Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective Action upon Review
1.	26-12-2016	Introduction to Optical fiber communications, General system. Advantages	I	B.B		
2.	27-12-2016	Introduction to optical fiber Waveguides - Ray theory transmission	I	B.B		
3.	28-12-2016	Total internal reflection, acceptance angle	I	B.B		
4.	29-12-2016	Numerical aperture, modes	I	B.B		
5.	30-12-2016	V number, mode coupling. Step index fibers	I	B.B		
6.	02-01-2017	Graded index fibers	I	B.B		
7.	03-01-2017	Single mode fibers- cutoff wavelength	I	B.B		
8.	04-01-2017	Mode field diameter, Effective refractive index	I			
9.	05-01-2017	Fiber materials, Attenuation losses,	I	B.B		
10.	06-01-2017	Absorption losses	I			
11.	09-01-2017	Scattering and bending losses	I	B.B		
12.	10-01-2017	Core and cladding losses, Related problems	I	B.B		
13.	11-01-2017	Optical sources-LEDs, Structures	II	PPT		
14.	17-01-2017	Materials	II	PPT		
15.	18-01-2017	Quantum efficiency	II	B.B		
16.	19-01-2017	Power, Modulation, Power bandwidth product.	II	B.B		
17.	20-01-2017	Injection laser diodes-Modes, threshold conditions	II	B.B		
18.	23-01-2017	external quantum efficiency	II	B.B		

19.	24-01-2017	Optical Detectors-physical principles of PIN and APD	II	PPT		
20.	25-01-2017	Detector response time	II	B.B		
21.	27-01-2017	Temperature effect on Avalanche gain	II	B.B		
22.	30-01-2017	Comparison of photo detectors	II	PPT		
23.	01-02-2017	Related problems	II	B.B		
24.	06-02-2017	Dispersion-Information capacity determination	III	B.B		
25.	07-02-2017	Group delay	III	B.B		
26.	08-02-2017	Types of dispersions-Material dispersion	III	PPT		
27.	09-02-2017	Waveguide dispersion	III	PPT		
28.	10-02-2017	Polarization dispersion	III	PPT		
29.	13-02-2017	Intermodal dispersion	III	PPT		
30.	14-02-2017	Intermodal dispersion	III	PPT		
31.	15-02-2017	Pulse broadening	III	PPT		
32.	16-02-2017	Power launching into fiber	III	B.B		
33.	17-02-2017	power launching	III	B.B		
34.	20-02-2017	Related problems	III	B.B		
35.	21-02-2017	Optical receiver operation-fundamental receiver operation	IV	PPT		
36.	22-02-2017	digital signal transmission	IV	PPT		
37.	23-02-2017	Error sources	IV	PPT		
38.	24-02-2017	Receiver configuration	IV	PPT		
39.	27-02-2017	Digital receiver performance	IV	B.B		
40.	28-02-2017	Probability of error	IV	B.B		
41.	01-03-2017	Optical system design-considerations	IV	B.B		
42.	02-03-2017	Multiplexing	IV	PPT		
43.	03-03-2017	Point to Point links-System considerations	IV	PPT		
44.	06-03-2017	Link power budget	IV	B.B		
45.	07-03-2017	Rise time budget	IV	B.B		
46.	08-03-2017	Problems	IV	B.B		
47.	13-03-2017	Overview of fiber optic networks, Transreceiver	V	PPT		

48.	14-03-2017	Semiconductors optical amplifiers	V	PPT		
49.	15-03-2017	Couplers/splicers	V	PPT		
50.	16-03-2017	Wavelength division MUX and DEMUX	V	PPT		
51.	17-03-2017	Filters, Isolators	V	PPT		
52.	20-03-2017	Optical switches	V	PPT		
53.	21-03-2017	Basic fiber optic networks	V	PPT		
54.	22-03-2017	WDM networks	V	PPT		
55.	23-03-2017	Optical CDMA	V	PPT		

TEXT BOOKS :

1. Optical Fiber Communications – Gerd Keiser, Mc Graw-Hill International edition, 3rd Edition, 2000.
2. Optical Fiber Communications – John M. Senior, PHI, 2nd Edition, 2002.

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1. Fiber Optic Communications – D.K. Mynbaev , S.C. Gupta and Lowell L. Scheiner, Pearson
Education, 2005.
2. Text Book on Optical Fibre Communication and its Applications – S.C.Gupta, PHI, 2005.
3. Fiber Optic Communication Systems – Govind P. Agarwal , John Wiley, 3rd Ediition, 2004.
4. Fiber Optic Communications – Joseph C. Palais, 4th Edition, Pearson Education, 2004.
5. Fiber Optics Communications – Harold Kolimbiris (Pearson Education Asia)