

# **IEEE PHOTONICS SOCIETY STUDENT BRANCH**



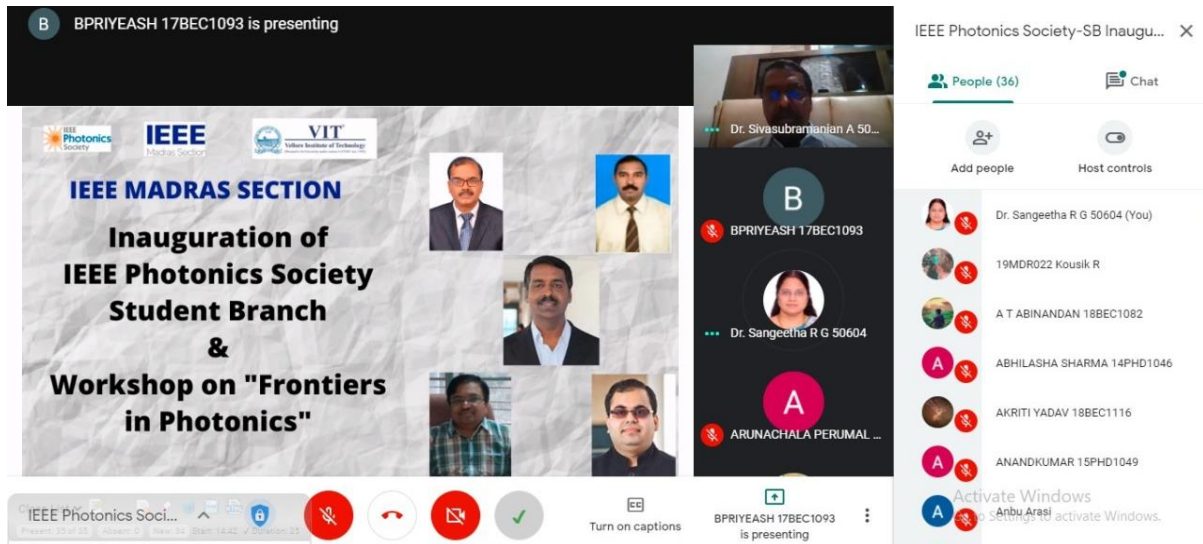
**Faculty Adviser: Dr.Sangeetha R.G**



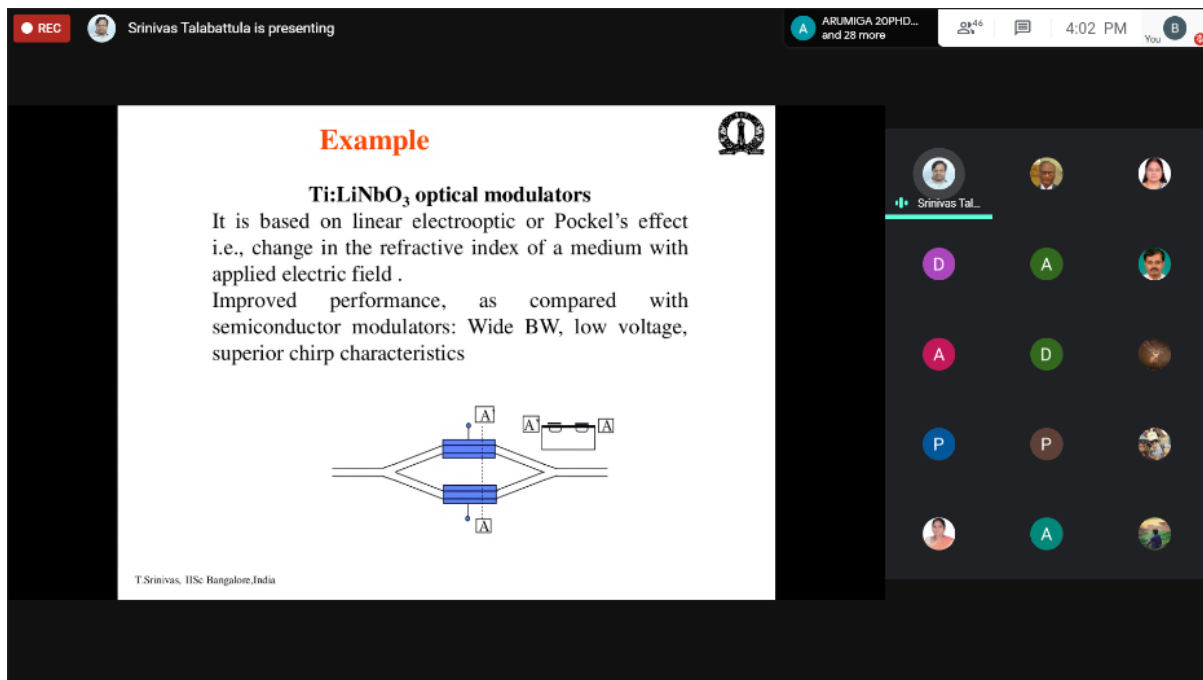
<b>Chairman</b>	<b>Vice-Chairman</b>	<b>Secretary</b>	<b>Treasurer</b>
<b>Mr.Priyesh Bala</b>	<b>Mr.Arjun Sharma</b>	<b>Ms.Vaishnavi Singh</b>	<b>Mr.Shankar.S</b>

## Inauguration of Photonics Student Chapter and Workshop on “FRONTIERS IN PHOTONICS” – 27/10/2020

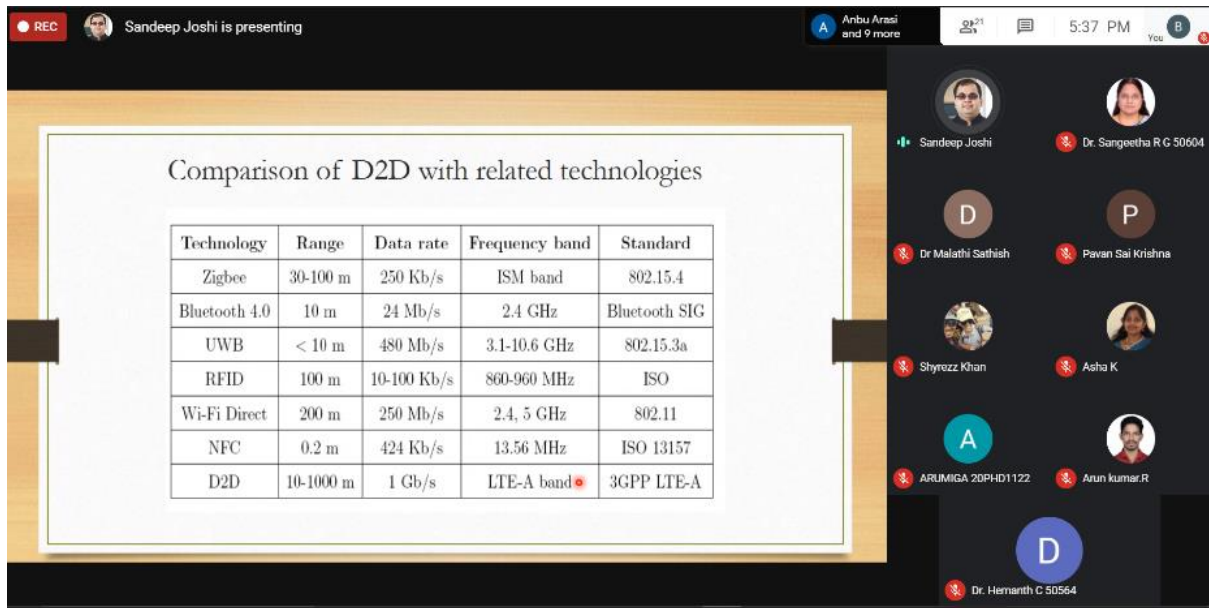
The Chapter was inaugurated by Dr. N. Kumarappan, Chairman, IEEE Madras Section, Dr. C. Arunachalaperumal, Chairman, IEEE Photonics Society Madras Section. Dr.T.Srinivas Professor IISc, Bangalore, Chairman Prakash Bharti, Dr. Sandeep Joshi, BITS Pilani, Dr. Sangeetha R.G, student branch advisor. Dr.Sivasubramanian.A, Dean SENSE, VIT Chennai.



Dr. T. Srinivas, IISc Bangalore, gave a talk on Photonics and its properties



Dr. Sandeep Joshi, BITS Pilani, gave a lecture on the latest communication technologies



Comparison of D2D with related technologies

Technology	Range	Data rate	Frequency band	Standard
Zigbee	30-100 m	250 Kb/s	ISM band	802.15.4
Bluetooth 4.0	10 m	24 Mb/s	2.4 GHz	Bluetooth SIG
UWB	< 10 m	480 Mb/s	3.1-10.6 GHz	802.15.3a
RFID	100 m	10-100 Kb/s	860-960 MHz	ISO
Wi-Fi Direct	200 m	250 Mb/s	2.4, 5 GHz	802.11
NFC	0.2 m	424 Kb/s	13.56 MHz	ISO 13157
D2D	10-1000 m	1 Gb/s	LTE-A band	3GPP LTE-A

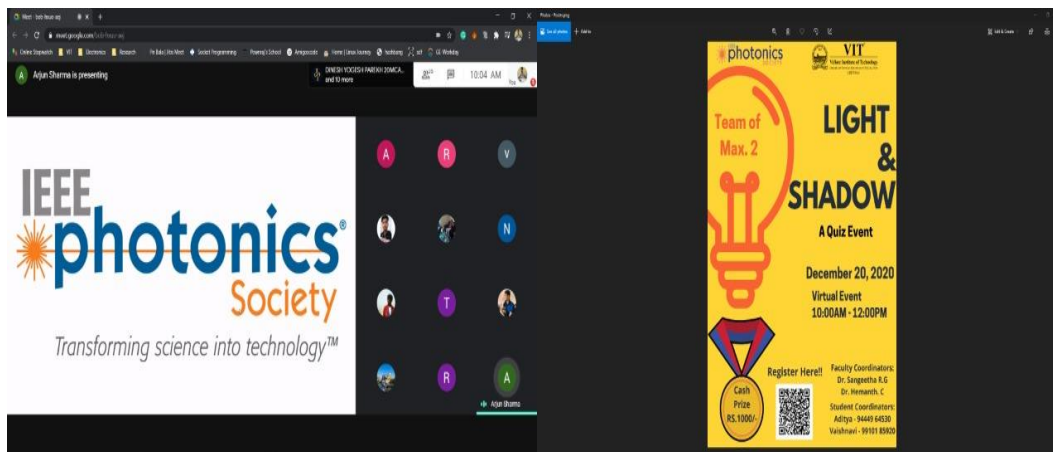
**IEEE PHOTONICS SOCIETY STUDENT BRANCH** organized “**LIGHT & SHADOW**” on **20/12/2020**

#### Participants:

- Total of 22 members participated
- Maximum of 2 members in a team

#### Winners:

- 1st prize - Vassanthitha
- 2nd prize - Nilesh. V
- 3rd prize - Bhavithrah Jegan & M.Erin Churchill



**IEEE photonics Society**  
Transforming science into technology™

**photonics**  
Team of Max. 2  
**LIGHT & SHADOW**  
A Quiz Event  
December 20, 2020  
Virtual Event  
10:00AM - 12:00PM  
Register Here!!  
Cash Prize: ₹5,000/-  
Faculty Coordinators:  
Dr. Sangeetha R.G.  
Dr. Hemarath C.  
Student Coordinators:  
Aditya - 94491 44830  
Vaishnavi - 99191 88002

## IEEE PHOTONICS SOCIETY STUDENT BRANCH organized “CAN YOU CODE IT?” on 13/03/2021

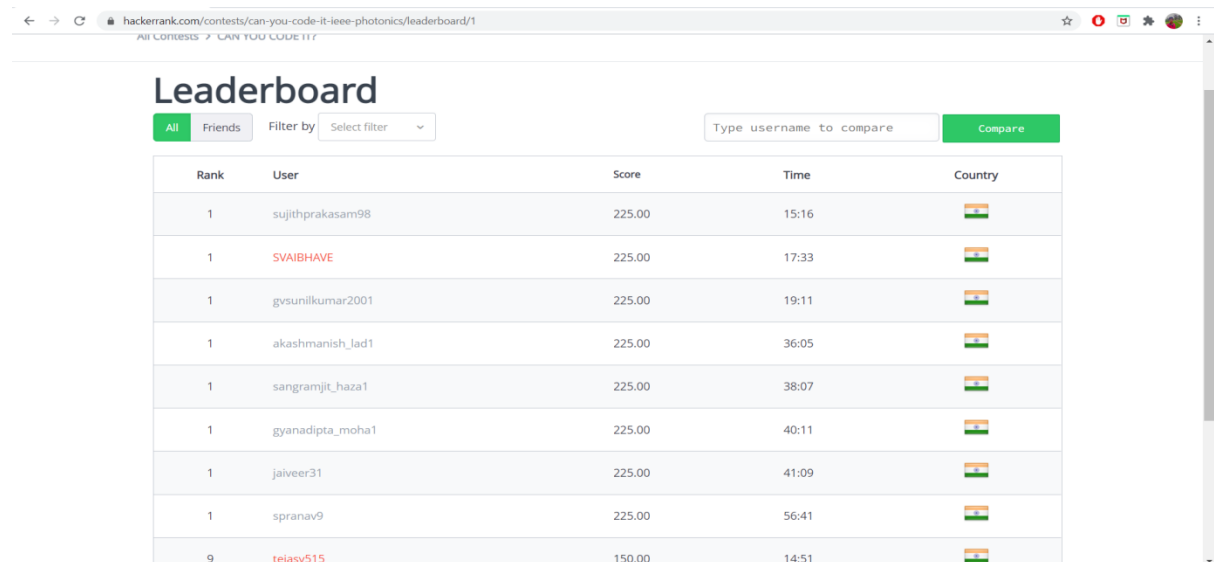
### Participants:

- Total of 127 members participated which included both VITians and Non-VITians
- Individual event

### Winners:

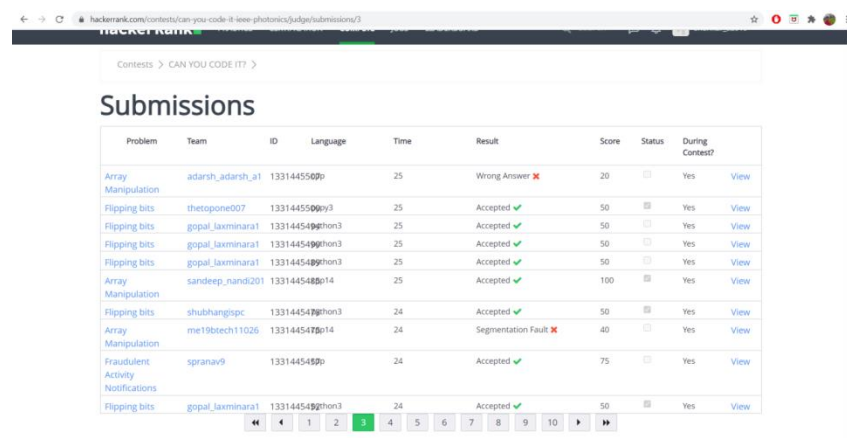
- 1st prize - Sujith K P
- 2nd prize - S Vaibhave
- 3rd prize - Sunil Kumar GV

### Leaderboard on Hackerrank platform



Rank	User	Score	Time	Country
1	sujithprakasam98	225.00	15:16	
1	SVAIBHAVE	225.00	17:33	
1	gvsunilkumar2001	225.00	19:11	
1	akashmanish_lad1	225.00	36:05	
1	sangramjit_haza1	225.00	38:07	
1	gyanadipta_moha1	225.00	40:11	
1	jaiveer31	225.00	41:09	
1	spranav9	225.00	56:41	
9	tejasv515	150.00	14:51	

### Submissions of the participants



Problem	Team	ID	Language	Time	Result	Score	Status	During Contest?
Array Manipulation	adarsh_adarsh_a1	1331445560p	Python3	25	Wrong Answer ❌	20		Yes <a href="#">View</a>
Flipping bits	theropone007	1331445560p	Python3	25	Accepted ✔️	50		Yes <a href="#">View</a>
Flipping bits	gopal_laxminara1	1331445499p	Python3	25	Accepted ✔️	50		Yes <a href="#">View</a>
Flipping bits	gopal_laxminara1	1331445499p	Python3	25	Accepted ✔️	50		Yes <a href="#">View</a>
Flipping bits	gopal_laxminara1	1331445499p	Python3	25	Accepted ✔️	50		Yes <a href="#">View</a>
Array Manipulation	sandeep_nandi201	1331445488p	Python3	25	Accepted ✔️	100		Yes <a href="#">View</a>
Flipping bits	shubhangispc	1331445479p	Python3	24	Accepted ✔️	50		Yes <a href="#">View</a>
Array Manipulation	me19btech11026	1331445477p	Python3	24	Segmentation Fault ❌	40		Yes <a href="#">View</a>
Fraudulent Activity Notifications	spranav9	1331445450p	Python3	24	Accepted ✔️	75		Yes <a href="#">View</a>
Flipping bits	gopal_laxminara1	1331445499p	Python3	24	Accepted ✔️	50		Yes <a href="#">View</a>

# IEEE PHOTONICS SOCIETY STUDENT BRANCH organized a webinar on “5G TECHNOLOGIES” on 14/05/2021

Dr. R Neelakandan, IIT Goa, talk on 5G Technologies

Comparison of 1G to 5G technologies					
Technology	1G	2G/2.5G	3G	4G	5G
Deployment	1970/1984	1980/1999	1990/2002	2000/2010	2017/2020
Bandwidth	2kbps	14-64kbps	2mbps	200mbps	>1gbps
Technology	Analog cellular	Digital cellular	Broad bandwidth /cdma/ip technology	Unified ip & seamless combo of LAN/WAN/WLAN/PAN	4G+WWWW
Service	Mobile telephony	Digital voice, short messaging	Integrated high quality audio, video & data	Dynamic information access, variable devices	Dynamic information access, variable devices with AI capabilities
Multiplexing	FDMA	TDMA/CDMA	CDMA	CDMA	MC CDMA
Switching	Circuit	Circuit/circuit for access network & air interface	Packet except for air interface	All packet	All packet
Core network	PSTN	PSTN	Packet	Internet	Internet



## Webinar on “Optical Sensors and Applications” on 13.02.21

The IEEE Photonics Society Student Branch Chapter organised webinar on Optical Sensors and applications on 13.02.21 through online mode. The invited speaker was Dr. Preeta Sharan, Professor & Research Head, Oxford College of Engineering Bangalore.

SPR

When monochromatic, polarized light hits an interface of two transparent media, the light is partly reflected.

In SPR, the glass prism is coated with a gold film. In conductive electron oscillations, called plasmons, a plasmon is the particle name for the plasma wave.

Experimental setup

Preeta Sharan  
be metal and dielectric interface so Researcher are working, what type of metal we should select gold silver or what aluminum? What type of metal, what type of directory. So for

Meeting details

Old Class Lists BU (...txt)

Type here to search

Turn off camera (ctrl + e)

Turn off captions

Raise hand

Preeta Sharan is presenting

SPR

When monochromatic, polarized light hits an interface of two transparent media, the light is partly reflected.

In SPR, the glass prism is coated with a gold film. In conductive electron oscillations, called plasmons, a plasmon is the particle name for the plasma wave.

Experimental setup

Dr. Chitra K 50562  
Any other questions? Okay. If not. I'd like to propose out of thanks to for this lecture. SMS. So on behalf of I to play photonic society and vit I thank you very much for

Meeting details

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Turn off captions

Raise hand

Preeta Sharan is presenting

## “Inventory: A Project Expo” on 7.08.21



### Inventory: a Project Expo

August 7th 2021, Saturday

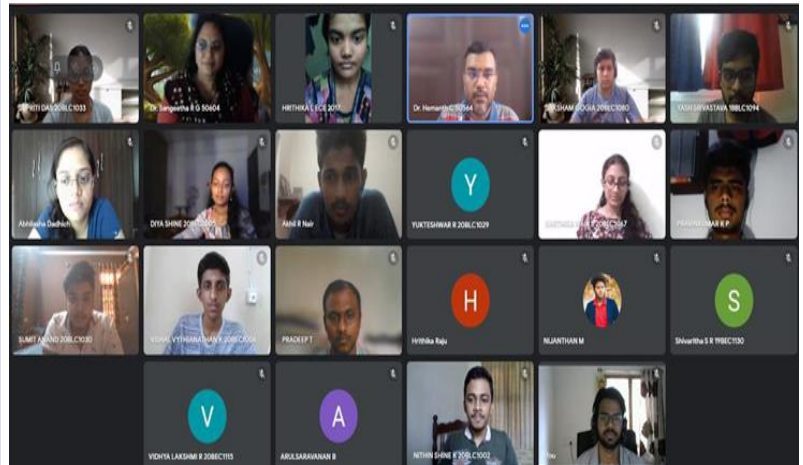
*Student Coordinators*  
Thiru: +91 97907 61391  
Sriram Kannan: +91 96118 18492



Exciting rewards!  
Present your  
projects to win  
prizes!

*Faculty coordinators*

- Dr Hemanth C
- Dr. Sangeetha RG



### Participants:

- Total of 30 members participated which included both VITians and Non-VITians
- Individual event

### Winners:

- 1st prize-Yash Srivastava, VIT (Rs.1000)  
*Autonomous drone with global navigation and reactive obstacle avoidance*
- 2nd prize – SUMIT ANAND, SAKSHAM GOGIA, SUPRITI DAS, DIYA SHINE (Rs.600)  
*Anti-Theft System - Anti-Theft System -SUMIT ANAND, SAKSHAM GOGIA, SUPRITI DAS, DIYA SHINE*
- 3rd prize - PRAVINKUMAR K P, ARULSARAVANAN B, NIJANTHAN M, PRADEEP T, Bannariamman Engineering College (Rs.400)  
*SMART ORGANIC WATER PURIFIER USING IOT*