

Chhattisgarh Swami Vivekanand Technical University (CSVTU), Bhilai (C.G.)

SCHEME OF TEACHING AND EXAMINATION

B Tech (Third Semester – Electronics & Telecommunication Engineering)

Sl. No.	Board of Studies	lies Course Course			riod Wee	per ek	Scheme of Examination			Total Marks	Credit
o.	(BOS)	(Subject)	Code	L	Т	P		eory/L	1	tal rks	dit
							ESE	CT	TA		
1.	Basic Science	Mathematics - III	B000311(014)	3	1	ı	100	20	30	150	4
2.	Electronics & Telecom.	Electronics Devices	B028312(028)	3	1	1	100	20	30	150	4
3.	Electronics & Telecom.	Digital System Design	B028313(028)	3	1	-	100	20	30	150	4
4.	Electronics & Telecom.	Network Theory	B028314(028)	2	1	-	100	20	30	150	3
5.	Electronics & Telecom.	Data structures using C++	B028315(028)	2	-	-	100	20	30	150	2
6.	Electronics & Telecom.	Electronics Devices Lab	B028321(028)	-	-	2	40	-	20	60	1
7.	Electronics & Telecom.	Digital System Design Lab	B028322(028)	-	-	2	40	-	20	60	1
8.	Electronics & Telecom.	Electronics Workshop Lab	B028323(028)	-	-	2	40	-	20	60	1
9.	Electronics & Telecom.	Software Lab	B028324(028)	-	-	2	40	-	20	60	1
10.	Humanities	Personality Development	B000306(046)	-	-	2	-	-	10	10	-
			Total Marks	13	4	10	660	100	240	1000	21

L-Lecture, T-Tutorial, P-Practical, ESE-End Semester Exam, CT- Class Test, TA-Teacher's Assessment

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Scheme of Teaching and Examination

B.E. IV Semester Electronics & Telecommunication Engineering

Sl.	Board of Studies	Courses (Subject)	Course Code		riod Weel	_		Schem xamin		Total	Credit
No.	(BOS)	Sourses (Subject)	004130 0040	L	Т	P	ESE	heory CT	/ Lab TA	Marks	Credit
1.	Electronics & Telecom.	Analog Communication	B028411(028)	3	1	-	100	20	30	150	4
2.	Electronics & Telecom.	Analog Circuits	B028412(028)	3	1	-	100	20	30	150	4
3.	Electronics & Telecom.	Electromagnetic Field Theory	B028413(028)	2	1	-	100	20	30	150	3
4.	Electronics & Telecom.	Signals & Systems	B028414(028)	2	1	-	100	20	30	150	3
5.	Electronics & Telecom.	Probability Theory and Stochastic Processes	B028415(028)	2	1	-	100	20	30	150	3
6.	Electronics & Telecom.	Analog Communication Lab	B028421(028)	1	-	2	40	-	20	60	1
7.	Electronics & Telecom.	Analog circuits Lab	B028422(028)	-	-	2	40	-	20	60	1
8.	Electronics & Telecom.	Programming using Python lab	B028423(028)	-	-	2	40	-	20	60	1
9.	Electronics & Telecom.	Virtual Lab	B028424(028)	-	-	2	40	-	20	60	1
10.	MC Non-credit	Culture and Constitution of India	B000406(046)	-	-	2	-	-	10	10	
		13	4	10	660	100	240	1000	21		

Note:

- 1. Duration of End Semester Exam of all theory papers will be of Three Hours.
- 2. Industrial Training of eight weeks is mandatory for B.E. student. It is to be completed in two parts.
 - > The first part will be in summer after IV semester after which students have to submit a training report which will be evaluated by the college teachers during B.E. V semester.



Chhattisgarh Swami VivekanandTechnical University (CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Fifth Semester - Electronics & Telecommunication Engineering)

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CI N	Board of Studies	Courses	Course		veek					Total Marks	Credits
Sl. No.		(Subject)	Code				ESE	CT	TA	al ks	lits
				L	Т	P					
1.	Electronics & Telecom.	Digital Communication	C028511(028)	3	1		100	20	30	150	4
	Electronics &	Design of Electronics									
2.	Telecom.	Circuit	C028512(028)	3	1	-	100	20	30	150	4
	Electronics &	Microcontroller &									
3.	Telecom.	embedded system	C028513(028)	3	1	-	100	20	30	150	4
	Electronics &										
4.	Telecom.	Control Systems	C028514(028)	2	1	_	100	20	30	150	3
7.	i elecom.		C020314(020)		•		100	20	50	150	3
5.	Profe	essional Elective-1 (Refer Tal	ble I)	2	0	-	100	20	30	150	2
	Electronics &	Digital Communication									
6.	Telecom.	lab	C028521(028)	-	-	2	40	-	20	60	1
7.	Electronics &	Design of Electronics									
'•	Telecom.	Circuit lab	C028522(028)	-	-	2	40	-	20	60	1
	Electronics &	Microcontroller &	G0.40.40.40.40.			_	40		20	60	4
8.	Telecom.	embedded system lab	C028523(028)	-	-	2	40	-	20	60	1
		D ' 4TL L									
	Electronics &	Project-I based on	C020F24 (020)			_	40		20	60	
9.	Telecom.	Summer Internship/	C028521(028)	-	-	2	40	-	20	60	1
		Industrial Training									
10.	Civil Engg.	Environmental Studies	C000506(020)	-	-	2	-	-	10	10	-
			Total	13	4	10	660	100	240	1000	21

L - Lecturer ,T - Tutorial, P - Practical , CT - ClassTest ESE - End Semester Exam TA - Teacher's Assessment

> Note: - The students has to attended the four weeks industrial training / summer internship in B. Tech program after fourth semester, which will be evaluated in fifth semester.

Table I (Professional Elective I)

S.N.	Board of Studies	Course Code	Subject
1.	Electronics & Telecom.	C028531(028)	Computer Network
2.	Computer Science Engg	C028534(022)	Computer organization & Architecture
3.	Electronics & Telecom.	C028532(028)	Nano Electronics
4.	Electronics & Telecom.	C028533(028)	Optoelectronic devices and circuits
5.	Computer Science Engg	C022535(022)	Advanced Data Structures and Algorithms

- Note: (1) 1/4th of total strength of students subject to minimum of 20 students is required to offer and elective in the college in a particular academic session.
 - (2) Choice of elective course once made for an examination cannot be changed in future examinations.

Chhattisgarh Swami VivekanandTechnical University



(CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Sixth Semester – Electronics and Telecommunication Engineering)

			3								
Sl.	Board of	Courses	Course		riod j Weel	-	Th	ieory/	Lab	Total Marks	Credits
No.	Studies	(Subject)	Code		Т	P	ESE	СТ	TA	tal rks	dits
1.	Electronics & Telecom.	VLSI Design	C028611(028)	3	1	1	100	20	30	150	4
2.	Electronics & Telecom.	Antenna & Wave Propagation	C028612(028)	3	1	-	100	20	30	150	4
3.	Electronics & Digital Signal Processing C028613(028)		C028613(028)	3	1	•	100	20	30	150	4
4.	Professional Elective-II (Refer Table I)			2	1	•	100	20	30	150	3
5.		Open Elective – I (Refer Table I	I)	2	0	-	100	20	30	150	2
6.	Electronics & Telecom.	VLSI Design lab	C028621(028)	-	•	2	40	-	20	60	1
7.	Electronics & Telecom.	Digital Signal Processing lab	C028622(028)	-	•	2	40		20	60	1
8.	Electronics & Telecom.	Machine Learning Lab	C028623(028)	-	-	2	40	-	20	60	1
9.	Electronics & Telecom.	C028624(028)		-	-	2	40	-	20	60	1
10.	Humanities Technical Communication and Soft Skill C000601(046)		C000601(046)	1	ı	2	-	1	10	10	-
			Total	13	4	10	660	100	240	1000	21

L-Lecturer

T – Tutorial, TA – Teacher's Assessment

P – Practical, ESE – End Semester Exam,

CT -ClassTest

Table I (Professional Elective II)

S.N.	Board of Studies	Subject	Course Code
1.	Electronics & Telecom.	Information Theory and coding	C028631(028)
2.	Electronics & Telecom.	Microelectronics Technology	C028632(028)
3.	Electronics & Telecom.	ARM System Architecture	C028633(028)
4.	Electronics & Telecom.	Image Processing & remote sensing	C028634(028)
5.	Electronics & Telecom.	Wireless Sensor Networks	C028635(028)

Note: (1) 1/4th of total strength of students subject to minimum of 20 students is required to offer and elective in the college in a particular academic session.

(2) Choice of elective course once made for an examination cannot be changed in future examinations.



Chhattisgarh Swami VivekanandTechnical University (CSVTU, NEWAI (C.G.))

B Tech (Sixth Semester)

List of Open Elective – I (Table III) (For 6th Semester)

S.N. Board of Studies Food Packaging Technology C000601(094)			Elective – I (Table III) (For 6 Ser	
Agriculture Engg Energy Management & Audit C000602(094) Agriculture Engg Disaster Management C000603(094) Agriculture Engg Disaster Management C000603(094) Agriculture Engg Disaster Management C000603(094) Agriculture Engg Disaster Management C000604(094) Agriculture Engg Non Conventional Energy Sources C000606(094) Agriculture Engg Non Conventional Energy Sources C000606(094) Mechanical Engineering Safety Engineering C000607(037) Mechanical Engineering Value Engineering C000608(037) Mechanical Engineering Managing Innovation & Entrepreneurship C000609(037) Mechanical Engineering Environment Pollution & Control C000610(037) Mechanical Engineering Environment Pollution & Control C000610(037) Computer Science Engg. Artificial Intelligence C000611(076) CSE & TT Branch) C000613(022) Computer Science Engg Cyber Security C000614(022) Civil Engg Metro system and engineering C000615(020) Civil Engg Metro system and engineering C000615(020) Civil Engg Metro system and engineering C000616(020) Computer Science Engg Parallel Processing & Computing C000618(022) Computer Science Engg Cryptography & Network Security C000619(022) Computer Science Engg Cloud Computing C000618(022) Computer Science Engg Computer Networks C000619(022) Computer Science Engg Computer Networks C000619(022) Computer Science Engg Computer Networks C000621(022) Computer Science Engg Data Structures and Algorithms C000622(022) Computer Science Engg Bata Structures and Algorithms C000623(022) Electrical and Electronics Engry Bata Structures and Algorithms C000625(025) Engg Bata Analytics C000626(025) Energy Auditing and Management C000626(025) Energy Auditing and Management C000626(025) Energy Bata Engre Management C000628(037) Electronics & Telecom. Al and Machine learning C000628(037) Electronics & Telecom. Internet & Web Technology C000631(028) Electronics & Telecom. Device Modelling C000633(028) Electronics & Telecom. Internet & Web Technology C000631(028) Electronics & Telecom. Device Modelling C000633(028) Electronics & Telecom. Device Modelling	S.N.		v	
Agriculture Engg Energy Conservation & Management C000603(094) 4 Agriculture Engg Disaster Management C000604(094) 5 Agriculture Engg Ecology and Sustainable Development C000605(094) 6 Agriculture Engg Non Conventional Energy Sources C000606(094) 7 Mechanical Engineering Safety Engineering C000607(037) 8 Mechanical Engineering Value Engineering C000608(037) 9 Mechanical Engineering Environment Pollution & Control C000610(037) 10 Mechanical Engineering Environment Pollution & Control C000610(037) 11 Management Enterprise Resource Planning ((Except CSE & TI Branch)) 12 Computer Science Engg Quantum Computing C000613(022) 13 Computer Science Engg Quantum Computing C000613(022) 14 Computer Science Engg Cyber Security C000614(022) 15 Civil Engg Metro system and engineering C000616(020) 16 Civil Engg Infrastructure Planning and Management C000616(020) 17 Civil Engg Infrastructure Planning and Management C000617(020) 18 Computer Science Engg Parallel Processing & Computing C000618(022) 19 Computer Science Engg Cryptography & Network Security C000619(022) 20 Computer Science Engg Computer Networks C000620(022) 21 Computer Science Engg Data Structures and Algorithms C000623(022) 22 Computer Science Engg Big Data Analytics C000623(022) 23 Computer Science Engg Big Data Analytics C000623(022) 24 Computer Science Engg Big Data Analytics C000623(022) 25 Electrical and Electronics Engg Electrical Estimation and Costing Energy Auditing and Management C000623(022) 26 Electrical and Electronics Engg Big Data Analytics C000623(022) 27 Management Finance Management C000628(025) Engg Energy Auditing and Management C000628(025) Energy Auditing and Management C000628(028) 30 Electronics & Telecom. Al and Machine learning C000628(028) 31 Electronics & Telecom. Device Modelling C000633(028) 32 Electronics & Telecom. Device Modell				
4 Agriculture Engg Disaster Management C000604(094) 5 Agriculture Engg Ecology and Sustainable Development C000605(094) 6 Agriculture Engg Non Conventional Energy Sources C000606(094) 7 Mechanical Engineering Safety Engineering C000607(037) 8 Mechanical Engineering Value Engineering C000608(037) 9 Mechanical Engineering Environment Pollution & Control C000610(037) 10 Mechanical Engineering Environment Pollution & Control C000610(037) 11 Management Enterprise Resource Planning ((Except C8 & IT Branch) 12 Computer Science Engg Artificial Intelligence C000612(022) 13 Computer Science Engg Quantum Computing C000613(022) 14 Computer Science Engg Cyber Security C000614(022) 15 Civil Engg Construction engineering and management C000615(020) 16 Civil Engg Metro system and engineering C000616(020) 17 Civil Engg Infrastructure Planning and Management C000617(020) 18 Computer Science Engg Parallel Processing & Computing C000618(022) 20 Computer Science Engg Cryptography & Network Security C000619(022) 21 Computer Science Engg Computer Networks C000621(022) 22 Computer Science Engg Data Structures and Algorithms C000623(022) 23 Computer Science Engg Big Data Analytics C000623(022) 24 Computer Science Engg Big Data Analytics C000623(022) 25 Electrical and Electronics Engg Big Data Analytics C000626(025) Engg Electrical Electronics Engg Signate Analytics C000626(025) Engg Electrical Engineering Safety Engineering C000628(025) Engg Electronics & Telecom. Al and Machine learning C000628(025) Engg Signate Analytics C000629(028) 30 Electronics & Telecom. Devate Mechanical Engineering C000630(028) 31 Electronics & Telecom. Devate Mechanical Engineering C000633(028) 32 Electronics & Telecom. Devate Medelling C000635(037) 34 Electronics & Telecom. Devate Medelling C000635(037) 35 Mechanical Engineering Principles of Management C000635(037)	2	Agriculture Engg		<u> </u>
5 Agriculture Engg Ecology and Sustainable Development C000605(094) 6 Agriculture Engg Non Conventional Energy Sources C000606(094) 7 Mechanical Engineering Safety Engineering C000607(037) 8 Mechanical Engineering Walue Engineering C000608(037) 9 Mechanical Engineering Environment Pollution & Control C000610(037) 10 Mechanical Engineering Environment Pollution & Control C000610(037) 11 Management Enterprise Resource Planning ((Except CSE & IT Branch) 12 Computer Science Engg Artificial Intelligence C000611(076) 13 Computer Science Engg Quantum Computing C000613(022) 14 Computer Science Engg Cyber Security C000614(022) 15 Civil Engg Construction engineering and management C000615(020) 16 Civil Engg Metro system and engineering C000616(020) 17 Civil Engg Infrastructure Planning and Management C000617(020) 18 Computer Science Engg Parallel Processing & Computing C000618(022) 20 Computer Science Engg Cryptography & Network Security C000619(022) 21 Computer Science Engg Computer Networks C000622(022) 22 Computer Science Engg Data Structures and Algorithms C000623(022) 23 Computer Science Engg Data Structures and Algorithms C000623(022) 24 Computer Science Engg Big Data Analytics C000626(025) 25 Electrical and Electronics Energy Auditing and Management C000626(025) 26 Electrical and Electronics Energy Auditing and Management C000627(076) 28 Mechanical Engineering Safety Engineering C000628(025) 29 Electronics & Telecom. Al and Machine learning C000629(028) 30 Electronics & Telecom. Device Modelling C000631(028) 31 Electronics & Telecom. Database Management C000635(037) 32 Electronics & Telecom. Database Management C000635(037) 34 Electronics & Telecom. Database Management C000635(037) 35 Mechanical Engineering Principles of Management C000635(037)	3	Agriculture Engg	Energy Conservation & Management	C000603(094)
6 Agriculture Engg Non Conventional Energy Sources C000606(094) 7 Mechanical Engineering Safety Engineering C000607(037) 8 Mechanical Engineering Value Engineering C000608(037) 9 Mechanical Engineering Environment Pollution & Control C000610(037) 10 Mechanical Engineering Environment Pollution & Control CO00610(037) 11 Management Enterprise Resource Planning ((Except CSE & IT Branch) 12 Computer Science Engg. Artificial Intelligence C000611(076) 13 Computer Science Engg Quantum Computing C000613(022) 14 Computer Science Engg Cyber Security C000614(022) 15 Civil Engg Construction engineering and management C000615(020) 16 Civil Engg Metro system and engineering C000616(020) 17 Civil Engg Infrastructure Planning and Management C000617(020) 18 Computer Science Engg Parallel Processing & Computing C000618(022) 19 Computer Science Engg Cryptography & Network Security C000619(022) 20 Computer Science Engg Cryptography & Network Security C000619(022) 21 Computer Science Engg Computer Networks C000621(022) 22 Computer Science Engg Internet of Things C000620(022) 23 Computer Science Engg Data Structures and Algorithms C000624(022) 24 Computer Science Engg Bag Data Analytics C000624(022) 25 Electrical and Electronics Engg Energy Auditing and Management C000626(025) 26 Electrical and Electronics Engg Energy Auditing and Management Safety Engineering C000626(025) 27 Management Finance Management C000627(076) 28 Mechanical Engineering Safety Engineering C000628(037) 29 Electronics & Telecom. Al and Machine learning C000629(028) 30 Electronics & Telecom. Detabase Management Systems (DBMS) C000631(028) 31 Electronics & Telecom. Database Management Systems (DBMS) C000631(028) 32 Electronics & Telecom. Database Management Systems (DBMS) C000631(028) 33 Electronics & Telecom. Database Management Systems (DBMS) C000631(028)	4	Agriculture Engg	Disaster Management	C000604(094)
7 Mechanical Engineering Safety Engineering C000607(037) 8 Mechanical Engineering Value Engineering C000608(037) 9 Mechanical Engineering Managing Innovation & Entrepreneurship C000609(037) 10 Mechanical Engineering Environment Pollution & Control C000610(037) 11 Management Enterprise Resource Planning ((Except CSE & IT Branch)) C000611(076) 12 Computer Science Engg Artificial Intelligence C000611(022) 13 Computer Science Engg Quantum Computing C000612(022) 14 Computer Science Engg Cyber Security C000614(022) 15 Civil Engg Construction engineering and management C000615(020) 16 Civil Engg Infrastructure Planning and Management C000616(020) 17 Civil Engg Infrastructure Planning and Management C000617(020) 18 Computer Science Engg Cryptography & Network Security C000618(022) 20 Computer Science Engg Computer Networks C000619(022) 21 Computer Science Engg	5	Agriculture Engg	Ecology and Sustainable Development	C000605(094)
8 Mechanical Engineering Value Engineering C000608(037) 9 Mechanical Engineering Managing Innovation & Entrepreneurship C000609(037) 10 Mechanical Engineering Environment Pollution & Control C000610(037) 11 Management Enterprise Resource Planning (Except CSE & IT Branch) C000611(076) 12 Computer Science Engg Artificial Intelligence C000612(022) 13 Computer Science Engg Quantum Computing C000613(022) 14 Computer Science Engg Cyber Security C000614(022) 15 Civil Engg Construction engineering and management C000615(020) 16 Civil Engg Metro system and engineering C000616(020) 17 Civil Engg Infrastructure Planning and Management C000617(020) 18 Computer Science Engg Parallel Processing & Computing C000618(022) 20 Computer Science Engg Cryptography & Network Security C0006210(022) 21 Computer Science Engg Computer Networks C000620(022) 21 Computer Science Engg	6	Agriculture Engg	Non Conventional Energy Sources	C000606(094)
9 Mechanical Engineering Managing Innovation & Entrepreneurship C000609(037) 10 Mechanical Engineering Environment Pollution & Control C000610(037) 11 Management Enterprise Resource Planning ((Except CSE & IT Branch) C000611(076) 12 Computer Science Engg Quantum Computing C000613(022) 13 Computer Science Engg Quantum Computing C000613(022) 14 Computer Science Engg Cyber Security C000614(022) 15 Civil Engg Metro system and engineering C000615(020) 16 Civil Engg Metro system and engineering C000616(020) 17 Civil Engg Metro system and engineering C000616(020) 18 Computer Science Engg Parallel Processing & Computing C000617(020) 18 Computer Science Engg Cryptography & Network Security C000618(022) 20 Computer Science Engg Cloud Computing C000620(022) 21 Computer Science Engg Cloud Computing C000620(022) 22 Computer Science Engg Internet of Things <td>7</td> <td>Mechanical Engineering</td> <td>Safety Engineering</td> <td>C000607(037)</td>	7	Mechanical Engineering	Safety Engineering	C000607(037)
Mechanical Engineering	8	Mechanical Engineering	Value Engineering	C000608(037)
11 Management Enterprise Resource Planning ((Except CSE & IT Branch)	9	Mechanical Engineering	Managing Innovation & Entrepreneurship	C000609(037)
CSE & IT Branch Computer Science Engg	10	Mechanical Engineering	Environment Pollution & Control	C000610(037)
Computer Science Engg Cyber Security C000613(022) Civil Engg Construction engineering and management C000615(020) Civil Engg Metro system and engineering C000616(020) Civil Engg Infrastructure Planning and Management C000617(020) Civil Engg Infrastructure Planning and Management C000617(020) Computer Science Engg Parallel Processing & Computing C000618(022) Computer Science Engg Cryptography & Network Security C000619(022) Computer Science Engg Computer Networks C000621(022) Computer Science Engg Computer Networks C000621(022) Computer Science Engg Internet of Things C000622(022) Computer Science Engg Data Structures and Algorithms C000623(022) Computer Science Engg Big Data Analytics C000624(022) Electrical and Electronics Engg Electrical Estimation and Costing Electrical and Electronics Engg Electrical Estimation and Costing Energy Auditing and Management C000626(025) Management Finance Management C000627(076) Energy Auditing and Management C000627(076) Energy Auditing Electronics Science Science Relecom. Al and Machine learning C000629(028) Electronics & Telecom. Internet & Web Technology C000631(028) Electronics & Telecom. Database Management Systems (DBMS) C00063(028) Electronics & Telecom. Database Management Systems (DBMS) C00063(028) Electronics & Telecom. Database Management Systems (DBMS) C00063(028) Electronics & Telecom. Introduction to MEMS C00063(027)	11	Management	CSE & IT Branch)	C000611(076)
Computer Science Engg	12	Computer Science Engg.	Artificial Intelligence	C000612(022)
Civil Engg Construction engineering and management C000615(020)	13		Quantum Computing	C000613(022)
Civil Engg Metro system and engineering C000616(020)	14	Computer Science Engg	Cyber Security	C000614(022)
17 Civil Engg Infrastructure Planning and Management C000617(020) 18 Computer Science Engg Parallel Processing & Computing C000618(022) 19 Computer Science Engg Cryptography & Network Security C000619(022) 20 Computer Science Engg Cloud Computing C000620(022) 21 Computer Science Engg Computer Networks C000621(022) 22 Computer Science Engg Internet of Things C000622(022) 23 Computer Science Engg Data Structures and Algorithms C000623(022) 24 Computer Science Engg Big Data Analytics C000624(022) 25 Electrical and Electronics Electrical Estimation and Costing C000625(025) 26 Electrical and Electronics Engg Energy Auditing and Management C000626(025) 27 Management Finance Management C000627(076) 28 Mechanical Engineering Safety Engineering C000628(037) 29 Electronics & Telecom AI and Machine learning C000629(028) 30 Electronics & Telecom Internet & Web Technology C000631(028) 31 Electronics & Telecom Database Management Systems (DBMS) C000631(028) 32 Electronics & Telecom Database Management Systems (DBMS) C000631(028) 33 Electronics & Telecom Database Management Systems (DBMS) C000631(028) 34 Electronics & Telecom Introduction to MEMS C000634(028) 35 Mechanical Engineering Principles of Management C000635(037)	15	Civil Engg	Construction engineering and management	C000615(020)
18 Computer Science Engg Parallel Processing & Computing C000618(022) 19 Computer Science Engg Cryptography & Network Security C000619(022) 20 Computer Science Engg Cloud Computing C000620(022) 21 Computer Science Engg Computer Networks C000621(022) 22 Computer Science Engg Internet of Things C000622(022) 23 Computer Science Engg Data Structures and Algorithms C000623(022) 24 Computer Science Engg Big Data Analytics C000623(022) 25 Electrical and Electronics Engg Electrical Estimation and Costing C000625(025) 26 Electrical and Electronics Energy Auditing and Management C000625(025) 27 Management Finance Management C000627(076) 28 Mechanical Engineering Safety Engineering C000628(037) 29 Electronics & Telecom. AI and Machine learning C000629(028) 30 Electronics & Telecom. Operating Systems C000630(028) 31 Electronics & Telecom. Database Management Systems (DBMS) C000631(028) 32 Electronics & Telecom. Database Management Systems (DBMS) C000633(028) 33 Electronics & Telecom. Database Management Systems (DBMS) C000633(028) 34 Electronics & Telecom. Introduction to MEMS C000633(028) 35 Mechanical Engineering Principles of Management C000635(037)	16	Civil Engg	Metro system and engineering	C000616(020)
Computer Science Engg Cryptography & Network Security C000619(022) Computer Science Engg Cloud Computing C000620(022) Computer Science Engg Computer Networks C000621(022) Computer Science Engg Internet of Things C000622(022) Computer Science Engg Data Structures and Algorithms C000623(022) Computer Science Engg Big Data Analytics C000624(022) Electrical and Electronics Engg Electrical Estimation and Costing Engg Electrical and Electronics Engg Energy Auditing and Management C000626(025) Engg Electronics & Tenegy Auditing and Management C000627(076) Electronics & Telecom. Al and Machine learning C000628(037) Electronics & Telecom. Operating Systems C000630(028) Electronics & Telecom. Internet & Web Technology C000631(028) Electronics & Telecom. Database Management Systems (DBMS) C000633(028) Electronics & Telecom. Device Modelling C000634(028) Electronics & Telecom. Introduction to MEMS C000635(037) Mechanical Engineering Principles of Management C000635(037)	17	Civil Engg	Infrastructure Planning and Management	C000617(020)
20Computer Science EnggCloud ComputingC000620(022)21Computer Science EnggComputer NetworksC000621(022)22Computer Science EnggInternet of ThingsC000622(022)23Computer Science EnggData Structures and AlgorithmsC000623(022)24Computer Science EnggBig Data AnalyticsC000624(022)25Electrical and Electronics EnggElectrical Estimation and CostingC000625(025)26Electrical and Electronics EnggEnergy Auditing and ManagementC000626(025)27ManagementFinance ManagementC000627(076)28Mechanical EngineeringSafety EngineeringC000628(037)29Electronics & Telecom.AI and Machine learningC000629(028)30Electronics & Telecom.Operating SystemsC000630(028)31Electronics & Telecom.Internet & Web TechnologyC000631(028)32Electronics & Telecom.Database Management Systems (DBMS)C000632(028)33Electronics & Telecom.Device ModellingC000633(028)34Electronics & Telecom.Introduction to MEMSC000634(028)35Mechanical EngineeringPrinciples of ManagementC000635(037)	18	Computer Science Engg	Parallel Processing & Computing	C000618(022)
Computer Science Engg Computer Networks C000621(022) Computer Science Engg Internet of Things C000622(022) Computer Science Engg Data Structures and Algorithms C000623(022) Computer Science Engg Big Data Analytics C000624(022) Electrical and Electronics Electrical Estimation and Costing C000625(025) Engg Electrical and Electronics Energy Auditing and Management C000626(025) Engg Energy Auditing and Management C000627(076) Engg Safety Engineering C000628(037) Electronics & Telecom. AI and Machine learning C000629(028) Electronics & Telecom. Operating Systems C000631(028) Electronics & Telecom. Database Management Systems (DBMS) C000632(028) Electronics & Telecom. Database Management Systems (DBMS) C000634(028) Electronics & Telecom. Database Management Systems (DBMS) C000634(028) Electronics & Telecom. Database Management Systems (DBMS) C000634(028) Electronics & Telecom. Device Modelling C000634(028) Electronics & Telecom. Introduction to MEMS C000634(028) Electronics & Telecom. Introduction to MEMS C000635(037)	19	Computer Science Engg	Cryptography & Network Security	C000619(022)
Computer Science Engg Internet of Things C000622(022) Computer Science Engg Data Structures and Algorithms C000623(022) Computer Science Engg Big Data Analytics C000624(022) Electrical and Electronics Engg Electrical Estimation and Costing Engg Electrical and Electronics Engg Energy Auditing and Management C000625(025) Engg Energy Auditing and Management C000627(076) Energy Auditing Engineering Engineering Electronics & Telecom. Al and Machine learning C000629(028) Electronics & Telecom. Operating Systems C000631(028) Electronics & Telecom. Database Management Systems (DBMS) C000632(028) Electronics & Telecom. Device Modelling C000634(028) Electronics & Telecom. Introduction to MEMS C000634(028) Electronics & Telecom. Introduction to MEMS C000635(037) Electronics & Telecom. Introduction to MEMS C000635(037)	20	Computer Science Engg	Cloud Computing	C000620(022)
Computer Science Engg Big Data Analytics C000623(022) Computer Science Engg Big Data Analytics C000624(022) Electrical and Electronics Engg Electrical Estimation and Costing Engg C000625(025) Electrical and Electronics Engg Energy Auditing and Management C000626(025) Management Finance Management C000627(076) Mechanical Engineering Safety Engineering C000628(037) Electronics & Telecom. AI and Machine learning C000629(028) Electronics & Telecom. Operating Systems C000631(028) Electronics & Telecom. Database Management Systems (DBMS) C000632(028) Electronics & Telecom. Device Modelling C000634(028) Electronics & Telecom. Introduction to MEMS C000635(037) Mechanical Engineering Principles of Management C000635(037)	21	Computer Science Engg	Computer Networks	C000621(022)
24 Computer Science Engg Big Data Analytics C000624(022) 25 Electrical and Electronics Engg Electrical Estimation and Costing 26 Electrical and Electronics Engg Energy Auditing and Management C000626(025) 27 Management Finance Management C000627(076) 28 Mechanical Engineering Safety Engineering C000628(037) 29 Electronics & Telecom. Al and Machine learning C000629(028) 30 Electronics & Telecom. Operating Systems C000630(028) 31 Electronics & Telecom. Internet & Web Technology C000631(028) 32 Electronics & Telecom. Database Management Systems (DBMS) C000632(028) 33 Electronics & Telecom. Device Modelling C000633(028) 34 Electronics & Telecom. Introduction to MEMS C000634(028) 35 Mechanical Engineering Principles of Management C000635(037)	22	Computer Science Engg	Internet of Things	C000622(022)
Electrical and Electronics Engg Electrical Estimation and Costing Engg Electrical and Electronics Engg Energy Auditing and Management Energy Auditing and Management C000626(025) Energy Auditing and Management C000627(076) Energy Auditing and Management Engg Mechanical Engineering Safety Engineering C000628(037) Electronics & Telecom. AI and Machine learning C000629(028) Electronics & Telecom. Operating Systems C000630(028) Electronics & Telecom. Internet & Web Technology Electronics & Telecom. Database Management Systems (DBMS) Electronics & Telecom. Device Modelling C000633(028) Electronics & Telecom. Introduction to MEMS C000634(028) Mechanical Engineering Principles of Management C000635(037)	23	Computer Science Engg	Data Structures and Algorithms	C000623(022)
Electrical and Electronics Engg Energy Auditing and Management C000625(025) Energy Auditing and Management Engg Management Finance Management C000627(076) Electronics & Telecom. Electronics & Telecom. Electronics & Telecom. Database Management Systems Electronics & Telecom. Database Management Systems Electronics & Telecom. Database Management Systems Electronics & Telecom. Device Modelling C000632(028) Electronics & Telecom. Device Modelling C000634(028) C000634(028) C000635(037)	24	Computer Science Engg		C000624(022)
Electrical and Electronics Engg Energy Auditing and Management C000626(025) Energy Auditing and Management C000626(025) Management Finance Management C000627(076) Safety Engineering C000628(037) Electronics & Telecom. AI and Machine learning C000629(028) Electronics & Telecom. Operating Systems C000630(028) Electronics & Telecom. Internet & Web Technology Electronics & Telecom. Database Management Systems (DBMS) Electronics & Telecom. Device Modelling C000633(028) Electronics & Telecom. Introduction to MEMS C000634(028) Mechanical Engineering Principles of Management C000635(037)	25			C000625(025)
Mechanical Engineering Safety Engineering C000628(037) Electronics & Telecom. AI and Machine learning C000629(028) Electronics & Telecom. Operating Systems C000630(028) Electronics & Telecom. Internet & Web Technology C000631(028) Electronics & Telecom. Database Management Systems (DBMS) C000632(028) Electronics & Telecom. Device Modelling C000633(028) Electronics & Telecom. Introduction to MEMS C000634(028) Mechanical Engineering Principles of Management C000635(037)	26	Electrical and Electronics	Energy Auditing and Management	C000626(025)
29 Electronics & Telecom. AI and Machine learning C000629(028) 30 Electronics & Telecom. Operating Systems C000630(028) 31 Electronics & Telecom. Internet & Web Technology C000631(028) 32 Electronics & Telecom. Database Management Systems (DBMS) C000632(028) 33 Electronics & Telecom. Device Modelling C000633(028) 34 Electronics & Telecom. Introduction to MEMS C000634(028) 35 Mechanical Engineering Principles of Management C000635(037)	27	Management	Finance Management	C000627(076)
30 Electronics & Telecom. Operating Systems C000630(028) 31 Electronics & Telecom. Internet & Web Technology C000631(028) 32 Electronics & Telecom. Database Management Systems (DBMS) C000632(028) 33 Electronics & Telecom. Device Modelling C000633(028) 34 Electronics & Telecom. Introduction to MEMS C000634(028) 35 Mechanical Engineering Principles of Management C000635(037)	28		Safety Engineering	C000628(037)
31 Electronics & Telecom. Internet & Web Technology C000631(028) 32 Electronics & Telecom. Database Management Systems (DBMS) C000632(028) 33 Electronics & Telecom. Device Modelling C000633(028) 34 Electronics & Telecom. Introduction to MEMS C000634(028) 35 Mechanical Engineering Principles of Management C000635(037)	29	Electronics & Telecom.	AI and Machine learning	C000629(028)
32 Electronics & Telecom. Database Management Systems (DBMS) C000632(028) 33 Electronics & Telecom. Device Modelling C000633(028) 34 Electronics & Telecom. Introduction to MEMS C000634(028) 35 Mechanical Engineering Principles of Management C000635(037)	30	Electronics & Telecom.	Operating Systems	C000630(028)
33 Electronics & Telecom. Device Modelling C000633(028) 34 Electronics & Telecom. Introduction to MEMS C000634(028) 35 Mechanical Engineering Principles of Management C000635(037)	31	Electronics & Telecom.	Internet & Web Technology	C000631(028)
34 Electronics & Telecom. Introduction to MEMS C000634(028) 35 Mechanical Engineering Principles of Management C000635(037)	32	Electronics & Telecom.	Database Management Systems (DBMS)	C000632(028)
35 Mechanical Engineering Principles of Management C000635(037)	33	Electronics & Telecom.	Device Modelling	C000633(028)
	34	Electronics & Telecom.	Introduction to MEMS	C000634(028)
M 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	35	Mechanical Engineering	Principles of Management	C000635(037)
	36	Mechanical Engineering	Advanced I.C. Engines	C000636(037)

37	Mechanical Engineering	Mechanical Vibrations & Condition Monitoring	C000637(037)
38	Mechatronics	Entrepreneurship Developments	C000638(067)
39	Plastic Engineering	Heat Transfer Operation	C000639(095)
40	Plastic Engineering	Process Economics and Management	C000640(095)
41	Plastic Engineering	Adhesive and Surface Coating	C000641(095)
42	Information Technology	E-Commerce	C000642(033)
43	Information Technology	Industrial Economics and Management	C000643(033)
44	Information Technology	Project Planning & Management	C000644(033)
45	Information Technology	Bio-Informatics	C000645(033)
46	Information Technology	Management Information System	C000646(033)
47	Chemical Engineering	Plant Utility & Safety Engineering	C000647(019)
48	Chemical Engineering	Environment Pollution & Control	C000648(019)

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Chhattisgarh Swami Vivekanand Technical University (CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Seventh Semester – Electronics & Telecommunication Engineering)

SI.	Board of	Courses			Period per Week			cheme o aminati		To Ma	Cr
Sl. No.	Studie	(Subject)	Course Code	.	TD.		Tł	eory/L	ab	Total Marks	Credit
	s (BOS)		Code	L	Т	P	ESE	CT	TA	• • •	
		RF & Microwave Engineering	D028711(028)	3	1	-	100	20	30	150	4
	Electronics & Telecom	Instrumentation & IoT	D028712(028)	2	1	-	100	20	30	150	3
	Electronics & Telecom	Wireless Communication	D028713(028)	2	1	-	100	20	30	150	3
4.	4. Professional Elective –III (Refer to Table I)			1	1	-	100	20	30	150	2
5.	O ₂	pen Elective- II (Refer to Tabl	le II)	2	0	-	100	20	30	150	2
	Electronics & Telecom	Microwave Lab	D028721(028)	-	-	2	40	-	20	60	1
	Electronics & Telecom	Instrumentation & IoT lab	D028722(028)	-	-	2	40	-	20	60	1
	Electronics & Telecom	Project (Phase I)	D028723(028)	-	-	6	60	-	40	100	3
	Electronics & Telecom	Industrial Training	D028724(028)			2			20	20	1
10.	Humanities	Universal Human Values 2	D000701(046)	1	-	2	-	-	10	10	-
	Total Marks						640	100	260	1000	20

L – Lecturer, T – Tutorial, P – Practical, CT – Class Test ESE – End Semester Exam TA – Teacher's Assessment

Note: - The students have to attend the four weeks industrial training / summer internship in B. Tech

program after sixth semester, which will be evaluated in seventh semester.

Table I (Professional Elective III)

S.N.	Board of Studies	Course Code	Subject
1.	Electronics & Telecom	D028731(028)	Digital Circuit Design with Verilog HDL
2.	Electronics & Telecom	D028732(028)	Adaptive Signal Processing
3.	Electronics & Telecom	D028733(028)	Industrial Automation

4.	Electronics & Telecom	D028734(028)	Speech and Audio Processing
5.	Electronics & Telecom	D028735(028)	Power Electronics

Note: (1) 1/4th of total strength of students subject to minimum of 20 students is required to offer and elective in the college in a particular academic session.

(2) Choice of elective course once made for an examination cannot be changed in future examinations.



Chhattisgarh Swami VivekanandTechnical University (CSVTU, NEWAI (C.G.))

B Tech (Seventh Semester)

List of Open Elective – II (Table III) (For 7th Semester)

S.N.	Board of Studies	Course Code	Subject
1	Agriculture Engg	D000701(094)	Biomass Management For Fodder And Energy.
2	Agriculture Engg	D000702(094)	Gully And Ravine Control Structures
3	Civil Engg	D000703(020)	Design Of Structures.
4	Agriculture Engg	D000704(094)	Reservoir And Farm Pond Design.
5	Mechanical	D000705(037)	3 D Printing & design
6	Management	D000706(076)	TechnologyManagement
7	Information Technology	D000707(033)	Decision Support & ExecutiveInformationsystem
8	CSE	D000708(022)	Software Technology
9	Management	D000709(076)	Knowledge Entrepreneurship
10	Management	D000710(076)	Intellectual Property Rights
11	Biotechnology	D000711(018)	Phytochemistry
12	Biotechnology	D000712(018)	Clinical Research and Trial Management
13	Biotechnology	D000713(018)	Cellular and Molecular Diagnostics
14	Chemical Engineering	D000714(019)	Environmental Legislation & Impact Assessment
15	Civil Engineering	D000715(020)	Environmental management and Legislations
16	Civil Engineering	D000716(020)	Hydraulics of water and waste water
17	Civil Engineering	D000717(020)	Disaster Management
18	CSE	D000718(022)	Neural Network and Deep Learning
19	CSE	D000719(022)	Big data and Hadoop
20	CSE	D000720(022)	BioInformatics
21	CSE	D000721(022)	SoftwareTesting
22	EEE	D000722(025)	Switched Mode Power Converter
23	EEE	D000723(025)	Internet of Things
24	EEE	D000724(025)	Non Conventional Energy Sources
25	EEE	D000725(025)	Sensors and Transducers
26	Information Technology	D000726(033)	E-Commerce & strategic IT
27	Computer Science & Engg.	D000727(022)	Software Technology
28	Electrical Engineering	D000728(024)	Solar PV Energy System
	Mechanical Engineering		Energy Conservation & Management
29		D000729(037)	
30	Information Technology	D000730(033)	Information Theory & Coding
31	Management	D000731(076)	Project Planning, Management & Evaluation
32	Electronics & Telecom	D000732(028)	Java Programming
33	Electronics & Telecom	D000733(028)	Cloud computing

34	Electronics & Telecom	D000734(028)	Big data Mining
35	Electronics & Telecom	D000735(028)	Cryptography & Network security
36	Electronics & Telecom	D000736(028)	Neural Network & Fuzzy Logic
37	Electronics & Telecom	D000737(028)	RF IC Design
38	Information Technology	D000738(033)	Graph Theory And Applications
39	Information Technology	D000739(033)	Biometrics
40	Information Technology	D000740(033)	Quantum Computing
41	Information Technology	D000741(033)	Entrepreneurship essentials
42	Information Technology	D000742(033)	Managerial Skills
43	Mechanical Engineering	D000743(037)	Mechatronics
44	Mechanical Engineering	D000744(037)	Engineering Economics
45	Mechanical Engineering	D000745(037)	Computer Graphics
46	Mechanical Engineering	D000746(037)	Control Engineering
47	Management	D000747(076)	Finance Management
48	Mechanical Engg.	D000748(037)	Energy Conservation & Management
49	Plastics Engineering	D000749(095)	Renewable Energy
50	Plastics Engineering	D000750(095)	Plastics Waste Management and Recycling



Chhattisgarh Swami Vivekanand Technical University (CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Eighth Semester – Electronics and Telecommunication Engineering)

SI.	Studies (Subject)	Course	Period per Week		Scheme of Examination			T _C	C		
No.		(Subject)	Code				Theory/Lab			Total Mark	Credit
	(BOS)				T	P	ESE	CT	TA		it
1	Electronics & Telecom.	Advanced Communication	D028811(028)	3	1	ı	100	20	30	150	4
2.	2. Professional Elective–IV (Refer to Table-I)			2	1	-	100	20	30	150	3
3.	Open Elective–III (Refer to Table-III)			2	0	-	100	20	30	150	2
6.	Electronics & Telecom.	Advanced Communication (Lab)	D028821(028)	-	-	2	40	-	20	60	1
17	Electronics & Telecom.	Power Electronics (Lab)	D028822(028)	-	-	2	40	-	20	60	1
8.	Electronics & Telecom.	Project (Phase-II)	D028823(028)	-	1	14	350	1	80	430	7
	Total Marks				2	18	730	60	210	1000	18

L - Lecturer, T - Tutorial, P - Practical, CT - Class Test, ESE - End Semester Exam, TA - Teacher's Assessment

Table-I (Professional Elective-IV)

S.N.	Board of Studies	Course Code	Subject
1	Electronics & Telecom.	D028831(028)	VLSI and Microelectronics
2	Electronics & Telecom.	D028832(028)	Radar and Navigational Aids
3	Electronics & Telecom.	D028833(028)	Consumer Electronics
4	Electronics & Telecom.	D028834(028)	Smart Antennas
5	Electronics & Telecom.	D028835(028)	Bio-medical Signal Processing

Note: (1) 1/4 th of total strength of students subject to minimum of 20 students is required to offer and elective in the college in a particular academic session.

(2) Choice of elective course once made for an examination cannot be changed in future Examinations.



Chhattisgarh Swami Vivekanand Technical University (CSVTU, NEWAI (C.G.))

B.Tech (Eight Semester)

List of Open Elective – III (Table – III) (For 8th Semester)

S.N.	Board of Studies	Course Code	Subject
1	Agriculture Engineering	D000801(094)	Environmental Science
2	Management	D000802(076)	Industrial Engineering & Management
3	Computer Science & Engineering	D000803(022)	Soft Computing Techniques
4	Mechanical	D000804(037)	Composite Materials
5	Electrical & Electronics Engineering	D000805(025)	Industrial Automation
6	Mechanical Engineering	D000806(037)	Production & Product Management
7	Electronics & Telecommunication	D000807(028)	Virtual Instrumentation
8	Computer Science & Engineering	D000808(022)	Data Sciences
9	Mechanical Engineering	D000809(037)	Computational Fluid Dynamics
10	Biotechnology	D000810(018)	Medical Biotechnology
11	Biotechnology	D000811(018)	Bioterrorism and National Security
12	Biotechnology	D000812(018)	Precision Medicine and Wellness
13	Chemical Engineering	D000813(019)	Non Conventional Energy Sources (NCES) (Except Electrical Engg. and Agriculture Engg.)
14	Civil Engineering	D000814(020)	Air pollution and control measures
15	Civil Engineering	D000815(020)	Solid and hazardous waste management
16	Computer Science Engineering	D000816(022)	Natural language processing
17	Computer Science Engineering	D000817(022)	Cluster and Grid Computing
18	Computer Science Engineering	D000818(022)	Blockchain
19	Computer Science Engineering	D000819(022)	Data Compression
20	Electrical & Electronics Engineering	D000820(025)	Power Plant Engineering
21	Electrical & Electronics Engineering	D000821(025)	Utilization of Electrical Energy and Electric Traction
22	Electrical & Electronics Engineering	D000822(025)	Introduction to Micro-electromechanical systems (MEMS)
23	Management	D000823(076)	Management Concept Techniques
24	Electronics & Telecom.	D000824(028)	Operational Research

	 	I	
25	Electronics & Telecom.	D000825(028)	Android Apps Development
26	Electronics & Telecom.	D000826(028)	Digital Switching & Multiplexing
27	Electronics & Telecom.	D000827(028)	Optimization Techniques
28	Information Technology	D000828(033)	Business Intelligence
29	Information Technology	D000829(033)	Game Theory
30	Information Technology	D000830(033)	Optimization Design And Techniques
31	Information Technology	D000831(033)	Software Metrics and Quality Assurance
33	Mechanical Engineering	D000833(037)	Energy Management and Audit
34	Information Technology	D000834(033)	Cyber Security and Information Security
35	Mechatronics Engineering	D000835(067)	Nanotechnology
36	Computer Science & Engineering	D000836(022)	Supply Chain Management
37	Electrical Engineering	D000837(024)	Electrical Estimation and Costing
38	Computer Science & Engineering	D000838(022)	Data Mining &Warehousing
39	Plastics Engineering	D000839(095)	Fiber Technology
40	Electrical Engineering	D000840(024)	Wind Energy