



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

[Sponsored by Lavu Educational Society]

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad.)

Kondapur (V), Ghatkesar (M), Medchal - Malkajgiri (D) - 501 301 Phone: +91 96529 10002/3



Department of Electronics and Communication Engineering

IV B.Tech I Semester

SUBJECT: MICROWAVE AND OPTICAL COMMUNICATIONS (C423)

Upon completing this course, the student will be able to

SNO	COURSE OUTCOMES	BT Level
C423.1	Understand power generation at microwave frequencies and derive the performance characteristics.	2
C423.2	Comprehend the need for solid state microwave sources and understand the principles of solid state devices.	2
C423.3	Distinguish between the different types of waveguide and ferrite components, and select proper components for engineering applications	4
C423.4	Understand the utility of S-parameters in microwave component design and learn the measurement procedure of various microwave parameters.	2
C423.5	Understand the mechanism of light propagation through Optical Fibres.	2

MAPPING

CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
C423.1	3	2	2	-	-	-	1	-	-	-	-	-	3	2	-
C423.2	3	3	3	1	1	1	1	1	1	1	1	-	3	3	2
C423.3	3	2	2	-	-	-	1	-	-	-	1	-	3	2	-
C423.4	3	2	2	-	-	-	1	-	-	-	-	-	3	2	-
C423.5	3	2	2	-	-	-	-	-	-	-	-	1	3	2	-
Average	3	2.2	2.2	1	1	1	1	1	1	1	1	1	3	2.2	2



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SUBJECT: DATABASE MANAGEMENT SYSTEMS (C425)

After going through this course the student will

SNO	COURSE OUTCOMES	BT Level
C425.1	Describe data models and schemas in DBMS	2
C425.2	Understand the features of database management systems and Relational database.	1
C425.3	Use SQL- the standard language of relational databases.	3
C425.4	Understand the functional dependencies and design of the database.	1
C425.5	Understand the concept of Transaction and Query processing.	1

MAPPING

CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
C425.1	2	2	2	2	1	1	-	-	2	2	1	1	1	2	1
C425.2	2	2	1	2	2	1	-	-	1	2	2	1	1	1	1
C425.3	1	1	2	2	2	-	1	-	2	2	2	1	1	2	1
C425.4	2	2	2	1	2	1	-	-	2	1	2	1	1	2	-
C425.5	2	2	2	2	2	1	-	1	2	2	2	-	-	1	1
Average	1.8	1.8	1.8	1.8	1.8	1	1	1	1.8	1.8	1.8	1	1	1.6	1



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SUBJECT: PYTHON PROGRAMMING (C426)

After going through this course the student will

SNO	COURSE OUTCOMES	BT Level
C426.1	Examine Python syntax and semantics and be fluent in the use of Python flow control and functions.	4
C426.2	Demonstrate proficiency in handling Strings and File Systems.	2
C426.3	Create, run and manipulate Python Programs using core data structures like Lists, Dictionaries and use Regular Expressions.	5
C426.4	Interpret the concepts of Object-Oriented Programming as used in Python.	3
C426.5	Implement exemplary applications related to Network Programming, Web Services and Databases in Python.	3

MAPPING

CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
C426.1	-	1	2	1	1	-	-	-	-	-	-	-	-	1	-
C426.2	-	1	2	1	-	-	-	-	-	-	-	-	-	1	-
C426.3	1	1	2	1	2	1	1	1	2	1	1	1	1	2	1
C426.4	-	1	2	1	1	-	-	-	1	-	-	-	-	1	-
C426.5	-	1	2	1	2	1	1	1	2	-	1	1	1	1	1
Average	1	1	2	1	1.5	1	1	1	1.6	1	1	1	1	1.2	1



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SUBJECT: PROFESSIONAL PRACTICE, LAW & ETHICS (C427)

After going through this course the student will

SNO	COURSE OUTCOMES	BT Level
C427.1	Inculcate moral values and become and socially responsible citizens of the society	2
C427.2	Sense of right and wrong based on the moral philosophy and spirituality of our tradition	4
C427.3	Aware of the problems of modern society and to make them understand the need for them as engineers and responsible citizens	3
C427.4	Follow professional ethics and ethical practices in their profession	2
C427.5	Sense of responsibility for the mankind and the need to practice harmonious and synergetic way of life respecting nature, environment and values	4

MAPPING

CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
C427.1	-	1	2	1	-	2	2	1	1	-	-	1	1	1	2
C427.2	-	1	2	1	-	1	2	2	1	-	-	1	1	-	2
C427.3	-	1	1	1	-	2	1	2	-	-	-	1	-	1	2
C427.4	-	-	2	1	-	2	2	1	1	-	-	-	1	1	1
C427.5	-	1	2	-	-	2	1	2	-	-	-	1	1	1	2
Average	-	1	1.8	1	-	1.8	1.6	1.6	1	-	-	1	1	1	1.8



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SUBJECT: MICROWAVE AND OPTICAL COMMUNICATIONS LAB (C428)

At the end of the course the student will be able to

SNO	COURSE OUTCOMES	BT Level
C428.1	Verify characteristics of Reflex Klystron.	5
C428.2	Analyze various parameters of Waveguide Components.	4
C428.3	Estimate the power measurements of RF Components such as directional Couplers.	5
C428.4	Demonstrate characteristics of various optical sources.	3
C428.5	Measure data Rate, Numerical Aperture and Losses in Optical Link.	5

MAPPING

CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
C428.1	2	2	2	2	-	-	-	-	-	-	-	-	3	2	-
C428.2	3	2	3	2	2	1	1	-	1	1	-	-	3	3	-
C428.3	3	3	3	3	2	2	-	-	1	1	1	1	3	3	1
C428.4	3	2	2	2	-	-	-	-	-	-	-	-	3	2	-
C428.5	3	3	3	2	2	1	1	1	1	2	1	-	3	3	1
Average	2.8	2.4	2.6	2.2	2	1.3	1	1	1	1.33	1	1	3	2.6	1



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SUBJECT: INDUSTRY ORIENTED MINI PROJECT (C412)

After going through this course the student will be in the position to

SNO	COURSE OUTCOMES	BT Level
C412.1	Choose short research projects in a team under the direction of members of the faculty	6
C412.2	Prepare detailed report describing the project and results.	5
C412.3	Perform fabrication work of new experimental set up/devices or develop software packages	3
C412.4	Justify the project by making an oral presentation before an evaluation committee	6

MAPPING

CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
C412.1	2	2	2	-	-	-	-	-	2	-	-	-	1	1	1
C412.2	-	-	-	-	-	-	-	-	-	2	-	-	1	-	1
C412.3	1	2	2	2	1	1	1	1	-	-	1	1	-	1	1
C412.4	-	-	-	-	-	-	-	-	-	2	-	-	1	1	-
Average	1.5	2	2	2	1	1	1	1	2	2	1	1	1	1	1



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SUBJECT: SEMINAR (C413)

After going through this course the student will be in the position to

SNO	COURSE OUTCOMES	BT Level
C413.1	Study research papers for understanding of a new field, in the absence of a textbook , to summarise and review them.	1
C413.2	Identify promising new directions of various cutting edge technologies	2
C413.3	Prepare detailed report describing the project and results	5
C413.4	Justify themselves by making an oral presentation before an evaluation committee	6

MAPPING

CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
C413.1	2	2	2	2	2	1	-	-	-	-	-	-	1	1	1
C413.2	2	2	2	2	2	1	-	-	-	-	-	-	1	-	1
C413.3	-	-	-	-	-	-	-	-	-	2	-	-	-	1	-
C413.4	-	-	-	-	-	-	-	-	1	2	-	-	1	1	1
Average	2	2	2	2	2	1	-	-	1	2	-	-	1	1	1



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SUBJECT: PROJECT STAGE – I (C414A)

After going through this course the student will be in the position to

SNO	COURSE OUTCOMES	BT Level
C414A.1	Demonstrate a sound technical knowledge of their selected project topic.	2
C414A.2	Undertake problem identification, formulation and solution.	2
C414A.3	Design engineering solutions to complex problems utilising a systems approach.	5
C414A.4	Communicate with engineers and the community at large in written and oral forms.	5
C414A.5	Demonstrate the knowledge, skills and attitudes of a professional engineer.	2

MAPPING

CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
C414A.1	1	-	-	-	1	-	-	-	1	-	-	1	1	1	1
C414A.2	1	2	1	1	1	-	-	1	1	-	1	1	1	-	-
C414A.3	2	2	2	3	2	1	1	1	2	1	1	-	2	1	1
C414A.4	-	-	-	-	-	1	-	1	-	3	2	1	1	1	1
C414A.5	-	-	-	-	1	-	-	-	1	-	-	1	1	1	1
Average	1.3	2	1.5	2	1.2	1	1	1	1.2	2	1.3	1	1.2	1	1