

For
Final Year B.Tech
Electronics Engineering
(Under Graduate Programme)
From
Academic Year 2020-2021



Teaching and Evaluation scheme for
Second Year B.Tech. Program in Electronics Engineering Semester-III

Course	Curriculum	Course				scheme	1		ation Sc	heme	
Code	component		L	Т		Credits	f	Scheme		larks	
	-		_	_	_				Max	Mi	in
							H	ISE-I	10		
		Engineering					-	MSE	30		
UELN0301	BS	Maths-III	3	1	-	4	F	ISE-II	10		40
		TVICUIS III					F	ESE	50	20	
UELN0302							F	ISE-I	10		
0221.0002	PC	Electronic Devices	3	_	_	3		MSE	30		
		and Circuits					-	ISE-II	10		40
							F	ESE	50	20	
							H	ISE-I	10		
							F	MSE	30		4.0
UELN0303	PC	Digital Design	3	_	_	3	-	ISE-II	10		40
		using HDL					F	ESE	50	20	-
								ISE-I	10		
LIELNIO204	, p.c							MSE	30		40
UELN0304	PC	Network Analysis	3	1	_	4		ISE-II	10		40
							Ī	ESE	50	20	1
		Electronic						ISE-I	10		
		Measurement and						MSE	30		
UELN0305	PC	Instrumentation	3	-	-	3	F	ISE-II	10		40
								ESE	50	20	
UELN0361	Audit-I	Environmental Studies	2	-	-	-		-	100	40	40
LIELNIO221		E14						ISE	50	20	)
UELN0331	PC	Electronic Devices	_	-	2	1		ESE	50	20	)
		and Circuits LAB						(POE)			
UELN0332	PC	Electronic Measurement and Instrumentation LAB	-	-	2	1		ISE	50	20	)
UELN0333	PC	Digital Design			2	1		ISE	50	20	)
UELN0333	PC	using HDL LAB	-	-	2	1		ESE(POE)	50	20	)
UELN0334	D.C.	Computer Aided			_			ISE	50	20	)
	PC	Design LAB	-	-	2	1		ESE(POE)	50	20	)
UELN0351	PRJ	Micro project- I LAB	-	ı	2	1		ISE	50	20	)
	Total				10	22		-	900 (+100 Audit)	360(- Auc	

Total Credits: 22 Total Contact Hours/Week: 29Hrs



Teaching and Evaluation scheme for

Second Year B.Tech. Program in Electronics Engineering Semester-IV

	Curricul	Course				scheme	<b>Evaluation Scheme</b>			P
Course	um	Course	L	T		Credits	Scheme		<u>Mark</u>	
Code	compone		L	-	•	Cicuits	Scheme	Max		Min
Couc	compone						ISE-I	10		V1111
		Linear Integrated					MSE	30		40
UELN0401	PC	Circuits	3	-	-	3	ISE-II	10		40
		Circuits					ESE	50	20	1
									20	40
							ISE-I MSE	10 30		40
UELN0402	PC	Analog Circuit	4	-	-	4	ISE-II	10		
		Design					ESE	50	20	-
		_					ISE-I	10	20	40
							MSE	30		40
UELN0403	PC	Control System	3	-	-	3	ISE-II	10		
		Engineering					ESE	50	20	1
							ISE-I	10	20	40
		Analog	_			_	MSE	30		40
UELN0404	PC	Communication	3	-	-	3	ISE-II	10		
							ESE	50	20	1
							ISE-I	10		
LIELNIO405	D.C.	Signals &	2	1		_	MSE	30		40
UELN0405	PC	Systems	3	1	-	4	ISE-II	10		
							ESE	50	20	1
UELN0461	Audit -II	Content Creation using Information and web Technologies	2	-	-	-	ESE	100	40	40
		Linear Integrated					ISE	50	,	20
UELN0431	PC	Circuits LAB	-	-	2	1	ESE(POE)	50		20
		Analog Circuit					ISE	50		20
UELN0432	PC	Design LAB	-	-	2	1	ESE(POE)	50		20 20
							` ′			
1151 210 422	D.C.	Analog			_	1	ISE	50	4	20
UELN0433	PC	Communication LAB	-	-	2	1	ESE (POE)	50	2	20
UELN0434	PC	Control System Engineering LAB	-	-	2	1	ISE	50	2	20
UELN0451	PRJ	Micro project-II LAB	-	-	2	1	ISE	50	2	20
	Tota	1	16+	1	10	22	-	900 (+100 Audit)		60 Audit)

Total Credits: 22 Total Contact Hours/Week: 29 Hrs

#### Note:

- **ESE:** End Semester Examination, **MSE:** Mid Semester Examination, **ISE:** In Semester Evaluation.
- HS: Humanities, Social science and Management, BS: Basic sciences including mathematics
- ES: Engineering Science, PC: Professional Core, PE: Professional Elective
- **OEL:** Open elective, **PRJ**: Project work, Seminar, Internship in industry etc.
- \*\* :Course code for Open Elective
- XX : Course code for Professional Elective
- \$\$: Course code for Audit Course

#### **List of Audit Courses**

Year	Course Code	Audit Course	Audit Course
Second Year B.Tech-I	UELN0361	Audit Course-I	Environmental Studies
Second Year B.Tech-II	UELN0461	Audit Course-II	Content Creation using Information and web Technologies



# College of Engineering (Autonomous), Kolhapur Teaching and Evaluation scheme for

#### Third Year B.Tech. Program in Electronics Engineering Semester-V

UELN0502   PC   Digital   Communication   3   3     ISE-II   10     MSE   30   -       ISE-II   10     MSE   30   -       ISE-II   10     MSE   30   -       ISE-II   10     MSE   30   -         ISE-II   10     MSE   30   -					Te			scheme		Evalu	ation S		
UELN0501         PC         Electromagnetic Engineering         3         1         -         4         ISE-II         10         Asset in the second of the second	ırse	urse (	Curricul	Course	L	T	P	Credits		Scheme			
UELN0501         PC         Electromagnetic Engineering         3         1         -         4         MSE   30   -         4           UELN0502         PC         Digital Communication         3         -         -         3         -         -         3         -         -         4           UELN0503         PC         Power Electronics         3         -         -         3         -         -         3         -         -         4           UELN0504         PC         Microcontrollers         4         -         - </th <th>de</th> <th>ode l</th> <th>ım</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Max</th> <th>Mi</th> <th>n</th>	de	ode l	ım								Max	Mi	n
DELNOSOI   PC   Engineering   3   1   -   4										ISE-I	10		
Digital   Digital   Communication   3 3   SE-II   10   ESE   50   20   ISE-II   10   MSE   30   - ISE-II   10   MSE   30   - ISE-II   10   ESE   50   20   ISE-II   10   ESE   50	J0501	NO501	PC	Electromagnetic	3	1	_	4		MSE	30	-	40
UELN0502   PC   Digital   Communication   3   3     ISE-I   10   MSE   30   -   4	10501	140301	10	Engineering		1	_		L				40
UELN0502         PC         Digital Communication         3         -         3         -         3         ISE-II         10         -         4           UELN0503         PC         Power Electronics         3         -         -         3         -         3         -         -         4         -         4         -         -         4         -         -         4         -         -         4         -         -         4         -         -         4         -         -         4         -									L			20	
UELN0502         PC         Communication         3         -         3         ISE-II         10         44           UELN0503         PC         Power Electronics         3         -         3         -         3         ISE-II         10         MSE         30         -         44           UELN0504         PC         Microcontrollers         4         -         -         4         ISE-II         10         MSE         30         -         44           UELN05XX         PE         Professional Elective-I         3         -         -         3         -         3         -         -         4				5					$\vdash$				
UELN0503   PC   Power Electronics   3 3     ISE-II   10     MSE   30   - 4       ISE-II   10     MSE   30   - 4       ISE-II   10     MSE   30   - 4       ISE-II   10     MSE   30   - 4	10.500	10.500	D.C.						$\vdash$			-	40
UELN0503         PC         Power Electronics         3         -         3         -         3         -         4         -         4         -         4         -         4         -         4         -         -         4         -         -         4         -         -         4         - <td>10502</td> <td>N0502</td> <td>PC</td> <td>Communication</td> <td>3</td> <td>-</td> <td>-</td> <td>3</td> <td>L</td> <td></td> <td></td> <td>20</td> <td>  40  </td>	10502	N0502	PC	Communication	3	-	-	3	L			20	40
UELN0503         PC         Power Electronics         3         -         3         -         3         -         4         -         4         -         4         -         -         4         -         -         4         -         -         4         -         -         4         -         -         4         - <td></td> <td></td> <td></td> <td></td> <td colspan="2"></td> <td>ESE</td> <td>50</td> <td>20</td> <td></td>							ESE	50	20				
UELN0503         PC         3         -         3         -         3         ISE-II         10         4           UELN0504         PC         Microcontrollers         4         -         4         -         4         ISE-II         10         MSE         30         -         4           UELN05XX         PE         Professional Elective-I         3         -         -         3         ISE-II         10         MSE         30         -         4										ISE-I	10		
UELN0504 PC Microcontrollers 4 4 ISE-II 10 ESE 50 20 ISE-I 10 MSE 30 - 4 ISE-II 10 ESE 50 20 ISE-II 10 MSE 30 ISE-II 10 ESE 50 20 ISE-II 10 MSE 30 - 4 ISE-II 10 MSE 30 - 4 ISE-II 10 ESE ISE-II 10 MSE 30 - 4 ISE-II 10 ESE ISE-II 10 MSE 30 - 4 ISE-II 10 ESE ISE-II 10 MSE 30 - 4 ISE-II 10 ESE ISE-II 10 MSE 30 - 4 ISE-II 10 ESE ISE-II 10 MSE 30 - 4 ISE-II 10 ESE ISE-II 10 MSE 30 - 4 ISE-II 10 ESE ISE	10503	NI0503	PC	Power Electronics						MSE	30	-	40
UELN0504         PC         Microcontrollers         4         -         4         -         4         -         4         -         4         ISE-II         10         MSE         30         -         4           UELN05XX         PE         Professional Elective-I         3         -         -         3         -         -         3         -         -         4	N0303 PC		10		3	-	-	3					40
UELN0504         PC         Microcontrollers         4         -         4         -         4         -         4         -         4         -         4         -         4         -         -         4         -         -         4         -         -         4         -         -         4         - <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><math>\perp</math></td> <td></td> <td></td> <td>20</td> <td></td>									$\perp$			20	
UELN0504         PC         Microcontrollers         4         -         4         -         4         -         4         -         4         -         4         -         -         4         -         -         4         -         -         4         -         -         4         - <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><math>\vdash</math></td> <td></td> <td></td> <td></td> <td></td>									$\vdash$				
UELN05XX         PE         Professional Elective-I         3         -         3         -         3         -         4	10504	N0504	PC	Microcontrollers	1			4	$\vdash$			-	40
UELN05XX         PE         Professional Elective-I         3         -         3         ISE-I         10         MSE         30         -         40					4	-	-	4	+			20	
UELN05XX   PE   Professional Elective-I   3   -   -   3   -   40									H			20	
UELN05XX PE Elective-I 3 ISE-II 10 40				Professional					H			_	
	05XX	N05XX	PE		3	-	-	3	F				40
				Licetive-i					F			20	
UELN0561         Audit-III         Industry 4.0         2         -         -         -         ESE         100         40         40	10561	N0561	Audit-III	Industry 4.0	2	-	-	-		ESE	100	40	40
LIELNO521 Digital ISE 50 20		+		Digital					$\vdash$	ISE	50	20	)
UELN0531         PC         Digital Communication         -         -         2         1         ISE         30         20           ESE(OE)         50         20	10531	N0531	PC		_	_	2.	1	<u> </u>				
LAB			1.0				_		'	LSL(GL)	50	20	,
Power Electronics ISE 50 20				Power Electronics						ISE	50	20	)
UELN0532 PC LAB 2 1 ESE(POE) 50 20	10532	N0532	PC		-	-	2	1	E	ESE(POE)	50	20	)
UELN0533 PC Microcontroller - 2 1 ISE 50 20	10522	NI0522	DC	Microcontroller			2	1		ISE	50	20	)
LAB	10333	110333	PC		_	-		1	E	ESE(POE)	50	20	)
LIEL NOSXX Professional	05XX	J05XX		Professional									
PE	UJAA	NUSAA	PE		-	-	2	1		ISE	50	20	)
LAB				LAB					L				
UELN0551 PRJ Micro project-III 2 1 ISE 50 20	J0551	N0551	DB I				2	1		ISE	50	20	)
LAB	10001	110001			_	_		1		1015			
Total	Total			16+					-				
2 1 10 22   (+100 (+40 Aud						1	10	22				(+40 A	udit)
Total Credits: 22											Audit)		

Total Credits: 22

Total Contact Hours/Week: 29Hrs



# Kolhapur Institute of Technology's College of Engineering (Autonomous), Kolhapur Teaching and Evaluation scheme for

#### Third Year B.Tech. Program in Electronics Engineering Semester-VI (Third Year B.Tech-II)

Course	Curriculum	(1 mru				scheme		Eve	aluatio	n Schem	ıe.	
	component	Course	L	T		Credits		Scheme		Weighta		
Couc	, , , , , , , , , , , , , , , , , , ,	Course		•	•	Creates		Scheme	Ma		Min	
		Computer						ISE-I	10			
		Architecture and						MSE	30	_	40	
UELN0601	PC	Operating	4	-	-	4		ISE-II	10			
		System						ESE	50	20		
		System								20	40	
		D: ': 10' 1						ISE-I MSE	10 30		40	
UELN0602	PC	Digital Signal	3	-	-	3	-	ISE-II	10	-		
		Processing								20		
								ESE	50	20	40	
								ISE-I	10		40	
UELN0603	PC	Data Structures	3	-	-	3		MSE	30	-		
		and Algorithms						ISE-II ESE	10 50	20		
								ISE-I	10	20		
								MSE	30	_	40	
UOEL06**	OE	Open Elective-I	3	-	-	3		ISE-II	10		40	
								ESE	50	20		
								ISE-I	10	20		
								MSE	30	_		
UELN06XX	PE	Professional	3	_	_	3	I	ISE – II	10		40	
0 221 (0 01 21 2	12	Elective-II					1			20		
								ESE	50	20		
UELN0661	Audit-IV	Aptitude Enhancement with Vedic Maths	2	-	-	-		ESE	100	40	40	
		Mini Project						ISE	25	1	0	
UELN0641	PRJ	Mini Project	-	-	2	1	Е	SE(OE)	50	2	0.0	
UELN0631	PC	Computer Architecture and Operating System LAB	-	-	2	1		ISE	50	2	0	
UELN0632	PC	Model Based Design	-	-	4	2	E	ISE (OE)	25		0	
		LAB					E	SE (OE)	50		0.0	
		Data Structures						ISE	50		.0	
UELN0633	PC	and Algorithms LAB	-	-	2	1		ESE (POE)	50	2	0.0	
	PC	Digital Signal		_	2	1		ISE	50		.0	
UELN0634	10	Processing LAB	_	_		1		ESE (POE)	50		0.0	
			16+						900		60	
	Total		2	-	12	22		-	(+100	(+40	Audit)	
									Audit)			

#### Total Credits: 22 Total Contact Hours/Week: 29 Hrs

#### Note:

- **ESE:** End Semester Examination, **MSE:** Mid Semester Examination, **ISE:** In Semester Evaluation.
- HS: Humanities, Social science and Management, BS: Basic sciences including mathematics
- ES: Engineering Science, PC: Professional Core, PE: Professional Elective
- OEL: Open elective, PRJ: Project work, Seminar, Internship in industry etc.
- \*\* :Course code for Open Elective
- XX : Course code for Professional Elective
- \$\$: Course code for Audit Course

#### **List of Professional Electives**

Year	Professional Elective	Course Code	Communicatio n Stream	Course Code	Embedded VLSI Stream	Course Code	Systems and Technologi es Stream
Third Year B.Tech	Professional Elective-I	UELN0521	Wireless Communicatio n Networks	UELN0522	CMOS VLSI Design	UELN0523	Automotive Electronics
Third Year B.Tech -II	Professional Elective-II	UELN0621	Digital Image Processing	UELN0622	Embedded System Programmi ng	UELN0623	Bio- Medical Electronics

#### **List of Professional Electives LAB**

Year	Professional Elective	Course Code	Communic ation Stream	Course Code	Embedded VLSI Stream	Course Code	Systems and Technologies Stream
Third Year B.Tech-I	Professional Elective-I	UELN0534	Wireless Communicat ion Networks LAB	UELN0535	CMOS VLSI Design LAB	UELN0536	Automotive Electronics LAB

#### **List of Audit Courses**

Year	Course Code	Audit Course	Audit Course
Third Year B.Tech-I	UELN0561	Audit Course-III	Industry 4.0
Third Year B. Tech-II	UELN0661	Audit Course-IV	Aptitude Enhancement with Vedic Maths

### **List of Open Electives**

Year	Course Code	Open Elective-I
Third Year B.Tech-II	UOEL0625	Microcontroller Architectures and Programming
	UOEL0626	Industrial Automation



Teaching and Evaluation scheme for

# Final Year B.Tech. Program in Electronics Engineering Semester-VII (Final Year B.Tech-I)

			Tea			scheme	Ev	aluatio	n Schem	e
Course	Curriculum	Course	L	T	P	Credits	Scheme		Weighta	ge
Code	component							Max		Min
							ISE-I	10		
UELN0701	PC	Embedded	4	_	_	4	MSE	30		40
OLLINO/01	10	System Design	~	_	_	7	ISE-II	10		
		System Design					ESE	50	20	
							ISE-I	10		
UELN0702	PC	Computer	4			4	MSE	30		40
UELNU/UZ	PC	Computer Networks	4	-	-	4	ISE-II	10		
		Networks					ESE	50	20	
							ISE-I	10		
UOEL07**	OE	Open Elective-II	3	_		3	MSE	30		40
OOELO	OE	Open Elective-II	3	-	-	3	ISE-II	10		
							ESE	50	20	
							ISE-I	10		
UELN07XX	PE	Professional	3		_	3	MSE	30		40
	1 L	Elective-III				3	ISE-II	10		10
							ESE	50	20	
UELN0703	ES	Scripting Languages	1	-	-	1	ISE	50	20	20
UELN0761	Audit-V	Smart Manufacturing	2	-	-	-	ESE	100	40	40
		Embedded					ISE	50	2	0
UELN0731	PC	System Design LAB	-	-	2	1	ESE(POE)	50	2	0
UELN0732	ES	Scripting Languages LAB	-	-	2	1	ISE	50	2	0
LIELNIOGOS	D.C.	Computer			_	1	ISE	50	20	
UELN0733	PC	Networks LAB	-	-	2	1	ESE(POE)	50	2	0
LIELNIOZE1	ו ממ	Duri (I			4	2	ISE	50	2	0
UELN0751	PRJ	Project-I	_	_	4	2	ESE(OE)	50	2	0
Total		15+2	0	10	20	-	800 (+100 Audit)	320(+40	) Audit)	

Total Credits: 20

Total Contact Hours/Week: 27 Hrs



Teaching and Evaluation scheme for

## Final Year B.Tech. Program in Electronics Engineering Semester-VIII (Final Year B.Tech-II)

	Curriculu		Tea	ichi	ng s	scheme		Eva	aluation Scheme			
Course	m	Course	L	T	P	Credit		Scheme		age		
Code	component					S		Min			Min	
								ISE-I	10			
UELN08XX	PE	Professional	3	_	_	3		MSE	30	20	40	
OLLINOOXX		Elective-IV	$IV \begin{vmatrix} 3 & - & - & 3 \end{vmatrix}$			ISE-II	10					
								ESE	50	20		
								ISE-I	10			
UELN08XX	DE	Professional	_			2		MSE	30	20		
	PE	Elective -V	3	-	-	3		ISE-II	10		40	
								ESE	50	20		
UELN0851	PRJ/WI	Project-II	-	-	12	6		ISE-I	75	30		
		and						ISE-II	75	30	120	
		Winter						ESE (OE)	150	60		
		Internship (WI)										
	Total		6	-	12	12	100 + 100 + 300 = 500				00	

Total Credits: 12
Total Contact Hours/Week: 18 Hrs

#### Note:

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- ES: Engineering Science, PC: Professional Core, PE: Professional Elective
- OEL: Open elective, PRJ: Project work, Seminar, Internship in industry etc.
- \*\* : Course code for Open Elective
- XX : Course code for Professional Elective
- \$\$ : Course code for Audit Course

#### **List of Professional Electives**

Year	Professional Elective	Course Code	Communication Stream	Course Code	Embedded VLSI Stream	Course Code	Systems and Technologies Stream
Final Year B.Tech-	Professional Elective-III	UELN0721	Antennas and Wave Propagation	UELN0722	SOC Design and Testing	UELN0723	Soft Computing
Final Year B.Tech- II	Professional Elective-IV	UELN0821	Microwave Theory and Techniques	UELN0822	Mixed Signal Design	UELN0823	Modern Power Electronics
Final Year B.Tech- II	Professional Elective-V	UELN0824	Digital TV	UELN0825	IOT and Cloud Computing	UELN0826	PLC and SCADA

## **List of Open Electives**

Year	Course Code	Open Elective-II
Final Year B.Tech-I	UOEL0725	Artificial Intelligence
	UOEL0726	Introduction to Control systems

#### **List of Professional Electives**

Year	Professional Elective	Course Code	Communication Stream	Course Code	Embedded VLSI Stream	Course Code	Systems and Technologies Stream
Final Year B.Tech- I	Professional Elective-III	UELN0721	Antennas and Wave Propagation	UELN0722	SOC Design and Testing	UELN0723	Soft Computing
Final Year B.Tech- II	Professional Elective-IV	UELN0821	Microwave Theory and Techniques	UELN0822	Mixed Signal Design	UELN0823	Modern Power Electronics
Final Year B.Tech- II	Professional Elective-V	UELN0824	Digital TV	UELN0825	IOT and Cloud Computing	UELN0826	PLC and SCADA

## **List of Open Electives**

Year	Course Code	Open Elective-II
Final Year B.Tech-I	UOEL0725	Artificial Intelligence
	UOEL0726	Introduction to Control systems