

## WEBINAR REPORT

<b>Speaker:</b> Dr.G. Thavasi Raja AP/ECE, NIT Trichy	<b>Convener :</b> Dr. N. Gangatharan, HoD/ECE <b>Coordinators :</b> Dr. C Arun, Professor/ECE Mr. Babu M, AP/ECE <b>Date :</b> 25.05.2020
<b>Topic:</b> Applications of Specialty Optical Fibers & Photonic ICs	
<b>Participants:</b> 95	

RMK COLLEGE OF ENGINEERING AND TECHNOLOGY  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

WEBINAR ON  
**APPLICATIONS OF SPECIALTY OPTICAL FIBERS & PHOTONIC ICs**

**Convener :**  
Dr.N.GANGATHARAN  
Professor & Head  
Department of ECE  
RMKCET

**Organizers :**  
Dr.C.ARUN  
Professor/ECE  
RMKCET

Mr.BABU M  
AP/ECE, RMKCET

Register Here  
<https://tinyurl.com/PhotonicIC>

**25.05.2020**  
**11:00 AM**

**E-CERTIFICATE WILL BE PROVIDED**

STAY HOME : STAY SAFE : LEARN ONLINE

In the overview of the COVID-19 situation in our state and the country, we have had to take stringent lockdown measures for the safety of our family and society. But education and learning needs to be continued even in dire situations like the one we are enduring of late. The webinar focused on specialty optical fibers and Photonic integrated circuits.

## **Brief Report**

A photonic integrated circuit (PIC) or integrated optical circuit is a device that integrates multiple (at least two) photonic functions and as such is similar to an electronic integrated circuit. The major difference between the two is that a photonic integrated circuit provides functions for information signals imposed on optical wavelengths typically in the visible spectrum or near infrared 850 nm-1650 nm.

The most commercially utilized material platform for photonic integrated circuits is indium phosphide (InP), which allows for the integration of various optically active and passive functions on the same chip. Initial examples of photonic integrated circuits were simple 2-section distributed Bragg reflector (DBR) lasers, consisting of two independently controlled device sections - a gain section and a DBR mirror section. Consequently, all modern monolithic tunable lasers, widely tunable lasers, externally modulated lasers and transmitters, integrated receivers, etc. are examples of photonic integrated circuits. Current state-of-the-art devices integrate hundreds of functions onto single chip. Pioneering work in this arena was performed at Bell Laboratories.

## **Key Highlights**

- Introduction to Fiber Optics
- Ray and Mode theories
- Fiber types
- Fiber materials and Fabrication
- Applications of specialty optical fibers
- Photonic Integrated circuits – Intro
- Optical interconnects, PC
- Microwave Photonics

Cisco Webex Meetings

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Participants (85)

Search

Babu M Host, me

THAVASI RAJA G ECE

Admin

Arun

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Chenthil

Chettiyar Vani Vivekanand

Chat

from sharunvictor to everyone: 11:25 AM

panimalar Institute of Technology

from Mr. S.P.VELMURUGAN to everyone: 11:26 AM

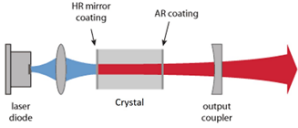
Mr.S.P.Velmurugan, AP /ECE, Kalasalingam Academy of Research and Education

To: Everyone

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## Fiber Laser

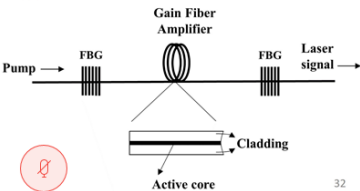
- Lasers for high-power applications: Solid state lasers and Fibers lasers



- Fiber lasers (FL) operated at the wavelength of  $1.060\ \mu\text{m}$  or  $1.064\ \mu\text{m}$  - one of the best alternative solution for many industrial applications.

**Advantages:**

- Fiber geometry - Thermal management
- High efficiency
- Compact size



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## Audience Feedback which was taken in Google form

Photonic IC WEBINAR (Responses) ☆

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