3	-	-	3
2	230EX21	Fundamentals of Cloud Computing	2,6,7,8	3	-	-	3

**Commented [ab2]:** Approved in the 16<sup>th</sup> BOS Meeting Minutes

**Elective III**

**Career Path I ,II,III and other Core electives**

1	23CSC12	Deep Learning (AI&ML)	1,2,3,4,5,PSO1	3	-	2	4
2	23CSC22	Web Application Framework (Full Stack Developer)	1,2,3,5,PSO1, PSO2	3	-	2	4
3	23ITC32	Cybernet Security (Cyber Security)	1,3,4,12,PSO1,PSO2	3	-	2	4
4	23CS007	Cloud Computing Essentials	2,5,6,7,8	3	-	2	4
5	23CS008	Internet of Things (Integrated)	1,3,4,7,PSO1	3	-	2	4

**Commented [ab4]:** Approved in the 16<sup>th</sup> BOS Meeting Minutes

**Elective IV**

**Open Electives**

1	230EX12	Data Visualization Techniques	1,2,3,PSO1,PSO2	3	-	-	3
2	230EX22	Cloud Services using AWS	2,3,4,5,12	3	-	-	3

**Commented [ab5]:** Approved in the 16<sup>th</sup> BOS Meeting Minutes

**Elective V**

**Career Path I ,II,III and other Core electives**

1	23CSC13	Natural Language Processing (AI&ML)	2,3,4,12,PSO1	3	-	-	3
2	23CSC23	Web Application Databases (Full Stack Developer)	1,3,5,PSO1	3	-	-	3
3	23ITC33	Cloud Security (Cyber Security)	1,2,4,8,12,PSO2	3	-	-	3
4	23IT010	Social Network Analysis	1,2,7,12	3	-	-	3

5	23CS011	Optimization Techniques	2, 3, 5, 12	3	-	-	3
6	23CS012	Wireless Adhoc Networks	1,2,3,6,7,10	3	-	-	3
<b>Elective VI: Professional Elective</b>							
1	23CS014	Green Computing	2,3,6,7	3	-	-	3
2	23CS015	Software Project Management	1,2,3,11,12,PSO2	3	-	-	3
3	23CS016	Soft Computing	1,2,3,4	3	-	-	3
<b>Elective VII: Open Electives</b>							
1	23OEX13	Time series Analysis and Forecasting	1,2,3,PSO1	3	-	-	3
2	23OEX23	Cloud Security Essentials	1,2,3,PSO2	3	-	-	3
<b>Elective VIII: Professional Elective</b>							
1	23CS017	Fundamentals of Social Network Analysis	2, 4,5	-	-	-	3
2	23CS018	Information Retrieval Systems	1,2,3,4	-	-	-	3
3	23CS019	Fundamentals of Devops	1,3,5,8,10	-	-	-	3
<b>Elective IX: Open Electives</b>							
1	23OEX14	AI for Business Intelligence	1,2,4,5,PSO1	2	-	-	2
2	23OEX24	Cloud-Based DevOps	1,2,3,4,5,PSO1	2	-	-	2

**Commented [ab6]:** Approved in the 16<sup>th</sup> BOS Meeting Minutes

<b>Audit Course</b>							
1	23AT001	Communication Etiquette in Workplaces		-	-	-	-
2	23AT002	Contemporary India: Economy, Policy and Society		-	-	-	-
3	23AT003	Design The Thinking		-	-	-	-
4	23AT004	Ethics and Integrity		-	-	-	-
5	23AT005	Indian Heritage and Culture		-	-	-	-
6	23AT006	Intellectual Property Rights and Patents		-	-	-	-
7	23AT007	Introduction to Journalism		-	-	-	-
8	23AT008	Mass Media Communication		-	-	-	-
9	23AT009	Science, Technology and Development		-	-	-	-
10	23AT010	Social Responsibility		-	-	-	-
11	23AT011	The Art of Photography and Film Making		-	-	-	-
12	23AT012	Gender Equality for Sustainability		-	-	-	-
13	23AT013	Women in Leadership		-	-	-	-
14	23AT014	Introduction to Research Methodology		-	-	-	-
15	23AT015	Climate Change and Circular Economy		-	-	-	-

**Commented [ab8]:** Approved in the 16<sup>th</sup> BOS Meeting Minutes

**Commented [ab9]:** Approved in the 16<sup>th</sup> BOS Meeting Minutes

<b>B. Tech. (Honors)</b>							
<b>Domain I (Data Engineering)</b>							
1	23CSH11	Advanced Data Structures	2,3,4	4	-	-	4
2	23CSH12	Advanced Databases	2,3,4	4	-	-	4
3	23CSH13	Programming, Data Structures and Algorithms Using Python	2,3,4,5	4	-	-	4
4	23CSH14	Bioinformatics	2,3	4	-	-	4
5		MOOCs		4	-	-	4
<b>Domain II (Modern Software Engineering)</b>							
1	23CSH21	DevOps	1,3,5,8,10	4	-	-	4
2	23CSH22	Design Patterns	2,3	4	-	-	4
3	23CSH23	Advanced Software Engineering	1,3,4, PSO1	4	-	-	4
4	23CSH24	Robotic Process Automation	3,5, 8, PSO2	4	-	-	4
5		MOOCs		4	-	-	4
<b>Domain III (Security)</b>							
1	23CSH31	Computer Systems Security	1,2	4	-	-	4
2	23CSH32	Python Programming for Security	2,3,4	4	-	-	4
3	23CSH33	Management of Information Security	3,6,7	4	-	-	4
4	23CSH34	Computer Forensics	2,3	4	-	-	4

**Commented [ab6]:** Approved in the 16<sup>th</sup> BOS Meeting Minutes

**Commented [ab7]:** Approved in the 16<sup>th</sup> BOS Meeting Minutes

5		MOOCs		4	-	-	4
<b>Domain IV (User Interface Design)</b>							
1	23CSH41	Computer Graphics	1,2,3,4	4	-	-	4
2	23CSH42	Multimedia Systems	3,4	4	-	-	4
3	23CSH43	Human Computer Interaction	2,3	4	-	-	4
4	23CSH44	Mobile Programming	3,4	4	-	-	4
5		MOOCs		4	-	-	4

<b>B. Tech. (Minors)</b>							
<b>Computer Science and Engineering</b>							
1	23CSM01	Data Structures and Algorithms Using Python	--	4	-	-	4
2	23CSM02	Fundamentals of Data Base Management System	--	4	-	-	4
3	23CSM03	Fundamentals of Computer Networks & Operating Systems	--	4	-	-	4
4	23CSM04	Software Engineering	--	4	-	-	4
5	23CSM05	Fundamentals of Web Development(MOOCs)	--	4	-	-	4

## Department of Computer Science and Engineering

### 16<sup>th</sup> Board of Studies -Virtual Meet

#### Minutes of the Meeting

**Person in Chair:** Dr. A. Venkata Ramana, HoD-CSE, GMRIT

**Dated:** 24.02.2025 (Monday)

**Venue:** Online Teams

**Time:** 4:00 PM TO 5.30 PM

S.No	Points Discussed	Remarks
1	<p><b>Agenda:</b></p> <ul style="list-style-type: none"> <li>➤ Revision of the Vision, Mission, and PEOs of the department.</li> <li>➤ Finalization of course titles and content for Open Electives (B.Tech, 5th to 8th semesters, 2023 admitted batch – AR23).</li> <li>➤ Finalization of course titles and content for Career Path Electives (B.Tech, 5th to 8th semesters, 2023 admitted batch – AR23).</li> <li>➤ Revision of CO-PO mapping for all courses under AR21 and AR23.</li> <li>➤ Ratification of substitute courses for readmitted students.</li> <li>➤ Other Items. <ul style="list-style-type: none"> <li>○ Review of CNS and AIML</li> <li>○ Revision of Minors</li> </ul> </li> </ul>	Agenda points were discussed and taken up for approval.
2	<p><b>Welcoming External BoS Members.</b></p> <p>Dr. A.V. Ramana, Head of the Department of CSE, extended a formal welcome to the BoS panel members:</p> <ol style="list-style-type: none"> <li>1. Dr. R. Rajeswara Rao, Professor- CSE and Director of Academic Audits, JNTUGV, Vizianagaram (Academician).</li> <li>2. Dr. T. Ramakrishnudu, Associate Professor, CSE, NIT-Warangal (Academician).</li> </ol>	Panel members were welcomed and acknowledged for their contributions to curriculum review.

	<ol style="list-style-type: none"> <li>3. Mr. Kolluru Ravichandra, Location Head, Tech Mahindra, Visakhapatnam (Industry).</li> <li>4. Mr. Srikanth Gunturu, Tech Leader, Google, Google, Bangalore (Alumni).</li> <li>5. Faculty members of CSE, CSE-AIML, CSE-AIDS, and IT, GMR Institute of Technology, Rajam.</li> </ol>	
3	<p><b>Revision of Vision, Mission, and PEOs</b>  Dr. A.V Ramana presented the revised Vision, Mission, and PEO statements of CSE department.</p> <p><b>Vision</b>  To be a preferred department of learning for students and teachers alike, with a commitment towards Academics &amp; Research, serving the students in an atmosphere of innovation, critical thinking and making them Industry ready.</p> <p><b>Mission</b></p> <ol style="list-style-type: none"> <li>1. To provide adaptable education in a collaborative and innovative environment in skilling the graduates to solve real world problems in the field of Computer Science and Engineering</li> <li>2. To prepare the students as critical thinking professionals with multidisciplinary research orientation and Innovation</li> <li>3. To instil ethical values and nurture the graduates who will be able to contribute to society</li> </ol> <p><b>Program Educational Objectives (PEOs)</b></p> <ol style="list-style-type: none"> <li>1. Employ logical and analytical skills in solving complex real-world engineering problems in the areas of computer Science and allied fields</li> <li>2. Adaptable to emerging technologies with enhanced professional skills and ability towards continuous learning, facilitating higher studies and research</li> <li>3. Demonstrate professional ethics, leadership qualities and promote inclusive and collaborative growth with human values towards societal interest</li> </ol>	The revised statements were reviewed and approved.

4	<p><b>AR23 Regulation: Curriculum and Syllabi</b></p> <p>Dr. A.V Ramana presented the AR23 curriculum structure and syllabi, including revised CO-PO mapping.</p>	<p>AR23 curriculum structure and syllabi, including CO-PO mapping, were reviewed and approved.</p>
5	<p><b>Finalization of course titles and content for Open Electives tracks (B.Tech, 5th to 8th semesters, AR23)</b></p> <p>The following Open Elective course titles and syllabi, offered to CSE students, were presented:</p> <p>Open Elective 1 - Data Analytics and Machine Learning (<i>Offered by CSE-AIDS for CSE students</i>)</p> <ol style="list-style-type: none"> <li>1. 230EX11 - Data Wrangling and Preprocessing</li> <li>2. 230EX12 - Data Visualization Techniques</li> <li>3. 230EX13 - Time Series Analysis and Forecasting</li> <li>4. 230EX14 - AI for Business Intelligence</li> </ol> <p>Open Elective 2 - Cloud Computing (<i>Offered by CSE-AIML for CSE students</i>)</p> <ol style="list-style-type: none"> <li>1. 230EX21 - Fundamentals of Cloud Computing</li> <li>2. 230EX22 - Cloud Services using AWS</li> <li>3. 230EX23 - Cloud Security Essentials</li> <li>4. 230EX24 - Cloud-Based DevOps</li> </ol> <p>Open Elective 3- Internet of Things (Offered by: ECE for all CSE and allied branches)</p> <ol style="list-style-type: none"> <li>1. 230EX31 - Wireless Sensor Networks and Mobile Adhoc Networks</li> <li>2. 230EX32 -Introduction to IoT and Embedded Systems</li> <li>3. 230EX33 -IoT Protocols and Networking</li> <li>4. 230EX34 -Cloud platform for IoT and Security</li> </ol> <p>Alternative Choice: If students are not interested in the above Open Elective paths, they may opt for discrete courses or SWAYAM/NPTEL MOOCs based on their interests.</p>	<p>The open elective courses were reviewed and approved with modifications, except for the IoT track.</p>
5.a	<p><b>Open Elective 1 - Data Analytics and Machine Learning (<i>Offered by CSE-AIDS for CSE students</i>)</b></p> <ol style="list-style-type: none"> <li>1. Data Wrangling and Preprocessing:</li> </ol>	<p>The suggested modifications will be incorporated into the revised syllabus.</p>

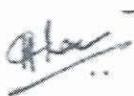
	<ul style="list-style-type: none"> <li>▪ Add data integration techniques in Unit 1 (Dr. Ramakrishnudu).</li> <li>▪ Include Python tools as self-study topics (Mr. Srikanth).</li> </ul> <p>2. Data Visualization Techniques:</p> <ul style="list-style-type: none"> <li>▪ Box plot missing – should be added (Dr. Ramakrishnudu).</li> <li>▪ Include Tableau and Power BI from Unit 2 onwards (Mr. Srikanth).</li> </ul> <p>3. Time Series Analysis &amp; Forecasting:</p> <ul style="list-style-type: none"> <li>▪ LSTM and RNN require prerequisites – syllabus needs simplification (Dr. Ramakrishnudu).</li> <li>▪ Add prerequisite concepts and simplify advanced topics for 7th and 8th semesters (Mr. Kolluru Ravichandra).</li> </ul> <p>4. AI for Business Intelligence:</p> <ul style="list-style-type: none"> <li>▪ Rename to Machine Learning for Business Intelligence (Mr. Srikanth).</li> </ul>	
5.b	<p><b>Open Elective 2 - Cloud Computing</b></p> <ul style="list-style-type: none"> <li>▪ No issues</li> </ul>	Approved by all BoS members.
5.c	<p><b>Open Elective 3- Internet of Things</b></p> <ul style="list-style-type: none"> <li>▪ IoT should not be introduced in the 5th semester without Computer Networks as a prerequisite (Dr. Srikanth).</li> <li>▪ Computer Networks should not be in 4th semester (It is an advanced subject).</li> <li>▪ Parallel offering of Wireless Sensor Networks &amp; Mobile Adhoc Networks with CN in the same semester is an overload.</li> <li>▪ Cloud Platform for IoT and Security: <ul style="list-style-type: none"> <li>▪ Cloud concepts should be included in basic IoT courses.</li> <li>▪ More focus should be given to IoT Security.</li> <li>▪ Suggested renaming the course to focus only on IoT Security.</li> </ul> </li> </ul>	Based on suggestions given by BoS members, IoT track will not be offered to CSE students due to prerequisite concerns.

	<ul style="list-style-type: none"> <li>▪ Self-Study Topics for Advanced Electives: Add practical components as self-study topics in all advanced elective courses to align with industry applications (Dr. Srikanth).</li> </ul>	
6	<p><b>Finalization of Career Path Electives (B.Tech, 5th to 8th semesters, AR23)</b></p> <p>The following Career Path Elective courses were presented with revised contents:</p> <p>Career Path-1: Artificial Intelligence &amp; Machine Learning (AIML)</p> <ol style="list-style-type: none"> <li>1. 23CSC11 - Neural Networks</li> <li>2. 23CSC12 - Deep Learning</li> <li>3. 23CSC13 - Natural Language Processing</li> </ol> <p>Career Path-2: Full Stack Developer</p> <ol style="list-style-type: none"> <li>1. 23CSC21 - Backend Programming Languages</li> <li>2. 23CSC22 - Web Application Frameworks</li> <li>3. 23CSC23 - Web Application Databases</li> </ol> <p>Career Path-3: Cyber Security</p> <ol style="list-style-type: none"> <li>1. 23ITC31 - Fundamentals of Security</li> <li>2. 23ITC32 - Cybernet Security</li> <li>3. 23ITC33 - Cloud Security</li> </ol> <ul style="list-style-type: none"> <li>▪ No issues</li> </ul>	Approved by all BoS members.
7	<p><b>Ratification of Substitute Courses for Readmitted Students</b></p> <p>The following readmitted students (under transitory regulations from AR21 to AR23) have been readmitted to Semester 4. Their transfer from Regulation AR21 to AR23 has been processed:</p> <ol style="list-style-type: none"> <li>1. SINGURU BHAVANA (22341A05G7)</li> <li>2. VAKADA BALAKRISHNA (22341A05I5)</li> </ol>	Approved by all BoS members.
8	<p><b>Minors (For Non-CSE Students)</b></p> <p>Minor in Computer Science and Engineering</p>	Approved by all BoS members.

	<p>The following minor courses (offered to students of other branches) were reviewed and presented:</p> <ol style="list-style-type: none"> <li>1. 23CSM01 - Data Structures and Algorithms Using Python</li> <li>2. 23CSM02 - Fundamentals of Database Management Systems</li> <li>3. 23CSM03 - Fundamentals of Computer Networks &amp; Operating Systems</li> <li>4. 23CSM04 - Software Engineering</li> <li>5. 23CSM05 - Fundamentals of Web Development (<i>MOOCs</i>)</li> </ol> <p>Minors require an additional 20 credits apart from 160-degree credits (Dr. Rajeshwara Rao).</p>	
9	<b>23CS502- Artificial Intelligence and Machine Learning:</b> self-study topics need to be revised in Unit 4.	Approved with minor modifications.
10	<ul style="list-style-type: none"> <li>▪ Course <b>23CS602-Cryptography and Network Security</b> will be introduced in place of the IoT for CSE students.</li> <li>▪ Course <b>23CS008-Internet of Things</b> will now be offered as a non-career path elective instead of core subject.</li> </ul>	Approved by all BoS members.
11	Based on faculty feedback, the syllabus of <b>23MA404 - Probability and Statistics using Python</b> was revised and restructured to ensure balanced topic distribution across all units.	Approved by all BoS members.

Prepared By:

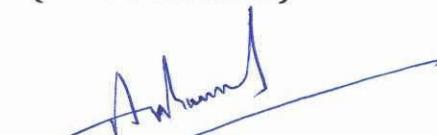
**Dr. S. Akila Agnes, Associate Professor-CSE**

  
(Dr. R. Rajeswara Rao)

  
(Dr. T. Ramakrishnudu)

  
(Mr. K. Ravichandra)

  
(Mr. G.S Srikanth)

  
Board Chairman- HOD- CSE

**Department of Computer Science and Engineering**  
**M. Tech: Computer Science and Engineering**  
[Minimum Credits to be earned: 68]

First Semester			POs	Periods			
No	Course Code	Course		L	T	P	C
1	21MEX101	Advanced Optimization Techniques		4	-	-	4
2	23CSE101	Advanced Data Structures and Algorithms		4	-	-	4
3		<b>Elective I</b>		4	-	-	4
4		<b>Elective II</b>		4	-	-	4
5		<b>Elective III</b>		4	-	-	4
6	23CSE102	Data Structures and Algorithms Lab		-	-	3	1.5
7	23CSE103	Term Paper		-	-	3	1.5
<b>Total</b>			<b>20</b>	-	<b>6</b>	<b>23</b>	
Second Semester							
1	23CSE201	Advanced Database Management Systems		4	-	-	4
2	23CSE202	Internet of Things		4	-	-	4
3		<b>Elective IV</b>		4	-	-	4
4		<b>Elective V</b>		4	-	-	4
5		<b>Elective VI</b>		4	-	-	4
6	23CSE203	Database Management Systems lab		-	-	3	1.5
7	23CSE204	Internet of Things Lab		-	-	3	1.5
<b>Total</b>			<b>20</b>	-	<b>6</b>	<b>23</b>	
Third Semester							
No	Course Code	Course	POs	Periods			
1	23CSE301	Internship		-	-	-	4
2	23CSE302	Project Work		-	-	-	-
3		Research Methodology and IPR (Audit course)		-	-	-	0
<b>Total</b>				-	-	-	<b>4</b>
Fourth Semester							
1	23CSE302	Project Work		-	-	-	18
<b>Total</b>				-	-	-	<b>18</b>

**List of Elective Courses**

Elective I				Commented [ab1]: Approved in the 18th Academic Council Meeting			
No	Course Code	Course	POs	Periods			
				L	T	P	C
1	23CSE001	Mathematical Foundations of Data Science with Python		4	-	-	4
2	23CSE002	Computer Organization and Architecture		4	-	-	4
3	23CSE003	Advanced Operating Systems		4	-	-	4
Elective II				Commented [ab2]: Approved in the 18th Academic Council Meeting			
1	23CSE004	Data Pre-processing for Data Analytics and Machine Learning		4	-	-	
2	23CSE005	Fundamentals of cyber security		4	-	-	4
3	23CSE006	Object Oriented Software Engineering		4	-	-	4
Elective III				Commented [ab3]: Approved in the 18th Academic Council Meeting			
1	23CSE007	Artificial Intelligence and Machine Learning		4	-	-	
2	23CSE008			4	-	-	4
3	23CSE009	Cryptography and Network Security		4	-	-	4
Elective IV				Commented [ab4]: Approved in the 18th Academic Council Meeting			
1	23CSE010	Data Visualization techniques		4	-	-	
2	23CSE011	Social Networks and Semantic Web		4	-	-	4
3	23CSE012	Web Application Developments Framework		4	-	-	4
Elective V				Commented [ab5]: Approved in the 18th Academic Council Meeting			
1	23CSE013	Computer Vision & Pattern Recognition		4	-	-	

2	23CSE014	Natural Language Processing	4	-	-	4
3	23CSE015	Predictive Analytics	4	-	-	4
<b>Executive VI</b>						
1	23CSE016	Deep Learning with Neural Networks	4	-	-	
2	23CSE017	Fundamentals of Social Networks Analysis	4	-	-	
3	23CSE018	Cloud Architecture and Security	4	-	-	4

**Comments [app]:** Approved in the 18th Academic Council Meeting

## MINUTES OF THE 18<sup>th</sup> ACADEMIC COUNCIL MEETING

Media : Zoom (Online Meeting)  
 Date : 13.07.2022 (Wednesday)  
 Time : 03:00 PM – 05:00 PM

### MEMBERS PRESENT

Dr. C. L. V. R. S. V. Prasad	- Chairman (Principal)
Dr. KVSG Murali Krishna	- Member
Dr. B. Bala Krishna	- Member
Dr. R.Rajeswara Rao	- Member
Dr. A.Venugopal	- Member
Dr. K. V. L. Subramaniam	- Member
Dr. P. Mallikarjuna Rao	- Member
Dr. P. K. Jain	- Member
Chair Person (BoS : Civil Engg.)	- Member
Chair Person (BoS : EEE)	- Member
Chair Person (BoS : Mech Engg.)	- Member
Chair Person (BoS : ECE)	- Member
Chair Person (BoS : CSE)	- Member
Chair Person (BoS : Chem Engg.)	- Member
Chair Person (BoS : IT)	- Member
Chair Person (BoS : BS&H)	- Member
Dr.S.N.Dash(CDC-Head)	- Member
Dr.G.Sasi Kumar(Asso.Dean-Student Affairs)	- Member
Dr.P.S.Venkata Narayana(Asso.Dean-R&D)	- Member
Dr.T.Prabhakar (Controller of Examinations)	- Member
Dr. L.Govinda Rao(IQAC Coordinator)	- Member
Dr. M.V.Nageswara Rao(Asso.Dean-Academics)	- Member Secretary

### GRANT OF LEAVE OF ABSENCE

Mr. V. Paradesi Naidu - Member

Chairman welcomed all the members of the academic council and requested for the grant leave of absence for the above referred members. **(Item #1)**

Subsequently, the Chairman presented the action taken report for the 17<sup>th</sup> academic council meeting and received the confirmation for the minutes of 17<sup>th</sup> academic council meeting held on 11<sup>th</sup> Sep 2021 from all the esteemed members. **(Item #2&3)**.



Chairman presented the details of the overall Operations and performance of the Institution (Academic-Operations, Ranking, Achievements, Placements and Research) (**Item #4**).

Academic council members appreciated the efforts and initiatives taken up by the institute for the overall development and the ranking achieved. Congratulated the students who achieved credential in curricular and co-curricular activities.

#### **ITEM No.: 5**

**Ratification of Semester end result for regular and supplementary examination for the academic year 2020-21(II, IV, VI semesters) and 2021-22 (I, III, VI, VII, VIII semesters) held during September 2021 to July 2022 for Students in B. Tech. Programs.**

Chairman presented the results declared for the regular and supplementary examinations pertaining to semesters mentioned above for the students admitted during the different academic years under Academic Regulation AR16, AR19, AR20 and AR 21 and requested for the ratification of the results which were declared by the College academic committee in the presence of the JNTUK representative.

The members after the detailed review, ratified the results of all the regular and supply examinations declared by the college academic committee as per the **Annexure I**.

#### **ITEM No.: 6**

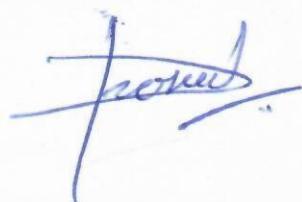
**Ratification of results of 2<sup>nd</sup> phase semester end exams for all the COVID-19 infected students during 2021-22.**

Chairman presented the list of students infected with COVID-19 and could not appear for the 7<sup>th</sup> semester examinations. These students were permitted to appear in the 2<sup>nd</sup> phase as per the university directions considering it as a first attempt.

The members after the detailed review, ratified the Class and CGPA declared by the college academic committee as per the **Annexure II**.

#### **ITEM No.: 7**

**Ratification of the PC eligibility list of the students admitted during the Academic Year 2018-19 and earlier batches who have successfully acquired the graduation requirements for the award of B. Tech. Degree as per the respective academic regulations at the time of admission.**



Chairman presented the (semester-wise & branch-wise) results of the 2018 admitted batch for all the semesters' i.e from 1<sup>st</sup> to 8<sup>th</sup> semesters under Academic Regulation AR16 and who have acquired the graduation requirements and eligible for the issue of Provisional certificate. Further, details of the students who have acquired graduation requirements and eligible for the issue of PCs pertaining to the batches admitted earlier to 2018 are presented.

The members reviewed the results (1<sup>st</sup> semester to 8<sup>th</sup> semester) of 2018 admitted batch students and approved the PC eligibility list of the student who will be getting graduated by July 2022 as per the academic regulations AR16. Apart from this, the PC eligible students from the earlier admitted students who have acquired graduation requirements were also approved as per the **Annexure III**.

#### **ITEM No.: 8**

**Ratification of the AR21 regulations for UG and PG programs that are approved by circulation wide the circulars dated 15-11-2021, 30-12-2021 & 30-03-2022 (In compliance with the JNTUK common guidelines)**

Chairman presented the Academic Regulations 2021 (AR21) and Curriculum recommended by the respective BoS and which are in line with JNTUK common guidelines majorly in the context of incorporating the changes relate to the marks division between internal and External marks (30+70), Absolute grading in the place of Hybrid grading and Award of Class of degree (Division/Class) for UG and PG programs.

The members after deliberation ratified the Academic Regulations 2021 (AR21), Curriculum for UG and PG programs as per **Annexure IV &V**.

#### **ITEM NO.:9**

**Approval of course structure, 3<sup>rd</sup> & 4<sup>th</sup> semesters syllabus for the new programs B.Tech CSE(AIML) and B.Tech CSE(AIDS) as per Academic Regulations 2021.**

Chairman presented the recommendations of the Board of Studies CSE(AIDS) and CSE (AIML) with regard to the course structure and detailed Syllabi for 3<sup>rd</sup> and 4<sup>th</sup> semesters as per AR21 for the B. Tech. (Regular), B. Tech. (Honors) and B. Tech (Minor) Programs for the ratification of Academic Council

Members after deliberation ratified the syllabi for the 3<sup>rd</sup> and 4<sup>th</sup> semesters as per the **Annexure VI & VII**.



**ITEM NO.:10****Ratification of the syllabus for the 7<sup>th</sup> and 8<sup>th</sup> semesters as per AR19 and AR20 academic regulations**

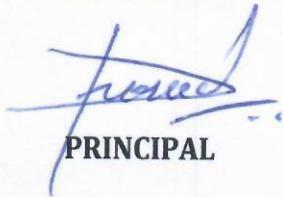
Chairman presented the recommendations of all the seven Board of Studies with regard to the detailed Syllabi for 7<sup>th</sup> and 8<sup>th</sup> semesters under the Academic Regulation AR 19 and AR 20 for the B. Tech. (Regular), B. Tech. (Honors) and B. Tech (Minor) Programs for the ratification of Academic Council

Members after deliberation ratified the syllabi for the 7<sup>th</sup> and 8<sup>th</sup> semesters as per the **Annexure VIII to XIV**

**ITEM NO.:11****Ratification for readmitted students under transitory Regulations**

As per the transitory regulations, with regard to the students re-admitted under, AR19/AR20 moving from AR16/AR19, Board of Studies of the respective departments discussed the issues case to case and recommended the substitute courses balancing the credit requirements. The details of the students are presented by the chairman before the council for formal ratification

Members ratified the recommendations of the respective BoS as per the **Annexure XV**

  
**PRINCIPAL**

**Encl. (a) Annexure A (b) Annexure B (c) Annexure C (d) Annexure D**

**Copy to:**

- All Members of the Academic Council
- Autonomous Coordinator (Institute Level)
- Assoc.Dean(Academics)
- Controller of Examinations (CoE)
- File

## MINUTES OF THE 18<sup>th</sup> ACADEMIC COUNCIL MEETING

### Annexure IV:

[http://www.gmrit.org/Autonomy\\_Regulations\\_UGPrograms\\_2021.pdf](http://www.gmrit.org/Autonomy_Regulations_UGPrograms_2021.pdf)

### Annexure V:

[http://www.gmrit.org/Autonomy\\_Regulations\\_PGPrograms\\_2021.pdf](http://www.gmrit.org/Autonomy_Regulations_PGPrograms_2021.pdf)

### Annexure VI:

[http://www.gmrit.org/resources/CSE-AI&DS\\_Course\\_Structure.pdf](http://www.gmrit.org/resources/CSE-AI&DS_Course_Structure.pdf)

### Annexure VII:

[http://www.gmrit.org/resources/CSE-AI&ML\\_Course\\_structure.pdf](http://www.gmrit.org/resources/CSE-AI&ML_Course_structure.pdf)

### Annexure VIII: CIVIL Engineering

[http://www.gmrit.org/resources/B.Tech\\_Civil\\_Syllabus\\_AR19.pdf](http://www.gmrit.org/resources/B.Tech_Civil_Syllabus_AR19.pdf)

[http://www.gmrit.org/resources/B.Tech\\_Civil\\_Syllabus\\_AR20.pdf](http://www.gmrit.org/resources/B.Tech_Civil_Syllabus_AR20.pdf)

### Annexure IX: CHEMIAL Engineering

[http://www.gmrit.org/resources/B.Tech\\_Chem\\_Syllabus\\_AR20.pdf](http://www.gmrit.org/resources/B.Tech_Chem_Syllabus_AR20.pdf)

[http://www.gmrit.org/resources/B.Tech\\_Chem\\_Syllabus\\_AR19.pdf](http://www.gmrit.org/resources/B.Tech_Chem_Syllabus_AR19.pdf)

### Annexure X: Computer Science Engineering

[http://www.gmrit.org/resources/B.Tech\\_CSE\\_Syllabus\\_AR20.pdf](http://www.gmrit.org/resources/B.Tech_CSE_Syllabus_AR20.pdf)

[http://www.gmrit.org/resources/B.Tech\\_CSE\\_Syllabus\\_AR19.pdf](http://www.gmrit.org/resources/B.Tech_CSE_Syllabus_AR19.pdf)

### Annexure XI: Information Technology

[http://www.gmrit.org/resources/B.Tech\\_IT\\_Syllabus\\_AR20.pdf](http://www.gmrit.org/resources/B.Tech_IT_Syllabus_AR20.pdf)

[http://www.gmrit.org/resources/B.Tech\\_IT\\_Syllabus\\_AR19.pdf](http://www.gmrit.org/resources/B.Tech_IT_Syllabus_AR19.pdf)

### Annexure XII: Electronics and Communication Engineering

[http://www.gmrit.org/resources/B.Tech\\_ECE\\_Syllabus\\_AR20.pdf](http://www.gmrit.org/resources/B.Tech_ECE_Syllabus_AR20.pdf)

[http://www.gmrit.org/resources/B.Tech\\_ECE\\_Syllabus\\_AR19.pdf](http://www.gmrit.org/resources/B.Tech_ECE_Syllabus_AR19.pdf)

### Annexure XIII: Electrical and Electronics Engineering

[http://www.gmrit.org/resources/B.Tech\\_EEE\\_Syllabus\\_AR20.pdf](http://www.gmrit.org/resources/B.Tech_EEE_Syllabus_AR20.pdf)

[http://www.gmrit.org/resources/B.Tech\\_EEE\\_Syllabus\\_AR19.pdf](http://www.gmrit.org/resources/B.Tech_EEE_Syllabus_AR19.pdf)

### Annexure XIV: Electrical and Electronics Engineering

[http://www.gmrit.org/resources/B.Tech\\_Mech\\_Syllabus\\_AR20.pdf](http://www.gmrit.org/resources/B.Tech_Mech_Syllabus_AR20.pdf)

[http://www.gmrit.org/resources/B.Tech\\_Mech\\_Syllabus\\_AR19.pdf](http://www.gmrit.org/resources/B.Tech_Mech_Syllabus_AR19.pdf)

