Fiber Optic Services (FOS) is Exclusive Distributor of RSoft Tools & ORA Tools from **Synopsys** for South Asia Region**.**

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Three days Workshop on **Advance Simulation Techniques in Optics & Photonics was** organized by SPIE Student Chapter NIT, Warangal from 22nd to 24th Feb 2017 in collaboration with **Fiber Optic Services (FOS).** Head of Physics Department, **Dr. Saiprasad R L N**, inaugurated the workshop.The event was coordinated by **Dr. Sourabh Roy**, Asst.Prof.Department of Physics, NITW & **Mr. Pravin Joshi** ,Director of Fiber Optic Services, Mumbai. Resource persons for the program were **Mr. Nitin Tiwari, Ms. Radhika Ramesh** & **Ms. Netra Dalvi** from **Fiber Optic Services, Mumbai.** 40 participants, which included Master Degree students, Research Scholars, alumni and NITW Faculties, attended the workshop.

The **National Institute of Technology, Warangal** (abbreviated **NIT WARANGAL** or **NITW**) is a premier engineering and research institution located in Warangal, India. It is recognized as an Institute of National Importance by the Government of India.

Objectives

This workshop was aimed at introducing participant to advanced design and simulation techniques, which can help them get insight into real world design scenario. Participant were provided advanced design tools during the workshop to get first-hand experience.

Following design and simulation software were used during the workshop.

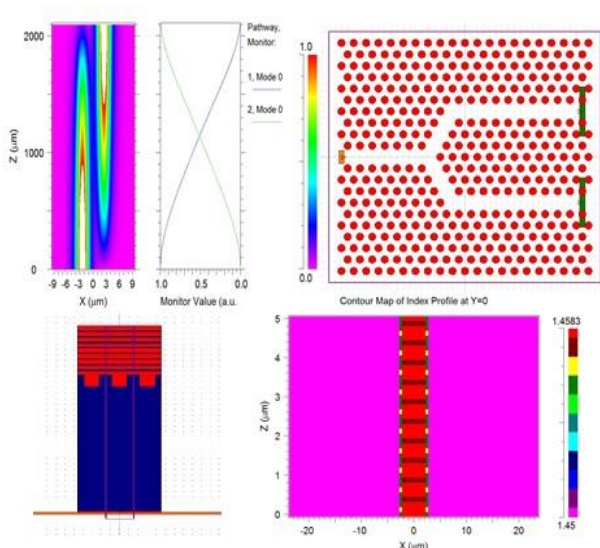**RSoft Photonics Design Software -:**
     RSoft CAD Layout, BeamPROP, FullWAVE, BandSOLVE, ModePROP, GratingMOD, DiffractMOD, FemSIM, Utility (Solar- Cell, LED, Multi-Physics), LaserMOD.

LightTools Illumination Design Software -:
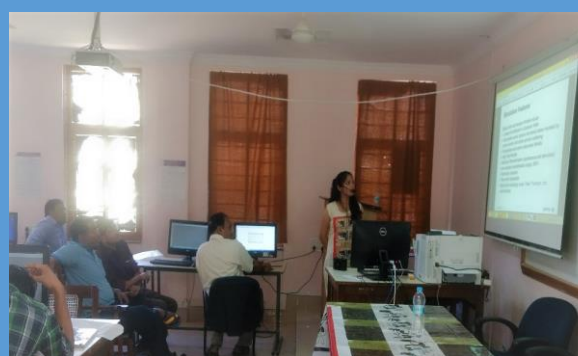   *Design, Analyze and Optimize Illumination System*

Code V Optical Design Software -:
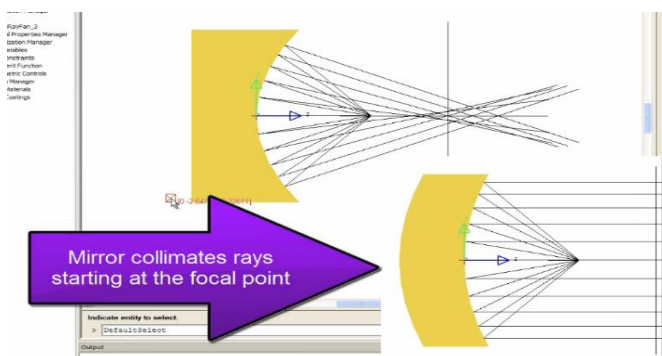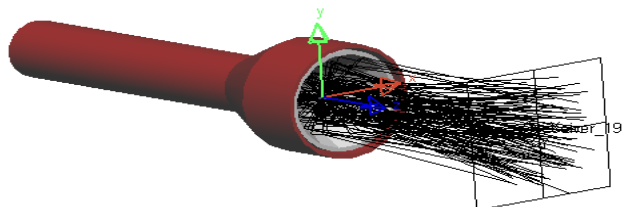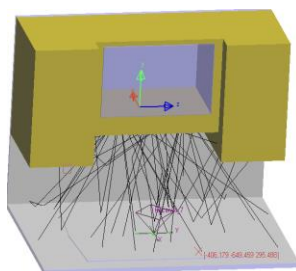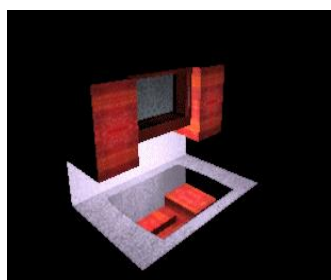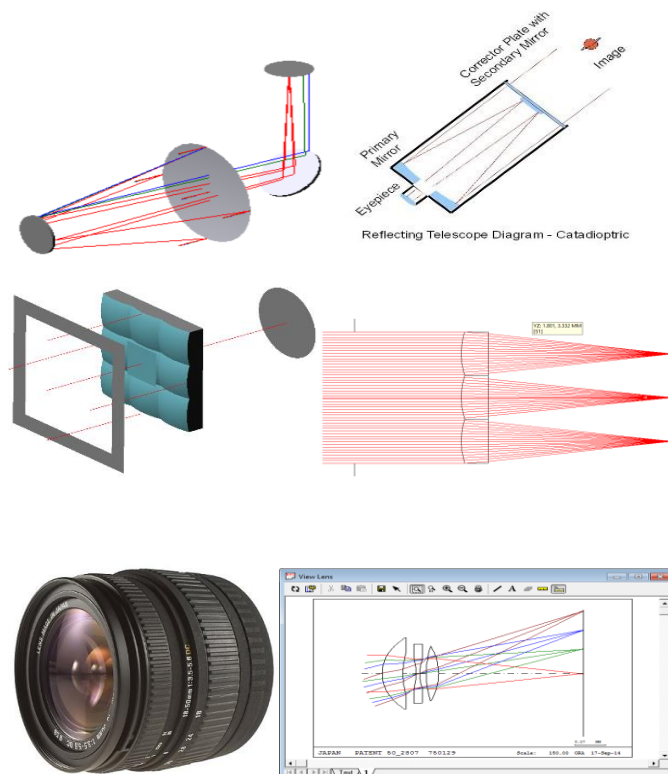   *Design, Analyze, Optimize and Fabrication Tolerancing for Optical System.*

RSoft

The session began with introduction of RSoft Photonics Component Design Software, by briefing about what is RSoft CAD, its Simulation Tools & Utilities. RSoft Simulation Tools & Utilities were elaborated with relevant applications such as Non-linear Coupler, Photonics Crystal Fiber, FBG, Solar-cell, different Semiconductor lasers etc. Hands-on training was provided to students for better understanding.

CODE V

The session began with an introduction on the software and its practical applications. Hands-on session was provided for students in designs like- Cassegrain Telescope, Digital Camera Lens Design and MicroLens Array Design. The session covered details on Analysis, Optimization and Tolerancing features of Code V.

Reflecting Telescope Diagram - Catadioptric

LightTools

In a session on Flashlight, basic design and features of LightTools were introduced. Advance features of LightTools were used during Cooktop structure design. Participants worked with different optical properties and LED Libraries. Optimization of LightTools was explained using the Lens Collimator Design.

Mirror collimates rays starting at the focal point