

Fiber Lasers and Applications

Overview

Fiber lasers are rapidly growing as an invaluable tool in several material processing, healthcare and defense applications. This course is intended to cover the fundamental aspects of fiber lasers, their design considerations, as well as advanced topics such as power scaling and reliability issues. The target audience for this course is research scholars, working professionals, and engineers/scientists from Government laboratories.

The specific learning objectives include:

- Understand the physical processes involved in CW and pulsed fiber lasers
- Develop the ability to design fiber amplifiers/lasers and appreciate the relevant constraints
- Learn advanced topics including power scaling, reliability, and application-specific issues.

Dates for the Course	13thSeptember - 24thSeptember 2016
Host Institute	IIT Madras
No. of Credits	2
Maximum No. of Participants	40
You Should Attend If...	<ul style="list-style-type: none">▪ You are an engineer working in the area of lasers▪ You are a masters/research student wishing to pursue research in the area of optical lasers or allied areas▪ You are a faculty in an academic institution teaching/wishing to pursue research in the area of lasers or allied areas
Course Registration Fees	<p>The participation fees for taking the course is as follows: Student Participants: Rs.2000 Faculty Participants: Rs.6000 Government Research Organization Participants: Rs.10000 Industry Participants: Rs.20000 PI register at http://www.gian.iitkgp.ac.in/ Registration deadline: August 15, 2016</p> <p>The above fee is towards participation in the course, the course material, and computer use for tutorials and assignments. Mode of payment: Demand draft in favour of “Registrar, IIT Madras” payable at Chennai. The demand draft is to be sent to the Course Coordinator.</p>
Accommodation	<p>The participants may be provided with hostel accommodation, depending on the availability, on payment basis. Request for hostel accommodation may be submitted through the link: http://hosteldine.iitm.ac.in/iitmhostel</p>

Course Faculty



Prof. Johan Nilsson is a Professor at the Optoelectronics Research Centre (ORC) in Southampton, UK since 2006. Johan joined the ORC in 1995, was promoted to Senior Research Fellow in 1998, and group leader of the High Power Fibre Lasers group since 2000. Research interests include: High power fibre lasers and amplifiers, nonlinear fibre optics, optical communications, with interests in device, fabrication, materials, simulations, systems and applications aspects. He has more than 270 publications to his credit. Co-founder of and consultant to Southampton Photonics; Member of the technical committee of the Optical Amplifiers and Applications topical meeting. <http://www.orc.soton.ac.uk/people.html?person=nilsson>



Balaji Srinivasan is an Associate Professor in the Department of Electrical Engineering, Indian Institute of Technology Madras, Chennai. His research interests include optical fiber sensors and fiber lasers. <https://www.iitm.ac.in/info/fac/balajis>



Deepa Venkitesh is an Associate Professor in the Department of Electrical Engineering, Indian Institute of Technology Madras Chennai. Her research interests include nonlinear optics, optical signal processing and fiber lasers. <https://www.iitm.ac.in/info/fac/deepav>.

Course Coordinators:

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