Course Type	Course Code	Name of Course	L	T	P	Credit
DP	NECC524	Photonics Project Lab	0	0	3	1.5

Course Objective

The goal of this lab is to gain a working knowledge of the advanced area of optical communication and integrated photonics.

Learning Outcomes

By the end of the course, the student must be able to:
- the advanced topic of optical communication
- advanced topic of integrated photonics

Unit No.	Topics to be Covered	Lecture Hours	Learning Outcome
1	Review of Optical Communication and Integrated Photonics.	12	To learn the various aspects of Optical Communication and Integrated Photonics.
2	Minor Project-I	15	Students will be asked to carry out a small-scale project, based on their understanding of photonic circuit/device modelling/system design
33.	Minor Project-II	15	Students will be asked to carry out a small-scale project, based on their understanding of photonic circuit/device modelling/system design
	Total	42	

Reference Books:

1. Ghatak and K. Thyagarajan, An Introduction to Fiber Optics. Cambridge: Cambridge University Press, 1998
2. Govind P. Agrawal, Fiber-Optic Communication Systems, 5th Edition, John Wiley & Sons, 2021
3. Jasprit Singh, "Optoelectronics: An Introduction to Materials and Devices", McGraw-Hill Education, 1996
4. Pallab Bhattacharya, "Semiconductor Optoelectronic Devices", Pearson Education, 2017
5. G. Keiser, "Optical Fiber Communications," 6th ed., McGraw-Hill Education, 2022
6. B. E. A. Saleh and M. C. Tech., "Fundamentals of Photonics," 3rd ed., Wiley, 2019
7. C R Pollock and M Lipson: Integrated photonics, Kluwer Academic Pub, 2003