

Department of Electronics

UG & PG Department of Electronics and Research Center.

(Give separate information for each subject if Department offers more subjects)

Name of the Subject : -	Electronics
Number of full time teachers in the subject teaching only UG courses : -	01
Number of full time teachers in the subject teaching only PG courses : -	03
Number of teachers teaching both UG and PG courses : -	03
Program outcomes of all Programs (UG and/or PG and/or Diploma) offered by the Department : -	1) B.Sc. (Electronics) 2) M. Sc. (Electronics)

B.Sc. Electronics Program Outcomes	
PO1:	To impart knowledge in fundamental aspects of all branches of Electronics
PO2:	The student apply knowledge and skills they have acquired to the solution of specific theoretical and applied problems in electronics.
PO3:	The student acquires an ability to model, simulate and evaluate the phenomenon and systems in the advanced areas of electronics.
PO4:	Provide students with skills that enable them to get employment in industries or pursue higher studies or research assignments or turn as entrepreneurs.
PO5:	To develop skills in the proper handling of apparatus and components
PO6:	The student will have the abilities to design and develop innovative solutions for benefits of society, by diligence, leadership, team work and lifelong learning.

B.Sc. Electronics Program Specific Outcomes	
PSO1:	Apply the concepts of Electronics in the design, development and implementation of application oriented real time systems.
PSO2:	They will be capable enough of taking up higher studies in electronics and to get jobs in the industries.
PSO3:	Understand the use of electronics in the field of computer science.

Yeshwant Mahavidyalaya, Nanded
Department of Electronics

Semester: I

Subject Name: Basic Electronics and Network Analysis (P-I):

Course Outcomes:

Upon the completion of this course, the student will be able to

Course Outcomes	Statement	Knowledge Level
CO1	Able to identify variety of electronic components viz. resistors, inductors capacitors and their types & uses.	K1,K2
CO2	Able to understand I-V characteristics of basic electronic components.	K2
CO3	Able to apply network theorems to simplify given network.	K3,K4
CO4	Able to distinguish between DC/AC sources, relate various characteristics of sinusoidal voltage and understand use of resonant circuits.	K4,K5

- Bloom's Taxonomy Knowledge Level (K1, K2, K3, K4, K5, K6)

K1-Remember, K2- Understand, K3- Apply, K4- Analyze, K5- Evaluate, K6- Create

CO-PO & PSO Mapping:

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	2	3			2		2		
CO2	2		1				3		2
CO3	1	3	2			3		1	
CO4		1		2	3				1
Average									

- 3 – High; 2 – Medium; 1 – Low

Yeshwant Mahavidyalaya, Nanded
Department of Electronics

Semester: I

Subject Name: Basic Digital Electronics (P-II)

Course Outcomes:

Upon the completion of this course, the student will be able to

Course Outcomes	Statement	Knowledge Level
CO1	Able to distinguish between analogue & digital signal/data.	K1,K2
CO2	Able to draw logic circuit for a given Boolean expression.	K2,K3
CO3	Able to analyse, transform, minimize Boolean expression & implement it.	K3,K4

- Bloom's Taxonomy Knowledge Level (K1, K2, K3, K4, K5, K6)

K1-Remember, K2- Understand, K3- Apply, K4- Analyze, K5- Evaluate, K6- Create

CO-PO & PSO Mapping:

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	2		1		2		3		2
CO2	1	3	1	2			2		2
CO3		3	2	3		3	1	1	
Average									

- 3 – High; 2 – Medium; 1 – Low

Yeshwant Mahavidyalaya, Nanded
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Semester: II

Subject Name: Semiconductor Devices and Electronic Instruments (P-III):

Course Outcomes:

Upon the completion of this course, the student will be able to

Course Outcomes	Statement	Knowledge Level
CO1	Able to understand I-V characteristics of various semiconductor diodes.	K1,K2
CO2	Able to understand input/output characteristics of transistor.	K2
CO3	Able to distinguish between unregulated & regulated power supply and its significance.	K3,K4
CO4	Able to demonstrate the use of multi-meter & CRO.	K3

- Bloom's Taxonomy Knowledge Level (K1, K2, K3, K4, K5, K6)

K1-Remember, K2- Understand, K3- Apply, K4- Analyze, K5- Evaluate, K6- Create

CO-PO & PSO Mapping:

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	2	2	3	1	1	2	1	2	
CO2	1	3	2	1		3	1		
CO3				3	2	1	2		
CO4				3	2		1		
Average									

- 3 – High; 2 – Medium; 1 – Low

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Semester: II

Subject Name: Digital Logic Circuits (P-IV)

Course Outcomes:

Upon the completion of this course, the student will be able to

Course Outcomes	Statement	Knowledge Level
CO1	Able to distinguish between JK Flipflop & JKMS Flipflop; between T Flipflop & D Flipflop.	K4,K5
CO2	Acquire the skill of using FFs for given application such as register, counter etc.	K3
CO3	Able to present the use of MUX, DMUX.	K3,K4
CO4	Able to understand the uses of ADC & DAC.	K2,K1

- Bloom's Taxonomy Knowledge Level (K1, K2, K3, K4, K5, K6)

K1-Remember, K2- Understand, K3- Apply, K4- Analyze, K5- Evaluate, K6- Create

CO-PO & PSO Mapping:

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	1	2	1	2	1			1	2
CO2	1		3	1	1	1	1		2
CO3	1	2	2	1		1	1	2	
CO4	1	1		1	1		1		1
Average									

- 3 – High; 2 – Medium; 1 – Low

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Semester: III

Subject Name: Amplifiers (P-VI)

Course Outcomes:

Upon the completion of this course, the student will be able to

Course Outcomes	Statement	Knowledge Level
CO1	Knowledge of transistor biasing.	K1,K2
CO2	Analysis of small signal amplifier using h-parameters and designing of CE amplifier.	K3,K4
CO3	Concept of an ideal amplifier, knowledge of IC 741 and its applications.	K1,K2,K5

- Bloom's Taxonomy Knowledge Level (K1, K2, K3, K4, K5, K6)

K1-Remember, K2- Understand, K3- Apply, K4- Analyze, K5- Evaluate, K6- Create

CO-PO & PSO Mapping:

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	1	3	1	1	1	1	2	1	1
CO2	1	2	3	2		2	3	2	
CO3	1	2		1			1		1
Average									

- 3 – High; 2 – Medium; 1 – Low

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Semester: III

Subject Name: Microprocessor and Its Applications (P-VII)

Course Outcomes:

Upon the completion of this course, the student will be able to

Course Outcomes	Statement	Knowledge Level
CO1	Knowledge of microprocessor based systems.	K1,K2
CO2	Knowledge of Instruction set of 8085 and ALP skills.	K3,K4
CO3	Understand Working and applications of ICs 74LS373 and Intel 8255.	K2,K6

- Bloom's Taxonomy Knowledge Level (K1, K2, K3, K4, K5, K6)

K1-Remember, K2- Understand, K3- Apply, K4- Analyze, K5- Evaluate, K6- Create

CO-PO & PSO Mapping:

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	2	1	1		1	1	2	1	2
CO2	1	2	2	3	1	2	1	3	1
CO3	1	2	2		1	1	1	2	
Average									

- 3 – High; 2 – Medium; 1 – Low

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Semester: IV

Subject Name: Introduction to Microcontroller Intel 8051 (P-IX)

Course Outcomes:

Upon the completion of this course, the student will be able to

Course Outcomes	Statement	Knowledge Level
CO1	Knowledge of internal architecture of 8051 and function of each block.	K2
CO2	Instruction set of 8051 and ALP skills.	K3,K6
CO3	Knowledge of SFRs, Timers and Interrupts of 8051.	K2,K3

- Bloom's Taxonomy Knowledge Level (K1, K2, K3, K4, K5, K6)

K1-Remember, K2- Understand, K3- Apply, K4- Analyze, K5- Evaluate, K6- Create

CO-PO & PSO Mapping:

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	1	3		3	2		2	1	1
CO2	1	2	1	3			3		2
CO3	1	3	2			3		1	
Average									

- 3 – High; 2 – Medium; 1 – Low

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Semester: V

Subject Name: Communication Electronics-I (P-XII)

Course Outcomes:

Upon the completion of this course, the student will be able to

Course Outcomes	Statement	Knowledge Level
CO1	Understanding of communication systems.	K2
CO2	Working of analogue modulation techniques.	K1,K2
CO3	Understanding of analogue pulse modulation.	K3,K4
CO4	Understanding of digital pulse modulation.	K2

■ Bloom's Taxonomy Knowledge Level (K1, K2, K3, K4, K5, K6)

K1-Remember, K2- Understand, K3- Apply, K4- Analyze, K5- Evaluate, K6- Create

CO-PO & PSO Mapping:

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	1	1		1	1	2	2	1	1
CO2	2	2		3	1	2	1	1	2
CO3		1		1		1	1	2	
CO4	1		3			1		2	
Average									

■ 3 – High; 2 – Medium; 1 – Low

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Semester: V

Subject Name: 'C' Programming (Paper-XIII (B))

Course Outcomes:

Upon the completion of this course, the student will be able to

Course Outcomes	Statement	Knowledge Level
CO1	Knowledge of basics of C programming language.	K1,K2
CO2	Understanding of control statements, arrays, functions and pointers.	K2,K3
CO3	C programming skill.	K6

- Bloom's Taxonomy Knowledge Level (K1, K2, K3, K4, K5, K6)

K1-Remember, K2- Understand, K3- Apply, K4- Analyze, K5- Evaluate, K6- Create

CO-PO & PSO Mapping:

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	1	2	2	3		1	2	2	1
CO2	2	1	1	3		1	1	1	
CO3				3		1		1	1
Average									

- 3 – High; 2 – Medium; 1 – Low

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Semester: VI

Subject Name: Communication Electronics – II (Paper-XIV)

Course Outcomes:

Upon the completion of this course, the student will be able to

Course Outcomes	Statement	Knowledge Level
CO1	Understanding of Radio Receivers.	K2
CO2	Knowledge of basics of Microwaves.	K1,K2
CO3	Knowledge of basics of RADAR systems	K2,K1
CO4	Understanding of basics of Mobile communication and optical fibers.	K2,K3,K5

■ Bloom's Taxonomy Knowledge Level (K1, K2, K3, K4, K5, K6)

K1-Remember, K2- Understand, K3- Apply, K4- Analyze, K5- Evaluate, K6- Create

CO-PO & PSO Mapping:

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	2	1		1	1	3		1	
CO2	2	1					2		
CO3	3		2	2	3				
CO4	2	1	1				2	1	
Average									

■ 3 – High; 2 – Medium; 1 – Low

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Semester: VI

Subject Name: Electronic Instrumentation (Paper-XV(B))

Course Outcomes:

Upon the completion of this course, the student will be able to

Course Outcomes	Statement	Knowledge Level
CO1	Knowledge of characteristics, errors, standards.	K1
CO2	Working of transducers and their uses.	K2,K3
CO3	Ability to choose proper transducer.	K4,K5
CO4	Knowledge of uses of various digital instruments.	K3

- Bloom's Taxonomy Knowledge Level (K1, K2, K3, K4, K5, K6)

K1-Remember, K2- Understand, K3- Apply, K4- Analyze, K5- Evaluate, K6- Create

CO-PO & PSO Mapping:

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	1	1		1	2		2		
CO2	2	3	1	2	1		2	2	
CO3		2	3	2	2	1	3	1	
CO4	1	2	1		3		1	1	
Average									

- 3 – High; 2 – Medium; 1 – Low