

## About the Institute

Shree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) is an Institute of National Importance with the status of a University. The joint culture of medicine and technology that the Institute pioneered more than three decades ago has come of age and gained unprecedented acceptance in India. Imbued with an inclination to venture into less-trodden domains, the Institute focuses on patient care of high quality, technology development of industrial significance and health research studies of social relevance. The emphasis is on development of facilities less readily available elsewhere in the country such as interventional radiology, cardiac electrophysiology, presurgical evaluation and surgery for epilepsy, microsurgery and deep brain stimulation for movement disorders, new biomedical devices and products, evaluation of medical devices to global specifications, new academic programmes and global public health networks. The Institute has three wings - the Hospital, Biomedical Technology Wing and the Achutha Menon Centre for Health Science. This uniquely poised Institute has a dedicated team of scientists working in the field of material science which span from nanostructures for sensing, diagnosis, therapy etc. to development of biomedical devices. This institute is the first in the country to start the research based on application of laser for patient care with the support from Department of Atomic Energy. Currently many materials and methods have been developed for photodynamic therapy, photothermal therapy, nanosensors for bioanalytes of clinical importance and many drug delivery systems. SCTIMST is the pioneer to start many laser based clinical procedures like percutaneous laser disc decompression, Laser ablation of osteoid osteoma, Laser treatment for varicose vein, Laser treatment for bronchial and esophageal cancers and hemangioma and many more in the country.

## About the Department

Main objective of the department is to take up and ensure research in the field of nanomaterials for Bionanophotonics. The lab's main areas of research themes include development and application of nanomaterials, mainly bionanomaterials in the field of MR, CT and optical imaging, biosensing, drug delivery and photodynamic and photothermal therapy. We also take care of all laser based activities of the institute, both therapeutic and diagnostic and other biomedical application. Our interest also expands to the use of Spectroscopic techniques like Raman, Fluorescence and IR mapping and imaging for the early diagnosis of various diseases and the classification based on different pathologies using these techniques on the hypothesis that the concept of optical pathology will be a practical tool in the near future.

## Thiruvananthapuram



The history of Thiruvananthapuram dates back to the 10th century AD. The city and several other places in the district occupy an important place in ancient tradition, folklores and literature of the State of Kerala. Thiruvananthapuram (Trivandrum) district, holds a number of tourist spots. The entire tourism package of the state such as hill stations, back waters, beaches, lagoons, and wild life sanctuaries can be visualized in Thiruvananthapuram district, reflecting the beauty of Kerala. Its unique geographical position and peculiar physical features have invested Kerala with a distinct individuality. Hence it has played a vital role in the commercial and cultural history of India. Kerala has been described "as the favorite child of nature." Like Kashmir in the north, Kerala in the south is famous for its breath-taking natural beauty.

With its evergreen mountains, dense forests, stately palms, swift flowing rivers, extensive backwaters and blue lagoons, it looks like a fairyland. This atmosphere of beauty and peace has nurtured religion and art in Kerala and enabled her to become a precious gem in the necklace of Indian culture. Indian poets of eminence have showered their praises for the abundance of its peppers, the fragrance of its sandal and the wealth of its coconuts. No part of India is so widely known or has played so important part in world history, as Kerala.

## Patron

**Prof. Ashutosh Sharma**  
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<http://www.ispan.in>

### Call for Abstract

We invite researchers from different streams to submit their works for oral/poster presentation. Abstract submission will be open from **15th June**. An abstract of one page in MS Word format - Title in Times New Roman 14, bold letters, centered; Author(s) name(s) in Times New Roman 12, centered, presenting author's name underlined; Affiliation and address (including email) in Times New Roman 11, centered, italics; Text Times New Roman 12, justified with 1.5 spacing with word count not exceeding 500 should be submitted online ([www.ispan.in](http://www.ispan.in)) by **20th August 2015**.

## Registration

Participants of the symposium are requested to register. Registration fee can be paid through crossed Demand Draft favoring ISPAN-2015 payable at Trivandrum. The fee can also be paid online to the account **ISPAN-2015** with Ac.No. **556502010004895** of Union Bank of India, Poojappura Branch (IFSC Code **UBIN0555657**). The registration form which can be downloaded from the symposium site along with payment details should reach the organizing secretary.

**Students : ₹ 3000** (₹ 4000 After September 15, 2015),

**Faculty : ₹ 5000** (₹ 6500 After September, 15, 2015),

**Foreign Delegates : US\$ 400** (US\$ 500 After September 15, 2015)

### National Organising Committee

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**Dr. R.S. Jayasree**  
*Dept. of Biophotonics and Imaging, SCTIMST*  
**Convener: Dr. K. Sreenivasan**  
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**Co-Conveners: Dr. P.R. Harikrishna Varma**  
*Bioceramics Lab, SCTIMST*  
**Dr. M. Jayabalan**  
*Polymer Division, SCTIMST*  
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## About the Symposium

On 20<sup>th</sup> December 2013, The United Nations General Assembly 68th Session proclaimed 2015 as the International Year of Light and Light-based Technologies. Highlighting the importance of light and light-material interaction, we are organizing International Symposium on Photonics Applications and Nanomaterials during this year. This symposium will be an interdisciplinary forum for collaboration and learning among researchers, clinicians, and industrial partners in fields related to Nanosciences, biophotonics and biomaterials, and also imaging applications. The goal of this symposium is to bring together researchers, academicians and experts from all over the world to interact and exchange their knowledge and experience, as well as their research developments in a stimulating multidisciplinary forum of experts. This event will take place over three days, 28-30 October 2015, and will include both oral and poster presentations with a focus on the above topics.

The symposium will be held in the city of scenic beauty in South India, Trivandrum. We look forward to see you in Trivandrum!

## Who should attend?

This conference is aimed at researchers in academia and industry as per the topics of the symposium themes, which are important for research and innovation with interest to government, society and industry. The conference aims at welcoming all the researchers, faculty and Industry professionals from early stage research to leading-edge applications.

## Important Dates

### Abstract Submission Deadline

August 20, 2015

### Intimation of Acceptance of Abstract

September 1, 2015

### Early Bird Registration

September 15, 2015

## Address for Correspondence

### Dr. RS Jayasree

Organising Secretary, ISPAN 2015  
Dept of Biophotonics and Imaging,  
Biomedical Technology Wing,

Sree Chitra Tirunal Institute for Medical Sciences & Technology  
Poojappura, Thiruvananthapuram 695012  
E-mail: [ispantrivandrum2015@gmail.com](mailto:ispantrivandrum2015@gmail.com),

<http://www.ispan.in>

Phone: +91-471-2520273/220/214

+91-9495948221

## Tentative Speakers

- Prof. CNR Rao**, JNCASR, Bangalore, India  
**Prof. Samuel Achilefu**, Washington University, USA  
**Prof. Ayyappanpillai Ajayaghosh**, NIIST, Trivandrum  
**Prof. Katsuhiko Ariga**, NIMS, Japan  
**Prof. Rohit Bhargawa**, University of Illinois, USA  
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**Prof. Murali Krishna C**, ACTREC, Mumbai, India  
**Prof. Don McNaughton**, MONASH University, Australia  
**Prof. Yuichi Negishi**, Tokyo University, Japan  
**Prof. Tarasankar Pal**, IIT Kharagpur, India  
**Prof. Thalappil Pradeep**, IIT, Chennai, India  
**Prof. Ganesh D Sockalingum**, Reims, France  
**Prof. George Thomas**, IISER, Trivandrum, India  
**Prof. Siva Umapathy**, IISc, Bangalore, India  
**Prof. Ajayan Vinu**, University of Queensland, Australia

## Symposium Themes

Under the encompassing theme of Materials and Light based technologies for life, ISPAN-2015 will focus on Recent Advancements in materials, nanophotonics and nano-biophotonics, covering the following major fields.

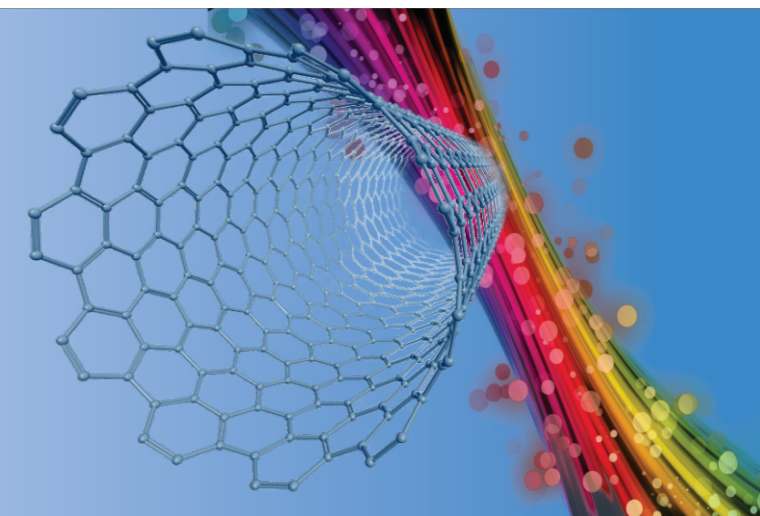
- \* **Materials:** Molecular Probes, Molecular and functional contrast agents, Metal Nanoparticles, biomaterials and tissues, bio-materials & composites, graphene, polymers, nanomaterials and nanodevices, bio-compatibility, bio-derived nanostructures.
- \* **Nano-biophotonics:** bio-nanotechnology, nanoparticles, intracellular nanosensing. Intracellular and *in vivo* imaging
- \* **Sensing platforms:** plasmonics, biosensors, optical sensing, fiber sensors, point-of-care diagnostic and sensing systems.
- \* **Microscopic and spectroscopic techniques:** Biospectroscopy, Infrared, fluorescence and Raman based methods, multiphoton microscopy, optical trapping.
- \* **Imaging techniques:** Optical Imaging, optical coherence tomography, photo- and opto- acoustic imaging, Multiphoton Imaging
- \* **Diagnostic and Therapeutic Applications:** minimally invasive laser procedures, photodynamic therapy, photothermal therapy, drug delivery, photodiagnosis, clinical applications

## Venue

The conference will be held at The Residency Tower, Press Road, Statue, Thiruvananthapuram 695 001, Kerala, India.



INTERNATIONAL  
YEAR OF LIGHT  
2015



# International Symposium on Photonics Applications and Nanomaterials



28-30 October 2015

Supporting Partners



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Organised by

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