

**SDMCET: Syllabus**

Scheme of Teaching and Examinations-2022  
 Outcome-Based Education(OBE)and Choice Based Credit System(CBCS) (Effective from the academic year 2022-23)  
 Stream: Electrical and Electronics Engineering Branch: Electronics and Communication Engineering  
 I Semester (For Physics Group)

Sl. No	Course	Course Code	Course Title	TD/PSB	Teaching Hours/Week				Examination			Credits	
					Theory/ Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks		Total Marks
1	ASC(IC)	22MATE11	Mathematics for EEE Streams-I	Maths	2	2	2	0	3	50	50	100	4
2	ASC(IC)	22PHYE12	Physics for EEE Stream	PHY	2	2	2	0	3	50	50	100	4
3	ESC	22BEE13	Basic Electronics	ECE	2	2	0	0	3	50	50	100	3
4	ESC-I	22ESC144	Introduction to Mechanical Engineering	MECH	3	0	0	0	3	50	50	100	3
5	ETC-I	22ETC15H	Introduction to Internet of Things (IOT)	ECE	3	0	0	0	3	50	50	100	3
6	AEC	22ENG16	Communicative English	Humanities	1	0	0	0	1	50	50	100	1
7	HSMC	22KSK17/ 22KBK17	Sanskrutika Kannada/Balake Kannada	Humanities	1	0	0	0	1	50	50	100	1
8	AEC/SDC	22IDT18	Innovation and Design Thinking	ECE Dept.	1	0	0	0	1	50	50	100	1
				<b>TOTAL</b>						<b>400</b>	<b>400</b>	<b>800</b>	<b>20</b>

I & II Sem. B. E. (E&CE) 2022-23

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Scheme of Teaching and Examinations-2022  
 Outcome-Based Education(OBE)and Choice Based Credit System(CBCS) (Effective from the academic year 2022-23)  
 Stream: Electrical and Electronics Engineering Branch: Electronics and Communication Engineering  
 II Semester (For Chemistry Group)

Sl. No	Course	Course Code	Course Title	TD/PSB	Teaching Hours/Week				Examination			Credits	
					Theory/ Lecture	Tutorial	Practical/ Drawing	SDA	Duration in hours	CIE Marks	SEE Marks		Total Marks
1	ASC(IC)	22MATE21	Mathematics for EES-II	Maths	2	2	2	0	3	50	50	100	4
2	ASC(IC)	22CHEE22	Chemistry for EES	Chemistry	2	2	2	0	3	50	50	100	4
3	ESC	22CED23	Computer-Aided Engineering Drawing	Mechanical	2	0	2	0	3	50	50	100	3
4	ESC-I	22ESC242	Introduction to Electrical Engineering	EEE	3	0	0	0	3	50	50	100	3
5	PLC-I	22PLC25B	Introduction to Python Programming	ECE	2	0	2	0	3	50	50	100	3
6	AEC	22PWS26	Professional Writing Skills in English	Humanities	1	0	0	0	1	50	50	100	1
7	HSMS	22ICO27	Indian Constitution	Humanities	1	0	0	0	1	50	50	100	1
8	HSMS	22SFH28	Scientific Foundations of Health	EEE	1	0	0	0	1	50	50	100	1
				<b>TOTAL</b>						<b>400</b>	<b>400</b>	<b>800</b>	<b>20</b>

I & II Sem. B. E. (E&CE) 2022-23

## SDMCET: Syllabus

### III Semester Scheme

Course Code	*Course Category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Credits	CIE Max. Marks	Theory (SEE) **Max. Marks	Practical (SEE) Duration in Hrs.	Max. Marks	Duration in Hrs.
21UECM300	BS	Engineering Mathematics-III	2 - 2 - 0	3	50	100	3	-	-
21UECC300	PC	Analog Electronic Circuits	3 - 0 - 0	3	50	100	3	-	-
21UECC301	PC	Digital Circuit Design	3 - 0 - 0	3	50	100	3	-	-
21UECC302	PC	Network Analysis	3 - 0 - 0	3	50	100	3	-	-
21UECC303	PC	Control Systems	3 - 0 - 0	3	50	100	3	-	-
21UAEE3-X	AE	<b>Ability Enhancement course</b>	2 - 0 - 0	2	50	50	2	-	-
21UAEE350	AE	Basics of Data Science							
21UAEE351	AE	Linear ICs and Applications							
21UHUC300	HU	Universal Human Values-I	2 - 0 - 0	2	50	50	2	-	-
21UECL305	PC	Analog Electronic Circuits Laboratory	0 - 0 - 3	1.5	50	-	-	50	3
21UECL306	PC	Digital Circuits Design Laboratory	0 - 0 - 3	1.5	50	-	-	50	3
21UHUC301	***HU	Kannada	2 - 0 - 0	1	50	50	2	-	-
21UMBA301	****BS	Mathematics	3 - 0 - 0	Audit	50	-	-	-	-
Total			23 - 2 - 6	23	550	650		100	

\* BS- Basic science ES- Engineering Science HU- Humanities, languages and Management AE- Ability enhancement course PC- Program core

\*\* Semester End Examination conducted for 100 marks will be reduced to 50 marks

\*\*\* Students of all branches will be divided into 2 groups, and each group will take either CIPE or Kannada in 3<sup>rd</sup> and 4<sup>th</sup> semester respectively.

\*\*\*\* Bridge course on Mathematics for Lateral entry students.

21UAEE3 - X : “ - ” is the number assigned to the department. 1- CV, 2-CSE, 3-CH, 4-EE, 5-EC, 6-ISE and 7-ME ( Assuming departments offer different Ability Enhancement course for their students).

# SDMCET: Syllabus

## IV Semester Scheme

Course Code	Course Category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Credits	CIE Max. Marks	Theory (SEE)		Practical (SEE)	
						**Max. Marks	Duration in Hrs.	Max. Marks	Duration in Hrs.
21UECM400	BS	Engineering Mathematics-IV	2 - 2 - 0	3	50	100	3	-	-
21UECC400	PC	Communication Theory	3 - 0 - 0	3	50	100	3	-	-
21UECC401	PC	Digital Signal Processing	3 - 0 - 0	3	50	100	3	-	-
21UECC402	PC	HDL Programming	3 - 0 - 0	3	50	100	3	-	-
21UECC403	PC	ARM Processor	3 - 0 - 0	3	50	100	3	-	-
21UHUA400	***HU	The Constitution of India and Professional Ethics	2 - 0 - 0	Audit	50	-	-	-	-
21UHUC402	HU	Universal Human Values-II	2 - 0 - 0	2	50	50	2	-	-
21UECL404	PC	Digital Signal Processing Laboratory	0 - 0 - 3	1.5	50	-	-	50	3
21UECL405	PC	HDL Programming Laboratory	0 - 0 - 3	1.5	50	-	-	50	3
21UECL406	PC	Introductory Project	0 - 0 - 2	1	50	-	-	-	-
21UMBA401	****BS	Mathematics	3 - 0 - 0	Audit	50	-	-	-	-
Total			21 - 2 - 8	21	550	550		100	

\* BS- Basic science ES- Engineering Science HU- Humanities, languages and Management AE- Ability enhancement course PC- Program core

\*\* Semester End Examination conducted for 100 marks will be reduced to 50 marks

\*\*\* Students of all branches will be divided into 2 groups, and each group will take either CIPE or Kannada in 3<sup>rd</sup> and 4<sup>th</sup> semester respectively.

\*\*\*\* Bridge course on Mathematics for Lateral entry students.

# SDMCET: Syllabus

## Scheme and Syllabus

### V Semester

Course Code	Course Category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
					Max. Marks	*Max. Marks	Duration In Hrs.	Max. Marks	Duration in Hrs.
18UHUC500	HU	Management, Entrepreneurship and IPR	4 - 0 - 0	4	50	100	3	-	-
18UECC500	PC	CMOS VLSI Design	4 - 0 - 0	4	50	100	3	-	-
18UECC501	PC	Communication Systems -II	4 - 0 - 0	4	50	100	3	-	-
18UECC502	PC	Digital Signal Processing	3 - 0 - 0	3	50	100	3	-	-
18UECC503	PC	Information Theory & Coding	3 - 0 - 0	3	50	100	3	--	--
18UECE5XX	PE	Program Elective-I	3 - 0 - 0	3	50	100	3	--	--
18UECL504	PC	Communication Systems Laboratory	0 - 0 - 3	1.5	50	--	--	50	3
18UECL505	PC	DSP Laboratory	0 - 0 - 3	1.5	50	--	--	--	--
18UECL506	PC	Minor Project-1	0 - 0 - 2	1	50	--	--	--	--
18UHUL507	HU	Soft skills/Aptitude	0 - 0 - 2	1	50	--	--	--	--
<b>Total</b>			<b>21-0-10</b>	<b>26</b>	<b>500</b>	<b>600</b>		<b>100</b>	

#### Program Elective-I

18UECE510	PE	Object Oriented Programming using C++	3 - 0 - 0	3	50	100	3	--	--
18UECE511	PE	Telecommunication Networks	3 - 0 - 0	3	50	100	3	--	--
18UECE512	PE	Scientific Computing using Python	3 - 0 - 0	3	50	100	3	--	--
18UECE513	PE	Sensors and Transducers	3 - 0 - 0	3	50	100	3	--	--

HU- Humanities, PC- Program Core

CIE: Continuous Internal Evaluation SEE: Semester End Examination

L: Lecture T: Tutorials P: Practical

\*SEE for theory courses is conducted for 100 marks and reduced to 50 marks

# SDMCET: Syllabus

## VI Semester

Course Code	Course Category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Credits	CIE Max. Marks	Theory (SEE) *Max. Marks	Duration in Hrs.	Practical (SEE) Max. Marks	Duration in Hrs.
18UECC600	PC	Analog & Mixed Mode VLSI Design	4 - 0 - 0	4	50	100	3	-	-
18UECC601	PC	IOT & Embedded System Design	4 - 0 - 0	4	50	100	3	-	-
18UECE6XX	PE	Program Elective-II	3 - 0 - 0	3	50	100	3	-	-
18UECE6XX	PE	Program Elective-III	3 - 0 - 0	3	50	100	3	-	-
18UECE6XX	OE	Open Elective	3 - 0 - 0	3	50	--	--	50	3
18UECL602	PC	Embedded Laboratory	0 - 0 - 3	1.5	50	--	--	50	3
18UECL603	PC	VLSI Laboratory	0 - 0 - 3	1.5	50	--	--	50	3
18UECL604	PC	Minor Project-2	0 - 0 - 4	2	50	--	--	--	--
18UHUL605	HU	Soft skills/Aptitude	0 - 0 - 2	1	50	--	--	--	--
<b>Total</b>			<b>17 - 0 - 12</b>	<b>23</b>	<b>450</b>	<b>500</b>		<b>150</b>	

Program Elective-II			L-T-P	Credits	CIE	Theory (SEE)	Practical (SEE)		
Course Code	Course Category	Course Title	(Hrs/Week)		Max. Marks	*Max. Marks	Duration in Hrs.	Max. Marks	Duration in Hrs.
18UECE610	PE	System Venlog	3 - 0 - 0	3	50	100	3	-	-
18UECE611	PE	Advanced Digital System Design	3 - 0 - 0	3	50	100	3	-	-
18UECE612	PE	Image Processing & Computer Vision	3 - 0 - 0	3	50	100	3	-	-
18UECE613	PE	Operating System	3 - 0 - 0	3	50	100	3	-	-

Program Elective-III			L-T-P	Credits	CIE	Theory (SEE)	Practical (SEE)		
Course Code	Course Category	Course Title	(Hrs/Week)		Max. Marks	*Max. Marks	Duration in Hrs.	Max. Marks	Duration in Hrs.
18UECE620	PE	Speech Processing	3 - 0 - 0	3	50	100	3	-	-
18UECE621	PE	Robotics	3 - 0 - 0	3	50	100	3	-	-
18UECE622	PE	Data Structure using C++	3 - 0 - 0	3	50	100	3	-	-
18UECE623	PE	Artificial Intelligence	3 - 0 - 0	3	50	100	3	-	-

Open Elective			L-T-P	Credits	CIE	Theory (SEE)	Practical (SEE)		
Course Code	Course Category	Course Title	(Hrs/Week)		Max. Marks	*Max. Marks	Duration in Hrs.	Max. Marks	Duration in Hrs.
18UECO630	OE	Cryptography	3 - 0 - 0	3	50	100	3	--	--
18UECO631	OE	Soft Computing	3 - 0 - 0	3	50	100	3	--	--
18UECO632	OE	Automotive Electronics	3 - 0 - 0	3	50	100	3	--	--
18UECO633	OE	Multimedia Communication	3 - 0 - 0	3	50	100	3	--	--
18UMAO675	OE	Applied Mathematics	3 - 0 - 0	3	50	100	3	--	--

PC- Program Core, PE-Program Elective, OE- Open Elective and HU- Humanities

CIE: Continuous Internal Evaluation SEE: Semester End Examination

L: Lecture

T: Tutorials

P: Practical

\*SEE for theory courses is conducted for 100 marks and reduced to 50 marks

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## VII Semester

Course Code	Course Category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
					Max. Marks	*Max. Marks	Duration in Hrs.	Max. Marks	Duration In Hrs.
18UECC700	PC	Antenna & Wave Propagation	4 - 0 - 0	4	50	100	3	-	-
18UECC701	PC	Computer Communication Networks	4 - 0 - 0	4	50	100	3	-	-
18UECE7XX	PE	Program Elective-IV	3 - 0 - 0	3	50	100	3	-	-
18UECO7XX	OE	Open Elective	3 - 0 - 0	3	50	100	3	-	-
18UECL702	PC	CCN Laboratory	0 - 0 - 2	1	50	--	--	50	3
18UECL703	PC	Major Project Phase-1	0 - 0 - 4	2	50	--	--	50	3
18UECL704	PC	Internship	4 weeks	2	50	--	--	50	3
<b>Total</b>			<b>14 - 0 - 6</b>	<b>19</b>	<b>350</b>	<b>400</b>		<b>150</b>	

18UECE7XX	PE	Program Elective-IV
18UECE710		MEMS
18UECE711		ASIC Design
18UECE712		VLSI DSP Systems
18UECE713		Optical Fiber Communication
18UECO7XX	OE	Open Elective
18UECO720		Machine Learning
18UECO721		Pattern Recognition
18UECO722		Multi Core Programming
18UECO723		Mobile Computing

PC- Program Core, PE-Program Elective, OE- Open Elective

**VIII Semester**

Course Code	Course Category	Course Title	Teaching		Examination				
			L-T-P (Hrs/Week)	Credits	CIE	Theory (SEE)		Practical (SEE)	
					Max. Marks	*Max. Marks	Duration in Hrs.	Max. Marks	Duration In Hrs.
18UECC800	PC	Wireless Communication	4 - 0 - 0	4	50	100	3	-	-
18UECE8XX	PE	<b>Program Elective-V</b>	3 - 0 - 0	3	50	100	3	-	-
18UECO8XX	OE	<b>Open Elective</b>	3 - 0 - 0	3	50	100	3	--	--
18UECL801	PC	Technical Seminar	0 - 0 - 2	1	50	--	--	--	--
18UECL802	PC	Major Project Phase-2	0-0 -12	7	50	--	--	50	3
<b>Total</b>			<b>10- 0 - 14</b>	<b>18</b>	<b>250</b>	<b>300</b>	<b>--</b>	<b>50</b>	<b>--</b>

18UECE8XX	PE	<b>Program Elective-V</b>
18UECE810		Adhoc Wireless Networks
18UECE811		Re-configurable Design
18UECE812		Low Power VLSI Design
18UECE813		Digital Signal Compression
18UECO8XX	OE	<b>Open Elective</b>
18UECO820		DSP Architecture
18UECO821		CAD for VLSI
18UECO822		Operation Research
18UECO823		Advanced Computer Architecture
18UPHO876		Nanotechnology

PC- Program Core, PE-Program Elective and OE- Open Elective