

**Dr. Jayachandra Bingi**

Asst. Prof., IITDM, Kancheepuram

**Dr. Shanthi Prince**

Professor, Dept. of ECE, SRMIST, Chennai

**Dr. Soumya Ranjan Routray**

Asst. Prof, Dept. of ECE, SRMIST

**Ms. Sreeja, & Mr. E. Ameen**

Senior Research Fellows, CSIR – CEERI, Chennai

**Mr. Sanjay Kumar & Mr. G. Santhosh Kumar**

Junior Research Fellows, DRDO - NRB Project

**Target Participants**

- \* Faculty members of Engg Colleges / Universities
- \* Research scholars & PG students pursuing research / project work in this field
- \* Restricted to max. of 40 on first-come-first-serve

**Registration Details**

Those wishing to attend this course should register online at <https://tinyurl.com/woppd2018>

Due to limited seats, registration will be on a first-come-first-served basis. Confirmation of registration will be sent by email. Enrollment will be strictly online.

- \* Registration Fee: Rs. 850/- (for outside participants) / Rs. 500/- (for SRM candidates) which is to be transacted to our account through only NEFT
- \* Bank: City Union Bank, Branch Code: 117, IFSC: CIUB0000117, Account Number: 11700 10008 84762, Account Name: ECE Association

**Registration fee includes**

- \* Lunch and Refreshment
- \* Conference Kit

Note: Accommodation can be arranged at anominal cost. No TA / DA provided

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Mobile: +91 9444962179

**Coordinator****Mr. A. V. M. Manikandan**, Asst. Prof., ECE

Mobile: +91 9444200888

**Address for Communication**

The Convener - WOPPD, Department of ECE,

Faculty of Engineering and Technology,

SRM IST, Kattankulathur – 603 203.

Email: [manikandan.m@ktr.srmuniv.ac.in](mailto:manikandan.m@ktr.srmuniv.ac.in)**Important Dates****Registration : July 20, 2018****Intimation of selection : July 21, 2018****SRM**INSTITUTE OF SCIENCE & TECHNOLOGY  
(Deemed to be University u/s 3 of UGC Act, 1956)

## **DRDO Sponsored workshop on Underwater Optical Communication and Modeling of Photonic and Photovoltaic Devices (WOPPD)**

**July 27-28, 2018**

**Organized by  
Department of  
Electronics and Communication Engineering**



**Faculty of Engineering & Technology  
SRM Institute of Science & Technology  
Kattankulathur – 603 203**

Kancheepuram District, Tamilnadu.  
Phone : 044-27452270, 27453380.

Website : [www.srmuniv.ac.in](http://www.srmuniv.ac.in)

in association with



## About SRMIST

SRM Institute of Science and Technology (formerly, SRM University) is one of the top ranking universities in India with over 51,000 students and 3,000 faculty members, offering a wide range of Undergraduate, Postgraduate and Doctoral Programs in Engineering, Management, Medicine & Health Sciences, and Science & Humanities. Over the last three decades, SRMIST has set standards in experiential education and knowledge creation across various fields. The institution has reached beyond borders to universities and corporate across India and around the World. There are 4 sprawling campuses in Chennai and one near New Delhi spread across 250 acres with all facilities.

During January 2011, SRMIST had conducted 98<sup>th</sup> Indian Science Congress inaugurated by then Prime Minister Dr. Manmohan Singh and 7,000 delegates from India and abroad, including six Nobel Laureates and several eminent scientists from across the world attended the conference. SRM IST is the first private University in India to launch a nano-satellite, named SRMSAT, onto space, on board the PSLV-C18 from Sriharikota on October 12, 2011. SRMIST is accredited by NAAC with 'A' Grade. B.Tech Electronics and Communication Engineering program of Kattankulathur Campus of SRMIST is accredited by EAC of ABET. [www.abet.org](http://www.abet.org)

## About the Department

The Department of Electronics and Communication Engineering (ECE) was established in the year 1991-92 with an undergraduate program under the affiliation of University of Madras. The Department offers one UG Program, three PG programs and Doctoral Program. The Department is housed with adequate number of spacious lecture rooms and has 18 well equipped and furnished laboratories. The department has ample resources in computing equipment, including Personal computers running the full suite of Cadence, OrCAD,

MATLAB, Network Simulation software and Optisystem. It has USRP-RIO SDR Hardware, Vector Signal Generator & Analyser, Network Analyser and ADS & HFSS tools.

The department has strong collaboration with industries such as Central Electronics Engineering Research Institute (CEERI), Nuvoton Technology Corporation, Taiwan and ALTERA. The Department has received funds from AICTE twice under MODROBS (Modernization and Removal of Obsolescence) scheme and one under the 'Career Award for Young Teacher (CAYT)' scheme. It has also received research grants worth Rs. 50 Lakhs from Department of Science and Technology (DST) under Funds for Improvement of Science and Technology (FIST), in the area of MIMO-OFDM. It includes ADS tools to support RF simulation and hardware development.

## About the Workshop

India has long been active in the field of photonics, dating back to famous scientists such as Sir C. V. Raman and Sir J. C. Bose. Today, India is home to numerous research groups and telecommunication companies that own a sizeable amount of the fibre-optic links installed around the globe. Light-based technology, often referred to as photonics, is a major economic driver with potential to revolutionize the 21<sup>st</sup> century as electronics did in the 20<sup>th</sup> century.

Underwater wireless information transfer is of great interest to the military, industry, and the scientific community, as it plays an important role in tactical surveillance, pollution monitoring, oil control and maintenance, offshore explorations, climate change monitoring, and oceanography research. Although tremendous progress has been made in the field of acoustic communication underwater, however, it is limited by bandwidth. All this has led to the proliferation of underwater optical wireless communication (UOWC), as it provides many potential applications ranging from deep oceans to coastal waters.

This workshop provides an overview of recent advances in UOWC. As light becomes the key cross-cutting discipline of science and engineering in the 21<sup>st</sup> century, it is essential that the brightest young minds continue to be attracted into careers in this field.

## Theme of the Workshop

The aim of this workshop is to provide a clear pathway to access the photonic technologies available to researchers in India, so that more of our big ideas can be transformed into solutions. This workshop will provide an introductory overview of

- The challenges that need to be addressed for high bandwidth and high capacity for information transfer underwater.
- Photonic technologies available to researchers through the RSoft Suite, Optilux, TCAD, to name a few.
- Hands-on session guiding the attendees to design optical systems and devices, their signal acquisition and analysis.
- Lectures by academicians from reputed institutions and industries, and interactive discussion sessions

## Resource Persons

Invited lectures are delivered by experts in this area on the basic aspects and recent advancements in the area of Photonics and Photovoltaics. Speakers will include:

### **Dr. P. Krishnankutty**

Professor, Department of OceanEngineering , IIT Madras

### **Comdt. B. Sabarish /Comdt. (JG) K. Naveen**

The Indian Coast Guard, Sagar

### **Mr. N. Vedachalam (MTS member)**

Senior Scientist / Project Director : Deep Sea Technologies  
National Institute of Ocean Technology, Chennai

### **Dr. Ganesh CS**

Senior Principal Engineer  
Dell's Networking Division, Chennai