



## School of Engineering & Technology

### Department of Electronics and Communication Engineering

**Program: B.Tech in Electronics and Communication Engineering**

**Total Credit: 166**

#### SEMESTER I

Theory / Practical	Sl.No	Course Type	Course Code	Course Name	Hours per week			Credit
					L	T	P	C
T/P	1.	BSC	BCH23111	Chemistry	3	0	2	4
T	2.	BSC	BMA23111	Mathematics - I	3	1	0	4
T/P	3.	ESC	BCS23101	Programming for Problem Solving	2	0	4	4
T/P	4.	HSMC	BEN23102	English for Technical Communication	2	0	2	3
T	5.	MC	UHV23001	Universal Human Values	2	1	0	3
P	6.	ESC	BME23101	Manufacturing Practice Workshop-I	0	0	2	1
P	7.	HSM C	JPN23101	Communicative Japanese	0	0	2	1
<b>Total</b>					<b>12</b>	<b>3</b>	<b>10</b>	<b>20</b>

#### Semester II

Theory / Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit
					L	T	P	C
T/P	1.	BSC	BPY23111	Physics	3	1	2	5
T	2.	BSC	BMA23112	Mathematics – II	3	1	0	4
T	3.	BSC	BBI23101	Biology for Engineers	2	0	0	2
T/P	4.	ESC	BEL23101	Basic Electrical Engineering	3	1	2	5
P	5.	ESC	BCE23101	Engineering Graphics and Design	0	0	4	2
P	6.	ESC	BME23102	Programming with C++	0	0	2	1
P	7.	ESC	BME23103	Design Thinking & Idea Lab	0	0	2	1
P	8.	AUC	SYN23001	Sports/Yoga/NSS/NCC/Activities	0	0	2	0
<b>Total</b>					<b>12</b>	<b>3</b>	<b>14</b>	<b>20</b>

\*SYN23001 – SPORTS, SYN23002 – YOGA, SYN23003 – NSS, SYN23004 – NCC, SYN23005 – OTHER ACTIVITIES



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#### SEMESTER III

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit
					L	T	P	
T/P	1.	PCC	BEC23101	Electronic Devices	2	1	2	4
T/P	2.	PCC	BEC23102	Digital System Design	2	1	2	4
T/P	3.	PCC	BEC23103	Signals and Systems	2	1	2	4
T/P	4.	PCC	BEC23104	Network Theory	2	1	2	4
T	5.	PCC	BEC23105	Data structure	2	1	0	3
T	6.	BSC	BMA23212	Probability Theory and Stochastic Processes	2	1	0	3
T	7.	AU	BCH23112	Environmental Studies	2	0	0	0
<b>Total</b>					<b>14</b>	<b>6</b>	<b>8</b>	<b>22</b>

#### SEMESTER IV

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit
					L	T	P	
T/P	1.	PCC	BEC23201	Analog Circuits	2	1	2	4
T/P	2.	PCC	BEC23202	Microprocessor	3	0	2	4
T/P	3.	PCC	BEC23203	Analog Communication	2	1	2	4
T/P	4.	PCC	BEC23204	Advanced Programming Language	3	0	2	4
T	5.	PCC	BEC23205	Power Electronics	2	1	0	3
T	6.	HSMC	BEC23206	Basics of Indian Knowledge System	1	0	0	1
P	7.	ESC	BEC23207	IoT / Robotics - Micro Project	0	0	2	1
<b>Total</b>					<b>14</b>	<b>3</b>	<b>10</b>	<b>21</b>



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#### Semester V

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit
					L	T	P	
T/P	1.	PCC	BEC23301	Digital Signal Processing	2	1	2	4
T/P	2.	PCC	BEC23302	Microcontroller and Embedded Systems	3	0	2	4
T/P	3.	PCC	BEC23303	Digital Communication	2	1	2	4
T/P	4.	PCC	BEC23304	Electromagnetic Waves	2	1	0	3
T	5.	OE-1	BEC2333X	Open Elective - 1	3	0	0	3
T	6.	HSM-4	BME24111	Entrepreneurship and startup	3	0	0	3
P	7.	PCC	BEC23306	Internship	0	0	0	1
<b>Total</b>					<b>15</b>	<b>3</b>	<b>6</b>	<b>22</b>

MOEC	Course Code	Course Name
1	BEC23330	VLSI design
1	BEC23331	Mechatronics
1	BEC23332	Robotics and Control

#### Semester VI

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit
					L	T	P	
T/P	1.	PCC	BEC23401	Microwave and Antenna theory	2	1	2	4
T/P	2.	PCC	BEC23402	Control System	3	0	2	4
T/P	3.	PCC	BEC23403	Digital system Design-VHDL & Verilog	3	0	2	4
T	3.	PE-1	BEC2342X	Program Elective -1	2	1	0	3
T	4.	OE-2	BEC2343X	Open Elective -2	3	0	0	3
T	5.	HSM-5	BCM25101	Finance & Accounting / Constitution of India	2	0	0	2
P	6.	PCC	BEC23404	Mini Project	0	0	4	2
<b>Total</b>					<b>15</b>	<b>2</b>	<b>10</b>	<b>22</b>

Program Elective	Course Code	Course Name
	1	BEC23420
1	BEC23421	Information Theory and Coding

MOEC	Course Code	Course Name
2	BEC23430	Digital Image Processing
2	BEC23431	Advanced Digital Signal Processing



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#### Semester VII

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit
					L	T	P	
T/P	1.	PCC	BEC23501	Optical fibre Communication	2	1	2	4
T/P	2.	PCC	BEC23502	Mixed Signal Design	3	0	2	4
T/P	3.	PE-2	BEC2352X	Program Elective -2	2	1	0	3
T/P	4.	PE-3	BEC2352X	Program Elective - 3	2	1	0	3
T	5.	OE-3	BEC2353X	Open Elective - 3	3	0	0	3
T	6.	HSM-4	BEC23503	Project-1	0	0	8	4
P	7.	PCC	BEC23504	Internship	0	0	0	2
<b>Total</b>					<b>15</b>	<b>3</b>	<b>6</b>	<b>23</b>

Program Elective	Course Code	Course Name
2	BEC23520	Biomedical Electronics
2	BEC23521	Sensor and Actuator
3	BEC23522	AI & Machine Learning
3	BEC23523	Introduction to MEMS

MOEC	Course Code	Course Name
2	BEC23530	Computer Architecture
2	BEC23531	Nanoelectronics
2	BEC23532	Cyber Security



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#### Semester VIII

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit
					L	T	P	
P	1.	PCC	BEC23601	Apprentice / Project				
<b>Total</b>					<b>0</b>	<b>0</b>	<b>32</b>	<b>16</b>