

Course Code	Course Title	L	T	P	C
1152EC109	OPTOELECTRONIC DEVICES	3	0	0	3

a) Course Category

Program Elective

b) Preamble

Optoelectronic devices provides to learn different types of optical emission, detection and optoelectronic integrated circuits and their applications

c) Prerequisite

Nil

d) Related Courses

Optical and microwave engineering, Optical Communication Systems and Networks.

e) Course Outcomes

Upon the successful completion of the course, student will be able to:

CO Nos.	Course Outcomes	Knowledge Level (Based on Revised Bloom's Taxonomy)
CO1	Describe the fundamentals of optoelectronics	K2
CO2	Discuss the different types of display devices and operating principle of laser	K2
CO3	Classify the different types of photo detectors	K2
CO4	Explain about the modulators and switching devices	K2
CO5	Explain the integration methods, materials, OEIC transmitters receivers, guided wave devices and photonic integrated circuits	K2

f) Correlation of COs with POs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	L	L	-	-	L	-	-	-	-	--	-	L	-	-
CO2	L	M	M	L	M	-	-	-	-	-	-	M	L	-

Reference Books

1. W. W. Wen, "VLSI Test Principles and Architectures Design for Testability", Morgan Kaufmann
2. A.L.Crouch, "Design Test for Digital IC's and Embedded Core Systems", Prentice Hall International, 2002.
3. ZainalabeNavabi, "Digital System Test and Testable Design: Using HDL Models and Architectures", Springer, 2010
4. A.K Sharma, Semiconductor Memories Technology, Testing and Reliability, IEEE.
5. M. Abramovici, M.A. Breuer and A.D. Friedman, "Digital Systems and Testable Design", Jaico Publishing House

Online Resources

1. www.nptel.ac.in/courses/106103016