

PSN COLLEGE OF ENGINEERING AND TECHNOLOGY(AUTONOMOUS)

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

MINOR DEGREE SUBJECT LIST

LIST OF VERTICALS – R 2022

VERTICAL- I SEMICONDUCTOR CHIP DESIGN AND TESTING

SL · N O.	COURSE CODE	COURSE TITLE		Classification	L	T	P	C
1.	EC606101	Wide Band gap Devices	PE	Theory	3	0	0	3
2.	EC606102	ASIC Design	PE	Theory	3	0	0	3
3.	EC606103	Analog IC Design	PE	Theory	3	0	0	3
4.	EC606104	Low Power IC Design	PE	Theory	3	0	0	3
5.	EC606105	System on Chip	PE	Theory with Project	3	0	0	3
6.	EC606106	Mixed Signal IC Design Testing	PE	Theory	3	0	0	3
7.	EC606107	CMOS Analog VLSI Design	PE	Theory	3	0	0	3
8.	EC606108	VLSI Design verification and Test	PE	Theory	3	0	0	3
9.	EC606109	Digital VLSI Testing	PE	Theory	3	0	0	3
10.	EC606110	Design and Analysis of VLSI subsystem	PE	Theory	3	0	0	3

VERTICAL- II SIGNAL PROCESSING

SL · N O.	COURSE CODE	COURSE TITLE		Classification	L	T	P	C
1	EC606201	Advanced Digital Signal Processing	PE	Theory	3	0	0	3
2	EC606202	Image processing	PE	Theory	3	0	0	3
3	EC606203	Speech processing	PE	Theory	3	0	0	3
4	EC606204	Software Defined Radio	PE	Theory	3	0	0	3

5	EC606205	Signal Compression- Theory and Methods	PE	Theory	3	0	0	3
6	EC606206	Biomedical Signal Processing	PE	Theory	3	0	0	3
7	EC606207	Digital video signal processing	PE	Theory	3	0	0	3
8	EC606208	Discrete time signal Processing	PE	Theory	3	0	0	3
9	EC606209	Digital speech Processing	PE	Theory with Project	3	0	0	3
10	EC606210	Signal Processing Techniques and its application	PE	Theory	3	0	0	3

VERTICAL- III RF TECHNOLOGIES

SL. NO.	COURSE CODE	COURSE TITLE		Classification	L	T	P	C
1	EC606301	RF Transceivers	PE	Theory	3	0	0	3
2	EC606302	Electro Magnetic Field Theory	PE	Theory	3	0	0	3
3	EC606303	Signal Integrity	PE	Theory	3	0	0	3
4	EC606304	Antenna Design	PE	Theory with Project	3	0	0	3
5	EC606305	MICs and RF System Design	PE	Theory	3	0	0	3
6	EC606306	EMI/EMC Pre compliance Testing	PE	Theory	3	0	0	3
7	EC606307	RF ID System Design & Testing	PE	Theory	3	0	0	3
8	EC606308	RF Communication System Design	PE	Theory	3	0	0	3
9	EC606309	RF Integrated Circuits	PE	Theory	3	0	0	3
10	EC606310	Design Principles of RF and Microwave filters and Amplifiers	PE	Theory	3	0	0	3

VERTICAL -IV SPACE TECHNOLOGIES

SL. NO.	COURSE CODE	COURSE TITLE		Classification	L	T	P	C
1	EC606401	Radar Technologies	PE	Theory	3	0	0	3
2	EC606402	Avionics Systems	PE	Theory	3	0	0	3

3	EC606403	Positioning and Navigation Systems	PE	Theory	3	0	0	3
4	EC606404	Satellite Communication	PE	Theory	3	0	0	3
5	EC606405	Remote Sensing	PE	Theory with Project	3	0	0	3
6	EC606406	Rocketry and Space Mechanics	PE	Theory	3	0	0	3
7	EC606407	Radar and Navigational Aids	PE	Theory	3	0	0	3
8	EC606408	Automotive Radar	PE	Theory	3	0	0	3
9	EC606409	UEO Spatial Analytics	PE	Theory	3	0	0	3
10	EC606410	Aircraft Design	PE	Theory	3	0	0	3

VERTICAL -V HIGH SPEED COMMUNICATION

SL. NO.	COURSE CODE	COURSE TITLE		Classification	L	T	P	C
1	EC606501	Optical Communication & Networks	PE	Theory	3	0	0	3
2	EC606502	Wireless Broad Band Networks	PE	Theory	3	0	0	3
3	EC606503	4G/5G Communication Networks	PE	Theory	3	0	0	3
4	EC606504	Massive MIMO Networks	PE	Theory				
5	EC606505	Optical wireless communication for beyond 5G Networks and IoT	PE	Theory	3	0	0	3
6	CS606206	Software Defined Networks (Common to ECE&CSE)From CSE	PE	Theory	3	0	0	3
7	EC606506	Broadband Networks :Concept and Technology	PE	Theory with Project	3	0	0	3
8	EC606507	Networks and Systems	PE	Theory	3	0	0	3
9	EC606508	Fundamentals of MIMO wireless communication	PE	Theory	3	0	0	3
10	EC606509	Spread spectrum communication and Jamming	PE	Theory	3	0	0	3

VERTICAL -VI SENSOR TECHNOLOGIES

SL. NO.	COURSE CODE	COURSE TITLE		Classification	L	T	P	C
1	EC606601	Sensors And Actuators	PE	Theory with Project	3	0	0	3
2	EC606602	Digital Measurements And Instrumentation	PE	Theory	3	0	0	3
3	EC606603	Energy Aware Sensors	PE	Theory	3	0	0	3
4	EC606604	Multidisciplinary Sensors	PE	Theory	3	0	0	3
5	EC606605	Advanced Sensor And Detection Materials	PE	Theory	3	0	0	3
6	EC606606	Industrial Instrumentation And Technology Management	PE	Theory	3	0	0	3
7	EC606607	Wireless Sensor Network Design	PE	Theory	3	0	0	3
8	EC606608	Design with Raspberry PI	PE	Theory	3	0	0	3
9	EC606609	Display Systems	PE	Theory	3	0	0	3
10	EC606610	Nano Electronic Devices and Materials	PE	Theory	3	0	0	3

VERTICAL- VII INTERNET OF THINGS (CSE Subject)

SL. NO.	COURSE CODE	COURSE TITLE		Classification	L	T	P	C
1	CS606401	Introduction to Internet of Things	PE	Theory	3	0	0	3
2	CS606402	IoT Architecture and Framework	PE	Theory with Project	3	0	0	3
3	CS606403	Communication protocols for IoT	PE	Theory	3	0	0	3
4	CS606404	Cloud services for IoT	PE	Theory	3	0	0	3
5	CS606405	Computer Networks and Internet Protocol	PE	Theory	3	0	0	3
6	CS606406	Privacy and security in IoT	PE	Theory	3	0	0	3
7	CS606407	IoT Platform for Smart city planning	PE	Theory	3	0	0	3

8	CS606408	IoT for Smart Grids	PE	Theory	3	0	0	3
9	CS606409	IoT and its Applications	PE	Theory	3	0	0	3
10	CS606410	Introduction to Industry 4.0 and Industrial Internet of Things	PE	Theory	3	0	0	3

HoD/ECE