

**CIVIL ENGINEERING**  
**SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY**  
 (An Autonomous Institution under UGC, New Delhi)  
**Choice Based Credit System (CBCS)**

**REGULATIONS - R18**  
**B. Tech. CIVIL ENGINEERING**

**IV YEAR I SEMESTER**

S. No.	Course Code	Course Title	COURSE STRUCTURE			
			L	T	P	Credits
1	R18CIV4101	Estimation, Costing and Project Management				
2	R18CIV4102	Transportation Engineering-II	3	1	0	3
3	R18CIV4131	Remote Sensing & GIS	3	1	0	3
	R18CIV4132	Ground Improvement Techniques				
	R18CIV4133	Advance Structural Analysis	3	1	0	3
4	R18CIV4141	Irrigation and Hydraulic Structures				
	R18MBA4101	Management Fundamentals For Engineers				
	R18CIV4143	Ground water Hydrology	3	1	0	3
5		Open Elective -II				
6	R18CIV41P1	Industrial Oriented Mini Project/ Summer Internship	3	1	0	3
7	R18CIV41L1	Seminar	0	0	0	2*
8	R18CIV41P2	Project Stage - I	0	0	2	1
		<b>Total Credits</b>	<b>15</b>	<b>5</b>	<b>8</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.  
 Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

**IV YEAR II SEMESTER**

S. No.	Course Code	Course Title	COURSE STRUCTURE			
			L	T	P	Credits
<b>Professional Elective -V</b>						
1	R18CIV4251	Foundation Engineering				
	R18CIV4252	Environmental Impact Assessment	3	1	0	3
	R18CIV4253	Air pollution				
<b>Professional Elective -VI</b>						
2	R18CIV4261	Airports, railways and water ways				
	R18CIV4262	Intelligent Transportation Systems	3	1	0	3
	R18CIV4263	Urban Transportation Planning				
3		Open Elective -III	3	1	0	3
4	R18CIV42P1	Project Stage-II	0	0	14	7
		<b>Total Credits</b>	<b>9</b>	<b>3</b>	<b>14</b>	<b>15</b>

## SRI INDU COLLEGE OF ENGINEERING &amp; TECHNOLOGY

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Choice Based Credit System (CBCS)

REGULATIONS - R18

## B. Tech. ELECTRICAL &amp; ELECTRONICS ENGINEERING

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1		Open Elective-II	3	0	0	3
<b>Professional Elective-III</b>						
2	R18EEE4131	Digital Control systems	3	0	0	3
	R18EEE4132	Optimization Techniques				
	R18EEE4133	Electrical and Hybrid Vehicles				
<b>Professional Elective-IV</b>						
3	R18EEE4141	HVDC Transmission	3	0	0	3
	R18EEE4142	Power System Reliability				
	R18EEE4143	Industrial Electrical Systems				
4	R18MBA4101	Fundamentals of Management for Engineers	3	0	0	3
5	R18EEE41L1	Electrical & Electronics Design Lab	1	0	4	3
6	R18EEE41L2	Seminar	0	0	2	1
7	R18EEE41P1	Industrial Oriented Mini Project/ Summer Internship	0	0	4	2
8	R18EEE41P2	Project Stage - I	0	0	6	3
		<b>Total Credits</b>	<b>13</b>	<b>0</b>	<b>16</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1		Open Elective-III	3	0	0	3
<b>Professional Elective-V</b>						
2	R18EEE4251	Power Quality & FACTS	3	0	0	3
	R18EEE4252	Control System Design				
	R18CSE4265	AI Techniques in Electrical Engineering				
<b>Professional Elective-VI</b>						
3	R18EEE4261	Smart Grid Technologies	3	0	0	3
	R18EEE4262	Electrical Distribution Systems				
	R18EEE4263	Advanced Control of Electric Drives				
4	R18EEE42P1	Project Stage - II	0	0	14	7
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

\*MC - Satisfied/Unsatisfied

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# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

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## Choice Based Credit System (CBCS)

### REGULATIONS – R18

#### B. Tech. ELECTRONICS & COMMUNICATION ENGINEERING

##### IV YEAR I SEMESTER

##### COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R18ECE4101	Microwave and Optical Communication	3	0	0	3
2		Professional Practice, Law & Ethics	2	0	0	2
3	<b>Professional Elective – III</b>					
	R18ECE4131	Digital Image Processing	3	0	0	3
	R18ECE4132	Cryptography and Network Security				
	R18ECE4133	Artificial Intelligence (AI)				
4	<b>Professional Elective – IV</b>					
	R18ECE4141	Cellular & Mobile Communications	3	0	0	3
	R18ECE4142	Digital Signal Processing & Architecture				
	R18ECE4143	System on Chip Architecture				
5		Open Elective - II	3	0	0	3
6	R18ECE41L1	Microwave & Optical Communications Lab	0	0	2	1
7	R18ECE41P1	Project Stage - I	0	0	6	3
8	R18ECE41P2	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2*
9	R18ECE41L2	Technical Seminar	0	0	2	1
		<b>Total Credits</b>	<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

##### IV YEAR II SEMESTER

##### COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	<b>Professional Elective – V</b>					
	R18ECE4251	Satellite Communications	3	0	0	3
	R18ECE4252	Low Power VLSI				
	R18ECE4253	Wireless Sensor Networks				
2	<b>Professional Elective – VI</b>					
	R18ECE4261	Wireless Communication & Networks	3	0	0	3
	R18ECE4262	Electronic Product Design & Packaging				
	R18ECE4263	Radar Systems				
3		Open Elective - III	3	0	0	3
4	R18ECE42P1	Project Stage - II	0	0	14	7
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

\*MC – Satisfied/Unsatisfied

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# **SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY**

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Sheriguda Village, Ibrahimpatnam Mandal, Ranga Reddy Dist. – 501 510

## **BACHELOR OF TECHNOLOGY CIVIL ENGINEERING**

**CHOICE BASED CREDIT SYSTEM (CBCS)**

**ACADEMIC REGULATIONS, COURSE STRUCTURE AND SYLLABI FOR  
I TO IV YEARS – I & II SEMESTERS**

**UNDER AUTONOMOUS STATUS FOR THE BATCHES ADMITTED FROM  
THE ACADEMIC YEAR 2022 – 23**

**B.Tech. Regular Four Year Degree Programme  
(For the batches admitted from the academic year 2022--23)**

**&**

**B.Tech. (Lateral Entry Scheme)  
(For the batches admitted from the academic year 2023 - 24)**

**Note: The regulations here under are subject to amendments as may be made by the Academic Council of the College from time to time. Any or all such amendments will be effective from such date and to such batches of candidates (including those already undergoing the program) as may be decided by the Academic Council.**

## SRI INDU COLLEGE OF ENGINEERING &amp; TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

REGULATIONS - BR22

## B. Tech. CIVIL ENGINEERING

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits	
1.	R22CIV4111	Quantity Survey & Valuation	2	0	0	2	
2.	R22CIV4112	Project Management	2	0	0	2	
<b>Professional Elective - II</b>							
3.	R22CIV4141	Prestressed Concrete Structures	3	0	0	3	
	R22CIV4142	Elements of Earth Quake Engineering					
	R22CIV4143	Finite Element Analysis					
<b>Professional Elective - III</b>							
4.	R22CIV4144	Remote Sensing & GIS	3	0	0	3	
	R22CIV4147	Ground Improvement Techniques					
	R22CIV4146	Advance Structural Analysis					
<b>Professional Elective - IV</b>							
5.	R22CIV4148	Irrigation and Hydraulic Structures	3	0	0	3	
	R22CIV4149	Theory of Elasticity					
	R22CIV4145	Ground water Hydrology					
6.	<b>Open Elective - II</b>		3	0	0	3	
7.	R22CIV4127	Civil Engineering Software Laboratory	0	0	2	1	
8.	R22CIV4168	Project Stage - I	0	0	6	3	
			<b>Total Credits</b>	<b>16</b>	<b>0</b>	<b>8</b>	<b>20</b>

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits	
<b>Professional Elective - V</b>							
1.	R22CIV4243	Advanced Foundation Engineering	3	0	0	3	
	R22HAS4241	Environmental Impact Assessment					
	R22CIV4241	Air pollution					
<b>Professional Elective - VI</b>							
2.	R22CIV4246	Airports, railways and water ways	3	0	0	3	
	R22CIV4244	Intelligent Transportation Systems					
	R22CIV4245	Urban Transportation Planning					
3.	<b>Open Elective - III</b>		3	0	0	3	
4.	R22CIV4264	Project Stage - II including seminar	0	0	22	9+2	
			<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>22</b>	<b>20</b>

\*MC - Satisfactory/Unsatisfactory

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**REGULATIONS - BR22**

**B. Tech. - Electrical & Electronics Engineering**

**IV YEAR I SEMESTER**

		COURSE STRUCTURE				
S. No.	Course Code	Course Title	L	T	P	Credits
1	R22EEE4111	Power Electronic Applications to Renewable Energy Systems	3	1	0	4
2	<b>Open Elective-II</b>		3	0	0	3
3	<b>Professional Elective-III</b>		3	0	0	3
	R22ECE2114	Signals and Systems				
	R22CSE3247	Mobile Application Development				
	R22EEE4141	Electric and Hybrid Vehicles				
4	<b>Professional Elective-IV</b>		3	0	0	3
	R22CSE4114	Embedded Applications				
	R22EEE4142	HVDC Transmission				
	R22EEE4143	Power System Reliability				
5	R22HMS4115	Fundamentals of Management for Engineers	2	0	0	2
6	R22EEE4126	Simulation of Renewable Energy Systems Laboratory	0	0	4	2
7	R22EEE4167	Project Stage - I	0	0	6	3
<b>Total Credits</b>			<b>14</b>	<b>1</b>	<b>10</b>	<b>20</b>

**IV YEAR II SEMESTER**

		COURSE STRUCTURE				
S. No.	Course Code	Course Title	L	T	P	Credits
1	<b>Open Elective-III</b>		3	0	0	3
2	<b>Professional Elective-V</b>		3	0	0	3
	R22EEE4241	AI Techniques in Electrical Engineering				
	R22EEE4244	Power Quality & FACTS				
	R22EEE4245	Control Systems Design				
3	<b>Professional Elective-VI</b>		3	0	0	3
	R22EEE4248	Advanced Control of Electric Drives				
	R22EEE4247	Electrical Distribution Systems				
	R22EEE4243	Smart Grid Technologies				
4	R22EEE4264	Project Stage - II including Seminar	0	0	22	9+2
<b>Total Credits</b>			<b>9</b>	<b>0</b>	<b>22</b>	<b>20</b>

\*MC - Satisfactory/Unsatisfactory

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## **BACHELOR OF TECHNOLOGY ELECTRONICS & COMMUNICATION ENGINEERING**

**CHOICE BASED CREDIT SYSTEM (CBCS)**

**ACADEMIC REGULATIONS, COURSE STRUCTURE AND SYLLABI FOR  
I TO IV YEARS – I & II SEMESTERS**

**UNDER AUTONOMOUS STATUS FOR THE BATCHES ADMITTED FROM  
THE ACADEMIC YEAR 2022 – 23**

**B.Tech. Regular Four Year Degree Programme**

**(For the batches admitted from the academic year 2022–23)**

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**B.Tech. (Lateral Entry Scheme)**

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**SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY**(An Autonomous Institution under UGC, New Delhi)  
Choice Based Credit System (CBCS)

REGULATIONS – BR22

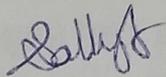
**B. Tech. ELECTRONICS & COMMUNICATION ENGINEERING****IV YEAR I SEMESTER****COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22ECE4111	Microwave and Optical Communications	3	1	0	4
2	<b>Professional Elective – III</b>					
	R22ECE4146	Digital Image Processing				
	R22ECE4145	CMOS Analog IC Design				
	R22ECE4142	Artificial Neural Networks	3	0	0	3
3	<b>Professional Elective – IV</b>					
	R22CSE4111	Cryptography and Network Security				
	R22ECE4143	Satellite Communications	3	0	0	3
	R22HAS4143	Biomedical Instrumentation				
4	<b>Open Elective – II</b>					
5	R22HAS4126	Professional Practice, Law & Ethics	3	0	0	3
6	R22ECE4126	Microwave and Optical Communications Laboratory	0	0	4	2
7	R22ECE4167	Project Stage – I	0	0	6	3
		<b>Total Credits</b>	<b>12</b>	<b>1</b>	<b>14</b>	<b>20</b>

**IV YEAR II SEMESTER****COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
	<b>Professional Elective – V</b>					
1	R22CSM4143	Artificial Intelligence				
	R22ECE4244	Wireless Communication & Networks	3	0	0	3
	R22CSM3112	Machine learning				
	<b>Professional Elective – VI</b>					
2	R22ECE4245	Radar Systems				
	R22ECE4242	System on Chip Architecture	3	0	0	3
	R22ECE4243	Wireless sensor Networks				
3	<b>Open Elective – III</b>		3	0	0	3
4	R22ECE4264	Project Stage – II including Seminar	0	0	22	9+2
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>22</b>	<b>20</b>

\*MC – Satisfactory/Unsatisfactory





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## MECHANICAL ENGINEERING

CHOICE BASED CREDIT SYSTEM (CBCS)

ACADEMIC REGULATIONS, COURSE STRUCTURE AND SYLLABI FOR  
I TO IV YEARS – I & II SEMESTERS

UNDER AUTONOMOUS STATUS FOR THE BATCHES ADMITTED FROM  
THE ACADEMIC YEAR 2022 – 23

B.Tech. Regular Four Year Degree Programme  
(For the batches admitted from the academic year 2022–23)

&

B.Tech. (Lateral Entry Scheme)  
(For the batches admitted from the academic year 2023 - 24)

*C. Naga Sarada*  
27/10/22

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**Dr. S. Naga Sarada**  
Professor & BOS Chairperson  
Dept. of Mechanical Engineering  
JNTUHUCEH  
Kukatpally, Hyderabad - 500 085.

*R. A. Prudhvi*

**SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY**  
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**REGULATIONS - BR22**

**B. Tech. Mechanical Engineering**

**IV YEAR I SEMESTER**

**COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
1.	R22MED4111	Industrial Management	2	0	0	2
2.	R22MED4112	Refrigeration & Air Conditioning	3	0	0	3
3.	<b>Professional Elective - II</b>		3	0	0	3
	R22CSM4142	Artificial Intelligence in Mechanical Engineering				
	R22MED4141	Industrial Robotics				
	R22MED4142	Mechatronics				
	R22MED4143	Automobile Engineering				
4.	<b>Professional Elective - III</b>		3	0	0	3
	R22MED4144	Composite Materials				
	R22MED4145	Computational Fluid Dynamics				
	R22MED4146	Production Planning & Control				
	R22MED4147	Solar Energy Technology				
5.	<b>Professional Elective - IV</b>		3	0	0	3
	R22MED4149	Renewable Energy Sources				
	R22MED4148	Fundamentals of Electric and Hybrid Vehicles				
	R22MED4165	Re-Engineering				
	R22MTH4145	Operations Research				
6.	<b>Open Elective - II</b>		3	0	0	3
7.	R22MED4167	Project Stage - I	0	0	6	3
		<b>Total Credits</b>	<b>17</b>	<b>0</b>	<b>6</b>	<b>20</b>

**IV YEAR II SEMESTER**

**COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
1.	<b>Professional Elective - V</b>		3	0	0	3
	R22MED4248	Energy Conservation and Management				
	R22MED4241	Additive Manufacturing				
	R22MED4242	Automation in Manufacturing				
	R22MED4243	Turbo Machinery				
2.	<b>Professional Elective - VI</b>		3	0	0	3
	R22MED4244	Fluid Power System				
	R22MED4245	Fuzzy Logic and ANN				
	R22MED4246	Industry 4.0				
	R22MED4247	Total Quality Management				
3.	<b>Open Elective - III</b>		3	0	0	3
4.	R22MED4264	Project Stage - II including seminar	0	0	22	9+2
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>22</b>	<b>20</b>

**III YEAR II SEMESTER**

**COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22CSM3112	Machine Learning	3	0	0	3
2	R22CSE3212	Formal Languages and Automata Theory	3	0	0	3
3	R22CSM4143	Artificial Intelligence	3	0	0	3
4	<b>Professional Elective - III</b>		3	0	0	3
	R22CSE3246	Web Technologies				
	R22CSO4143	Internet of Things				
	R22CSE3248	Scripting Languages				
	R22CSE3247	Mobile Application Development				
	R22CSE3244	Software Testing Methodologies				
5	<b>Open Elective-I</b>		3	0	0	3
6	R22CSM3126	Machine Learning Lab	0	0	2	1
7	<b>Professional Elective-III Lab</b>		0	0	2	1
	R22CSE3252	Scripting Languages Lab				
	R22CSE3253	Software Testing Methodologies Lab				
	R22CSE3257	Web Technologies Lab				
	R22CSE3258	Mobile Application Development Lab				
	R22CSO2128	Internet Of Things Lab				
8	R22CSE3268	Industrial Oriented Mini Project/ Internship/ Skill Development Course (Big data-Spark)	0	0	4	2
9	R22MAC1110	Environmental Science	3	0	0	0
<b>Total Credits</b>			<b>18</b>	<b>0</b>	<b>8</b>	<b>20</b>

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**III YEAR II SEMESTER**

**COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22CSM3112	Machine Learning	3	0	0	3
2	R22CSE3212	Formal Languages and Automata Theory	3	0	0	3
3	R22CSM4143	Artificial Intelligence	3	0	0	3
4	<b>Professional Elective – III</b>		3	0	0	3
	R22CSE3246	Web Technologies				
	R22CSO4143	Internet of Things				
	R22CSE3248	Scripting Languages				
	R22CSE3247	Mobile Application Development				
	R22CSE3244	Software Testing Methodologies				
5	<b>Open Elective-I</b>		3	0	0	3
6	R22CSM3126	Machine Learning Lab	0	0	2	1
7	<b>Professional Elective-III Lab</b>		0	0	2	1
	R22CSE3252	Scripting Languages Lab				
	R22CSE3253	Software Testing Methodologies Lab				
	R22CSE3257	Web Technologies Lab				
	R22CSE3258	Mobile Application Development Lab				
	R22CSO2128	Internet Of Things Lab				
8	R22CSE3268	Industrial Oriented Mini Project/ Internship/ Skill Development Course (Big data-Spark)	0	0	4	2
9	R22MAC1110	Environmental Science	3	0	0	0
<b>Total Credits</b>			<b>18</b>	<b>0</b>	<b>8</b>	<b>20</b>

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**SRI INDU COLLEGE OF ENGINEERING AND TECHNOLOGY**  
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Choice Based Credit System (CBCS)

**REGULATIONS – MR22**

**M.Tech. (CSE & CS)**  
**COURSE STRUCTURE AND SYLLABUS**

II Year- I Semester			COURSE STRUCTURE			
Sl.No.	Course Code	Course Title	L	T	P	Credits
1		<b>Professional Elective - V</b>	3	0	0	3
		Digital Forensics				
		High Performance Computing				
		Quantum Computing				
2		<b>Open Elective</b>	3	0	0	3
3		Dissertation Work Review - II	0	0	12	6
		<b>Total</b>	<b>6</b>	<b>0</b>	<b>12</b>	<b>12</b>

II Year- I Semester			COURSE STRUCTURE			
Sl.No.	Course Code	Course Title	L	T	P	Credits
1		Dissertation Work Review - III	0	0	12	6
2		Dissertation Viva-Voce	0	0	28	14
		<b>Total</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>20</b>

*Note: For Dissertation Work Review - I, Please refer 7.10 in R19 Academic Regulations.*

**Audit Course I&II:**

1. English for Research Paper Writing
2. Disaster Management
3. Sanskrit for Technical Knowledge
4. Value Education
5. Constitution of India
6. Pedagogy Studies
7. Stress Management by yoga
8. Personality Development Through Life Enlightenment Skills

**Open Electives for other Departments:**

1. IPR
2. Fault Tolerance Systems
3. Intrusion Detection Systems
4. Digital Forensics
5. Optimization Techniques
6. Cyber Physical Systems
7. Graph Analytics
8. Blockchain Technology

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CIVIL ENGINEERING

LIST OF OPEN ELECTIVES

**Open Elective – I**

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20CIV3271	Disaster Management & Mitigation	3	0	0	3
2	R20CSE3272	Database Concepts				
3	R20ECE3273	Consumer Electronics				
4	R20EEE3274	Electrical Estimation & Costing				
5	R20INF3275	Information Technology Essentials				
6	R20MED3276	Introduction to Robotics				
7	R20HMS3277	Fundamentals of Entrepreneurship				
8	R20HMS3278	Day to Day Biology				

**Open Elective –II**

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20CIV4181	Green Building Engineering	3	0	0	3
2	R20CSE4182	Cyber Security Fundamentals				
3	R20ECE4183	Principles of Modern Communication Systems				
4	R20EEE4184	Illumination Engineering				
5	R20INF4185	E-Commerce				
6	R20MED4186	Industrial Design & Ergonomics				
7	R20HMS4187	Creative Writing				
8	R20HMS4188	Design Thinking				
9.		MOOCs - III				

**Open Elective –III**

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20CIV4291	Remote Sensing Concepts	3	0	0	3
2	R20CSE4292	Fundamentals of Soft Computing				
3	R20ECE4293	Audio & Video Engineering				
4	R20EEE4294	Non Conventional Energy Resources				
5	R20INF4295	Information Security Fundamentals				
6	R20MED4296	Total Engineering Quality Management				
7	R20HMS4297	Human Values & Professional Ethics for Engineers				
8	R20HMS4298	Science Fiction				
9		MOOCs - IV				

**SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY**  
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**Choice Based Credit System (CBCS)**  
**REGULATIONS - BR20**

**B. Tech. ELECTRICAL & ELECTRONICS ENGINEERING**

IV YEAR I SEMESTER			COURSE STRUCTURE			
S. No.	Course Code	Course Title	L	T	P	Credits
1		Open Elective-II	3	0	0	3
<b>Professional Elective-III</b>						
2	R20EEE4131	Digital Control systems	3	0	0	3
	R20EEE4132	Optimization Techniques				
	R20EEE4133	Electrical and Hybrid Vehicles				
<b>Professional Elective-IV</b>						
3	R20EEE4141	HVDC Transmission	3	1	0	4
	R20EEE4142	Power System Reliability				
	R20EEE4143	Industrial Electrical Systems				
4	R20MBA4101	Fundamentals of Management for Engineers	0	0	3	1.5
5	R20EEE41L1	Electrical & Electronics Design Lab	0	0	3	1.5
6	R20EEE41L2	Technical Seminar	0	0	4	2
7	R20EEE41P1	Industrial Oriented Mini Project/ Summer Internship	0	0	6	3
8	R20EEE41P2	Comprehensive Viva-voce	12	1	16	21
<b>Total Credits</b>						

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.  
 Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

**IV YEAR II SEMESTER**

IV YEAR II SEMESTER			COURSE STRUCTURE			
S. No.	Course Code	Course Title	L	T	P	Credits
1		Open Elective-III	3	0	0	3
<b>Professional Elective-V</b>						
2	R20EEE4251	Power Quality & FACTS	3	0	0	3
	R20EEE4252	Control System Design				
	R20CSE4265	AI Techniques in Electrical Engineering				
<b>Professional Elective-VI</b>						
3	R20EEE4261	Smart Grid Technologies	3	0	0	3
	R20EEE4262	Electrical Distribution Systems				
	R20EEE4263	Advanced Control of Electric Drives				
4	R20EEE42P1	Project Work	0	0	14	7
<b>Total Credits</b>			<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

\*MC - Satisfied/Unsatisfied

**SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY**  
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**Choice Based Credit System (CBCS)**

**REGULATIONS – BR20**

**B. Tech. MECHANICAL ENGINEERING**

**IV YEAR I SEMESTER**

**COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20MED4101	Refrigeration & Air Conditioning	3	0	0	3
<b>Professional Elective – II</b>						
2	R20MED4121	Additive Manufacturing	3	0	0	3
	R20MED4122	Automation in Manufacturing				
	R20MED4123	Micro Electro Mechanical Systems (MEMS)				
<b>Professional Elective – III</b>						
3	R20MED4131	Power Plant Engineering	3	0	0	3
	R20MED4132	Automobile Engineering				
	R20MED4133	Renewable Energy Sources				
<b>Professional Elective – IV</b>						
4	R20MED4141	Computational Fluid Dynamics	3	0	0	3
	R20MED4142	Turbo Machinery				
	R20MED4143	Fluid Power Systems				
5		Open Elective - II	3	0	0	3
6	R20MED41L1	Technical Seminar	0	0	2	1
7	R20MED41P2	Comprehensive Viva-voce	0	0	6	3
8	R20MED41P1	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2*
		<b>Total Credits</b>	<b>15</b>	<b>0</b>	<b>8</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for valuation.

**IV YEAR II SEMESTER**

**COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T*	P	Credits
<b>Professional Elective – V</b>						
1	R20MED4251	Industrial Robotics	3	0	0	3
	R20MED4252	Mechanical Vibrations				
	R20MED4253	Composite Materials				
<b>Professional Elective – VI</b>						
2	R20MED4261	Industrial Management	3	0	0	3
	R20MED4262	Production Operation and Management				
	R20MED4263	Tribology → In its place, Nano technology and				
3		Open Elective - III Applications	3	0	0	3
4	R20ECE42P1	Project Work	0	0	14	7
		<b>Total Credits</b> may be added	<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

\*MC – Satisfied/Unsatisfied

*S. Naga Subudh*  
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**REGULATIONS – BR20**

**B. Tech. COMPUTER SCIENCE & ENGINEERING**

**IV YEAR I SEMESTER**

**COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20CSE4101	Cryptography and Network Security	3	0	0	3
2	R20CSE4102	Data Mining	2	0	0	2
3	<b>Professional Elective -IV</b>		3	0	0	3
	R20CSE4141	Graph Theory				
	R20CSE4142	Information Retrieval Systems				
	R20CSE4143	Cloud Computing				
	R20MAC4100	MOOCs-III				
4	<b>Professional Elective -V</b>		3	0	0	3
	R20CSE4151	Soft Computing				
	R20CSE4152	Internet of Things				
	R20CSE4153	Software Process & Project Management				
5	<b>Open Elective - II</b>		3	0	0	3
6	R20CSE41L1	Cryptography and Network Security Lab	0	0	2	1
7	R20CSE41P1	Technical Seminar	0	0	2	1
8	R20CSE41P2	Comprehensive Viva-voce	0	0	6	3
9	R20CSE41P3	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2*
<b>Total Credits</b>			<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

\* To be carried out during the summer vacation between 6th and 7th semesters

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

**IV YEAR II SEMESTER**

**COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20HAS4201	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective -VI</b>		3	0	0	3
	R20CSE4261	Distributed Systems				
	R20CSE4262	Cyber Forensics				
	R20CSE4263	Human Computer Interaction				
	R20MAC4200	MOOCs-IV				
3	<b>Open Elective-III</b>		3	0	0	3
4	R20CSE42P1	Project Work	0	0	14	7
<b>Total Credits</b>			<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

\*MC – Satisfied/Unsatisfied

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LIST OF OPEN ELECTIVES

## Open Elective – I

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20CIV3271	Disaster Management & Mitigation	3	0	0	3
2	R20CSE3272	Database Concepts				
3	R20ECE3273	Consumer Electronics				
4	R20EEE3274	Electrical Estimation & Costing				
5	R20INF3275	Information Technology Essentials				
6	R20MED3276	Introduction to Robotics				
7	R20HMS3277	Fundamentals of Entrepreneurship				
8	R20HMS3278	Day to Day Biology				

## Open Elective – II

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20CIV3271	Disaster Management & Mitigation	3	0	0	3
2	R20CSE3272	Database Concepts				
3	R20ECE3273	Consumer Electronics				
4	R20EEE3274	Electrical Estimation & Costing				
5	R20INF3275	Information Technology Essentials				
6	R20MED3276	Introduction to Robotics				
7	R20HMS3277	Fundamentals of Entrepreneurship				
8	R20HMS3278	Day to Day Biology				

## Open Elective – III

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20CIV4291	Remote Sensing Concepts	3	0	0	3
2	R20CSE4292	Fundamentals of Soft Computing				
3	R20ECE4293	Audio & Video Engineering				
4	R20EEE4294	Non Conventional Energy Resources				
5	R20INF4295	Information Security Fundamentals				
6	R20MED4296	Total Engineering Quality Management				
7	R20HMS4297	Human Values & Professional Ethics for Engineers				
8	R20HMS4298	Science Fiction				

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**SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY**  
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**Choice Based Credit System (CBCS)**

**REGULATIONS – BR22**

**B. Tech. CSE ( INTERNET OF THINGS )**

**IV YEAR I SEMESTER**

**COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
1		IoT Cloud Processing and Analytics	3	0	0	3
2		IoT Security	2	0	0	2
3		<b>Professional Elective -IV</b>	3	0	0	3
		Quantum Computing				
		Wireless Networks				
		Augmented Reality & Virtual Reality				
		IoT Automation				
		Ad-hoc & Sensor Networks				
4		<b>Professional Elective - V</b>	3	0	0	3
		Embedded Software Design				
		5G & IoT Technologies				
		Cognitive Computing				
		Distributed Systems				
		Edge Computing				
5		<b>Open Elective - II</b>	3	0	0	3
6		IoT Security & Cloud Computing Lab	0	0	2	1
7		Industrial Oriented Mini Project / Summer Internship	0	0	0	2
8		Seminar	0	0	2	1
9		Project Stage - I	0	0	6	3
		<b>Total Credits</b>	<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

**IV YEAR II SEMESTER**

**COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
1		Organizational Behaviour	3	0	0	3
2		<b>Professional Elective – VI</b>	3	0	0	3
		Industrial IoT				
		Fog Computing				
		Smart Sensor Technologies				
		Digital Forensics				
		Blockchain Technology				
3		<b>Open Elective – III</b>	3	0	0	3
4		Project Stage – II	0	0	14	7
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

## Choice Based Credit System (CBCS)

REGULATIONS – BR20

### B. Tech. - INFORMATION TECHNOLOGY

#### IV YEAR I SEMESTER

#### COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20INF4101	Information Security	3	0	0	3
2	R20CSE4102	Data Mining	2	0	0	2
3	<b>Professional Elective –IV</b>		3	0	0	3
	R20INF4142	Pattern Recognition				
	R20CSE4143	Cloud Computing				
	R20INF4141	Adhoc Sensor Networks				
	R20MAC4100	MOOCs-III				
4	<b>Professional Elective –V</b>		3	0	0	3
	R20CSE4152	Internet of Things				
	R20CSE3123	Distributed Databases				
	R20CSE4153	Software Process & Project Management				
5		Open Elective-II	3	0	0	3
6	R20INF41L1	Information Security Lab	0	0	2	1
7	R20INF41P1	Technical Seminar	0	0	2	1
8	R20INF41P2	Comprehensive Viva-voce	0	0	6	3
9	R20INF41P3	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2*
<b>Total Credits</b>			<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

#### IV YEAR II SEMESTER

#### COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20HAS4201	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective –VI</b>		3	0	0	3
	R20CSE4261	Distributed Systems				
	R20CSE4262	Cyber Forensics				
	R20CSE4263	Human Computer Interaction				
	R20MAC4200	MOOCs-IV				
3		Open Elective-III	3	0	0	3
4	R20INF42P1	Project Work	0	0	14	7
<b>Total Credits</b>			<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

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**SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY**  
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**Choice Based Credit System (CBCS)**

**REGULATIONS – BR20**

**B. Tech. – COMPUTER SCIENCE & INFORMATION TECHNOLOGY**

**IV YEAR I SEMESTER**

**COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20INF4101	Information Security	3	0	0	3
2	R20CSE4102	Data Mining	2	0	0	2
3	<b>Professional Elective –IV</b>		3	0	0	3
	R20INF4142	Pattern Recognition				
	R20CSE4143	Cloud Computing				
	R20INF4141	Adhoc Sensor Networks				
	R20MAC4100	MOOCs-III				
4	<b>Professional Elective –V</b>		3	0	0	3
	R20CSE4152	Internet of Things				
	R20CSE3123	Distributed Databases				
	R20CSE4153	Software Process & Project Management				
5		Open Elective-II	3	0	0	3
6	R20INF41L1	Information Security Lab	0	0	2	1
7	R20INF41P1	Technical Seminar	0	0	2	1
8	R20INF41P2	Comprehensive Viva-voce	0	0	6	3
9	R20INF41P3	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2
<b>Total Credits</b>			<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

**IV YEAR II SEMESTER**

**COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20HAS4201	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective –VI</b>		3	0	0	3
	R20CSE4261	Distributed Systems				
	R20CSE4262	Cyber Forensics				
	R20CSE4263	Human Computer Interaction				
	R20MAC4200	MOOCs-IV				
3		Open Elective-III	3	0	0	3
4	R20INF42P1	Project Work	0	0	14	7
<b>Total Credits</b>			<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

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# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

## Choice Based Credit System (CBCS)

REGULATIONS – BR20

### B. Tech. CSE(CYBER SECURITY)

#### IV YEAR I SEMESTER

#### COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20CSC4101	Vulnerability Assessment & Penetration Testing	3	0	0	3
2	R20CSC4102	Network Management Systems and Operations	2	0	0	2
3	<b>Professional Elective - IV</b>					
	R20CSC4109	Edge Analytics	3	0	0	3
	R20CSC4105	Web & Database Security				
	R20CSC4108	Computer Security & Audit Assurance				
	R20CSC4105	Social Media Security				
	R20CSM4101	Deep Learning				
4	<b>Professional Elective - V</b>					
	R20CSE4102	Quantum Computing	3	0	0	3
	R20CSC4106	Data Analytics for Fraud Detection				
	R2041CSC04	5G Technologies				
	R20INF4104	Security Incident & Response Management (SOC)				
	R20CSC4104	Authentication Techniques				
5	<b>Open Elective - II</b>		3	0	0	3
6	R20CSC41L1	Vulnerability Assessment & Penetration Testing Lab	0	0	2	1
7	R20CSC41P1	Technical Seminar	0	0	2	1
8	R20CSC41P2	Comprehensive Viva-voce	0	0	6	3
9	R20CSC41P3	Industrial Oriented Mini Project / Summer Internship	0	0	0	2
<b>Total</b>			<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

#### IV YEAR II SEMESTER

#### COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20HMS420	Organizational Behavior	3	0	0	3
2	<b>Professional Elective – VI</b>					
	R20CSE4202	Quantum Cryptography	3	0	0	3
	R20CSO4204	IoT Cloud Processing and Analytics				
	R20CSC4201	Cloud Security				
	R20CSC4205	Digital Watermarking and Steganography				

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**Choice Based Credit System (CBCS)**

**REGULATIONS – BR20**

**B. Tech. CSE (ARTIFICIAL INTELLIGENCE & MACHINE LEARNING)**

**IV YEAR I SEMESTER**

S. No.	Course Code	Course Title	L	T	P	Credits
1	R2041CSM01	Neural Networks & Deep Learning	3	0	0	3
2	R20MED4202	Reinforcement Learning	2	0	0	2
3	Professional Elective - IV					
	R20CSE4102	Quantum Computing	3	0	0	3
	R2041CSM04	Expert Systems				
	R2041CSM05	Conversational AI				
	R20CSM4106	Game Theory				
	R20CSM4102	Mobile Computing				
4	Professional Elective - V					
	R20CSM4107	Social Network Analysis	3	0	0	3
	R20CSM4201	Federated Machine Learning				
	R20CSE4201	Augmented Reality & Virtual Reality				
	R20CSI4101	Web Security				
	R20INF4101	Ad-hoc & Sensor Networks				
5	Open Elective - II		3	0	0	3
6	R20CSM41L1	Deep Learning Lab	0	0	2	1
7	R20CSM41P1	Technical Seminar	0	0	2	1
8	R20CSM41	Comprehensive Viva-voce	0	0	6	3
9	R20CSM41	Industrial Oriented Mini Project / Summer Internship	0	0	0	2*
		Total Credits	14	0	10	21

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**Choice Based Credit System (CBCS)**

**REGULATIONS - BR20**

**B. Tech. ELECTRICAL & ELECTRONICS ENGINEERING**

IV YEAR I SEMESTER			COURSE STRUCTURE			
S. No.	Course Code	Course Title	L	T	P	Credits
1		Open Elective-II	3	0	0	3
<b>Professional Elective-III</b>						
2	R20EEE4131	Digital Control systems	3	0	0	3
	R20EEE4132	Optimization Techniques				
	R20EEE4133	Electrical and Hybrid Vehicles				
<b>Professional Elective-IV</b>						
3	R20EEE4141	HVDC Transmission	3	1	0	4
	R20EEE4142	Power System Reliability				
	R20EEE4143	Industrial Electrical Systems				
4	R20MBA4101	Fundamentals of Management for Engineers	3	0	0	3
5	R20EEE41L1	Electrical & Electronics Design Lab	0	0	3	1.5
6	R20EEE41L2	Technical Seminar	0	0	3	1.5
7	R20EEE41P1	Industrial Oriented Mini Project/ Summer Internship	0	0	4	2
8	R20EEE41P2	Comprehensive Viva-voce	0	0	6	3
<b>Total Credits</b>			<b>12</b>	<b>1</b>	<b>16</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

**IV YEAR II SEMESTER**

IV YEAR II SEMESTER			COURSE STRUCTURE			
S. No.	Course Code	Course Title	L	T	P	Credits
1		Open Elective-III	3	0	0	3
<b>Professional Elective-V</b>						
2	R20EEE4251	Power Quality & FACTS	3	0	0	3
	R20EEE4252	Control System Design				
	R20CSE4265	AI Techniques in Electrical Engineering				
<b>Professional Elective-VI</b>						
3	R20EEE4261	Smart Grid Technologies	3	0	0	3
	R20EEE4262	Electrical Distribution Systems				
	R20EEE4263	Advanced Control of Electric Drives				
4	R20EEE42P1	Project Work	0	0	14	7
<b>Total Credits</b>			<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

\*MC - Satisfied/Unsatisfied

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**Choice Based Credit System (CBCS)**

**REGULATIONS – BR20**

**B. Tech. - Artificial Intelligence & Data Science**

**IV YEAR I SEMESTER**

**COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20AID4101	Introduction to Predictive Analytics	2	0	0	2
2	R20CSM4101	Neural Networks & Deep Learning	3	0	0	3
3	<b>Professional Elective –IV</b>		3	0	0	3
	R20CSE4102	Quantum Computing				
	R20CSM4104	Expert Systems				
	R20CSE4142	Cloud Computing				
	R20CSM4106	Game Theory				
	R20CSM4102	Mobile Computing				
4	<b>Professional Elective -V</b>		3	0	0	3
	R20CSM4203	Social Network Analysis				
	R20CSM4201	Federated Machine Learning				
	R20CSE4201	Augmented Reality & Virtual Reality				
	R20CSI4101	Web Security				
	R20INF4101	Ad-hoc & Sensor Networks	3	0	0	3
5	<b>Open Elective - II</b>		0	0	2	1
6	R20CSM41L1	Deep Learning Laboratory	0	0	2	1
7		Technical Seminar	0	0	6	3
8		Comprehensive Viva-voce	0	0	0	2
9		Industrial Oriented Mini Project/Summer Internship	0	0	0	2
<b>Total</b>			<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

**IV YEAR II SEMESTER**

**COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20HMS4201	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective – VI</b>		3	0	0	3
	R20AID4202	Speech and Video Processing				
	R20MED4202	Robotic Process Automation				
	R20CSD4202	Randomized Algorithms				
	R20CSM4202	Cognitive Computing				
	R20CSM4204	Semantic Web				
3	<b>Open Elective – III</b>		3	0	0	3
4		Project Work	0	0	14	7
<b>Total</b>			<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

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**Choice Based Credit System (CBCS)**

**REGULATIONS – BR20**

**B. Tech. - Artificial Intelligence & Data Science**

**IV YEAR I SEMESTER**

**COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20AID4101	Introduction to Predictive Analytics	2	0	0	2
2	R20CSM4101	Neural Networks & Deep Learning	3	0	0	3
3	<b>Professional Elective –IV</b>		3	0	0	3
	R20CSE4102	Quantum Computing				
	R20CSM4104	Expert Systems				
	R20CSE4142	Cloud Computing				
	R20CSM4106	Game Theory				
	R20CSM4102	Mobile Computing				
4	<b>Professional Elective -V</b>		3	0	0	3
	R20CSM4203	Social Network Analysis				
	R20CSM4201	Federated Machine Learning				
	R20CSE4201	Augmented Reality & Virtual Reality				
	R20CSI4101	Web Security				
	R20INF4101	Ad-hoc & Sensor Networks	3	0	0	3
5	<b>Open Elective - II</b>		0	0	2	1
6	R20CSM41L1	Deep Learning Laboratory	0	0	2	1
7		Technical Seminar	0	0	6	3
8		Comprehensive Viva-voce	0	0	0	2
9		Industrial Oriented Mini Project/Summer Internship	0	0	0	2
<b>Total</b>			<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

**IV YEAR II SEMESTER**

**COURSE STRUCTURE**

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20HMS4201	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective – VI</b>		3	0	0	3
	R20AID4202	Speech and Video Processing				
	R20MED4202	Robotic Process Automation				
	R20CSD4202	Randomized Algorithms				
	R20CSM4202	Cognitive Computing				
	R20CSM4204	Semantic Web				
3	<b>Open Elective – III</b>		3	0	0	3
4		Project Work	0	0	14	7
<b>Total</b>			<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

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COMPUTER SCIENCE & ENGINEERING (DATA SCIENCE)

REGULATIONS – BR20

**B. Tech. - CSE (DATA SCIENCE)**

IV YEAR I SEMESTER

COURSE STRUCTURE

S. No	Course Code	Course Title	L	T	P	Credits
1	R20CSD4101	Predictive Analytics	3	0	0	3
2	R20CSD4102	Web and Social Media Analytics	2	0	0	2
3	<b>Professional Elective-IV</b>		3	0	0	3
	R20CSE4102	Quantum Computing				
	R20CSD4103	Database Security				
	R20CSM4103	Natural Language Processing				
	R20CSD4104	Information Storage Management				
	R20CSO4103	Internet of Things				
4	<b>Professional Elective-V</b>		3	0	0	3
	R20CSD4105	Privacy Preserving in Data Mining				
	R20CSM4145	CoversationalAI				
	R20CSD4106	Data Science Applications				
	R20CSD4109	Mining Massive Datasets				
	R20CSD4107	Exploratory Data Analysis				
5		Open Elective – II	3	0	0	3
6	R20CSD41L1	Web and social media Analytics Lab	0	0	2	1
7	R20CSD41P3	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2
8	R20CSD41P1	Technical Seminar	0	0	2	1
9	R20AID41P1	Project Stage-I	0	0	6	3
		Total Credits	14	0	10	21

IV YEAR II SEMESTER

COURSE STRUCTURE

S.No.	Course Code	Course Title	L	T	P	Credits
1	R20HMS4201	Organizational Behavior	3	0	0	3
2	<b>Professional Elective-VI</b>		3	0	0	3
	R20CSD4201	Data Stream Mining				
	R20CSI4101	Web Security				
	R20CSD4203	Video Analytics				
	R20CSC3203	Blockchain Technology				
	R20CSD4204	Parallel and Distributed Computing				
3		Open Elective-III	3	0	0	3
4		Project Stage-II	0	0	14	7
		Total Credits	9	0	14	16

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# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(an Autonomous Institution under UGC, New Delhi)

Recognized under 2(f) & 12(B) of UGC Act 1956

Permanently Affiliated to JNTUH, Accredited by NAAC & NBA

Sheriguda(V), Ibrahimpatnam(M), Ranga Reddy Dist. – 501 510

## 1.3.3.2 - Number of programmes offered by the institution during the last five years:

Academic Year	No. of Programmes have the components of Field Project / Research Project / Internship	No. of Programmes offered during the year	Percentage of Programmes have the components of Field Project / Research Project / Internship	Link to the relevant document
2022-23	13	13	100	
2021-22	13	13	100	
2020-21	12	12	100	
2019-20	6	6	100	
2018-19	6	6	100	



  
**PRINCIPAL**  
Sri Indu College of Engineering and Technology  
(V): SHERIGUDA-501 510,  
Ibrahimpatnam(M), R.R.Dist.

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-18**

**B. Tech. - Civil Engineering**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S.No.	Course Code	Course Title	L	T	P	Credits
1	R18CIV4101	Estimation, Costing and Project Management	3	0	0	3
2	R18CIV4102	Transportation Engineering-II	3	0	0	3
<b>Professional Elective –III</b>						
3	R18CIV4131	Remote Sensing &GIS	3	0	0	3
	R18CIV4132	Ground Improvement Techniques				
	R18CIV4133	Advance Structural Analysis				
<b>Professional Elective –IV</b>						
4	R18CIV4141	Irrigation and Hydraulic Structures	3	0	0	3
	R18CIV4142	Theory of Elasticity				
	R18CIV4143	Ground water Hydrology				
5		<b>Open Elective –II</b>	3	0	0	3
6	R18CIV41P1	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2*
7	R18CIV41L1	Seminar	0	0	2	1
8	R18CIV41P2	Comprehensive Viva-voce	0	0	6	3
		<b>Total Credits</b>	<b>15</b>	<b>0</b>	<b>8</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S.No.	Course Code	Course Title	L	T	P	Credits
<b>Professional Elective -V</b>						
1	R18CIV4251	Foundation Engineering	3	0	0	3
	R18CIV4252	Environmental Impact Assessment				
	R18CIV4253	Air pollution				
<b>Professional Elective –VI</b>						
2	R18CIV4261	Airports, railways and water ways	3	0	0	3
	R18CIV4262	Intelligent Transportation Systems				
	R18CIV4263	Urban Transportation Planning				
3		<b>Open Elective –III</b>	3	0	0	3
4	R18CIV42P1	Project Work	0	0	14	7
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

**Choice Based Credit System (CBCS)**

**REGULATIONS – BR-20**

## **B. Tech. - Civil Engineering**

### IV YEAR I SEMESTER

### COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20CIV4101	Estimation, Costing and Project Management	3	0	0	3
2	R20CIV4102	Transportation Engineering-II	3	0	0	3
<b>Professional Elective –III</b>						
3	R20CIV4131	Remote Sensing &GIS	3	0	0	3
	R20CIV4132	Ground Improvement Techniques				
	R20CIV4133	Advance Structural Analysis				
	R20MAC4100	MOOCs-III				
<b>Professional Elective –IV</b>						
4	R20CIV4141	Irrigation and Hydraulic Structures	3	0	0	3
	R20CIV4142	Theory of Elasticity				
	R20CIV4143	Ground water Hydrology				
5		<b>Open Elective –II</b>	3	0	0	3
6	R20CIV41P1	Technical Seminar	0	0	2	1
7	R20CIV41P2	Comprehensive Viva-voce	0	0	6	3
8	R20CIV41P3	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2
		<b>Total Credits</b>	<b>15</b>	<b>2</b>	<b>4</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

### IV YEAR II SEMESTER

### COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
<b>Professional Elective –V</b>						
1	R20CIV4251	Foundation Engineering	3	0	0	3
	R20CIV4252	Environmental Impact Assessment				
	R20CIV4253	Air pollution				
	R20MAC4200	MOOCs-IV				
<b>Professional Elective –VI</b>						
2	R20CIV4261	Airports, railways and water ways	3	0	0	3
	R20CIV4262	Intelligent Transportation Systems				
	R20CIV4263	Urban Transportation Planning				
3		<b>Open Elective –III</b>	3	0	0	3
4	R20CIV42P1	Project Work	0	0	14	7
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-22**

## B. Tech. - Civil Engineering

### IV YEAR I SEMESTER

### COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1.	R22CIV4111	Quantity Survey & Valuation	2	0	0	2
2.	R22CIV4112	Project Management	2	0	0	2
<b>Professional Elective – II</b>						
3.	R22CIV4141	Prestressed Concrete Structures	3	0	0	3
	R22CIV4142	Elements of Earth Quake Engineering				
	R22CIV4143	Finite Element Analysis				
<b>Professional Elective – III</b>						
4.	R22CIV4144	Remote Sensing & GIS	3	0	0	3
	R22CIV4147	Ground Improvement Techniques				
	R22CIV4146	Advance Structural Analysis				
<b>Professional Elective - IV</b>						
5.	R22CIV4148	Irrigation and Hydraulic Structures	3	0	0	3
	R22CIV4149	Theory of Elasticity				
	R22CIV4145	Ground water Hydrology				
6.	<b>Open Elective - II</b>		3	0	0	3
7.	R22CIV4127	Civil Engineering Software Laboratory	0	0	2	1
8.	R22CIV4168	Project Stage - I	0	0	6	3
<b>Total Credits</b>			<b>16</b>	<b>0</b>	<b>8</b>	<b>20</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

### IV YEAR II SEMESTER

### COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
<b>Professional Elective – V</b>						
1.	R22CIV4243	Advanced Foundation Engineering	3	0	0	3
	R22HAS4241	Environmental Impact Assessment				
	R22CIV4241	Air pollution				
<b>Professional Elective - VI</b>						
2.	R22CIV4246	Airports, railways and water ways	3	0	0	3
	R22CIV4244	Intelligent Transportation Systems				
	R22CIV4245	Urban Transportation Planning				
3.	<b>Open Elective - III</b>		3	0	0	3
4.	R22CIV4264	Project Stage – II including seminar	0	0	22	9+2
<b>Total Credits</b>			<b>9</b>	<b>0</b>	<b>22</b>	<b>20</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

**Choice Based Credit System (CBCS)**

**REGULATIONS – BR-18**

**B. Tech. – Electrical Electronics Engineering**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S.No.	Course Code	Course Title	L	T	P	Credits
1		Open Elective-II	3	0	0	3
<b>Professional Elective-III</b>						
2	R18EEE4131	Digital Control systems	3	0	0	3
	R18EEE4132	Optimization Techniques				
	R18EEE4133	Electrical and Hybrid Vehicles				
<b>Professional Elective-IV</b>						
3	R18EEE4141	HVDC Transmission	3	0	0	3
	R18EEE4142	Power System Reliability				
	R18EEE4143	Industrial Electrical Systems				
4	R18MBA4101	Fundamentals of Management for Engineers	3	0	0	3
5	R18EEE41L1	Electrical & Electronics Design Lab	1	0	4	3
6	R18EEE41L2	Technical Seminar	0	0	2	1
7	R18EEE41P1	Industrial Oriented Mini Project/ Summer Internship	0	0	4	2
8	R18EEE41P2	Comprehensive Viva-voce	0	0	6	3
<b>Total Credits</b>			<b>13</b>	<b>0</b>	<b>16</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1		Open Elective-III	3	0	0	3
<b>Professional Elective-V</b>						
2	R18EEE4251	Power Quality & FACTS	3	0	0	3
	R18EEE4252	Control System Design				
	R18CSE4265	AI Techniques in Electrical Engineering				
<b>Professional Elective-VI</b>						
3	R18EEE4261	Smart Grid Technologies	3	0	0	3
	R18EEE4262	Electrical Distribution Systems				
	R18EEE4263	Advanced Control of Electric Drives				
4	R18EEE42P1	Project Work	0	0	14	7
<b>Total Credits</b>			<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

**Choice Based Credit System (CBCS)**

**REGULATIONS – BR-20**

**B. Tech. – Electrical Electronics Engineering**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1		Open Elective-II	3	0	0	3
<b>Professional Elective-III</b>						
2	R20EEE4131	Digital Control Systems	3	1	0	4
	R20EEE4132	Optimization Techniques				
	R20EEE4133	Electrical and Hybrid Vehicles				
	R20MAC4100	MOOCs-III				
<b>Professional Elective-IV</b>						
3	R20EEE4141	HVDC Transmission	3	1	0	4
	R20EEE4142	Power System Reliability				
	R20EEE4143	Industrial Electrical Systems				
4	R20MBA4101	Fundamentals of Management for Engineers	3	0	0	3
5	R20EEE41L1	Electrical & Electronics Design Lab	0	0	2	1
6	R20EEE41P1	Technical Seminar	0	0	2	1
7	R20EEE41P2	Comprehensive Viva-voce	0	0	6	3
8	R20EEE41P3	Industrial Oriented Mini Project/ Summer Internship	0	0	4	2
<b>Total Credits</b>			<b>12</b>	<b>1</b>	<b>14</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1		Open Elective-III	3	0	0	3
<b>Professional Elective-V</b>						
2	R20EEE4251	Power Quality & FACTS	3	0	0	3
	R20EEE4252	Control System Design				
	R20CSE4265	AI Techniques in Electrical Engineering				
	R20MAC4200	MOOCs-IV				
<b>Professional Elective-VI</b>						
3	R20EEE4261	Smart Grid Technologies	3	0	0	3
	R20EEE4262	Electrical Distribution Systems				
	R20EEE4263	Advanced Control of Electric Drives				
4	R20EEE42P1	Project Work	0	0	14	7
<b>Total Credits</b>			<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-22**

**B. Tech. – Electrical Electronics Engineering**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22EEE4111	Power Electronic Applications to Renewable Energy Systems	3	1	0	4
2	<b>Open Elective-II</b>		3	0	0	3
3	<b>Professional Elective-III</b>		3	0	0	3
	R22ECE2114	Signals and Systems				
	R22CSE3247	Mobile Application Development				
	R22EEE4141	Electric and Hybrid Vehicles				
4	<b>Professional Elective-IV</b>		3	0	0	3
	R22CSE4114	Embedded Applications				
	R22EEE4142	HVDC Transmission				
	R22EEE4143	Power System Reliability				
5	R22HMS4115	Fundamentals of Management for Engineers	2	0	0	2
6	R22EEE4126	Simulation of Renewable Energy Systems Laboratory	0	0	4	2
7	R22EEE4167	Project Stage - I	0	0	6	3
<b>Total Credits</b>			<b>14</b>	<b>1</b>	<b>10</b>	<b>20</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	<b>Open Elective-III</b>		3	0	0	3
2	<b>Professional Elective-V</b>		3	0	0	3
	R22EEE4241	AI Techniques in Electrical Engineering				
	R22EEE4244	Power Quality & FACTS				
	R22EEE4245	Control Systems Design				
3	<b>Professional Elective-VI</b>		3	0	0	3
	R22EEE4248	Advanced Control of Electric Drives				
	R22EEE4247	Electrical Distribution Systems				
	R22EEE4243	Smart Grid Technologies				
4	R22EEE4264	Project Stage – II including Seminar	0	0	22	9+2
<b>Total Credits</b>			<b>9</b>	<b>0</b>	<b>22</b>	<b>20</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

**Choice Based Credit System (CBCS)**

**REGULATIONS – BR-18**

**B. Tech. – Mechanical Engineering**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R18ECE4101	Microwave and Optical Communication	3	0	0	3
2	R18HAS4101	Professional Practice, Law & Ethics	2	0	0	2
<b>Professional Elective – III</b>						
3	R18ECE4131	Digital Image Processing	3	0	0	3
	R18CSE4101	Cryptography and Network Security				
	R18CSE4142	Artificial Intelligence (AI)				
<b>Professional Elective – IV</b>						
4	R18ECE4141	Cellular & Mobile Communications	3	0	0	3
	R18ECE4142	Digital Signal Processors & Architectures				
	R18ECE4143	System on Chip Architecture				
5		Open Elective - II	3	0	0	3
6	R18ECE41L1	Microwave & Optical Communications Lab	0	0	2	1
7	R18ECE41L2	Technical Seminar	0	0	2	1
8	R18ECE41P1	Comprehensive Viva-voce	0	0	6	3
9	R18ECE41P2	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2*
<b>Total Credits</b>			<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
<b>Professional Elective – V</b>						
1	R18ECE4251	Satellite Communications	3	0	0	3
	R18ECE4252	Low Power VLSI				
	R18ECE4253	Wireless Sensor Networks				
<b>Professional Elective – VI</b>						
2	R18ECE4261	Wireless Communication & Networks	3	0	0	3
	R18ECE4262	Electronic Product Design & Packaging				
	R18ECE4263	Radar Systems				
3		Open Elective - III	3	0	0	3
4	R18ECE42P1	Project Work	0	0	14	7
<b>Total Credits</b>			<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

**Choice Based Credit System (CBCS)**

**REGULATIONS – BR-20**

**B. Tech. – Mechanical Engineering**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20MED4101	Refrigeration & Air Conditioning	3	0	0	3
<b>Professional Elective – II</b>						
2	R20MED4121	Additive Manufacturing	3	0	0	3
	R20MED4122	Automation in Manufacturing				
	R20MED4123	Micro Electro Mechanical Systems (MEMS)				
	R20MAC3200	MOOCs-II				
<b>Professional Elective – III</b>						
3	R20MED4131	Power Plant Engineering	3	0	0	3
	R20MED4132	Automobile Engineering				
	R20MED4133	Renewable Energy Sources				
	R20MAC4100	MOOCs-III				
<b>Professional Elective – IV</b>						
4	R20MED4141	Computational Fluid Dynamics	3	0	0	3
	R20MED4142	Turbo Machinery				
	R20MED4143	Fluid Power Systems				
5		Open Elective - II	3	0	0	3
6	R20MED41P1	Technical Seminar	0	0	2	1
7	R20MED41P2	Comprehensive Viva-voce	0	0	6	3
8	R20MED41P3	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2
		<b>Total Credits</b>	<b>15</b>	<b>2</b>	<b>4</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
<b>Professional Elective – V</b>						
1	R20MED4251	Industrial Robotics	3	0	0	3
	R20MED4252	Mechanical Vibrations				
	R20MED4253	Composite Materials				
	R20MAC4200	MOOCs-IV				
<b>Professional Elective – VI</b>						
2	R20MED4261	Industrial Management	3	0	0	3
	R20MED4262	Production Operation and Management				
	R20MED4263	Nanotechnology & Application				
3		Open Elective - III	3	0	0	3
4	R20ECE42P1	Project Work	0	0	14	7
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-22**

**B. Tech. – Mechanical Engineering**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1.	R22MED4111	Industrial Management	2	0	0	2
2.	R22MED4112	Refrigeration & Air Conditioning	3	0	0	3
3.	<b>Professional Elective – II</b>		3	0	0	3
	R22CSM4142	Artificial Intelligence in Mechanical Engineering				
	R22MED4141	Industrial Robotics				
	R22MED4142	Mechatronics				
	R22MED4143	Automobile Engineering				
4.	<b>Professional Elective – III</b>		3	0	0	3
	R22MED4144	Composite Materials				
	R22MED4145	Computational Fluid Dynamics				
	R22MED4146	Production Planning & Control				
	R22MED4147	Solar Energy Technology				
5.	<b>Professional Elective - IV</b>		3	0	0	3
	R22MED4149	Renewable Energy Sources				
	R22MED4148	Fundamentals of Electric and Hybrid Vehicles				
	R22MED4165	Re-Engineering				
	R22MTH4145	Operations Research				
6.	<b>Open Elective - II</b>		3	0	0	3
7.	R22MED4167	Project Stage - I	0	0	6	3
		<b>Total Credits</b>	<b>17</b>	<b>0</b>	<b>6</b>	<b>20</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1.	<b>Professional Elective – V</b>		3	0	0	3
	R22MED4248	Energy Conservation and Management				
	R22MED4241	Additive Manufacturing				
	R22MED4242	Automation in Manufacturing				
	R22MED4243	Turbo Machinery				
2.	<b>Professional Elective - VI</b>		3	0	0	3
	R22MED4244	Fluid Power System				
	R22MED4245	Fuzzy Logic and ANN				
	R22MED4246	Industry 4.0				
	R22MED4247	Total Quality Management				
3.	<b>Open Elective - III</b>		3	0	0	3
4.	R22MED4264	Project Stage – II including seminar	0	0	22	9+2
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>22</b>	<b>20</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-18**

**B. Tech. – Electronics & Communication Engineering**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R18ECE4101	Microwave and Optical Communication	3	0	0	3
2	R18HAS4101	Professional Practice, Law & Ethics	2	0	0	2
<b>Professional Elective – III</b>						
3	R18ECE4131	Digital Image Processing	3	0	0	3
	R18CSE4101	Cryptography and Network Security				
	R18CSE4142	Artificial Intelligence (AI)				
<b>Professional Elective – IV</b>						
4	R18ECE4141	Cellular & Mobile Communications	3	0	0	3
	R18ECE4142	Digital Signal Processors & Architectures				
	R18ECE4143	System on Chip Architecture				
5		Open Elective - II	3	0	0	3
6	R18ECE41L1	Microwave & Optical Communications Lab	0	0	2	1
7	R18ECE41L2	Technical Seminar	0	0	2	1
8	R18ECE41P1	Comprehensive Viva-voce	0	0	6	3
9	R18ECE41P2	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2*
		<b>Total Credits</b>	<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
<b>Professional Elective – V</b>						
1	R18ECE4251	Satellite Communications	3	0	0	3
	R18ECE4252	Low Power VLSI				
	R18ECE4253	Wireless Sensor Networks				
<b>Professional Elective – VI</b>						
2	R18ECE4261	Wireless Communication & Networks	3	0	0	3
	R18ECE4262	Electronic Product Design & Packaging				
	R18ECE4263	Radar Systems				
3		Open Elective - III	3	0	0	3
4	R18ECE42P1	Project Work	0	0	14	7
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-20**

**B. Tech. – Electronics & Communication Engineering**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20ECE4101	Microwave and Optical Communication	3	0	0	3
2	R20HAS4101	Professional Practice, Law & Ethics	2	0	0	2
3	<b>Professional Elective – III</b>					
	R20ECE4131	Digital Image Processing	3	1	0	4
	R20CSE3201	Machine Learning				
R20ECE4142	Digital Signal Processors & Architectures					
4	<b>Professional Elective – IV</b>					
	R20ECE4141	Cellular & Mobile Communications	3	0	0	3
	R20CSM3104	Computer Vision and Robotics				
	R20ECE4143	System on Chip Architecture				
R20MAC4100	MOOCs-III					
5		Open Elective - II	3	0	0	3
6	R20ECE41L1	Microwave & Optical Communications Lab	0	0	2	1
7	R20ECE41P2	Comprehensive Viva Voce	0	0	6	3
8	R20ECE41P3	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2
		<b>Total Credits</b>	<b>14</b>	<b>3</b>	<b>4</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	<b>Professional Elective – V</b>					
	R20ECE4251	Satellite Communications	3	0	0	3
	R20ECE4252	Low Power VLSI				
	R20ECE4253	Wireless Sensor Networks				
R20MAC4200	MOOCs-IV					
2	<b>Professional Elective – VI</b>					
	R20ECE4261	Wireless Communication & Networks	3	0	0	3
	R20ECE4262	Electronic Product Design & Packaging				
R20ECE4263	Radar Systems					
3		Open Elective - III	3	0	0	3
4	R20ECE42P1	Project Work	0	0	14	7
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-22**

**B. Tech. – Electronics & Communication Engineering**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22ECE4111	Microwave and Optical Communications	3	1	0	4
2	<b>Professional Elective – III</b>					
	R22ECE4146	Digital Image Processing	3	0	0	3
	R22ECE4145	CMOS Analog IC Design				
	R22ECE4142	Artificial Neural Networks				
3	<b>Professional Elective – IV</b>					
	R22CSE4111	Cryptography and Network Security	3	0	0	3
	R22ECE4143	Satellite Communications				
	R22HAS4143	Biomedical Instrumentation				
4	<b>Open Elective – II</b>		3	0	0	3
5	R22HAS4126	Professional Practice, Law & Ethics	0	0	4	2
6	R22ECE4126	Microwave and Optical Communications Laboratory	0	0	4	2
7	R22ECE4167	Project Stage – I	0	0	6	3
		<b>Total Credits</b>	<b>12</b>	<b>1</b>	<b>14</b>	<b>20</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
	<b>Professional Elective – V</b>					
1	R22CSM4143	Artificial Intelligence	3	0	0	3
	R22ECE4244	Wireless Communication & Networks				
	R22CSM3112	Machine learning				
	<b>Professional Elective – VI</b>					
2	R22ECE4245	Radar Systems	3	0	0	3
	R22ECE4242	System on Chip Architecture				
	R22ECE4243	Wireless sensor Networks				
3	<b>Open Elective – III</b>		3	0	0	3
4	R22ECE4264	Project Stage – II including Seminar	0	0	22	9+2
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>22</b>	<b>20</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-18**

**B. Tech. – Computer Science & Engineering**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R18CSE4101	Cryptography & Network Security	3	0	0	3
2	R18CSE4102	Data Mining	2	0	0	2
3	<b>Professional Elective -IV</b>		3	0	0	3
	R18CSE4141	Graph Theory				
	R18CSE4142	Informational Retrieval Systems				
	R18CSE4143	Cloud Computing				
4	<b>Professional Elective -V</b>		3	0	0	3
	R18CSE4151	Soft Computing				
	R18CSE4152	Internet of Things				
	R18CSE4153	Software Process & Project Management				
5		<b>Open Elective - II</b>	3	0	0	3
6	R18CSE41L1	Cryptography & Network Security Lab	0	0	2	1
7	R18CSE41L2	Technical Seminar	0	0	2	1
8	R18CSE41P1	Comprehensive Viva-voce	0	0	6	3
9	R18CSE41P2	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2*
		<b>Total Credits</b>	<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R18HAS4201	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective -VI</b>		3	0	0	3
	R18CSE4261	Distributed Systems				
	R18CSE4262	Cyber Forensics				
	R18CSE4263	Human Computer Interaction				
3		<b>Open Elective-III</b>	3	0	0	3
4	R18CSE42P1	Project Work	0	0	14	7
		Total Credits	9	0	14	16

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

**Choice Based Credit System (CBCS)**

**REGULATIONS – BR-20**

**B. Tech. – Computer Science & Engineering**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20CSE4101	Cryptography and Network Security	3	0	0	3
2	R20CSE4102	Data Mining	2	0	0	2
3	<b>Professional Elective -IV</b>		3	0	0	3
	R20CSE4141	Graph Theory				
	R20CSE4142	Information Retrieval Systems				
	R20CSE4143	Cloud Computing				
	R20MAC4100	MOOCs-III				
4	<b>Professional Elective -V</b>		3	0	0	3
	R20CSE4151	Soft Computing				
	R20CSE4152	Internet of Things				
	R20CSE4153	Software Process & Project Management				
5		<b>Open Elective - II</b>	3	0	0	3
6	R20CSE41L1	Cryptography and Network Security Lab	0	0	2	1
7	R20CSE41P1	Technical Seminar	0	0	2	1
8	R20CSE41P2	Comprehensive Viva-voce	0	0	6	3
9	R20CSE41P3	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2*
		<b>Total Credits</b>	<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20HAS4201	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective -VI</b>		3	0	0	3
	R20CSE4261	Distributed Systems				
	R20CSE4262	Cyber Forensics				
	R20CSE4263	Human Computer Interaction				
	R20MAC4200	MOOCs-IV				
3		<b>Open Elective-III</b>	3	0	0	3
4	R20CSE42P1	Project Work	0	0	14	7
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-22**

**B. Tech. – Computer Science & Engineering**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22CSE4111	Cryptography and Network Security	3	0	0	3
2	R22CSE4112	Compiler Design	3	0	0	3
3	<b>Professional Elective -IV</b>		3	0	0	3
	R22CSE3145	Graph Theory				
	R22CSE4145	Advanced Operating Systems				
	R22CSE4142	Soft Computing				
	R22CSE4143	Cloud Computing				
	R22CSE4141	Ad hoc & Sensor Networks				
4	<b>Professional Elective -V</b>		3	0	0	3
	R22CSE4146	Advanced Algorithms				
	R22CSE4147	Agile Methodology				
	R22EEE4242	Robotic Process Automation				
	R22CSE4244	Blockchain Technology				
	R22CSE4144	Software Process & Project Management				
5	<b>Open Elective - II</b>		3	0	0	3
6	R22CSE4126	Cryptography and Network Security Lab	0	0	2	1
7	R22CSE4127	Compiler Design Lab	0	0	2	1
8	R22CSE4168	Project Stage - I	0	0	6	3
		<b>Total Credits</b>	<b>15</b>	<b>0</b>	<b>10</b>	<b>20</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22HMS4211	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective – VI</b>		3	0	0	3
	R22CSE4245	Computational Complexity				
	R22CSE4242	Distributed Systems				
	R22CSM4111	Deep Learning				
	R22INF4142	Human Computer Interaction				
	R22CSC4241	Cyber Forensics				
3	<b>Open Elective – III</b>		3	0	0	3
4	R22CSE4264	Project Stage – II including Seminar	0	0	22	9+2
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>22</b>	<b>20</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

**Choice Based Credit System (CBCS)**

**REGULATIONS – BR-18**

**B. Tech. – Information Technology**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S.No.	Course Code	Course Title	L	T	P	Credits
1	R18INF4101	Information Security	3	0	0	3
2	R18CSE4102	Data Mining	2	0	0	2
3	<b>Professional Elective –IV</b>		3	0	0	3
	R18INF4142	Pattern Recognition				
	R18CSE4143	Cloud Computing				
	R18INF4141	Ad hoc Sensor Networks				
4	<b>Professional Elective –V</b>		3	0	0	3
	R18CSE4152	Internet of Things				
	R18CSE3123	Distributed Databases				
	R18CSE4153	Software Process & Project Management				
5		Open Elective-II	3	0	0	3
6	R18INF41L1	Information Security Lab	0	0	2	1
7	R18INF41L2	Technical Seminar	0	0	2	1
8	R18INF41P1	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2*
9	R18INF41P2	Comprehensive Viva-voce	0	0	6	3
		<b>Total Credits</b>	<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R18HAS4201	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective –VI</b>		3	0	0	3
	R18CSE4261	Distributed Systems				
	R18CSE4262	Cyber Forensics				
	R18CSE4263	Human Computer Interaction				
3		Open Elective-III	3	0	0	3
4	R18INF42P1	Project Work	0	0	14	7
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-20**

**B. Tech. – Information Technology**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20INF4101	Information Security	3	0	0	3
2	R20CSE4102	Data Mining	2	0	0	2
3	<b>Professional Elective –IV</b>		3	0	0	3
	R20INF4142	Pattern Recognition				
	R20CSE4143	Cloud Computing				
	R20INF4141	Adhoc Sensor Networks				
	R20MAC4100	MOOCs-III				
4	<b>Professional Elective –V</b>		3	0	0	3
	R20CSE4152	Internet of Things				
	R20CSE3123	Distributed Databases				
	R20CSE4153	Software Process & Project Management				
5		Open Elective-II	3	0	0	3
6	R20INF41L1	Information Security Lab	0	0	2	1
7	R20INF41P1	Technical Seminar	0	0	2	1
8	R20INF41P2	Comprehensive Viva-voce	0	0	6	3
9	R20INF41P3	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2*
<b>Total Credits</b>			<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20HAS4201	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective –VI</b>		3	0	0	3
	R20CSE4261	Distributed Systems				
	R20CSE4262	Cyber Forensics				
	R20CSE4263	Human Computer Interaction				
	R20MAC4200	MOOCs-IV				
3		Open Elective-III	3	0	0	3
4	R20INF42P1	Project Work	0	0	14	7
<b>Total Credits</b>			<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

#Skill Course - 1 credit with 2 Practical Hours

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

**Choice Based Credit System (CBCS)**

**REGULATIONS – BR-22**

**B. Tech. – Information Technology**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22INF4111	Information Security	3	0	0	3
2	R22CSE4143	Cloud Computing	3	0	0	3
3	<b>Professional Elective -IV</b>					
	R22INF4142	Human Computer Interaction	3	0	0	3
	R22CST4143	High Performance Computing				
	R22CSM4143	Artificial Intelligence				
	R22CSE3149	Information Retrieval Systems				
	R22CSE4141	Ad-hoc & Sensor Networks				
4	<b>Professional Elective -V</b>					
	R22INF4143	Intrusion Detection Systems	3	0	0	3
	R22INF4144	Real Time Systems				
	R22CSE4244	Blockchain Technology				
	R22CSM4111	Deep Learning				
	R22CSE4144	Software Process & Project Management				
5	<b>Open Elective-II</b>					
6	R22INF4126	Information Security Lab	0	0	2	1
7	R22CSE4128	Cloud Computing Lab	0	0	2	1
8	R22INF4168	Project Stage - I	0	0	6	3
<b>Total</b>			<b>15</b>	<b>0</b>	<b>10</b>	<b>20</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22HMS4211	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective – VI</b>					
	R22CSM3213	Natural Language Processing	3	0	0	3
	R22CSE4242	Distributed Systems				
	R22CSE3148	Augmented Reality & Virtual Reality				
	R22CSI4241	Web Security				
	R22CSC4241	Cyber Forensics				
3	<b>Open Elective – III</b>					
4	R22INF4264	Project Stage – II including Seminar	0	0	22	9+2
<b>Total</b>			<b>9</b>	<b>0</b>	<b>22</b>	<b>20</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

**Choice Based Credit System (CBCS)**

**REGULATIONS – BR-20**

**B.Tech. – Computer Science & Information Technology**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S.No.	Course Code	Course Title	L	T	P	Credits
1	R20INF4101	Information Security	3	0	0	3
2	R20CSE4102	Data Mining	2	0	0	2
3	<b>Professional Elective –IV</b>		3	0	0	3
	R20INF4142	Pattern Recognition				
	R20CSE4143	Cloud Computing				
	R20INF4141	Adhoc Sensor Networks				
	R20MAC4100	MOOCs-III				
4	<b>Professional Elective –V</b>		3	0	0	3
	R20CSE4152	Internet of Things				
	R20CSE3123	Distributed Databases				
	R20CSE4153	Software Process & Project Management				
5	<b>Open Elective-II</b>		3	0	0	3
6	R20INF41L1	Information Security Lab	0	0	2	1
7	R20CSI41P1	Technical Seminar	0	0	2	1
8	R20CSI41P2	Comprehensive Viva-voce	0	0	6	3
9	R20CSI41P3	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2
<b>Total Credits</b>			<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S.No.	Course Code	Course Title	L	T	P	Credits
1	R20HAS4201	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective –VI</b>		3	0	0	3
	R20CSE4261	Distributed Systems				
	R20CSE4262	Cyber Forensics				
	R20CSE4263	Human Computer Interaction				
	R20MAC4200	MOOCs-IV				
3	<b>Open Elective-III</b>		3	0	0	3
4	R20INF42P1	Project Work	0	0	14	7
<b>Total Credits</b>			<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

#Skill Course - 1 credit with 2 Practical Hours

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

**Choice Based Credit System (CBCS)**

**REGULATIONS – BR-22**

**B.Tech. – Computer Science & Information Technology**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22INF4111	Information Security	3	0	0	3
2	R22CSE4143	Cloud Computing	3	0	0	3
3	<b>Professional Elective -IV</b>					
	R22INF4142	Human Computer Interaction	3	0	0	3
	R22CSI4143	High Performance Computing				
	R22CSM4143	Artificial Intelligence				
	R22CSE3147	Embedded Systems				
	R22CSE4141	Ad-hoc & Sensor Networks				
4	<b>Professional Elective -V</b>					
	R22INF4143	Intrusion Detection Systems	3	0	0	3
	R22INF4144	Real Time Systems				
	R22CSE4244	Blockchain Technology				
	R22CSM4111	Deep Learning				
	R22CSE4144	Software Process & Project Management				
5	<b>Open Elective-II</b>					
6	R22INF4126	Information Security Lab	0	0	2	1
7	R22CSE4128	Cloud Computing Lab	0	0	2	1
8	R22CSI4168	Project Stage - I	0	0	6	3
<b>Total</b>			<b>15</b>	<b>0</b>	<b>10</b>	<b>20</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22HMS4211	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective – VI</b>					
	R22CSM3213	Natural Language Processing	3	0	0	3
	R22CSE4242	Distributed Systems				
	R22CSE3148	Augmented Reality & Virtual Reality				
	R22CSI4241	Web Security				
	R22CSC4241	Cyber Forensics				
3	<b>Open Elective – III</b>					
4	R22CSI4264	Project Stage – II including Seminar	0	0	22	9+2
<b>Total</b>			<b>9</b>	<b>0</b>	<b>22</b>	<b>20</b>

#Skill Course - 1 credit with 2 Practical Hours

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-20**

**B.Tech. – CSE (Data Science)**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20CSD4101	Predictive Analytics	3	0	0	3
2	R20CSD4102	Web and Social Media Analytics	2	0	0	2
3	<b>Professional Elective – IV</b>		3	0	0	3
	R20CSE4102	Quantum Computing				
	R20CSD4103	Database Security				
	R20CSM4103	Natural Language Processing				
	R20CSD4104	Information Storage Management				
	R20CSO4103	Internet of Things				
4	<b>Professional Elective – V</b>		3	0	0	3
	R20CSD4105	Privacy Preserving in Data Mining				
	R20CSM4145	Cloud Computing				
	R20CSD4106	Data Science Applications				
	R20CSD4109	Mining Massive Datasets				
	R20CSD4107	Exploratory Data Analysis				
5	<b>Open Elective – II</b>		3	0	0	3
6	R20CSD41L1	Web and Social Media Analytics Lab	0	0	2	1
7	R20CSD41P1	Technical Seminar	0	0	2	1
8	R20CSD41P2	Comprehensive Viva-voce	0	0	6	3
9	R20CSD41P3	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2
		<b>Total Credits</b>	<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20HMS4201	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective -VI</b>		3	0	0	3
	R20CSD4201	Data Stream Mining				
	R20CSI4101	Web Security				
	R20CSD4203	Video Analytics				
	R20CSC3203	Blockchain Technology				
	R20CSD4204	Parallel and Distributed Computing				
3	<b>Open Elective-III</b>		3	0	0	3
4	R20CSD42P1	Project Work	0	0	14	7
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

#Skill Course - 1 credit with 2 Practical Hours

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-22**

**B.Tech. – CSE (Data Science)**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22CSD4111	Predictive Analytics	3	0	0	3
2	R22CSD4112	Web and Social Media Analytics	3	0	0	3
3	<b>Professional Elective – IV</b>					
	R22EEE4144	Quantum Computing	3	0	0	3
	R22CSD4142	Database Security				
	R22CSM3213	Natural Language Processing				
	R22CSD4143	Information Storage Management				
	R22CSO4143	Internet Of Things				
4	<b>Professional Elective – V</b>					
	R22CSD4144	Privacy Preserving in Data Mining	3	0	0	3
	R22CSE4143	Cloud Computing				
	R22CSD4141	Data Science Applications				
	R22CSD4146	Mining Massive Datasets				
	R22CSD4145	Exploratory Data Analysis				
5	<b>Open Elective – II</b>					
6	R22CSD4126	Web and Social Media Analytics Lab	0	0	2	1
7	R22CSD4127	Predictive Analytics Lab	0	0	2	1
8	R22CSD4168	Project Stage – I	0	0	6	3
		<b>Total Credits</b>	<b>15</b>	<b>0</b>	<b>10</b>	<b>20</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22HMS4211	Organizational Behavior	3	0	0	3
2	<b>Professional Elective – VI</b>					
	R22CSD4242	Data Stream Mining	3	0	0	3
	R22CSI4241	Web Security				
	R22CSD4245	Video Analytics				
	R22CSE4244	Blockchain Technology				
	R22CSD4243	Parallel and Distributed Computing				
3	<b>Open Elective – III</b>					
4	R22CSD4264	Project Stage – II including Seminar	0	0	22	9+2
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>22</b>	<b>20</b>

#Skill Course - 1 credit with 2 Practical Hours

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

**Choice Based Credit System (CBCS)**

**REGULATIONS – BR-20**

**B.Tech. – CSE (Artificial Intelligence & Machine Learning)**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20CSM4101	Neural Networks & Deep Learning	3	0	0	3
2	R20MED4202	Reinforcement Learning	2	0	0	2
3	<b>Professional Elective - IV</b>		3	0	0	3
	R20CSE4102	Quantum Computing				
	R20CSM4104	Expert Systems				
	R20CSM4105	Conversational AI				
	R20CSM4106	Game Theory				
	R20CSM4102	Mobile Computing				
4	<b>Professional Elective - V</b>		3	0	0	3
	R20CSM4107	Social Network Analysis				
	R20CSM4201	Federated Machine Learning				
	R20CSE4201	Augmented Reality & Virtual Reality				
	R20CSI4101	Web Security				
	R20INF4101	Ad-hoc & Sensor Networks				
5	<b>Open Elective - II</b>		3	0	0	3
6	R20CSM41L1	Deep Learning Lab	0	0	2	1
7	R20CSM41P1	Technical Seminar	0	0	2	1
8	R20CSM41P2	Comprehensive Viva-voce	0	0	6	3
9	R20CSM41P3	Industrial Oriented Mini Project/ Summer Internship	0	0	0	2
		<b>Total Credits</b>	<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20HMS4201	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective - VI</b>		3	0	0	3
	R20AID4202	Speech and Video Processing				
	R20MED4202	Robotics Process Automation				
	R20CSD4202	Randomized Algorithms				
	R20CSM4202	Cognitive Computing				
	R20CSM4204	Semantic Web				
3	<b>Open Elective - III</b>		3	0	0	3
4	R20CSM42P1	Project Work	0	0	14	7
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-22**

**B.Tech. – CSE (Artificial Intelligence & Machine Learning)**

IV YEAR I SEMESTER

COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22CSM4111	Deep Learning	3	0	0	3
2	R22CSM4112	Nature Inspired Computing	2	0	0	2
3	Professional Elective -III					
	R22CSO4143	Internet Of Things	3	0	0	3
	R22INF3245	Data Mining				
	R22CSE3248	Scripting Languages				
	R22CSE3247	Mobile Application Development				
	R22CSE4143	Cloud Computing				
4	Professional Elective -IV					
	R22EEE4144	Quantum Computing	3	0	0	3
	R22AID4144	Expert Systems				
	R22CSM4145	Semantic Web				
	R22CSM4144	Game Theory				
	R22CSM4141	Mobile Computing				
5	Open Elective - II		3	0	0	3
6	R22HAS4126	Professional Practice, Law & Ethics	0	0	4	2
7	Professional Elective - III Lab					
	R22CSO2128	Internet Of Things Lab	0	0	2	1
	R22INF3258	Data Mining lab				
	R22CSE3252	Scripting Languages Lab				
	R22CSE3258	Mobile Application Development Lab				
	R22CSE4128	Cloud Computing Lab				
8	R22CSM4168	Project Stage - I	0	0	6	3
	Total Credits		14	0	12	20

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

IV YEAR II SEMESTER

COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	Professional Elective - V					
	R22CSM4241	Social Network Analysis	3	0	0	3
	R22AID4241	Federated Machine Learning				
	R22CSE3148	Augmented Reality & Virtual Reality				
	R22CSI4241	Web Security				
	R22CSE4141	Ad-hoc & Sensor Networks				
2	Professional Elective – VI					
	R22AID4242	Speech and Video Processing	3	0	0	3
	R22EEE4242	Robotic Process Automation				
	R22CSM4244	Randomized Algorithms				
	R22CSM4242	Cognitive Computing				
	R22CSM4245	Conversational AI				
3	Open Elective – III		3	0	0	3
4	R22CSM4264	Project Stage – II including Seminar	0	0	22	9+2
	Total Credits		9	0	22	20

#Skill Course - 1 credit with 2 Practical Hours

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-20**

**B.Tech. – CSE (Cyber Security)**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S.No.	Course Code	Course Title	L	T	P	Credits
1	R20CSC4101	Vulnerability Assessment & Penetration Testing	3	0	0	3
2	R20CSC4102	Network Management Systems and Operations	2	0	0	2
3	<b>Professional Elective - IV</b>					
	R20CSC4109	Edge Analytics	3	0	0	3
	R20CSC4105	Web & Database Security				
	R20CSC4108	Computer Security & Audit Assurance				
	R20CSC4107	Social Media Security				
	R20CSM4101	Deep Learning				
4	<b>Professional Elective - V</b>					
	R20CSE4102	Quantum Computing	3	0	0	3
	R20CSC4106	Data Analytics for Fraud Detection				
	R20CSC4104	5G Technologies				
	R20INF4104	Security Incident & Response Management (SOC)				
	R20CSC4103	Authentication Techniques				
5	<b>Open Elective - II</b>					
6	R20CSC41L1	Vulnerability Assessment & Penetration Testing Lab	0	0	2	1
7	R20CSC41P1	Technical Seminar	0	0	0	2
8	R20CSC41P2	Comprehensive Viva Voce	0	0	2	1
9	R20CSC41P3	Industrial Oriented Mini Project / Summer Internship	0	0	6	3
		<b>Total</b>	<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20HMS4201	Organizational Behavior	3	0	0	3
2	<b>Professional Elective – VI</b>					
	R20CSE4202	Quantum Cryptography	3	0	0	3
	R20CSO4204	IoT Cloud Processing and Analytics				
	R20CSC4201	Cloud Security				
	R20CSC4205	Digital Watermarking and Steganography				
	R20CSC4204	Data Privacy				
3	<b>Open Elective – III</b>					
4	R20CSC42P1	Project Stage – II	0	0	14	16
		<b>Total</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

#Skill Course - 1 credit with 2 Practical Hours

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-22**

**B.Tech. – CSE (Cyber Security)**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22CSC4111	Vulnerability Assessment & Penetration Testing	3	0	0	3
2	R22CSE3246	Web Technologies	3	0	0	3
3	<b>Professional Elective - IV</b>					
	R22CSO4141	Edge Analytics	3	0	0	3
	R22CSC4145	Web & Database Security				
	R22CSC4142	Computer Security & Audit Assurance				
	R22CSC4143	Social Media Security				
	R22CSM4111	Deep Learning				
4	<b>Professional Elective - V</b>					
	R22EEE4144	Quantum Computing	3	0	0	3
	R22CSC4146	Data Analytics for Fraud Detection				
	R22CSC4141	5G Technologies				
	R22INF4145	Security Incident & Response Management (SOC)				
	R22CSC4144	Authentication Techniques				
5	<b>Open Elective - II</b>					
6	R22CSC4126	Vulnerability Assessment & Penetration Testing Lab	0	0	2	1
7	R22CSE3257	Web Technologies Lab	0	0	2	1
8	R22CSC4168	Project Stage - I	0	0	6	3
9	R22CSC4119	Skill Development Course (Infection Monkey/Conjur)	0	0	4	0
		<b>Total</b>	<b>15</b>	<b>0</b>	<b>14</b>	<b>20</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S.No.	Course Code	Course Title	L	T	P	Credits
1	R22HMS4211	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective – VI</b>					
	R22CSC4246	Quantum Cryptography	3	0	0	3
	R22CSO4111	IoT Cloud Processing and Analytics				
	R22CSC4243	Cloud Security				
	R22CSC4245	Digital Watermarking and Steganography				
	R22CSC4244	Data Privacy				
3	<b>Open Elective – III</b>					
4	R22CSC4264	Project Stage – II including Seminar	0	0	22	9+2
		<b>Total</b>	<b>9</b>	<b>0</b>	<b>22</b>	<b>20</b>

#Skill Course - 1 credit with 2 Practical Hours

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

**Choice Based Credit System (CBCS)**

**REGULATIONS – BR-20**

**B.Tech. – CSE (Internet of Things)**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20CSO4101	IoT Cloud Processing and Analytics	3	0	0	3
2	R20CSO4102	IoT Security	2	0	0	2
3	<b>Professional Elective -IV</b>					
	R20CSE4102	Quantum Computing	3	0	0	3
	R20ECE4103	Wireless Networks				
	R20CSE4201	Augmented Reality & Virtual Reality				
	R20CSO4104	IoT Automation				
	R20INF4101	Ad-hoc & Sensor Networks				
4	<b>Professional Elective - V</b>					
	R20CSO4106	Embedded Software Design	3	0	0	3
	R20CSO4107	5G & IoT Technologies				
	R20CSM4202	Cognitive Computing				
	R20CSE4204	Distributed Systems				
	R20CSO4105	Edge Computing				
5	<b>Open Elective - II</b>					
6	R20CSO41L1	IoT Security & Cloud Computing Lab	0	0	2	1
7	R20CSO41P1	Technical Seminar	0	0	2	1
8	R20CSO41P2	Comprehensive Viva-voce	0	0	6	3
9	R20CSO41P3	Industrial Oriented Mini Project / Summer Internship	0	0	0	2
		<b>Total Credits</b>	<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20HMS4201	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective – VI</b>					
	R20CSO4203	Industrial IoT	3	0	0	3
	R20CSO4202	Fog Computing				
	R20ECE4202	Smart Sensor Technologies				
	R20CSO4201	Digital Forensics				
	R20CSC3203	Blockchain Technology				
3	<b>Open Elective – III</b>					
4	R20CSO42P1	Project Work	0	0	14	7
		<b>Total Credits</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-22**

**B.Tech. – B.Tech. – CSE (Internet of Things)**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22CSO4111	IoT Cloud Processing and Analytics	3	0	0	3
2	R22CSO4112	IoT Security	2	0	0	2
3	Professional Elective -III					
	R22CSO4145	Mobile Application Development for IoT	3	0	0	3
	R22CSE3244	Software Testing Methodologies				
	R22CSO4142	Cloud Computing and Virtualization				
	R22CSM4143	Artificial Intelligence				
	R22CSO4144	Lightweight Cryptography				
4	Professional Elective -IV					
	R22EEE4144	Quantum Computing	3	0	0	3
	R22ECE4144	Wireless Networks				
	R22CSE3148	Augmented Reality & Virtual Reality				
	R22CSO4146	IoT Automation				
	R22CSE4141	Ad-hoc & Sensor Networks				
5	Open Elective - II		3	0	0	3
6	R22HAS4126	Professional Practice, Law & Ethics	0	0	4	2
7	Professional Elective -III Lab					
	R22CSO4149	Mobile Application Development for IoT Lab	0	0	2	1
	R22CSE3253	Software Testing Methodologies Lab				
	R22CSO4147	Cloud Computing and Virtualization Lab				
	R22CSM4157	Artificial Intelligence Lab				
	R22CSO4148	Lightweight Cryptography Lab				
8	R22CSO4168	Project Stage - I	0	0	6	3
	Total Credits		14	0	12	20

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	Professional Elective - V					
	R22ECE4241	Embedded Software Design	3	0	0	3
	R22CSO4241	5G & IoT Technologies				
	R22CSM4242	Cognitive Computing				
	R22CSE4242	Distributed Systems				
	R22CSO4243	Edge Computing				
2	Professional Elective – VI					
	R22CSO4242	Industrial IoT	3	0	0	3
	R22CSO4244	Fog Computing				
	R22CSO4245	Smart Sensor Technologies				
	R22CSC4242	Digital Forensics				
	R22CSE4244	Blockchain Technology				
3	Open Elective – III		3	0	0	3
4	R22CSO4264	Project Stage – II including Seminar	0	0	22	9+2
	Total Credits		9	0	22	20

#Skill Course - 1 credit with 2 Practical Hours

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-20**

**B.Tech. – Artificial Intelligence & Data Science**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S.No.	Course Code	Course Title	L	T	P	Credits
1	R20AID4101	Introduction to Predictive Analytics	2	0	0	2
2	R20CSM4101	Neural Networks & Deep Learning	3	0	0	3
3	<b>Professional Elective –IV</b>		3	0	0	3
	R20CSE4102	Quantum Computing				
	R20CSM4104	Expert Systems				
	R20CSE4142	Cloud Computing				
	R20CSM4106	Game Theory				
	R20CSM4102	Mobile Computing				
4	<b>Professional Elective -V</b>		3	0	0	3
	R20CSM4203	Social Network Analysis				
	R20CSM4201	Federated Machine Learning				
	R20CSE4201	Augmented Reality & Virtual Reality				
	R20CSI4101	Web Security				
	R20INF4101	Ad-hoc & Sensor Networks				
5	<b>Open Elective - II</b>		3	0	0	3
6	R20CSM41L1	Deep Learning Laboratory	0	0	2	1
7	R20AID41P1	Technical Seminar	0	0	2	1
8	R20AID41P2	Comprehensive Viva-voce	0	0	6	3
9	R20AID41P3	Industrial Oriented Mini Project/Summer Internship	0	0	0	2
		<b>Total</b>	<b>14</b>	<b>0</b>	<b>10</b>	<b>21</b>

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R20HMS4201	Organizational Behaviour	3	0	0	3
2	<b>Professional Elective – VI</b>					
	R20AID4202	Speech and Video Processing	3	0	0	3
	R20MED4202	Robotic Process Automation				
	R20CSD4202	Randomized Algorithms				
	R20CSM4202	Cognitive Computing				
	R20CSM4204	Semantic Web				
3	<b>Open Elective – III</b>		3	0	0	3
4	R20AID42P1	Project Work	0	0	14	7
		<b>Total</b>	<b>9</b>	<b>0</b>	<b>14</b>	<b>16</b>

# SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution under UGC, New Delhi)

Choice Based Credit System (CBCS)

**REGULATIONS – BR-22**

**B.Tech. – Artificial Intelligence & Data Science**

## IV YEAR I SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	R22AID4111	Introduction to Predictive Analytics	2	0	0	2
2	R22CSD4112	Web and Social Media Analytics	3	0	0	3
3	Professional Elective -III		3	0	0	3
	R22CSO4143	Internet of Things				
	R22INF3245	Data Mining				
	R22CSE3248	Scripting Languages				
	R22CSE3247	Mobile Application Development				
	R22CSE4111	Cryptography and Network Security				
4	Professional Elective -IV		3	0	0	3
	R22EEE4144	Quantum Computing				
	R22AID4144	Expert Systems				
	R22CSE4143	Cloud Computing				
	R22CSM4144	Game Theory				
	R22CSM3211	Knowledge Representation and Reasoning				
5	Open Elective - II		3	0	0	3
6	R22HAS4126	Professional Practice, Law & Ethics	0	0	4	2
7	Professional Elective -III Lab		0	0	2	1
	R22CSO2128	Internet of Things Lab				
	R22INF3258	Data Mining Lab				
	R22CSE3252	Scripting Languages Lab				
	R22CSE3258	Mobile Application Development Lab				
	R22CSE4126	Cryptography and Network Security Lab				
8	R22AID4168	Project Stage - I	0	0	6	3
		Total	14	0	12	20

\* To be carried out during the summer vacation between 6<sup>th</sup> and 7<sup>th</sup> semesters.

Note: Students should submit report of Industrial Oriented Mini Project/ Summer Internship for evaluation.

## IV YEAR II SEMESTER

## COURSE STRUCTURE

S. No.	Course Code	Course Title	L	T	P	Credits
1	Professional Elective - V		3	0	0	3
	R22CSM4241	Social Network Analysis				
	R22AID4241	Federated Machine Learning				
	R22CSE3148	Augmented Reality & Virtual Reality				
	R22CSI4241	Web Security				
	R22CSE4141	Ad-hoc & Sensor Networks				
2	Professional Elective – VI		3	0	0	3
	R22AID4242	Speech and Video Processing				
	R22CSM4111	Deep Learning				
	R22CSM4244	Randomized Algorithms				
	R22CSM4242	Cognitive Computing				
	R22CSM4145	Semantic Web				
3	Open Elective – III		3	0	0	3
4	R22AID4264	Project Stage – II including Seminar	0	0	22	9+2
		Total	9	0	22	20

#Skill Course - 1 credit with 2 Practical Hours

