



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Electronics & Telecommunication/Instrumentation/Computer Science & Engineering/Information Technology (Group-II)

### Semester-I

Scheme of Studies :

Session-2020

S.No	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	Humanities	2000171(046)	Communication Skills-I	2	-	1	3
2	Applied Science	2000172(014)	Applied Maths-I	2	-	1	3
3	Applied Science	2000174(015)	Applied Physics	2	-	1	3
4	Applied Science	2000178(011)	Applied Chemistry	2	-	1	3
5	Computer Science and Engineering	2000176(022)	Computer Fundamentals & Applications	2	-	0	2
6	Applied Science	2000190(015)	Applied Physics (Lab)	-	2	-	1
7	Applied Science	2000191(011)	Applied Chemistry (Lab)	-	2	-	1
8	Computer Science and Engineering	2000193(022)	Computer Fundamentals & Applications (Lab)	-	4	-	2
9	Electronics & Telecommunication Engineering	2000194(028)	Electronics Work Shop Practice	-	2	-	1
10	Humanities	2000193(046)	Seminar & Technical Presentation (Listening, Reading & Speaking) Skills	-	2	-	1
11	-	-	Library	-	2	-	-
12	-	-	Co-curricular & Academic Activity Societies	-	2	-	-
<b>Total</b>				<b>10</b>	<b>16</b>	<b>04</b>	<b>20</b>

L - Lecture, T - Tutorial, P – Practical

#### Legend:

Lecture (L) → CI Classroom Instruction (Includes different instructional strategies i.e Lecture and others.)

Practical (P) → LI Laboratory Instruction (Includes practical performances in Laboratory workshop, field or other locations using different instructional strategies).

Tutorial (T) → Includes sessional work (SW) (assignment, seminar, mini project etc), self Learning (SL)

**Note:** Leftover periods/week shall be utilized for Self Learning (SL) purpose.



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Electronics & Telecommunication/Instrumentation/Computer Science & Engineering/Information Technology (Group-II)

### Semester-I

Session-2020

#### Scheme of Examination:

S.No	Board of Study	Course Code	Course Titles	Scheme of Examination					
				Theory			Practical		Total Marks
				ESE	CT	TA	ESE	TA	
1	Humanities	2000171(046)	Communication Skills-I	70	20	30	-	-	120
2	Applied Science	2000172(014)	Applied Maths-I	70	20	30	-	-	120
3	Applied Science	2000174(015)	Applied Physics	70	20	30	-	-	120
4	Applied Science	2000178(011)	Applied Chemistry	70	20	30	-	-	120
5	Computer Science and Engineering	2000176(022)	Computer Fundamentals & Applications	70	20	30	-	-	120
6	Applied Science	2000190(015)	Applied Physics (Lab)	-	-	-	30	50	80
7	Applied Science	2000191(011)	Applied Chemistry (Lab)	-	-	-	30	50	80
8	Computer Science and Engineering	2000193(022)	Computer Fundamentals & Applications (Lab)	-	-	-	30	50	80
9	Electronics & Telecommunication Engineering	2000194(028)	Electronics Work Shop Practice	-	-	-	30	70	100
10	Humanities	2000193(046)	Seminar & Technical Presentation (Listening, Reading & Speaking) Skills	-	-	-	-	60	60
<b>Total</b>				<b>350</b>	<b>100</b>	<b>150</b>	<b>120</b>	<b>280</b>	<b>1000</b>

ESE: End of Semester Exam, CT: Class Test, TA: Teachers Assessment

**Legend:** PRA: Process Assessment, PDA: Product Assessment

- Note :**
- TA in Theory includes Sessional work (SW) and Attendance (ATT) with weightage of 70% and 30% of total respectively.
  - TA in Practical includes performance of PRA, PDA and Viva-Voce with weightage of 50%, 40% and 10% of total respectively.
  - 85% attendance is essential in theory & Practical classes to appear in examination.



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Electronics & Telecommunication/Instrumentation/Computer Science & Engineering/Information Technology (Group-II)

### Semester-II

Scheme of Studies:

Session-2020

S.No	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	Humanities	2000271(046)	Communication Skills-II	2	-	1	3
2	Applied Science	2000272(014)	Applied Maths-II	2	-	1	3
3	Civil Engineering	2000273(020)	Environmental Engineering & Sustainable Development	2	-	1	3
4	Computer Science and Engineering	2022274(022)	Programming in 'C'	2	-	1	3
5	Electronics & Telecommunication Engineering	2028275(028)	Basic Electronics Engineering	2	-	1	3
6	Computer Science and Engineering	2022290(022)	Programming in 'C' (Lab)	-	4	-	2
7	Electronics & Telecommunication Engineering	2028291(028)	Basic Electronics Engineering (Lab)	-	4	-	2
8	Humanities	2000292(046)	Seminar & Technical Presentation (Personality Development & Leadership) Skills	-	2	-	1
9	-	-	Library	-	2	-	-
10	-	-	Co-curricular & Academic Activity Societies	-	2	-	-
<b>Total</b>				<b>10</b>	<b>14</b>	<b>05</b>	<b>20</b>

L - Lecture, T - Tutorial, P – Practical

**Legend:**

Lecture (L) → CI Classroom Instruction (Includes different instructional strategies i.e Lecture and others.)

Practical (P) → LI Laboratory Instruction (Includes practical performances in Laboratory workshop, field or other locations using different instructional strategies).

Tutorial (T) → Includes sessional work (SW) (assignment, seminar, mini project etc), self Learning (SL)

**Note:** Leftover periods/week shall be utilized for Self Learning (SL) purpose.



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Electronics & Telecommunication/Instrumentation/Computer Science & Engineering/Information Technology (Group-II)

### Semester-II

Scheme of Examinations:

Session-2020

S.No	Board of Study	Course Code	Course Titles	Scheme of Examination					
				Theory			Practical		Total Marks
				ESE	CT	TA	ESE	TA	
1	Humanities	2000271(046)	Communication Skills-II	70	20	30	-	-	120
2	Applied Science	2000272(014)	Applied Maths-II	70	20	30	-	-	120
3	Civil Engineering	2000273(020)	Environmental Engineering & Sustainable Development	70	50	30	-	-	150
4	Computer Science and Engineering	2022274(022)	Programming in 'C'	70	50	50	-	-	170
5	Electronics & Telecommunication Engineering	2028275(028)	Basic Electronics Engineering	70	50	50	-	-	170
6	Computer Science and Engineering	2022290(022)	Programming in 'C' (Lab)	-	-	-	30	70	100
7	Electronics & Telecommunication Engineering	2028291(028)	Basic Electronics Engineering (Lab)	-	-	-	30	70	100
8	Humanities	2000292(046)	Seminar & Technical Presentation (Personality Development & Leadership) Skills	-	-	-	-	70	70
<b>Total</b>				<b>350</b>	<b>190</b>	<b>190</b>	<b>60</b>	<b>210</b>	<b>1000</b>

ESE: End of Semester Exam, CT: Class Test, TA: Teachers Assessment

**Legend:** PRA: Process Assessment, PDA: Product Assessment

- Note :**
- i. TA in Theory includes Sessional work (SW) and Attendance (ATT) with weightage of 70% and 30% of total respectively.
  - ii. TA in Practical includes performance of PRA, PDA and Viva-Voce with weightage of 50%, 40% and 10% of total respectively.
  - iii. 85% attendance is essential in theory & Practical classes to appear in examination.



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Instrumentation Engineering

### Semester – 3<sup>rd</sup> Sem

Session-2020

#### Scheme of Studies :

S.No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	Instrumentation Engineering	2034371 (034)	Industrial Instrumentation and Sensors	2	-	1	3
2	E & TC Engineering	2028374 (028)	Digital Electronics	2	-	1	3
3	Electrical Engineering	2024372 (024)	Electrical and Electronics Measurements	2	-	1	3
4	Electrical Engineering	2034373 (024)	Fundamental of Electrical Machines	2	-	1	3
5	Electrical Engineering	2034375 (024)	Basic Electrical and Network Theory	2	-	1	3
6	Instrumentation Engineering	2034361 (034)	Industrial Instrumentation and Sensors (Lab)	-	2	-	1
7	E & TC Engineering	2034362 (028)	Digital Electronics (Lab)	-	2	-	1
8	Electrical Engineering	2034363 (024)	Electrical and Electronics Measurements (Lab)	-	2	-	1
9	Electrical Engineering	2034364 (024)	Fundamental of Electrical Machines (Lab)	-	2	-	1
10	Electrical Engineering	2034365 (024)	Basic Electrical and Network Theory (Lab)	-	2	-	1
11	Humanities	-	Health, Hygiene and Yoga (Non Credit Subject)	-	2	-	0
12	-	-	Library	-	2	-	0
<b>Total</b>				<b>10</b>	<b>14</b>	<b>05</b>	<b>20</b>
				<b>29</b>			

L- Lecture, T- Tutorial, P- Practical,

Lecture (L) → CL Classroom Instruction (Includes different instructional Strategies i.e Lecture and others.)

Practical (P) → LI Laboratory Instruction (Includes practical performances in Laboratory workshop, field or other locations using different instructional strategies).

Tutorial (T) → Includes sessional work (SW) (assignment, seminar, mini project etc), Self Learning (SL)



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Instrumentation Engineering

### Semester – 3<sup>rd</sup> Sem

#### Scheme of Examination :

Session-2020

S. No	Board of Study	Course Code	Course Titles	Scheme of Examination					
				Theory			Practical (PRA+PDA+Viva)		Total Marks
				ESE	CT	TA	ESE	TA	
1	Instrumentation Engineering	2034371 (034)	Industrial Instrumentation and Sensors	70	20	30	-	-	120
2	E & TC Engineering	2028374 (028)	Digital Electronics	70	20	30	-	-	120
3	Electrical Engineering	2024372 (024)	Electrical and Electronics Measurements	70	20	30	-	-	120
4	Electrical Engineering	2034373 (024)	Fundamental of Electrical Machines	70	20	30	-	-	120
5	Electrical Engineering	2034375 (024)	Basic Electrical and Network Theory	70	20	30	-	-	120
6	Instrumentation Engineering	2034361 (034)	Industrial Instrumentation and Sensors (Lab)	-	-	-	30	50	80
7	E & TC Engineering	2034362 (028)	Digital Electronics (Lab)	-	-	-	30	50	80
8	Electrical Engineering	2034363 (024)	Electrical and Electronics Measurements (Lab)	-	-	-	30	50	80
9	Electrical Engineering	2034364 (024)	Fundamental of Electrical Machines (Lab)	-	-	-	30	50	80
10	Electrical Engineering	2034365 (024)	Basic Electrical and Network Theory (Lab)	-	-	-	30	50	80
11	Humanities	-	Health, Hygiene and Yoga (Non Credit Subject)	-	-	-	-	-	-
<b>Total</b>				<b>350</b>	<b>100</b>	<b>150</b>	<b>150</b>	<b>250</b>	<b>1000</b>

**ESE:** End of semester exam

**CT:** Class Test

**TA:** Teachers Assessment

**PRA:** Process Assessment,

**PDA:** Product Assessment

- Note:**
- TA in Theory includes Sessional work (SW) and Attendance (ATT), with weightage of 70% and 30 % weightage of total respectively.
  - TA in Practical includes performance of PRA, PDA and Viva-Voce with weightage of 50%, 40% and 10 % weightage of total respectively.
  - 85 % attendance is essential in theory & practical classes to appear in examination.



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Instrumentation Engineering

### Semester – 4<sup>th</sup> Sem

Session-2020

#### Scheme of Studies :

S. N.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)			
				L	P	T	Credit L+T+(P/2)
1	E&TC Engineering	2028471 (028)	Microcontroller and its Application	3	-	-	3
2	Instrumentation Engineering	2034472 (034)	Analog Circuits & Application	2	-	1	3
3	Instrumentation Engineering	2034473 (034)	Analytical Instrumentation	2	-	1	3
4	Instrumentation Engineering	2034474 (034)	Basic Control System	2	-	1	3
5	Instrumentation Engineering	2034475 (034)	Bio Medical Instrumentation	2		1	3
6	E&TC Engineering	2028461 (028)	Microcontroller and its Application (Lab)	-	2	-	1
7	Instrumentation Engineering	2034462 (034)	Analog Circuits & Application (Lab)	-	2	-	1
8	Instrumentation Engineering	2034463 (034)	Analytical Instrumentation (Lab)	-	2	-	1
9	Instrumentation Engineering	2034464 (034)	Basic Control System (Lab)	-	2	-	1
10	Instrumentation Engineering	2034465 (034)	Instrumentation Engineering Drawing (Lab)	-	2	-	1
11	-	-	Indian Constitution (Non Credit Subject)	-	2	-	-
12	-	-	Library		2		
<b>Total</b>				<b>11</b>	<b>14</b>	<b>04</b>	<b>20</b>
				<b>29</b>			

L- Lecture, T- Tutorial, P- Practical,

Lecture (L)→ CL Classroom Instruction (Includes different instructional Strategies i.e Lecture and others.)

Practical (P)→LI Laboratory Instruction (Includes practical performances in Laboratory workshop, field or other locations using different instructional strategies).

Tutorial (T)→ Includes sessional work (SW) (assignment, seminar, mini project etc), Self Learning (SL)

**Note:** Summer Internship (Industrial Training) of 4 weeks will be carried out in summer vacation after completion of 4<sup>th</sup> sem and evaluation will be done in 5<sup>th</sup> sem.



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Instrumentation Engineering

### Semester – 4<sup>th</sup> Sem

Session-2020

#### Scheme of Examination :

S. N.	Board of Study	Course Code	Course Titles	Scheme of Examination					
				Theory			Practical (PRA+PDA+Viva)		Total Marks
				ESE	CT	TA	ESE	TA	
1	E&TC Engineering	2028471 (028)	Microcontroller and its Application	70	20	30	-	-	120
2	Instrumentation Engineering	2034472 (034)	Analog Circuits & Application	70	20	30	-	-	120
3	Instrumentation Engineering	2034473 (034)	Analytical Instrumentation	70	20	30	-	-	120
4	Instrumentation Engineering	2034474 (034)	Basic Control System	70	20	30	-	-	120
5	Instrumentation Engineering	2034475 (034)	Bio Medical Instrumentation	70	20	30	-	-	120
6	E&TC Engineering	2028461 (028)	Microcontroller and its Application (Lab)	-	-	-	30	50	80
7	Instrumentation Engineering	2034462 (034)	Analog Circuits & Application (Lab)	-	-	-	30	50	80
8	Instrumentation Engineering	2034463 (034)	Analytical Instrumentation (Lab)	-	-	-	30	50	80
9	Instrumentation Engineering	2034464 (034)	Basic Control System (Lab)	-	-	-	30	50	80
10	Instrumentation Engineering	2034465 (034)	Instrumentation Engineering Drawing (Lab)	-	-	-	30	50	80
11	-	-	Indian Constitution (Non Credit Subject)	-	-	-	-	-	-
<b>Total</b>				<b>350</b>	<b>100</b>	<b>150</b>	<b>150</b>	<b>250</b>	<b>1000</b>

**ESE:** End of semester exam

**CT:** Class Test

**TA:** Teachers Assessment

**PRA:** Process Assessment,

**PDA:** Product Assessment

**Note:** i. TA in Theory includes Sessional work (SW) and Attendance (ATT), with weightage of 70% and 30 % weightage of total respectively

ii. TA in Practical includes performance of PRA, PDA and Viva-Voce with weightage of 50%, 40% and 10 % weightage of total respectively.

iii. 85 % attendance is essential in theory & practical classes to appear in examination.

**Note:** **Summer Internship (Industrial Training) of 4 weeks will be carried out in summer vacation after completion of 4<sup>th</sup> sem and evaluation will be done in 5<sup>th</sup> sem.**





# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Instrumentation Engineering

### Semester – 5<sup>th</sup> Sem

Scheme of Studies:

Session-2020

S.N	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)				
				L	P	T	*SL	Credit L+T+(P/2)
1	Instrumentation Engineering	2034572 (034)	Principles of Data Communication & Networking	3	-	1	2	4
2	Electrical Engineering	2024571 (024)	<b>Power Electronics</b>	3	-	1	2	4
3	E & TC Engineering	2034573 (028)	Optical Fiber Communications	3	-	1	2	4
4	Instrumentation Engineering	2034574 (034)	Industrial Safety Equipment and Instrument	3	-	1	2	4
5	Instrumentation Engineering	2034562 (034)	Principles of Data Communication & Networking (Lab)	-	2	-	1	1
6	Electrical Engineering	2034561 (024)	<b>Power Electronics (Lab)</b>	-	2	-	1	1
7	E & TC Engineering	2034563 (028)	Optical Fiber Communications (Lab)	-	2	-	1	1
8	Instrumentation Engineering	2034564 (034)	Industrial Training (Lab)	-	2	-	-	1
9	Humanities	--	Library	-	-	-	1	-
<b>Total</b>				<b>12</b>	<b>08</b>	<b>04</b>	<b>12</b>	<b>20</b>
				<b>36 Hrs</b>				

L- Lecture, T- Tutorial, P- Practical,

Lecture (L)→ CL Classroom Instruction (Includes different instructional Strategies i.e. Lecture and others).

Practical (P)→ LI Laboratory Instruction (Includes practical performances in Laboratory workshop, field or other locations using different instructional strategies).

Tutorial (T)→ Includes sessional work (SW) (assignment, seminar, mini project etc), Self Learning (SL) .

**Note: \*SL : Leftover periods/week shall be utilized for self learning purpose to make up 36 periods/week.**



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Instrumentation Engineering

### Semester – 5<sup>th</sup> Sem

Scheme of Examination:

Session-2020

S. No	Board of Study	Course Code	Course Titles	Scheme of Examination					
				Theory			Practical (PRA+PDA+Viva)		Total Marks
				ESE	CT	TA	ESE	TA	
1	Instrumentation Engineering	2034572 (034)	Principles of Data Communication & Networking	70	20	30	-	-	120
2	Electrical Engineering	2024571 (024)	<b>Power Electronics</b>	<b>70</b>	<b>20</b>	<b>30</b>	-	-	<b>120</b>
3	E & TC Engineering	2034573 (028)	Optical Fiber Communications	70	20	30	-	-	120
4	Instrumentation Engineering	2034574 (034)	Industrial Safety Equipment and Instrument	70	20	30	-	-	120
5	Instrumentation Engineering	2034562 (034)	Principles of Data Communication & Networking (Lab)	-	-	-	50	70	120
6	Electrical Engineering	2034561 (024)	<b>Power Electronics (Lab)</b>	-	-	-	<b>40</b>	<b>50</b>	<b>90</b>
7	E & TC Engineering	2034563 (028)	Optical Fiber Communications (Lab)	-	-	-	50	70	120
8	Instrumentation Engineering	2034564 (034)	Industrial Training (Lab)	-	-	-	90	100	190
9	Humanities	--	Library	-	-	-	-	-	-
<b>Total</b>				<b>280</b>	<b>80</b>	<b>120</b>	<b>230</b>	<b>290</b>	<b>1000</b>

**ESE:** End of semester exam

**CT:** Class Test

**TA:** Teachers Assessment

**PRA:** Process Assessment,

**PDA:** Product Assessment

- Note:**
- TA in Theory includes Sessional work (SW) and Attendance (ATT), with weightage of 70% and 30 % weightage of total respectively.
  - TA in Practical includes performance of PRA, PDA and Viva-Voce with weightage of 50%, 40% and 10 % weightage of total respectively.
  - 85 % attendance is essential in theory & practical classes to appear in examination.



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Instrumentation Engineering

### Semester – 6<sup>th</sup> Sem

Session-2020

#### Scheme of Studies :

S.No.	Board of Study	Course Code	Course Titles	Scheme of Studies (Hours/Week)				
				L	P	T	*SL	Credit L+T+(P/2)
1	Instrumentation Engineering	2034671 (034)	Process Instrumentation	3	-	1	2	4
2	Instrumentation Engineering	2034672 (034)	Distributed Control Systems	3	-	1	2	4
3	Mechanical Engineering	2000673 (037)	Entrepreneurship Development and Management	2	-	1	1	3
4	Electrical Engineering	2034674 (024)	Wind, Solar and Hydro Power Technologies	2	-	1	1	3
5	Instrumentation Engineering	2034661 (034)	Process Instrumentation (Lab)	-	2	-	-	1
6	Instrumentation Engineering	2034662 (034)	Distributed Control Systems (Lab)	-	2	-	-	1
7	<b>E&amp;TC Engineering</b>	2034663 (028)	<b>Electronics Simulation (Lab)</b>	-	4	-	2	2
8	Instrumentation Engineering	2034664 (034)	Major Project	-	4	-	2	2
9	Instrumentation Engineering	--	Library	-	-	-	-	-
<b>Total</b>				<b>10</b>	<b>12</b>	<b>04</b>	<b>10</b>	<b>20</b>
				<b>36 Hrs</b>				

L- Lecture, T- Tutorial, P- Practical,

Lecture (L)→ CL Classroom Instruction (Includes different instructional Strategies i.e Lecture and others.)

Practical (P)→LI Laboratory Instruction (Includes practical performances in Laboratory workshop, field or other locations using different instructional strategies).

Tutorial (T)→ Includes sessional work (SW) (assignment, seminar, mini project etc), Self Learning (SL)

**Note: \*SL : Leftover periods/week shall be utilized for self learning purpose to make up 36 periods/week.**



# Chhattisgarh Swami Vivekanand Technical University, Bhilai

## Diploma in Instrumentation Engineering

### Semester – 6<sup>th</sup> Sem

Scheme of Examination :

Session-2020

S. No	Board of Study	Course Code	Course Titles	Scheme of Examination					
				Theory			Practical (PRA+PDA+Viva)		Total Marks
				ESE	CT	TA	ESE	TA	
1	Instrumentation Engineering	2034671 (034)	Process Instrumentation	70	20	30	-	-	120
2	Instrumentation Engineering	2034672 (034)	Distributed Control Systems	70	20	30	-	-	120
3	Mechanical Engineering	2000673 (037)	Entrepreneurship Development and Management	70	20	30	-	-	120
4	Electrical Engineering	2034674 (024)	Wind, Solar and Hydro Power Technologies	70	20	30	-	-	120
5	Instrumentation Engineering	2034661 (034)	Process Instrumentation (Lab)	-	-	-	50	70	120
6	Instrumentation Engineering	2034662 (034)	Distributed Control Systems (Lab)	-	-	-	50	70	120
7	<b>E&amp;TC Engineering</b>	2034663 (028)	<b>Electronics Simulation (Lab)</b>	-	-	-	<b>30</b>	<b>50</b>	<b>80</b>
8	Instrumentation Engineering	2034664 (034)	Major Project	-	-	-	100	100	200
9	Instrumentation Engineering	--	Library	-	-	-	-	-	-
<b>Total</b>				<b>280</b>	<b>80</b>	<b>120</b>	<b>230</b>	<b>290</b>	<b>1000</b>

**ESE:** End of semester exam

**CT:** Class Test

**TA:** Teachers Assessment

**PRA:** Process Assessment,

**PDA:** Product Assessment

- Note:**
- TA in Theory includes Sessional work (SW) and Attendance (ATT), with weightage of 70% and 30 % weightage of total respectively.
  - TA in Practical includes performance of PRA, PDA and Viva-Voce with weightage of 50%, 40% and 10 % weightage of total respectively.
  - 85 % attendance is essential in theory & practical classes to appear in examination.