**LESSON PLAN**

**Subject Code & Name:** ***OC*** **Branch: *E.C.E***

**Class / Semester:*IVB.Tech I Semester* Academic Year: *2014-2015***

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| **Period** | **Date (Tentative)** | **Topic** | **Unit No.** | **Teaching Methodology** | **Remarks** | **Corrective action upon review** |
|  |  | **Unit-1** |  |  |  |  |
| **1** | **16.06.2014** | **Overview of OFC** | **1** | **BB** |  |  |
| **2** | **16.06.2014** | **Historical Development, General system** | **1** | **BB** |  |  |
| **3** | **17.06.2014** | **Advantages of OFC, Applications of OFC** | **1** | **BB** |  |  |
| **4** | **18.06.2014** | **OFC Waveguides-Introduction** | **1** | **BB** |  |  |
| **5** | **18.06.2014** | **Ray Theory Transmission Total Internal Reflection** | **1** | **BB** |  |  |
| **6** | **23.06.2014** | **Acceptance Angle, Numercal Aperture** | **1** | **BB** |  |  |
| **7** | **23.06.2014** | **SKEW Rays, Cylindrical Fibers** | **1** | **BB** |  |  |
| **8** | **24.06.2014** | **Modes, VNumber, Mode Coupling** | **1** | **BB** |  |  |
|  |  |  |  |  |  |  |
|  |  | **Unit - 2** |  |  |  |  |
| **9** | **25.06.2014** | **Single Mode Fibers-COW, MFD, ERI** | **2** | **BB** |  |  |
| **10** | **25.06.2014** | **Fiber Materials** | **2** | **BB** |  |  |
| **11** | **01.07.2014** | **Fiber Materials** | **2** | **BB** |  |  |
| **12** | **02.07.2014** | **Signal Distortions – Attenuation** | **2** | **BB** |  |  |
| **13** | **02.07.2014** | **Absorption, Scattering, Bending Losses** | **2** | **BB** |  |  |
| **14** | **02.07.2014** | **Core & Gadding Losses** | **2** | **BB** |  |  |
|  |  |  |  |  |  |  |
|  |  | **Unit-3** |  |  |  |  |
| **16** | **07.07.2014** | **Group Delay** | **3** | **BB** |  |  |
| **17** | **08.07.2014** | **Types of Dispersions Material Disperson** | **3** | **BB** |  |  |
| **18** | **09.07.2014** | **Waveguide Dispersion** | **3** | **BB** |  |  |
| **19** | **09.07.2014** | **Polarization Mode Dispersion** | **3** | **BB** |  |  |
| **20** | **14.07.2014** | **Inter Modal, Pulse** | **3** | **BB** |  |  |
| **21** | **14.07.2014** | **Optica Fiber Connectors** | **3** | **BB** |  |  |
| **22** | **15.07.2014** | **Connector Types** | **3** | **BB** |  |  |
| **23** | **15.07.2014** | **Connector Return Losses** | **3** | **BB** |  |  |
|  |  |  |  |  |  |  |
|  |  | **Unit - 4** |  |  |  |  |
| **24** | **16.07.2014** | **Fiber Splicing , Techniques** | **4** | **BB** |  |  |
| **25** | **21.07.2014** | **Fiber Alignment & Joint Loss** | **4** | **BB** |  |  |
| **26** | **21.07.2014** | **Optical Sources – LED’s, Structures** | **4** | **BB** |  |  |
| **27** | **22.07.2014** | **Materials, Quantum n, Power Modulation, PBP** | **4** | **BB** |  |  |
| **28** | **23.07.2014** | **Injection LASER – Modes, Threshold** | **4** | **BB** |  |  |
| **29** | **23.07.2014** | **External Quantum n, Laser Diode Rate** | **4** | **BB** |  |  |
| **30** | **28.07.2014** | **Resonant Frequencies, Reliability of LED & ILD** | **4** | **BB** |  |  |
|  |  |  |  |  |  |  |
|  |  | **Unit - 5** |  |  |  |  |
| **31** | **28.07.2014** | **Source to Fiber power Launching** | **5** | **BB** |  |  |
| **32** | **29.07.2014** | **Output Patterns, Power Coupling** | **5** | **BB** |  |  |
| **33** | **30.07.2014** | **Power Launching ENA, LASER to Fiber Coupling** | **5** | **BB** |  |  |
|  |  |  |  |  |  |  |
|  |  | **Unit - 6** |  |  |  |  |
| **34** | **04.08.2014** | **Optical Detectors – PIN & APD** | **6** | **BB** |  |  |
| **35** | **04.08.2014** | **Detector Response Time, Temp Effect** | **6** | **BB** |  |  |
| **36** | **05.08.2014** | **Comparison of photo Detectors** | **6** | **BB** |  |  |
| **37** | **06.08.2014** | **Optical RX Operation** | **6** | **BB** |  |  |
| **35** | **06.08.2014** | **Digital Signal Transmission Error Sources** | **6** | **BB** |  |  |
| **39** | **18.08.2014** | **RX Configuration, Digital RX Performance** | **6** | **BB** |  |  |
| **40** | **18.08.2014** | **Probability of Error Quantum Limit, Analdr RX** | **6** | **BB** |  |  |
|  |  |  |  |  |  |  |
|  |  | **Unit - 7** |  |  |  |  |
| **41** | **19.08.2014** | **Optical System Design-Considerations, Component** | **7** | **BB** |  |  |
| **42** | **20.08.2014** | **Multiplexing** | **7** | **BB** |  |  |
| **43** | **25.08.2014** | **Point-to-Point Links** | **7** | **BB** |  |  |
| **44** | **26.08.2014** | **Link Power Budget** | **7** | **BB** |  |  |
| **45** | **27.08.2014** | **Rise Time Budget** | **7** | **BB** |  |  |
| **46** |  |  | **7** |  |  |  |
| **47** |  |  | **7** |  |  |  |
|  |  |  |  |  |  |  |
|  |  | **Unit-8** |  |  |  |  |
| **48** | **03.09.2014** | **Transmission Distance** | **8** | **BB** |  |  |
| **49** | **08.09.2014** | **Line Coding, WDM** | **8** | **BB** |  |  |
| **50** | **09.09.2014** | **Necessity, Princeple** | **8** | **BB** |  |  |
| **51** | **10.09.2014** | **Types of WDM** | **8** | **BB** |  |  |
| **52** | **15.09.2014** | **Measurement of Attenuation & Dispersion** | **8** | **BB** |  |  |
| **53** | **16.09.2014** | **EYE Pattern** | **8** | **BB** |  |  |
|  |  |  |  |  |  |  |
| **54** | **17.09.2014** | **Revision 1 Unit** | **1** | **BB** |  |  |
| **55** | **27.09.2014** | **Revision 1 Unit** | **1** | **BB** |  |  |
|  |  |  |  |  |  |  |
| **56** | **16.09.2014** | **Revision 2 Unit** | **1** | **BB** |  |  |
| **57** | **16.09.2014** | **Revision 2 Unit** | **1** | **BB** |  |  |
|  |  |  |  |  |  |  |
| **58** | **16.09.2014** | **Revision 3 Unit** | **1** | **BB** |  |  |
| **59** | **16.09.2014** | **Revision 3 Unit** | **1** | **BB** |  |  |
|  |  |  |  |  |  |  |
| **60** | **16.09.2014** | **Revision 4 Unit** | **1** | **BB** |  |  |
| **61** | **16.09.2014** | **Revision 4 Unit** | **1** | **BB** |  |  |
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**Faculty Name: Smt.R.Kranthi (A-Section)**

**CR: CLASS ROOM OHP: OVERHEAD PROJECTOR BB:BLACK BOARD LCD**