



**Centre for Lasers and Photonics**  
**Indian Institute of Technology Kanpur**  
**Kanpur- 208016**

## INTRODUCTION

The research on Photonic Crystals owes its initiation and acceleration to the two phenomenal research papers (by Sajeev John and Yablonovitch) published in 1987. The focus has evolved a lot in the thirty years since then, and this symposium is an effort to take stock of the on-going research in India and re-set the focus towards device development. The technical program will be specifically useful for scientists and senior students who are working in the areas of Photonic crystals (and Metamaterials to a limited extent), related to micro/nano fabrication, modeling of nano-photonic structures, characterization and device applications. The course is also designed to cater to the needs of scientists from R&D labs.

## OBJECTIVE

In recent years, the research area of Nanophotonics has gained importance in view of the anticipated applications in device-level architectures. The present Symposium will have talks on the on-going research in all the sub-topics of Photonic nanostructures, such as on dielectric photonic crystals, plasmonic photonic crystals, photonic crystal waveguides, photonic crystal fibers and metamaterials. **This symposium is not for beginners and Masters students.** The emphasis will be placed on imparting advanced knowledge in the above mentioned areas with lectures by leading experts in India.

## COURSE CONTENTS

**Lectures will cover the following topics:**

- Dielectric photonic crystals.
- Plasmonic nano-structures.
- Photonic crystal waveguides and fibers.
- Photonic crystal based devices.
- Fabrication and properties of Metamaterials.
- Computational work on Photonic nanostructures.

## SPEAKERS' LIST

Invited lectures will be delivered by experts in the chosen topics of the symposium. The list is:

Achanta Venugopal, TIFR Mumbai  
Ambarish Ghosh, IISc Bangalore  
Anantha Ramakrishna, IIT Kanpur  
Bijoy Krishna Das, IIT Madras  
Desai Narayana Rao, University of Hyderabad  
Harshawardhan Wanare, IIT Kanpur  
Joby Joseph, IIT Delhi  
Jolly Jose, IIT Kanpur  
Kazuaki Sakoda, NIMS, Japan (*Plenary lecture*)  
Munige Srinivas Reddy, Sterlite Technologies  
Partha Roy Chaudhuri, IIT Kharagpur  
Rana Biswas, Iowa State University, USA (*Plenary lecture*)  
Shilpi Gupta, IIT Kanpur  
Shivakiran Bhaktha, IIT Kharagpur  
Sunita Kedia, BARC Mumbai  
T. Srinivas, IISc Bangalore

## SELECTION OF PARTICIPANTS

All those desirous of participation have to download the Registration form from the symposium website, complete it in all respects and send the hard copy to Convener before the last date. The list of selected candidates will be displayed on the web-page of the symposium and will be informed by e-mail.

## PARTICIPATION FEES

A registration fee of **Rs.1,500** is to be paid by Ph.D student participants and **Rs.3,000** by post-docs and participants from R&D labs. The fee will cover free boarding and lodging in the guest house extension or halls of residence at IIT Kanpur, symposium kit, lunch, dinner, and break-time tea sessions. **The registration form complete in all respects should reach the convener latest by 26<sup>th</sup> July, 2017.** The participants are required to get their applications duly **recommended and forwarded** by the Supervisors / reporting officers. The student participants and post-docs should have an M.Sc./Ph.D degree in Physics / Material Science / Photonics and demonstrated experience in Photonic crystals. Scientists B, C and D working in R & D Labs in topics related to the symposium are encouraged to apply.

## MODE OF PAYMENT OF REGISTRATION FEES

The selected participants can look at the following link for bank details:

[http://www.iitk.ac.in/web\\_celt/bank\\_details.pdf](http://www.iitk.ac.in/web_celt/bank_details.pdf)

## POSTER PRESENTATION BY PARTICIPANTS

All the selected participants (Ph.D students, post-docs and scientists) are expected to display their work in the form of posters. The details on sending us the abstract and the poster size will be informed to the selected participants.

## LOCAL ORGANIZING COMMITTEE

Dr. R.Vijaya, Dr. S.Anantha Ramakrishna, Dr.Harshawardhan Wanare, Dr. Shilpi Gupta, Dr. Pradeep Kumar, Dr. J. Ramkumar, Dr. Kumar Vaibhav Srivastava, Mr. Ummer K.V, Mr. Dipak Rout, Mr. Govind Kumar, Ms. Arpita Haldar, Ms. Suchita, Ms. Pratyasha Sahani.

## IMPORTANT DATES

List of the selected candidates:

[http://www.iitk.ac.in/web\\_celt/list\\_of\\_participants.pdf](http://www.iitk.ac.in/web_celt/list_of_participants.pdf)

Payment of Registration fees: **Aug. 10, 2017**

**Duration of Symposium: Sept. 21 to 23, 2017**

## ADDRESS FOR CORRESPONDENCE

Prof. R. Vijaya  
Convener, Symposium on Photonic Crystals  
Centre for Lasers and Photonics  
SL-215, Southern Labs  
Indian Institute of Technology Kanpur  
Kanpur - 208016 (U.P.)  
**E-mail: [convener.phc2017@gmail.com](mailto:convener.phc2017@gmail.com)**  
Office Tel: 0512-2597552



# 30 Years of Photonic Crystals – the Indian Research Scenario

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Registration form is available at  
[http://www.iitk.ac.in/web\\_celt/registration\\_form.pdf](http://www.iitk.ac.in/web_celt/registration_form.pdf)

and requires the following information:

Name: \_\_\_\_\_

Position / Designation: \_\_\_\_\_

Department: \_\_\_\_\_

Institution/Organization: \_\_\_\_\_

Full Postal Address: \_\_\_\_\_

E-mail Address\*: \_\_\_\_\_

Mobile No.: \_\_\_\_\_ Telephone No.: \_\_\_\_\_

Educational Background (starting from U.G.)

Degree	Specialization	Institute/University	Marks (%)	Year of Passing
B.Tech./ B.E/ B.Sc				
M.Tech./ M.E./ M.Sc.				
M.Phil./ Ph.D.				

Area of Research: \_\_\_\_\_

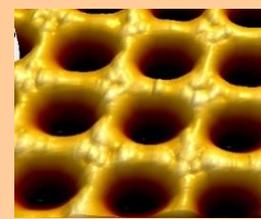
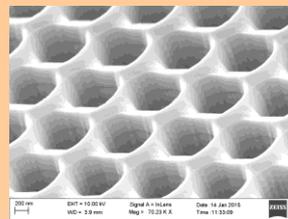
Demonstrated competence in Photonic Crystal research (be specific):  
 \_\_\_\_\_

Signature of applicant: \_\_\_\_\_

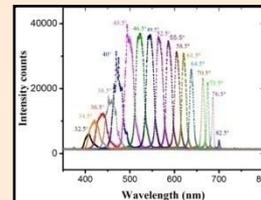
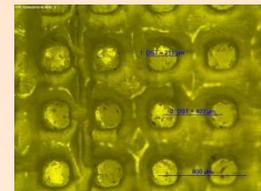
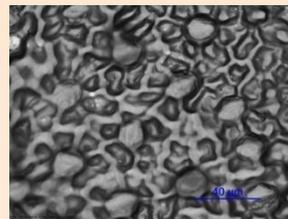
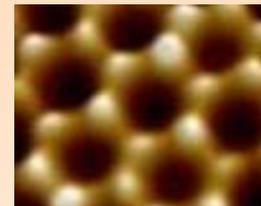
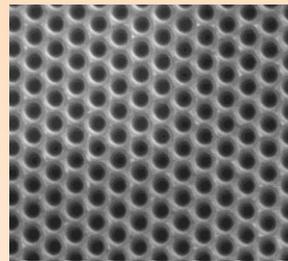
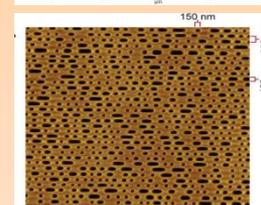
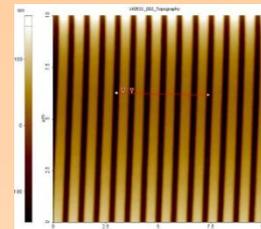
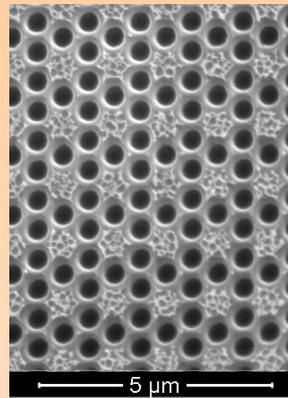
Recommendation (supporting the application):  
 \_\_\_\_\_

Signature of Thesis supervisor or Head of the Department or Head of the Division  
 Date: \_\_\_\_\_

\* Mandatory  
 Note: Scanned copy can be sent by e-mail, but application's hard copy is also to be sent by post.



Pictures related to Photonic crystal research at IIT Kanpur



# 30 Years of Photonic Crystals – the Indian Research Scenario

Sept.21-23, 2017

Sponsored by  
**SERB, IIT Kanpur**



and  
**IEEE-UP Section**



Convener  
**Prof. R. Vijaya**



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