

**A
Report
On**



AQIS sponsored

Online Short Term Training Program (STTP)

**Recent Advances in Nano-Photonics Technology
(RANPT 2020-21)**

Organized by



Department of Electronics & Communication Engineering

**Swami Keshvanand Institute of Technology, Management & Gramothan,
Jaipur**

Contents

SANCTION Letter	3
APPROVAL TO CONDUCT IN ONLINE MODE.....	7
Objectives of the STTP	9
Outcomes of the STTP	9
STTP-I.....	10
1.1 Brochure	11
1.2 Resource Persons:.....	12
1.3 Schedule.....	14
1.4 REPORT OF STTP-I.....	15
1.5 Glimpses of Event:	17
STTP-II.....	21
2.1 Brochure	22
2.2 Resource Persons:.....	23
2.3 Schedule.....	25
2.4 REPORT OF STTP-II	26
2.5 Glimpses of Event.....	28
2.6: Print News	30
STTP-III.....	32
3.1 Brochure	33
3.2 Resource Persons:.....	34
3.3 Schedule.....	36
3.4 REPORT OF STTP-III	37
3.5 Glimpses of Event.....	39
Sample of Feedback Collated from participant.....	43

SANCTION Letter

All India Council for Technical Education

(A Statutory body under Ministry of HRD, Govt. of India)
Nelson Mandela Marg, Vasant Kunj, New Delhi-110070 Website: www.aicte-india.org



STTP- Sanction Letter

Ref. No. 34-66/412/FDC/STTP/Policy-1/2019-20

Date 10 AUG 2020

From

Director,
Faculty Development Cell,
AICTE, New Delhi-110070

To

The Drawing and Disbursing Officer,
All India Council for Technical Education,
Nelson Mandela Marg,
Vasant Kunj, New Delhi – 110070

Sub: Release of grant for conduct of Short Term Training Programme (STTP) under AQIS 2019-20 during the financial year 2020-21- reg.

Sir,

This is to convey the sanction of the Council for payment of **Rs. 324333 /-** (**Rupees Three Lakh TwentyFour Thousand Three Hundred ThirtyThree Only**) for conduct of Short Term Training Program as per details given below:-

1.	Name and address of the beneficiary University / Institution	SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY, MANAGEMENT & GRAMOTHAN RAMNAGARIA, JAGATPURA, Rajasthan 302017
2.	Permanent ID of Institute	1-6015551
3.	Institute type	Unaided - Private
4.	Name of Coordinator	Dr. RUKHSAR ZAFAR
5.	Amount sanctioned	Rs. 324333/-
6.	Amount to be released	Rs. 324333/- Full & final payment
7.	Head of account	601.15(a) Gen. Short Term Training Programme (Plan)
8.	The authorized officer in whose favour Cheque/ Demand Draft/ RTGS is to be made	REGISTRAR / DIRECTOR / PRINCIPAL
9.	Title of the programme	Short term Training Program on Recent Advances in Nano Photonics Technology

1. The amount of the grant shall be drawn by the Drawing and Disbursing Officer, All India Council for Technical Education on the grant-in-aid bill and shall be disbursed to and credited to the Registrar/ Director/Principal of the institute through RTGS.
2. This grant-in-aid is being released in conformity with the terms & conditions as well as norms of the scheme as already communicated, and also being communicated in this letter.
3. The Principal of the Institute and the Coordinator of the Program are requested to verify the correctness of the under-mentioned Bank Account / RTGS Details submitted by them alongwith the proposals, in which the grant is being released:-

Institute PAN No.	Bank Name	Bank Branch Name	Bank Branch Address	Account Holder Name	Account Type	Account Number	IFSC Code
AAATT4162E	HDFC BANK LTD	Villa Station	3 D Villa Station Road, Jaipur	SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY MANAGEMENT & GRAMOTHAN	Saving Account	50100200092582	HDFC0001329

Instructions/Guidelines to be followed by the University/Institution

I. Disbursement of funds to University/Institutions

- a. The full amount of the grant sanctioned is being released as advance to the University/Institute.
- b. The amount spent by the institute on the conduct of STTP shall be adjusted on the basis of utilization certificate and detailed expenditure statement submitted by the University/Institution on the prescribed format along with other mandatory documents viz feedback form, copy of proceedings and completion report etc.
- b. The above said amount of grant shall be refunded back to AICTE if the Letter of Approval (LOA) / Extension of Approval (EOA) is not issued by AICTE to the institute for the academic year 2020-21.

II Maintenance of Accounts

- a. The Institute shall strictly follow the provisions laid down in the scheme document as available on the portal.
- b. Funds covered by this grant shall be kept separately and would not be mixed up with other funds so as to know the amount of interest accrued on the grant.
- c. The University/College/Institute shall maintain proper accounts of the expenditure out of the grants, which shall be utilized only on approved items of expenditure.
- d. The grant is intended to cover items of expenditure connected with the Short Term Training Programme such as Boarding & Lodging to the participants, TA to outstation participants, Honorarium to Course Coordinator, reading material to participants, Honorarium to resource persons, TA/DA to resource persons including two outstations resource persons & working expenses (reprographic services, postage, transport, daily wages, tea/coffee etc.

III. Conduct of test and issuance of certificate

A test shall be conducted by Program Monitoring Committee (PMC) at the end of the program and joint certificates shall be issued (by AICTE & conducting institute) to those participants who have attended the program and have scored minimum 60% marks in the test.

IV. Submission of Documents by the University/Institutions to AICTE

- a. The following mandatory relevant documents are required to be submitted by the University/Institution within one month of the completion of the program:-
 - (i) Original Statement of actual expenditure & Utilization Certificate in the prescribed proforma duly signed by the Head of the institution and countersigned by Registrar/Finance Officer/Govt. Auditor. In case of self-financing/private institutions, Statement of actual Expenditure & Utilization Certificate are required to be audited & signed and sealed by a Chartered Accountant endorsing the membership number and complete postal address. Format for the same is available on AICTE web portal.

The University/Institution is not required to submit bills/vouchers/invoices etc for the expenditure incurred out of recurring grants. However, such copies of bills/vouchers/invoices shall be digitized by respective institutions receiving grant and uploaded scanned copies of such bills/vouchers/invoices etc on the portal for availability and view at any point of time.

- (ii) Feedback form in the prescribed proforma.
- (iii) Copy of the proceedings and completion report.
- (iv) List of candidates who have successfully completed the program on the basis of the test conducted by Program Monitoring Committee (PMC).
- (v) Report submitted by Program Monitoring Committee (PMC).

- b. The amount of the grant shall be adjusted on submission of utilization certificate & detailed expenditure statement by University/Institution. On receipt of these documents, the total amount of financial assistance, admissible as per the norms, shall be worked out and grant-in-aid adjusted.

V. General instructions

- a. Preferably 10% of the participants may be industry professionals deputed by industry. Further, not more than 2 participants shall be from the host institution/group of institutions.
- b. The grant released/or part thereof, if remains unutilized for any reason after expiry of stipulated time period (for any reasons to include unspent amount, interest, penalty if imposed) shall be refunded back to AICTE in the form of RTGS payable to Member Secretary, AICTE, New Delhi. The bank details of AICTE are as under:-

Account No	: 55113199952
Name of the Account Holder	: Member Secretary, AICTE, New Delhi
Bank Name	: State Bank of India
Branch Name	: Shastri Bhawan, New Delhi
IFSC Code	: SBIN0050203

- c. The STTP is a residential program of a duration of six days with minimum 40 participants. The approved STTP shall be conducted within six months from the date of release of funds.
- d. If programme is not conducted within the period of six months of the release of the 100% grant, the released amount, alongwith interest accrued thereon, has to be necessarily returned back to AICTE within a month through RTGS.
- d. The expenditure under the Heads 'Honorarium to Course Coordinator' and 'Honorarium to Resource Persons' shall not exceed 1% & 20% respectively of the total sanctioned grant for the Programme. However, overall expenditure shall not exceed the funds sanctioned for the Programme.
- g. Any extra money required to complete the programme must be borne by the institute from their own resources. But the quality of the activities should not be compromised.
- h. Any unavoidable circumstantial change in the program with respect to name of Project Coordinator, Venue and date for organizing STTP would mandatorily require prior approval of the Council. All such requests should be addressed to AICTE, in advance, recording the specific reasons for proposed changes, failing which the offer for the grant already issued would be treated as automatically withdrawn and the financial assistance released in favour of the beneficiary institution shall be refunded immediately to the Council. Kindly mention the File No. 34-66/412/FDC/STTP/Policy-1/2019-20 in your future correspondence.
- i. **Steering Committee/Project Monitoring Committee (PMC)** is required to be constituted at institutional level. The constitution of the PEC shall be as under:
 - (i) Principal/Director/Registrar of the institution (Chairperson).
 - (ii) Coordinator of the program (Member Secretary).

(iii) Two HoDs and one subject expert (members).

The members of the said PMC shall not be below the rank of Associate Professor. A test shall be conducted by Project Monitoring Committee (PMC) at the end of the program and the certificates shall be issued to those participants who have attended the program and have qualified in the test. The minutes of the meetings, along with PMC report, are to be submitted to the Council at end of the program along with other mandatory documents.

- j. **GoI GFR rules** (@<https://doe.gov.in/order-circular/general-financial-rules2017-0>) should be followed during utilization of grant.
- k. This Sanction Order may be treated as Offer Letter for all purposes.

TE:- Any deviation from the above will invoke serious action against the Institute.

Yours sincerely,

(Col. B Venkat)
Director (FDC)

10 AUG 2020

Copy forwarded for information and necessary action to: -

1. **Name and Address of the Coordinator**
Dr. RUKHSAR ZAFAR
SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY, MANAGEMENT & GRAMOTHAN
RAMNAGARIA, JAGATPURA,
Rajasthan302017
2. **The Registrar / Director / Principal**
SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY, MANAGEMENT & GRAMOTHAN
RAMNAGARIA, JAGATPURA,
Rajasthan302017
3. **Guard File**

APPROVAL TO CONDUCT IN ONLINE MODE



Phone : 011-26131577 - 78, 80
011-29581000
Website : www.aicte-india.org



सत्यमेव जयते

अखिल भारतीय तकनीकी शिक्षा परिषद्

(भारत सरकार का एक सौविधिक निकाय)
(मानव संसाधन विकास मंत्रालय, भारत सरकार)
नेल्सन मंडेला मार्ग, वसंत कुंज, नई दिल्ली-110070

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION
(A Statutory Body of the Govt. of India)
(Ministry of Human Resource Development, Govt. of India)
Nelson Mandela Marg, Vasant Kunj, New Delhi-110070

Col. B. Venkat
Director (FDC)
E-mail: director.fdc@aicte-india.org
Mob. No. 8130255472

14 Sept 2020

Sub:-For information of AICTE approved institutes which have received grants for conducting STTP's/FDP's under AQIS 2019-20.

Sir,

This is in reference to grants released by AICTE under AQIS 2019-20 for conduct of STTP's/FDPs. It is being observed that due to present circumstances of ongoing pandemic of COVID-19, most of Institutes are facing difficulties in organizing and conducting STTP's. This office has received a number of requests from various institute to allow on line method of conducting STTP/FDP to complete their commitments.

In this regard, it is to inform that all such institutes, which have already received grants for conducting STTP's/FDPs through prevailing contact mode, are **allowed to conduct STTP's through online mode subject to following conditions:**

- (i) The Institute will be allowed to adjust the grants received for STTP at following rates:-

a.	Honorarium for Coordinator	Rs. 5000.00
b.	Honorarium to experts	Rs. 75000.00
c.	Provision for payment to lab attendant engaged during lab practices	Rs. 3000.00
d.	miscellaneous charge	Rs. 10000.00
	Total for each STTP's	Rs 93000.00

- (ii) The Institute will conduct more than one STTP's in multiples of Rs. 93000.00 within the total grant received by it and shall return the balance unspent amount to AICTE.

e.g.

if an Institute has received grant for STTP	=Rs 3,00,000.00
Cost of three STTP	3x93000= Rs. 279000.00
Balance	= Rs. 21,000.00

The institute will return the balance unspent amount of Rs.21,000.00 alongwith interest earned on such amounts to AICTE while submitting UC for adjustment of accounts for keeping its eligibility for receiving grants in next AQIS.

- (iii) The institute will conduct all three STTP's as explained above on the same topic which has been approved by AICTE while releasing the grants.
- (iv) Firm dates for each program will be intimated to AICTE beforehand.

On similar lines FDP (02 week program) to be conducted online has the following approval totaling to Rs. 1,86,000.00.

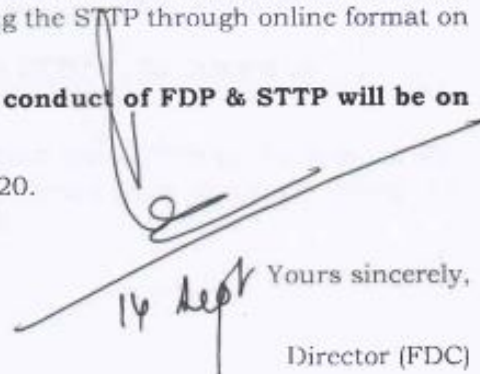
a.	Honorarium for Coordinator	Rs. 5000.00
b.	Honorarium to experts	Rs. 1,68,000.00
c.	Provision for payment to lab attendant engaged during lab practices	Rs. 3000.00
d.	miscellaneous charge	Rs. 10000.00
	Total for each FDPs	Rs 1,86,000.00

The conducting of FDP's (two weeks program) shall be subjected to the similar conditions (i) to (iv) given above for conduct STTP courses, except rates of Honorarium to experts.

You are requested to acknowledge receipt of above guidelines and convey your consent if your institute is ready for conducting the STTP through online format on conditions explained above.

It is once again reiterated that online conduct of FDP & STTP will be on explicit permission of AICTE.

This provision is valid only till 31 Dec 2020.


Yours sincerely,
Director (FDC)

Objectives of the STTP

The STTP aims at

- Providing a forum for experts for discussing, identifying open and potential problems of Nano-photonics. Members of the research and academic community will be able to interact on cutting-edge and ground breaking topics in Nano Photonics.
- Enabling participants to develop proficiency in the field of photonics as well as in Nano techniques involved in photonics.
- providing a platform to exchange views, ideas & the latest advances in the field of Photonics and Nano Technology
- Enhancing capability of participants in carrying out research in the area of Photonics and Optics Technology
- Providing practical and experimental exposure using different tools to demonstrate fundamental concepts of Photonics based applications.
- Developing professionals in the area in order to guide and motivate young students.

Outcomes of the STTP

The participants are able:

- To understand and promote conceptual clarity in the field of Photonics Technology and Optical Communication
 - To get motivated for further studies in this the field of photonics and optical communication.
 - To facilitate insight to different research models and their application in optical sensing, photonics technology for 5G backhaul, medical diagnosis, and many more
 - To develop research activities, testing & consultancy in the area of Photonics and Optics Technology.
 - To train professionals in the said area so that they can act as 'Resource Persons' in guiding and motivating young students.
- ✓ **100 participants are shortlisted in each and every STTPs of RANPT series**
- ✓ **The platform for the conduction of STTP: WebEx (online)**

Eligibility Criteria for each and every three STTPs issuing certificates to Participants:

- E-Certificate is provided to the participants who have minimum 80% attendance and 60% pass marks in the test conducted with Feedback to be submitted on the last day of STTP.

STTP-I
RANPT 2020
(26th-30th October 2020)

1.1 Brochure

<p>STTP COMMITTEE</p> <p>CHIEF PATRON Sh. Raja Ram Meel, SKIT</p> <p>PATRON Sh. Surja Ram Meel, Chairman, SKIT Sh. Jaipal Meel, Director, SKIT</p> <p>ADVISORS Prof. (Dr.) S.L. Surana, Director (Academics), SKIT Mrs. Rachna Meel, Registrar, SKIT Prof. (Dr.) Ramesh Kumar Pachar, Principal, SKIT Prof. (Dr.) S. K Bhatnagar, Director(Research), SKIT Prof. S. N Vijayvergiya, Dean(Project), SKIT Prof. (Dr.) Anil Choudhary, HOD-IT, SKIT Prof. (Dr.) Mukesh Gupta, HOD-CS, SKIT Dr. Dheeraj Joshi, HOD-ME, SKIT Dr. Dhanraj Chitara, HOD-EE, SKIT Prof. (Dr.) Rohit Mukherjee, Incharge-1st Year, SKIT Dr. Savita Choudhary, HOD, MBA</p> <p>PROGRAM CHAIR Prof. (Dr.) Mukesh Arora, HOD-ECE, SKIT Prof. (Dr.) Praveen Kumar Jain, ECE, SKIT</p> <p>CONVENER Dr. Rukhsar Zafar, Associate Professor, ECE, SKIT</p> <p>CO-CONVENERS Mr. Ankit Agarwal, Assistant Professor, ECE, SKIT Ms. Pooja Choudhary, Assistant Professor, ECE, SKIT Mr. Rahul Pandey, Assistant Professor, ECE, SKIT</p> <p>ORGANIZING COMMITTEE Dr. Monika Mathur Dr. Swati Arora Dr. Shubhi Jain Mr. Abhinandan Jain Ms. Gloria Joseph Mr. Harshal Nigam Mr. J. P Vijay Ms. Kiran Rathi Mr. Lalit Kumar Lata Ms. Mamta Jain Ms. Manju Choudhary Ms. Namrata Joshi Mr. Neeraj Jain Mr. Pallav Rawal Ms. Priyanka Sharma Ms. Rajni Idwal Mr. Ravi Jangir Ms. Richa Sharma Mr. Sunil Lakshawat Mr. Vikas Pathak</p>	<p>REGISTRATION FORM</p> <p>AICTE-AQIS Sponsored Short Term Training Program on "Recent Advances in Nano-Photonics Technology" (RANPT-2020) October 26-31, 2020</p> <p>Mr./Ms./Dr.....</p> <p>Designation:</p> <p>Institute Name:</p> <p>Institute Address:</p> <p>Affiliated to AICTE..... (Yes/No)</p> <p>Mailing Address:</p> <p>Mobile No.:</p> <p>E-Mail Id:</p> <p>Signature of Participant</p> <p>Head of Department</p> <p>Note: Submit the registration form through online process via: https://bit.ly/3da6nw1 No. of Seats are limited.</p> <p>Note: The Mode of STTP is online platform (Cisco Webex). Certificates to be issued to only those participants who have minimum 80% attendance and 60% pass marks</p> <p>IMPORTANT DATES Last Date of Registration: October 17, 2020 Intimation of Selection : October 22, 2020</p>	<p></p> <p>AICTE-AQIS Sponsored One Week Short Term Training Program(STTP) on Recent Advances in Nano-Photonics Technology (RANPT-2020) October 26-31, 2020</p> <p></p> <p>Organized by</p> <p></p> <p>Department of Electronics & Communication Engineering Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur-302017 www.skit.ac.in</p>
---	---	--

<p>ABOUT SKIT</p> <p>Swami Keshvanand Institute of Technology, Management & Gramothan (SKIT) is Ranked No. 1 (fourth consecutive years) Engineering College in Rajasthan declared by Rajasthan Technical University (RTU), Kota. SKIT is a selective comprehensive institution offering undergraduate and postgraduate programmes in Engineering and Management. The institute was established in the year 2000 by a team of committed professionals and academicians. During all the past years SKIT has emerged as a premier centre of technical education not only in Rajasthan but also in northern India which has been realized through efficient and dedicated faculty members, innovative teaching learning methods, state of the art infrastructures and core value of discipline. The various undergraduate programmes of the institute are accredited by the National Board of Accreditation (NBA).</p> <p></p> <p>DEPARTMENT OF ECE</p> <p>The department of Electronics & Communication Engineering (ECE) was started in the year 2000. The Department has well qualified and experienced faculty members. The Department is actively involved in conducting Conferences and Workshops periodically. The department has well equipped laboratories with a view to strengthen research & development activities. Department involves researching, designing, developing and testing of electronic equipment used in various systems. Department provides an in-depth education in engineering principles and motivate the students to take leadership positions.</p>	<p>OBJECTIVES OF STTP</p> <p>The STTP aims at</p> <ul style="list-style-type: none"> Providing a forum for experts for discussing, identifying open and potential problems of Nano-photonics Members of the research and academic community will be able to interact on cutting-edge and ground breaking topics in Nano Photonics. Enabling participants to develop proficiency in the field of photonics as well as in Nano techniques involved in photonics. Providing a platform to exchange views, ideas & the latest advances in the field of photonics and Nano Technology. Enhancing capability of participants in carrying out research in the area of Photonics and Optics Technology. Providing practical and experimental exposure using different tools to demonstrate fundamental concepts of Photonics based applications. Developing professionals in the area in order to guide and motivate young students. <p></p> <p>CONTACT PERSON Dr. Rukhsar Zafar (+91-8058318786) Associate Professor, Department of ECE Mr. Ankit Agarwal (+91-7877556914) Assistant Professor, Department of ECE Email us at: sttpece@skit.ac.in</p>	<p>CONTENT OF STTP</p> <ul style="list-style-type: none"> Fundamentals of Photonics Communications Photonic Devices Multicore Fiber Technology and their Application Photonic Crystal Fibers and their Applications Materials & Techniques for Fabrication of Fibers High Power Laser Applications Plasmonics Hybrid Plasmonic Waveguides and their Applications Role of Fiber Optic Technology in 5G Communications Optical OFDM: Modulation Approach <p>RESOURCE PERSON</p> <p>Resource person of this short term training program is from IITs, NITs, Institutions of National Importance and reputed Institutes</p> <p>REGISTRATION FEE</p> <p>There is No Registration Fee.</p> <p>TARGETED AUDIENCE</p> <p>The Training Program is open to Faculty members from AICTE approved engineering colleges, Research Scholars and Industry Persons, which aims to provide the participants with the latest techniques in Optical and Photonics through lecture sessions and hands on by experts in the field</p> <p></p>
---	---	--

1.2 Resource Persons:

1. Dr. Govind, Professor (AcSIR) and Sr. Principal Scientist, NPL, Delhi
2. Dr. Suchandan Pal, Principal Scientist, CSIR-CEERI Pilani
3. Dr. Vipul Rastogi, Professor, IIT Roorkee
4. Dr. Sudipta Sarkar, Principal Scientist, CSIR-CSIO, Chandigarh
5. Dr. Umesh K Tiwari, Scientist, CSIR-CSIO, Chandigarh
6. Dr. Vijay Janyani, Professor, MNIT Jaipur
7. Prof. Mohit Sinha, Adjunct Professor, BML Munjal University, Gurgaon
8. Dr. Vishvendra Singh, Assistant Professor, IIT Roorkee
9. Dr. S.K. Metya, Assistant Professor, NIT Arunachal Pradesh
10. Dr. Yogita Kalra, Assistant Professor, DTU New Delhi
11. Dr. Nikhildeep Gupta, Assistant Professor, IIIT Nagpur
12. Dr. Amit Kumar Garg, Assistant Professor, IIIT Kota
13. Mr. Amandeep Singh, Product Manager (SAARC), HR Universal Systems Inc.

AICTE-AQIS Sponsored
One Week Online Short Term Training Program (STTP)
on
Recent Advances in Nano-Photonics Technology (RANPT-2020)
Inaugural Ceremony
Date: October 26, 2020, Time: 9:00 AM Onwards

Shri Surja Ram Meel
Chairman
SKIT, Jaipur

Shri Jaipal Meel
Director
SKIT, Jaipur

Chief-Guest
Prof. Rajendra B Kakde
Adviser
AICTE, New Delhi

Guest of Honour
Prof. Vipul Rastogi
IIT, Roorkee

Prof. S. L. Surana
Director (Academics)
SKIT, Jaipur

Prof. Ramesh K Pachar
Principal
SKIT, Jaipur

Organized By
Department of Electronics and Communication Engineering
Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur



AICTE-AQIS Sponsored
One Week Short Term Training Program (STTP)



on
Recent Advances in Nano-Photonics Technology (RANPT-2020)
October 26-31, 2020



Dr. Suchandan Pal
Principal Scientist
CSIR-CEERI, Pilani



Dr. Govind
Principal Scientist
CSIR-NPL, New Delhi



Dr. Sudipta Sarkar
Principal Scientist
CSIR-CSIO, Chandigarh



Dr. Umesh K Tiwari
Scientist
CSIR-CSIO, Chandigarh



Dr. Vipul Rastogi
Professor
IIT, Roorkee



Dr. Vijay Janyani
Professor
MNIT, Jaipur



Prof. Mohit Sinha
Adjunct Professor
BML Munjal University



Dr. Vishvendra Singh Poonia
Assistant Professor
IIT, Roorkee



Dr. Yogita Kalra
Assistant Professor
DTU, Delhi



Dr. Sanjeev K Metya
Assistant Professor
NIT, Andhra Pradesh



Dr. Nikhildeep Gupta
Assistant Professor
VNIT, Nagpur



Dr. Amit Kumar Garg
Assistant Professor
IIIT, Kota



Mr. Amandeep Singh
Product Manager (SAARC)
HR Universal Systems Inc.

Organized By

Department of Electronics and Communication Engineering
Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur

1.3 Schedule

Date	Timing	Session Details
26/10/2020	9:00-9:30 am	Inaugural
	9:30-11:00 am	Photonics : Fundamentals & Applications (Prof. Vipul Rastogi, IIT Roorkee)
	11:30 am-1:00 pm	Fabrication of III-Nitride based Photodetectors for Ultraviolet Radiation Detection (Dr. Govind, NPL, New Delhi)
	2:00-3:30 pm	Energy Efficient Gigabit Passive Optical Networks (Dr. Amit Kumar Garg, IIIT Kota)
27/10/2020	9:00-10:30 am	Solar photovoltaics: fundamentals and recent advances Prof. Vijay Janyani, MNIT Jaipur
	11:00 am-12:30 pm	Optical Computing using Electro-Optic Effect (Dr. S.K. Metya, NIT AP)
	1:30-3:00 pm	Recent Developments in Optical Fiber Amplifiers for Optical Communication, (Dr. Umesh Kumar Tiwari, CSIR-CSIO, Chandigarh)
28/10/2020	9:00-10:30 am	Quantum Photo cells and related technologies (Dr. Vishvendra Singh, IIT Roorkee)
	11:00 am-12:30 pm	Hands on OptiSystem tool (Mr. Amandeep Singh, HR Universal Systems Inc.)
	1:30-3:00 pm	Hands on OptiFDTD tool (Mr. Amandeep Singh, HR Universal Systems Inc.)
29/10/2020	9:00-10:30 am	Recent Advancement in Nanoplasmonics (Dr. Govind, NPL, New Delhi)
	11:00 am-12:30 pm	Metamaterials and their Applications (Dr. Yogita Kalra, DTU New Delhi)
	1:30-3:00 pm	Hands-on experience on High-speed optical link designing (Dr. Amit Kumar Garg, IIIT Kota)
30/10/2020	9:30-11:00 am	An overview of periodic/ aperiodic nanostructures for sensing applications (Dr. Suchandan Pal, CSIR-CEERI Pilani)
	11:00 am-12:30 pm	Optical Fiber based nanophotonics application (Dr. Sudipta Sarkar, CSIR-CSIO, Chandigarh)
	1:30-3:00 pm	Photonic Communication and Signal Processing. (Prof. Mohit Sinha, BML Munjal University, Gurgaon)
31/10/2020	9:00-10:30 am	Periodic Nanophotonic Structures based light management for Solar Energy harvesting (Dr. Nikhildeep Gupta, IIIT Nagpur)
	11:00 am-12:30 pm	Sensors: Principles & Applications (Dr. Umesh Kumar Tiwari, CSIR-CSIO, Chandigarh)
	1:30-3:00 pm	Handson on solar cell structure simulation (Dr. Nikhildeep Gupta, NIT Nagpur)
	3:30-4:00 pm	Valedictory

1.4 REPORT OF STTP-I

Six day AICTE-AQIS sponsored online STTP on “*Recent Advances in Nano-Photonics Technology* (RANPT-2020) was organized by Department of Electronics & Communication Engg., Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur from 26th October 2020 to 31st October, 2020. It was conducted on Webex online platform.

The inaugural ceremony of the STTP witnessed the presence of **Prof. Rajendra B Kakde, Adviser, Affiliation bureau, AICTE as the chief guest and Prof. Vipul Rastogi, Professor, IIT Roorkee as the Guest of honour**. The inaugural was opened up with the welcome address by **Sh. Surja Ram Meel (Chairman, SKIT JAIPUR Jaipur)**. The welcome address is followed by some motivational words of chief guest and guest of honor highlighting the importance of STTP for participants.

In the first session of the first day Prof. Vipul Rastogi, Professor IIT Roorkee delivered an expert talk on Photonics: Fundamentals & Applications. He discussed about the laser and its recent developments.

In the subsequent session of Day1, Dr. Govind, Senior Principal Scientist Professor (AcSIR), NPL Delhi delivered an expert talk on Fabrication of III-Nitride based Photodetectors for Ultraviolet Radiation Detection.

In this continuation, Dr Amit Kr. Garg, from IIIT Kota shared his valuable delivered an Expert talk on Energy Efficient Gigabit Passive Optical Networks on the last session of Day 1 . Dr. Garg highlighted the importance of optical engineering in the next generation ultra-fast internet speed.

Second day was yet energetic and started with an expert lecture of Professor Vijay Janyani (from MNIT, Jaipur) who shared his expertise in the area of Solar photovoltaics: fundamentals and recent advances. It was quite knowledge enriching session. The session was followed by a lecture of Dr. Sanjeev K. Metya, Assistant Professor, NIT Arunachal Pradesh. He shared his knowledge on Optical Computing using Electro-Optic Effect.

The day 2 ended with the expert lecture of Dr. Umesh Tiwari, Principal Scientist, CSIR-CSIO, Chandigarh. He sheds light on Recent Developments in Optical Fiber Amplifiers for Optical Communication and enlightened the participants with the overview of development and applications of optical amplifiers.

Third day was signed in with an enthusiastic expert lecture of Dr. Vishvendra Singh, IIT Roorkee who gave the deep insights on Quantum Photo cells and related technologies. The session opened a new research opportunities in the field of quantum computing. This was followed by two brainstorming hands-on practice sessions on optisystem and optiFDTD with an industrial expert from HRU New Delhi (Mr. Amandeep Singh). It was quite informative and helpful session.

Next day was opened up with much awaiting session of Dr. Govind, Senior Principal Scientist and Professor (AcSIR), NPL New Delhi. He shared his expert talk on Recent Advancement in Nanoplasmonics. He also shed light on how the plasmonics is garnering the attention in the diverse range of applications. This lecture was followed by yet another knowledge enhanced session of Dr. Yogita Kalra, who is associated with Delhi Technical University, Delhi. She emphasized on the importance of Metamaterials and their Applications. The Day 4 was ended with Hands-on experience on High-speed optical link designing by Dr. Amit Garg, from IIIT Kota.

With the new day comes, new strength and new thoughts. Making the views meaningful, the Day 5 was started with one of the most honorable expert of this STTP, Dr. Suchandan Pal, Principal Scientist, CSIR-CEERI Pilani who shared his expertise on 'An overview of periodic/ aperiodic nanostructures for sensing Applications'. The Next lecture was taken by Dr. Sudipta Sarkar, Principal Scientist, CSIR-CSIO, Chandigarh. She enlightened the participants with her expertise in Optical Fiber based nanophotonics application. The day ended with an expert lecture of Prof. Mohit Sinha, BML Munjal University, Gurgaon who puts light on Photonic Communication and Signal Processing.

Opening of Day 6 was carried on with the session of Periodic Nanophotonic Structures based light management for Solar Energy harvesting and this was delivered by Dr. Nikhildeep Gupta, from IIIT Nagpur. This session was followed by an expert lecture of Dr. Umesh Kumar Tiwari, CSIR-CSIO, Chandigarh. He presented optical Sensors: Principles & Applications.

The last session of the STTP was quite knowledge enriching and was based on hands-on session on solar cell structure simulation by Dr. Nikhildeep Gupta, IIIT Kota

The valedictory session was graced by the benign presence of **Prof. Mithilesh Kumar, RTU Kota and Dr. Bhupesh Bishnoi, National Institute of Advanced Industrial Science and Technology, Japan**. Prof. Mithilesh, RTU Kota highlighted the importance of Nano-photonics and its relevance in recent scenario. He also praised that the SKIT JAIPUR management and the faculty members are doing their best to enhance research and development activities not even in Rajasthan but across the whole country. Dr. Bishnoi also shed light that how the photonics and the related technologies are garnering the attention now a days. He emphasized that in future, there will be a new paradigm shift through photonics and quantum computing and these technologies will prove as a new revolution in the field of communication, computation, encryption and many more.

100 participants were shortlisted for the STTP, across the country. The assignment and feedback were collected from the participants in valedictory session.

1.5 Glimpses of Event:

Cisco Webex Events | Event Info | Hide menu bar ^

File Edit Share View Audio & Video Participant Event Help

Speaking: Gloria Joseph

Participants (43)

- RK Rajendra Kakde
- RK Rajiv kumar
- RZ Rukhsar Zafar
- SB Satish Bhatnagar

Q&A

All (0)

Select a question and then type your answer here. There's a 256-character limit.

Send Send Privately...

Activate Windows
Go to PC settings to activate Windows.
Participants Chat

9:00 AM
10/26/2020

Cisco Webex Events | Event Info | Hide menu bar ^

File Edit Share View Audio & Video Participant Event Help

Participants (79)

- R rahul.pandey
- RZ Rukhsar Zafar

Attendee: 72 (0 displayed)

View all attendees...

Q&A

All (0)

Select a question and then type your answer here. There's a 256-character limit.

Send Send Privately...

Activate Windows
Go to PC settings to activate Windows.
Participants Chat

10:44 AM
10/26/2020

Electro-optic modulation (~ 40 GHz speed)

Longitudinal configuration

Polarizer L EO crystal d

$\Delta\phi \propto L$
 $\Delta\phi \propto \Delta n \propto E (= V/L)$
 $\Delta\phi \propto V$ (Independent of crystal dimensions)
 $V_{\pi} \sim \text{few kV}$ (Voltage to obtain π phase shift)

Further, this requires either transparent electrodes or apertures

Transverse configuration

EO crystal

$\Delta\phi \propto L$
 $\Delta\phi \propto \Delta n \propto E (= V/d)$
 $\Delta\phi \propto V \left(\frac{L}{d} \right)$
 $V_{\pi} \sim 250 \text{ V}$

More efficient

Vipul Rastogi, Department of Physics

60

Unmute Start video Share

Cisco Webex Events | Event Info | Hide menu bar ^

File Edit Share View Audio & Video Participant Event Help

ECE SKIT Host, me | Rukhsar Zafar | manjuchoudharymec | **Vijay Janyani** | Praveen Kumar Jain

P-type and N-type Solar Cells

The first solar cell produced by the Bell Laboratories in 1954 was a n-type solar cell. Progressively, the p-type structure took the lead, historically because in the early days of its development, the solar technology was mainly used for space applications and p-type structure had better resistance to radiations for space applications.

- **Efficiency:** most powerful solar cells today available on the market are n-type solar cells. The main reason behind their superior efficiency is the higher carrier lifetime. The technology is not prone to what is called boron-oxygen defect. When using n-type solar cells, doped with phosphorous, this effect disappears. Also, n-type solar cells are less prone to metallic impurities of the silicon
- **Light Induced Degradation effect:** n-type solar cells are immune to LID, again because of the absence of the boron-oxygen defect.
- **Cost:** in general, except minor differences, the process to manufacture ingots does not differ much between p-type and n-type solar cells. The process of fabrication includes more steps and makes a module more expensive to build with n-type solar cells.

Unmute | Start video | Share

Participants (76)

Panelist: 7

- ES ECE SKIT Host, me
- VJ Vijay Janyani
- M manjuchoudharymec
- PJ Praveen Kumar Jain
- R rahul.pandey
- RZ Rukhsar Zafar
- SM Sanjeev MMetya

Attendee: 69 (0 displayed)

Q&A

9-36 AM 10/27/2020

Cisco Webex Events | Event Info | Hide menu bar ^

File Edit Share View Audio & Video Participant Event Help

Ankit Agarwal | ECE SKIT Host | **Amandeep Singh** | gloria joseph | Praveen Kumar Jain

OpnSICE Schematics

ALL LIBRARIES

- SPIN_Electrical
- IBOUT1
- IBOUT2

Chat

To: Everyone

Enter chat message here

Q&A

11:41 AM 10/28/2020

The screenshot displays a Cisco Webex Events window. At the top, there's a menu bar with options like 'File', 'Edit', 'Share', 'View', 'Audio & Video', 'Participant', 'Event', and 'Help'. Below this, a participant bar shows several users: ECE SKIT (Host), Govind Gupta (highlighted), Gloria Joseph, Pooja Choudhary, rahul.pandey, and Rukhsar Zafar. The main content area shows a presentation slide titled 'Applications of surface plasmon resonance sensors'. The slide has a central purple circle labeled 'PLASMONIC SENSOR' with arrows pointing to various applications: Medical Diagnostics, Bioimaging, Glucose Monitoring, Environmental Monitoring, Disease Detection, Telemedicine, Chemical Sensing, Organic Chemical Sensing, and Lab on a chip. The bottom of the slide lists 'Applications of surface plasmon resonance sensors'. The interface also includes a right-hand panel with 'Participants (60)', a 'Panelist: 6' list, a 'Chat' window, and a 'Q&A' section. At the bottom, there's a control bar with 'Unmute', 'Start video', 'Share', and other icons. The system tray at the very bottom shows the time as 10:05 AM on 10/29/2020.

1.7 Print News

ऑनलाइन संचार की मांग पर हुआ मंथन

जयपुर ♦ ऑनलाइन संचार की बढ़ती मांग के चलते हाई स्पीड डेटा ट्रांसमिशन महत्वपूर्ण हो गया है। इसे नैनो फोटोनिक्स तकनीक के उपयोग से ऑप्टिकल व कंपोनेंट्स चिप की मदद से हासिल किया जा सकता है। यह कहना है जगतपुरा स्थित स्वामी केशवानंद ऑफ टेक्नोलॉजी मैनेजमेंट एंड ग्रामोथान में हुए शॉर्ट टर्म ट्रेनिंग प्रोग्राम में शामिल हुए एक्सपर्ट का। 'रिसेंट एडवांसमेंट इन नैनो फोटोनिक्स टेक्नोलॉजी' विषय पर एआईसीटीई क्वालिटी इंप्रूवमेंट स्कीम के तहत हुए इस आयोजन के मुख्य अतिथि प्रो.राजेन्द्र बी ककडे (एआईसीटीई), विशिष्ट अतिथि आईआईटी रूड़की के डॉ.विपुल रस्तोगी रहे। प्रो.राजेन्द्र ने हाई स्पीड डेटा कम्युनिकेशन, सोलर सेल, ऑप्टिकल डिटेक्टर में नैनो फोटोनिक्स तकनीक के उपयोग के बारे में बताया। संस्था के चेयरमैन सुरजामल मील ने विभिन्न टेक्निकल प्रोग्राम की जानकारी दी। कार्यक्रम की कॉर्डिनेटर डॉ. रुखसार जफर ने एसकेआईटी की उपलब्धियों व डॉ. एस.के. भटनागर ने नैनो फोटोनिक्स विषय पर अपने विचार व्यक्त किए।

एसकेआईटी में शॉर्ट टर्म ट्रेनिंग प्रोग्राम आयोजित

जयपुर (का.सं.)। वर्तमान परिदृश्य में ऑन लाइन संचार की बढ़ती डिमांड की वजह से हाई स्पीड डेटा ट्रांसमिशन एक महत्व का विषय बना हुआ है, जिसे नैनो फोटॉनिक्स तकनीक का उपयोग से ऑप्टिकल चिप, ऑप्टिकल कंपोनेंट्स की मदद से प्राप्त किया जा सकता है। ये कहना था जगतपुरा स्थित स्वामी केशवानंद इंस्टीट्यूट ऑफ टेक्नोलॉजी मैनेजमेंट एंड ग्रामोथन में 'रिसेंट एडवांसमेंट इन नैनो फोटोनिक्स टेक्नोलॉजी' विषय पर एआईसी टीई क्वालिटी इंप्रूवमेंट स्कीम के तहत आयोजित शॉर्ट टर्म ट्रेनिंग प्रोग्राम (एस.टी.टी.पी.) में शामिल हुए एक्सपर्ट्स का।



इनांग्रेशन समारोह में मुख्य अतिथि प्रो. राजेन्द्र बी ककडे (एडवाइजर-प्रथम, अप्रूवल ब्यूरो, एआईसीटीई) तथा विशिष्ट अतिथि डॉ विपुल रस्तोगी (प्रो. आईआईटी, रूड़की) रहे। प्रो. राजेन्द्र बी ककडे ने इस एसटीटीपी में सम्मिलित होने वाले विभिन्न एक्सपर्ट्स की सराहना की। उन्होंने फोटोनिक तथा नैनो टेक्नोलॉजी तकनीक के आधुनिक जगत में महत्वपूर्ण योगदान के बारे में बताते हुए इसके विभिन्न क्षेत्रों में अनुप्रयोगों जैसे हाई स्पीड डेटा कम्युनिकेशन, सोलर सेल, ऑप्टिकल डिटेक्टर में नैनो फोटोनिक तकनीक के उपयोग के बारे में बताया।

शुरूवात में संस्था चेयरमैन सुरजाराम मील ने अतिथियों का स्वागत करते हुए सभी आयोजकों का उत्साह वर्धन किया। संस्था द्वारा आयोजित विभिन्न टेक्निकल प्रोग्राम्स के बारे में बताया। कोऑर्डिनेटर डॉ. रुखसार जफर (एसोसिएट प्रोफेसर एसकेआईटी) ने गत चार वर्षों से आरटीयू की रैंकिंग में शीर्ष पर विद्यमान एसकेआईटी की अतुलनीय उपलब्धियों से अवगत कराया। डॉ एस के भटनागर (डायरेक्टर रिसर्च, एसकेआईटी) ने काव्यात्मक तरीके से नैनो फोटॉनिक्स विषय से परिचय कराया। अंत में अभियांत्रिकी एवं संचार विभाग के विभागाध्यक्ष डॉ. मुकेश अरोड़ा ने समस्त अतिथियों का धन्यवाद ज्ञापित किया।

STTP-II
RANPT 2020

(14th-19th December 2020)

2.1 Brochure

<p style="text-align: center;">STTP COMMITTEE</p> <p>CHIEF PATRON Sh. Raja Ram Meel, SKIT</p> <p>PATRON Sh. Surja Ram Meel, Chairman, SKIT Sh. Jaipal Meel, Director, SKIT</p> <p>ADVISORS Prof. (Dr.) S.L. Sarana, Director (Academics), SKIT Mrs. Rachna Meel, Registrar, SKIT Prof. (Dr.) Ramesh Kumar Pachar, Principal, SKIT Prof. (Dr.) S. K. Bhatnagar, Director (Research), SKIT Prof. S. N. Vijayvergiya, Dean (Project), SKIT Prof. (Dr.) Anil Choudhary, HOD-TT, SKIT Prof. (Dr.) Mukesh Gupta, HOD-CS, SKIT Dr. Dheeraj Joshi, HOD-ME, SKIT Dr. Dhanraj Chitara, HOD-EE, SKIT Prof. (Dr.) Rohit Mukherjee, Incharge-1st Year, SKIT Dr. Savita Choudhary, HOD, MBA</p> <p>PROGRAM CHAIR Prof. (Dr.) Mukesh Arora, HOD-ECE, SKIT Prof. (Dr.) Praveen Kumar Jain, ECE, SKIT</p> <p>CONVENER Dr. Rukhsar Zafar, Associate Professor, ECE, SKIT</p> <p>CO-CONVENERS Mr. Ankit Agarwal, Assistant Professor, ECE, SKIT Ms. Pooja Choudhary, Assistant Professor, ECE, SKIT Ms. Gloria Joseph, Assistant Professor, ECE, SKIT</p> <p>ORGANIZING COMMITTEE Dr. Momika Mathur Dr. Swati Arora Dr. Shubhi Jain Mr. Abhinandan Jain Mr. Harshal Nigam Mr. J. P. Vijay Ms. Kiran Rathi Mr. Lalit Kumar Lata Ms. Manita Jain Ms. Manju Choudhary Ms. Namrata Joshi Mr. Neeeraj Jain Mr. Pallav Rawal Ms. Priyanka Sharma Mr. Rahul Pandey Ms. Rajni Idwal Mr. Ravi Jangir Ms. Richa Sharma Mr. Sunil Lakhawat Mr. Vikas Pathak</p>	<p style="text-align: center;">REGISTRATION FORM</p> <p style="text-align: center;">AICTE-AQIS Sponsored Short Term Training Program on "Recent Advances in Nano-Photonics Technology" (RANPT-2020) December 14-19, 2020</p> <p>Mr./Ms./Dr.</p> <p>Designation:</p> <p>Institute Name:</p> <p>Institute Address:</p> <p>Affiliated to AICTE..... (Yes/No)</p> <p>Mailing Address:</p> <p>Mobile No.:</p> <p>E-Mail Id:</p> <p style="text-align: right;">Signature of Participant</p> <p style="text-align: right;">Head of Department</p> <p>Note: Submit the registration form through online process via: shorturl.at/dezBL. No. of Seats are limited.</p> <p>Note: The Mode of STTP is online platform (Cisco Webex). Certificates to be issued to only those participants who have minimum 80% attendance and 60% pass marks</p> <p style="text-align: center;">IMPORTANT DATES</p> <p>Last Date of Registration: December 07, 2020 Intimation of Selection : December 10, 2020</p>	<div style="text-align: center;">  <p>AICTE-AQIS Sponsored One Week Short Term Training Program (STTP) on Recent Advances in Nano-Photonics Technology (RANPT-2020) December 14-19, 2020</p>  <p style="text-align: center;">Organized by</p>  <p style="text-align: center;">Department of Electronics & Communication Engineering Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur-302017 www.skit.ac.in</p> </div>
---	---	---

<p style="text-align: center;">ABOUT SKIT</p> <p>Swami Keshvanand Institute of Technology, Management & Gramothan (SKIT) is Ranked No. 1 (fourth consecutive years) Engineering College in Rajasthan declared by Rajasthan Technical University (RTU), Kota. SKIT is a selective comprehensive institution offering undergraduate and postgraduate programmes in Engineering and Management. The institute was established in the year 2000 by a team of committed professionals and academicians. During all the past years SKIT has emerged as a premier centre of technical education not only in Rajasthan but also in northern India which has been realized through efficient and dedicated faculty members, innovative teaching learning methods, state of the art infrastructures and core value of discipline. The various undergraduate programmes of the institute are accredited by the National Board of Accreditation (NBA).</p>  <p style="text-align: center;">DEPARTMENT OF ECE</p> <p>The department of Electronics & Communication Engineering (ECE) was started in the year 2000. The Department has well qualified and experienced faculty members. The Department is actively involved in conducting Conferences and Workshops periodically. The department has well equipped laboratories with a view to strengthen research & development activities. Department involves researching, designing, developing and testing of electronic equipment used in various systems. Department provides an in-depth education in engineering principles and motivate the students to take leadership positions.</p>	<p style="text-align: center;">OBJECTIVES OF STTP</p> <p>The STTP aims at</p> <ul style="list-style-type: none"> Providing a forum for experts for discussing, identifying open and potential problems of Nano-photonics Members of the research and academic community will be able to interact on cutting-edge and ground breaking topics in Nano Photonics. Enabling participants to develop proficiency in the field of photonics as well as in Nano techniques involved in photonics. Providing a platform to exchange views, ideas & the latest advances in the field of photonics and Nano Technology. Enhancing capability of participants in carrying out research in the area of Photonics and Optics Technology. Providing practical and experimental exposure using different tools to demonstrate fundamental concepts of Photonics based applications. Developing professionals in the area in order to guide and motivate young students.  <p style="text-align: center;">CONTACT PERSON</p> <p>Dr. Rukhsar Zafar (+91-8058318786) Associate Professor, Department of ECE</p> <p>Mr. Ankit Agarwal (+91-7877556914) Assistant Professor, Department of ECE</p> <p>Email us at: sttpee@skit.ac.in</p>	<p style="text-align: center;">CONTENT OF STTP</p> <ul style="list-style-type: none"> Fundamentals of Photonics Communications Photonic Devices Multicore Fiber Technology and their Application Photonic Crystal Fibers and their Applications Materials & Techniques for Fabrication of Fibers High Power Laser Applications Plasmonics Hybrid Plasmonic Waveguides and their Applications Role of Fiber Optic Technology in 5G Communications Optical OFDM: Modulation Approach <p style="text-align: center;">RESOURCE PERSON</p> <p>Resource person of this short term training program is from IITs, NITs, Institutions of National Importance and reputed Institutes</p> <p style="text-align: center;">REGISTRATION FEE</p> <p>There is No Registration Fee.</p> <p style="text-align: center;">TARGETED AUDIENCE</p> <p>The Training Program is open to Faculty members from AICTE approved engineering colleges, Research Scholars and Industry Persons, which aims to provide the participants with the latest techniques in Optical and Photonics through lecture sessions and hands on by experts in the field</p> 
--	---	---

2.2 Resource Persons:

- 1) Prof. Ajoy Ghatak, Former Professor, IIT Delhi
- 2) Prof. Ghanshyam Singh, Professor, Malviya National Institute of Technology Jaipur
- 3) Dr. Manish Mathew, Principal Scientist, CEERI Pilani
- 4) Dr. Umesh K Tiwari, Principal Scientist & CSIR-YSA, Associate Professor, AcSIR-CSIO Chandigarh
- 5) Dr. Praveen Kumar, Assistant Professor, Indian Association for the Cultivation of Science, Kolkata
- 6) Dr. Pooja Devi, Sr. Scientist, CSIR-CSIO, Chandigarh
- 7) Dr. Mukesh Kumar, Associate Professor, Centre for Advanced Electronics, IIT Indore
- 8) Dr. Ravi K. Maddila, Assistant Professor, Malviya National Institute of Technology Jaipur
- 9) Dr. Debabrata Sikdar, Assistant Professor, Indian Institute of Technology, Guwahati
- 10) Dr. Yogita Kalra, Assistant Professor, DTU New Delhi
- 11) Dr. Nikhildeep Gupta, Assistant Professor, VNIT Nagpur
- 12) Dr. Saurabh Sahu, Assistant Professor Jabalpur Engineering College, Jabalpur
- 13) Dr. Arpit Khandelwal, Assistant Professor, Indian Institute of Technology Jodhpur
- 14) Mr. Amandeep Singh, Product Manager (SAARC), HR Universal Systems Inc.



AICTE-AQIS Sponsored
One Week Online Short Term Training Program (STTP-II)
on
Recent Advances in Nano-Photonics Technology (RANPT-2020)
December 14-19, 2020



Inaugural Ceremony



Shri Surja Ram Meel
Chairman
SKIT, Jaipur



Shri Jaipal Meel
Director
SKIT, Jaipur



Chief Guest
Prof. Ajoy Ghatak
Meghnad Saha Professor
The National Academy
of Sciences, India



Guest of Honour
Prof. Ashok K Nagawat
Director, Skill Education
Rajasthan ILD Skill University, Jaipur



Prof. S. L. Surana
Director (Academics)
SKIT, Jaipur



Prof. Ramesh K Pachar
Principal
SKIT, Jaipur

Organized By
Department of Electronics and Communication Engineering
Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur



AICTE-AQIS Sponsored
One Week Online Short Term Training Program (STTP-II)
on



Recent Advances in Nano-Photonics Technology (RANPT-2020)
December 14-19, 2020



Prof. Ajoy Ghatak
Meghnad Saha Professor
The National Academy
of Sciences, India



Dr. Ghanshyam Singh
Professor
MNIT, Jaipur



Dr. Manish Mathew
Principal Scientist
CEERI Pilani



Dr. Umesh K Tiwari
Principal Scientist
CSIR-CSIO, Chandigarh



Dr. Pooja Devi
Sr. Scientist
CSIR-CSIO, Chandigarh



Dr. Mukesh Kumar
Associate Professor
IIT Indore



Dr. Debabrata Sikdar
Assistant Professor
IIT Guwahati



Dr. Praveen Kumar
Assistant Professor
IACS, Kolkata



Dr. Arpit Khandelwal
Assistant Professor
IIT, Iodhpur



Dr. Ravi Kumar Maddila
Assistant Professor
MNIT, Jaipur



Dr. Yogita Kalra
Assistant Professor
DTU, Delhi



Dr. Nikhildeep Gupta
Assistant Professor
VNIT, Nagpur



Dr. Sourabh Sahu
Assistant Professor
JEC, Jabalpur



Mr Amandeep Singh
Product Manager (SAARC)
HR Universal Systems Inc.

Organized By

Department of Electronics and Communication Engineering
Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur

2.3 Schedule

Date	Timing	Details/ Title of Talk	Resource Person
14-Dec 2020	9:30-10:00 am	Inaugural	
	10:00-11:30 am	The Fiber Optics Revolution	Prof. Ajoy Ghatak,
	12:00-1:30 pm	Engineered Heterostructure for Hydrogen Fuel Generation from Water	Dr. Praveen Kumar
	2:15-3:45pm	III-Nitrides devices and their applications	Dr. Manish Mathew
15-Dec 2020	10:00-11:30 am	Promises of smart nanoplasmonic devices	Dr. Debabrata Sikdar
	12:00-1:30 pm	Silicon photonics and its application	Dr. Saurabh Sahu
	2:15-3:45pm	Microring resonator devices for all optical signal Processing	Dr. Arpit Khandelwal
16-Dec 2020	10:00-11:30 am	Fundamentals and instrumentation of Surface Enhanced Raman Scattering.	Dr. Pooja D.
	12:00-1:30 pm	Hands on OptiFDTD tool (Mr. Amandeep Singh, HR Universal Systems Inc.)	Mr. Amandeep Singh
	2:15-3:45pm	Hands on OptiFDTD tool (Mr. Amandeep Singh, HR Universal Systems Inc.)	Mr. Amandeep Singh
16-Dec 2020	10:00-11:30 am	Fundamentals and instrumentation of Surface Enhanced Raman Scattering.	Dr. Pooja D.
	12:00-1:30 pm	Hands on OptiFDTD tool (Mr. Amandeep Singh, HR Universal Systems Inc.)	Mr. Amandeep Singh
	2:15-3:45pm	Hands on OptiFDTD tool (Mr. Amandeep Singh, HR Universal Systems Inc.)	Mr. Amandeep Singh
17-Dec 2020	10:00-11:30 am	Recent Trend and Opportunities in the Optical Fiber Sensing Technology	Dr. Umesh K Tiwari
	12:00-1:30 pm	Photonic Crystals and their applications	Dr. Yogita Kalra
	2:15-3:45pm	Electro optic modulators for VLC	Dr. Ravi K. Maddila
18-Dec 2020	10:00-11:30 am	Solar hydrogen production using III-Nitride nanowire photoelectrode	Dr. Nikhildeep Gupta
	12:00-1:30 pm	Simulation of Photonic crystals based fiber and waveguide	Dr. Saurabh Sahu
	2:15-3:45pm	Nanophotonics: Challenges and Potential Application Areas	Prof. Ghanshyam Singh
19-Dec 2020	10:00-11:30 am	Advanced photonic devices for Optical communication and interconnects	Dr. Mukesh Kumar
	12:00-2:00 pm	III-nitrides Semiconductors for Next-generation Solar Cells and LEDs	Dr. Praveen Kumar
	2:15-2:45 pm	Valedictory	

2.4 REPORT OF STTP-II

The inaugural ceremony of the STTP witnessed the presence of the honorable chief guest Prof. Ajoy Ghatak, Former Professor IIT Delhi, MN Saha Distinguished Fellow of NASI and Prof. Ashok Nagawat, Director Skill Education, Rajasthan ILD Skill University, Jaipur as the guest of honor. The inaugural was graced by the motivational words of chief guest and guest of honor highlighting the importance of Nano-photonics in present and future scenario.

In the first session of the first day Prof. Ajoy Ghatak delivered an expert talk on Revolution in Optical Communication. He highlighted that how optics or photonics has changed the life. He also motivated the participants that series of noble prizes have been awarded for the development in the field related to optics and photonics.

In the subsequent session of Day1, Dr. Praveen Kumar, IACS Kolkata shared his valuable knowledge on Engineered Heterostructure for Hydrogen Fuel Generation from Water

In this continuation, Dr. Manish Mathew Principal Scientist CSIR-CEERI Pilani enlightened the gathering with III-Nitrides devices and their applications.

Second day was yet energetic and started with an expert lecture of Dr. Debabrata Sikdar from IIT Guwahati who shared his expertise in the area Promises of smart nanoplasmonic devices. It was quite knowledge enriching session. The session was followed by a lecture of Dr. Saurabh Sahu, from Govt. Eng. College Jabalpur and Dr. Arpit Agarwal IIT Jodhpur. They shared their knowledge in the field of Silicon Photonics and optical signal processing respectively.

Third day was signed in with an enthusiastic expert lecture of Dr. Pooja D. Principal Scientist, CSIR-CSIO Chandigarh. She enlightened the participants with her knowledge in the field of Fundamentals and instrumentation of Surface Enhanced Raman Scattering. This was followed by two brainstorming hands-on practice sessions on optiBPM and optiFDTD with an industrial expert from HRU New Delhi (Mr. Amandeep Singh). It was quite informative and helpful session.

Next day was opened up with much awaiting session of Dr. Umesh Tiwari Principal Scientist CSIR-CSIO, Chandigarh. He shared his expert talk on Recent Trends and Opportunities in the Optical Fiber Sensing Technology. This lecture was followed by yet another knowledge enhanced session of Dr. Yogita Kalra, from DTU, Delhi. She emphasized on the importance of

Photonic Crystals and their applications. The Day 4 was ended with expert talk on Electro optic modulators for VLC by Dr. Ravi Maddila, from MNIT Jaipur.

With the new day, comes new strength and new thoughts. Making the views meaningful, the Day 5 was started with Dr. Nikhildeep Gupta, Assistant Professor IIIT Nagpur, who shared his expertise on ‘Solar hydrogen production using III-Nitride nanowire photoelectrode’. This is followed by expert talk of Dr. Saurabh Sahu, JEC Jabalpur. He enlightened the participants with her hands-on session on Photonic crystal Simulation. The day ended with an expert lecture of Prof. Ghanshyam Singh MNIT Jaipur who puts light on Nano photonics: Challenges and Potential Application.

Opening of Day 6 was carried on with the expert session of Dr. Mukesh Kumar IIT Indore and he enlightened the participants with the advanced photonic devices for Optical communication and interconnects.

The last session of the STTP was quite knowledge enriching and was based on III-nitrides Semiconductors for Next-generation Solar Cells and LEDs. The expert session is engaged by Dr. Praveen Kumar IACS Kolkata (the honorable guest of the day).

I hope, the discussed areas will be proved as a great beneficial exposure for the participants as they are enlightened with the most widely used advanced tools, strategies and techniques being used in Nano Photonics.

The assignment, feedback are collected from the participants in valedictory session.

The valedictory session was graced by the benign presence of Honored guests **Prof. Rajeev Gupta, RTU Kota and Dr. Praveen Kumar, IACS Kolkata.**

100 participants were shortlisted for the STTP, across the country. The assignment and feedback were collected from the participants in valedictory session.

2.5 Glimpses of Event

Cisco Webex Events | Event Info | Hide Menu Bar

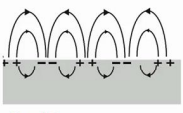
File Edit Share View Audio & Video Participant Event Help

Rukhsar Zafar Me ECE SKIT Host Dr Debabrata Sikdar Gloria Joseph Pooja Choudhary

Layout Q&A

Excitator Plasmon

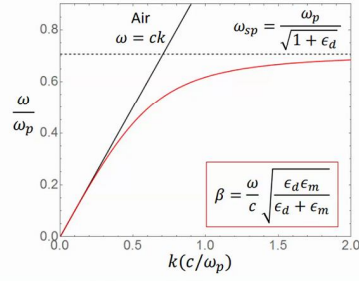
Surface Plasmon



- Condition: $\epsilon_m(\omega) + \epsilon_d = 0$
- Surface plasma frequency: $\omega_{sp} \rightarrow$ property of metal

$$\omega_{sp} = \frac{\omega_p}{\sqrt{1 + \epsilon_d}}$$
property of dielectric

Problem of Phase Mismatch



Air $\omega = ck$

$$\omega_{sp} = \frac{\omega_p}{\sqrt{1 + \epsilon_d}}$$

$$\beta = \frac{\omega}{c} \sqrt{\frac{\epsilon_d \epsilon_m}{\epsilon_d + \epsilon_m}}$$

- Phase mismatch \rightarrow No coupling!
 SPP propagation constant β is greater than the wave vector of free wave k .

Unmute Start video Share

Participants Chat

Type here to search 10:28 AM 12/15/2020

Cisco Webex Events | Event Info | Hide Menu Bar

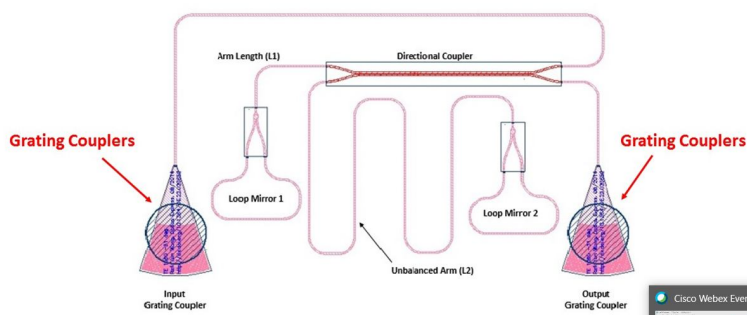
File Edit Share View Audio & Video Participant Event Help

Rukhsar Zafar Me ECE SKIT Host Gloria Joseph Sourabh Sahu

Layout Participants (46)

Fiber Grating Coupler

Viewing Silicon Photonics...



Grating Couplers

Input Grating Coupler

Loop Mirror 1

Directional Coupler

Arm Length (L1)

Unbalanced Arm (L2)

Loop Mirror 2

Output Grating Coupler

Participants (46)

Search

Panelist: 4

- RZ Rukhsar Zafar Me
- ES ECE SKIT Host
- SS Sourabh Sahu
- GJ Gloria Joseph

Attendee: 42 (1 displayed)

- NG Nilaksha Ghosh ?

[View all attendees...](#)

Unmute Start video Share

Participants Chat

Type here to search 12:48 PM 12/15/2020

Cisco Webex Events | Event Info | Hide menu bar

File Edit Share View Audio & Video Participant Event Help

ECE SKIT Host, me Pooja Choudhary Rukhsar Zafar

Viewing Yogita Kalra's screen

Metamaterial and Metasurface

FIGURE. Three dimensional metamaterial

FIGURE. Metasurface (planar metamaterial)

Metasurface is a planar metamaterial (a sheet type 2 dimensional metamaterial)

Unmute Start video Share

Participants Chat

11:18 AM 10/29/2020

Participants (38)

Search

PC Pooja Choudhary

RZ Rukhsar Z...

Attendee: 34 (0 displayed)

View all attendees...

Chat

[AtUxGdPYnDnAKrIipAipWUWZuZo_nuSh/viewform](#)

from Pooja Choudhary to everyone: 10:19 AM

Attendance link for STTP registered participants from ECE SKIT to everyone: 10:17 AM

Is the fabrication of Photonic biosensor is possible in NPL?

from ECE SKIT to Gloria Joseph (privately): 10:17 AM

Is the fabrication of Photonic biosensor is possible in NPL?

To: Everyone

Enter chat message here

Q&A

Cisco Webex Events | Event Info | Hide menu bar

File Edit Share View Audio & Video Participant Event Help

ECE SKIT Host, me Gloria Joseph Praveen Kumar Jain rahul.pandey Rukhsar Zafar

Suchandan Pal

Basics of Photonic Crystal (PhC)

Band gap

uniform slab

PC slab

Light-line mode

Radiation modes

Guided modes

Guided resonance

Photonic band gap

Group Velocity = $(d\omega/dk) = 0$

S Pal, CSIR-CEERI FDP-SKIT: 30/10/2020

Unmute Start video Share

Participants Chat

10:23 AM 10/30/2020

Participants (58)

Search

Panelist: 6

ES ECE SKIT Host, me

SP Suchandan Pal

GJ Gloria Joseph

Chat

from Rukhsar Zafar to everyone: 9:32 AM

Due to some technical issue, session will be started at 10 am

from ECE SKIT to all attendees: 9:33 AM

Due to some technical issue from Expert side, session will be started at 10 am

To: All Attendees

Enter chat message here

Q&A

2.6: Print News

एसकेआईटी में छह दिवसीय ऑनलाइन शॉर्ट टर्म ट्रेनिंग प्रोग्राम शुरू

जयपुर । स्वामी केशवानंद इंस्टीट्यूट ऑफ टेक्नोलॉजी मैनेजमेंट एंड ग्रामोल्थान (एसकेआईटी) जयपुर में छह दिवसीय ऑनलाइन शॉर्ट टर्म ट्रेनिंग प्रोग्राम ऑन रीसेंट एडवांसेड इन नैनो फोटोनिक्स टेक्नोलॉजी (RANPT-2020) का सोमवार 14 दिसंबर 2020 को उद्घाटन हुआ। यह STTP AICTE की AQIS योजना के तहत आयोजित की जा रही है। कार्यक्रम में मुख्य अतिथि प्रो. अर्जुन घटक (पूर्व प्रोफेसर आईआईटी दिल्ली), एमएन साहू गणमान्य फैलो ऑफ एनएएसआई और गेस्ट ऑफ ऑनर प्रो. अशोक कुमार नागावत, निदेशक कोशल शिक्षा, राजस्थान ILD Skill विश्वविद्यालय, जयपुर रहे। इलेक्ट्रॉनिक्स एंड कम्प्युटेशन विभाग के विभागाध्यक्ष प्रोफेसर मुकेश अरोड़ा ने अतिथियों का स्वागत किया और प्रतिभागियों को इस स्नातक का महत्व समझाया। प्रो. एस.के. भटनगर (निदेशक-अनुसंधान, SKIT) ने



प्रेरणा के अपने शब्दों के साथ सभी को प्रेरित किया। प्रो. पी. के. जैन (उप-प्रमुख, ईसीई विभाग SKIT) ने पिछले वर्षों में संस्थान की उपलब्धियों पर प्रकाश डाला और यह भी बताया कि संस्थान किस तरह से अनुसंधान और विकास को बढ़ाने में संकाय सदस्यों को प्रेरित कर रहा है। प्रो. अशोक कुमार नागावत ने वर्तमान और भविष्य के परिदृश्य में नैनो-फोटोनिक्स के महत्व और अनुप्रयोग पर चर्चा की। उन्होंने विभिन्न क्षेत्रों

और अनुप्रयोगों के बारे में जानकारी एकत्र की जिसमें नैनो-फोटोनिक्स ध्यान आकर्षित कर रहे हैं। उन्होंने यह भी बताया कि नैनो-सामग्रियों के आकार को बदलकर ऑप्टिकल विशेषताओं को कैसे संशोधित किया जाता है और भविष्य कांटम ऑप्टिकल कंप्यूटिंग पर आधारित होगा। उन्होंने प्रतिभागियों को इस एसटीपी के साथ लाभान्वित होने के लिए प्रेरित किया।

इसके बाद, प्रो. अर्जुन घटक ने

सामाजिक विकास में फोटोनिक्स की भूमिका पर जोर दिया और कहा कि ऑप्टिकल फाइबर संचार में क्रांति ने कैसे जीवन को बदल दिया है और हम बिना किसी देरी के दुनिया भर में वीडियो कॉन्फ्रेंसिंग के माध्यम से जुड़ सकते हैं। उन्होंने प्रतिभागियों को यह भी प्रेरित किया कि प्रकाशिकी और फोटोनिक्स से संबंधित क्षेत्र में विकास के लिए महान पुरस्कारों को एक खुलता प्रदान की गई है।

सुश्री ग्लोरिया जोसेफ, सह-संयोजक (RANPT 2020) ने इस एसटीपी के छह दिनों के schedule और इस एसटीपी के सभी संसाधन व्यक्तियों के विशेषज्ञ क्षेत्रों से संबंधित विवरण को साझा किया। यह इलेक्ट्रॉनिक्स एंड कम्प्युटेशन इंजीनियरिंग विभाग की फैकल्टी डॉ. रुखसार जफर, श्री अंकित अग्रवाल, सुश्री पूजा चौधरी और सुश्री ग्लोरिया जोसेफ के दिशा निर्देश में आयोजित की जा रही है।

एसकेआईटी में शॉर्ट टर्म ट्रेनिंग प्रोग्राम का समापन हुआ

जयपुर । ऑप्टिक्स व नैनो फोटोनिक्स से संबंधित तकनीक, संचार, गणना, एनक्रिप्शन इत्यादि के क्षेत्र में एक नई क्रांति के रूप में साबित होगी इस विषय पर, जगतपुरा स्थित स्वामी केशवानंद इंस्टीट्यूट ऑफ टेक्नोलॉजी में रीसेंट एडवांसेड इन नैनो-फोटोनिक्स टेक्नोलॉजी (RANPT-2020) पर एक सप्ताह का AICTE-AQIS प्रायोजित शॉर्ट टर्म ट्रेनिंग प्रोग्राम का शनिवार को समापन हुआ। यह STTP AICTE की क्रांति इंफ्लुमेंट योजना के तहत आयोजित हुई थी।

समापन समारोह में मुख्य अतिथि डॉ. राजीव गुप्ता, प्रोफेसर, आरटीयू कोटा और सम्मानित अतिथि डॉ. प्रवीण कुमार, इंडियन एसोसिएशन फॉर द कल्टिवेशन ऑफ साइंस, कोलकाता रहे। प्रो. मुकेश अरोड़ा, प्रमुख, ईसीई (SKIT) ने अतिथियों को स्वागत किया।



डॉ. प्रवीण कुमार ने भविष्य में, फोटोनिक्स और उससे संबंधित प्रौद्योगिकियों के माध्यम से होने वाले परिवर्तनों तथा इस क्षेत्र में संभावित रिसर्च व कैरियर के सुनहरे अवसरों के बारे में चर्चा की।

प्रो. राजीव गुप्ता, आरटीयू कोटा ने हाल के परिदृश्य में नैनो-फोटोनिक्स के

महत्व और इसकी प्रासंगिकता पर प्रकाश डाला। उन्होंने SKIT की प्रशंसा करते हुए यह बताया कि SKIT लगातार अनुसंधान और विकास गतिविधियों के लिए संकाय सदस्यों को प्रेरित कर रही है और न केवल राजस्थान में बल्कि पूरे देश में सर्वश्रेष्ठ कर रही है। देश भर में STTP के लिए 100 प्रतिभागियों को शॉर्टलिस्ट

किया गया था, जिन्हें नैनो फोटोनिक्स में उपयोग किए जा रहे उन्नत उपकरणों, रणनीतियों और तकनीकियों से पारंगत किया गया।

NASL, IIT, NIT, IIT, NPL, CSIR-CEERI, CSIR-CSIO के प्रख्यात वक्ताओं को इस स्नातक के विभिन्न सत्रों के दौरान अपने ज्ञान और विशेषज्ञता को साझा करने के लिए आमंत्रित किया गया था। प्रतिभागियों को नैनो-फोटोनिक्स तकनीक से संबंधित सिमुलेशन टूल पर बुद्धिशीलता से अनुभव करने के साथ शिक्षित भी किया गया। सुश्री ग्लोरिया जोसेफ ने इस STTP की झलक प्रस्तुत की और सुश्री पूजा चौधरी ने STTP की एक सक्षम रिपोर्ट में छह दिनों की सफल यात्रा पर प्रकाश डाला। श्री अंकित अग्रवाल ने सभी प्रतिभागियों को धन्यवाद दिया।



आरएनपीटी-2020 का आगाज

जयपुर (का.सं.)। स्वामी केशवानंद इंस्टीट्यूट ऑफ टेक्नोलॉजी मैनेजमेंट एंड ग्रामोत्थान (एसकेआईटी) जयपुर में छह दिवसीय ऑनलाइन शॉर्ट टर्म ट्रेनिंग प्रोग्राम ऑन रीसेंट एडवांसमेंट इन नैनो फोटोनिक्स टेक्नोलॉजी (आरएनपीटी-2020) का सोमवार को उद्घाटन हुआ।

यह इलेक्ट्रॉनिक्स एंड कम्युनिकेशन इंजीनियरिंग विभाग की फैकल्टी डॉ. रुखसार जफर, अंकित अग्रवाल, पूजा चौधरी और ग्लोरिया जोसेफ के दिशा निर्देश में आयोजित की जा रही है। यह एसटीटीटी एआईसीटीई की एक्यूएस योजना के तहत आयोजित की जा रही है। मुख्य अतिथि प्रो. अजॉय घटक (पूर्व प्रोफेसर आईआईटी दिल्ली), एमएन साहा गणमान्य फैलो ऑफ एनएएसआई और गेस्ट ऑफ ऑनर प्रो अशोक कुमार नागावत, निदेशक

कौशल शिक्षा, राजस्थान आईएलडी स्किल विश्वविद्यालय जयपुर रहे। इलेक्ट्रॉनिक्स एंड कम्युनिकेशन विभाग के विभागाध्यक्ष प्रो. मुकेश अरोड़ा ने अतिथियों का स्वागत किया और प्रतिभागियों को इस एसटीटीपी का महत्व समझाया।

प्रो. एस.के. भटनागर (निदेशक-अनुसंधान, एसकेआईटी) ने प्रेरणा के अपने शब्दों के साथ सभा को प्रेरित किया। प्रो पी के जैन (उप-प्रमुख, ईसीई विभाग एसकेआईटी) ने पिछले वर्षों में संस्थान की उपलब्धियों पर प्रकाश डाला और यह भी बताया कि संस्थान किस तरह से अनुसंधान और विकास कौशल को बढ़ाने में संकाय सदस्यों को प्रेरित कर रहा है। प्रो. अशोककुमार नागावत ने वर्तमान और भविष्य के परिदृश्य में नैनो-फोटोनिक्स के महत्व और अनुप्रयोग पर चर्चा की।

TRAINING PROGRAM



CITY FIRST

One week online AICTE-AQIS sponsored Short term training Program on Recent Advances in Nano-Photonics Technology (RANPT-2020) concluded at Swami Keshvanand Institute of Technology Management and Gramothan, Jaipur on Saturday.

The STTP was fully sponsored by AICTE under AQIS scheme. The valedictory was graced by Dr Rajeev Gupta, Professor, RTU Kota. Professor Muke-

sh Arora, Head, ECE (SKIT) delivered the welcome speech.

Dr Praveen Kumar shed light that how the photonics and the related technologies are garnering the attention nowadays. He emphasised that in future, there will be a new paradigm shift through photonics and related technologies. The optics and photonics related technology will prove as a new revolution in the field of communication, computation, encryption and many more.

cityfirst@firstindia.co.in



STTP-III
RANPT 2021

(15th-20th February 2021)

3.1 Brochure

<p align="center">STTP COMMITTEE</p> <p>CHIEF PATRON Sh. Raja Ram Meel, SKIT</p> <p>PATRON Sh. Surja Ram Meel, Chairman, SKIT Sh. Jaipal Meel, Director, SKIT</p> <p>ADVISORS Prof. (Dr.) S.L. Surana, Director (Academics), SKIT Mrs. Rachna Meel, Registrar, SKIT Prof. (Dr.) Ramesh Kumar Pachar, Principal, SKIT Prof. (Dr.) S. K Bhatnagar, Director(Research), SKIT Prof. S. N Vijayvergiya, Dean(Project), SKIT Prof. (Dr.) Anil Choudhary, HOD-IT, SKIT Prof. (Dr.) Mukesh Gupta, HOD-CS, SKIT Dr. Dheeraj Joshi, HOD-ME, SKIT Dr. Dhanraj Chitara, HOD-EE, SKIT Prof. (Dr.) Rohit Mukherjee, Incharge-1st Year, SKIT Dr. Savita Choudhary, HOD, MBA</p> <p>PROGRAM CHAIR Prof. (Dr.) Mukesh Arora, HOD-ECE, SKIT Prof. (Dr.) Praveen Kumar Jain, ECE, SKIT</p> <p>CONVENER Dr. Rukhsar Zafar, Associate Professor, ECE, SKIT</p> <p>CO-CONVENERS Mr. Ankit Agarwal, Assistant Professor, ECE, SKIT Ms. Pooja Choudhary, Assistant Professor, ECE, SKIT Mr. Rahul Pandey, Assistant Professor, ECE, SKIT Mr. Ravi Jangir, Assistant Professor, ECE, SKIT</p> <p>ORGANIZING COMMITTEE Dr. Monika Mathur Dr. Swati Arora Dr. Shubhi Jain Mr. Abhinandan Jain Ms. Gloria Joseph Mr. Harshal Nigam Mr. J. P Vijay Ms. Kiran Rathi Mr. Lalit Kumar Lata Ms. Mamta Jain Ms. Manju Choudhary Ms. Namrata Joshi Mr. Neeraj Jain Mr. Pallav Rawal Ms. Priyanka Sharma Ms. Rajni Idwal Ms. Suman Sharma Mr. Sunil Lakhawat Mr. Vikas Pathak</p>	<p align="center">REGISTRATION FORM</p> <p align="center">AICTE-AQIS Sponsored</p> <p align="center">One Week Online Short Term Training Program (STTP-III)</p> <p align="center">on</p> <p align="center">“Recent Advances in Nano-Photonics Technology” (RANPT-2021)</p> <p align="center">February 15-20, 2021</p> <p>Mr./Ms./Dr.....</p> <p>Designation:</p> <p>Institute Name:</p> <p>Institute Address:</p> <p>Affiliated to AICTE..... (Yes/No)</p> <p>Mobile No.:</p> <p>E-Mail Id:</p> <p align="right">Signature of Participant</p> <p align="center">Head of Department</p> <p>Note: Submit the registration form through online process via: T.ly/bNje</p> <p>No. of Seats are limited.</p>  <p>Note: The Mode of STTP is online platform (Cisco Webex). Certificates to be issued to only those participants who have minimum 80% attendance and 60% pass marks</p> <p align="center">IMPORTANT DATES</p> <p>Last Date of Registration: February 08, 2021</p> <p>Intimation of Selection : February 11, 2021</p>	<p align="center"></p> <p align="center">AICTE-AQIS Sponsored</p> <p align="center">One Week Online Short Term Training Program (STTP-III)</p> <p align="center">on</p> <p align="center">Recent Advances in Nano-Photonics Technology (RANPT-2021)</p> <p align="center">February 15-20, 2021</p>  <p align="center">Organized by</p> <p align="center"></p> <p align="center">Department of Electronics & Communication Engineering Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur-302017 www.skit.ac.in</p>
---	---	---

<p align="center">ABOUT SKIT</p> <p>Swami Keshvanand Institute of Technology, Management & Gramothan (SKIT) is Ranked No. 1 (fourth consecutive years) Engineering College in Rajasthan declared by Rajasthan Technical University (RTU), Kota. SKIT is a selective comprehensive institution offering undergraduate and postgraduate programmes in Engineering and Management. The institute was established in the year 2000 by a team of committed professionals and academicians. During all the past years SKIT has emerged as a premier centre of technical education not only in Rajasthan but also in northern India which has been realized through efficient and dedicated faculty members, innovative teaching learning methods, state of the art infrastructures and core value of discipline. The various undergraduate programmes of the institute are accredited by the National Board of Accreditation (NBA).</p>  <p align="center">DEPARTMENT OF ECE</p> <p>The department of Electronics & Communication Engineering (ECE) was started in the year 2000. The Department has well qualified and experienced faculty members. The Department is actively involved in conducting Conferences and Workshops periodically. The department has well equipped laboratories with a view to strengthen research & development activities. Department involves researching, designing, developing and testing of electronic equipment used in various systems. Department provides an in-depth education in engineering principles and motivate the students to take leadership positions.</p>	<p align="center">OBJECTIVES OF STTP</p> <p>The STTP aims at</p> <ul style="list-style-type: none"> • Providing a forum for experts for discussing, identifying open and potential problems of Nano-photonics. Members of the research and academic community will be able to interact on cutting-edge and ground breaking topics in Nano Photonics. • Enabling participants to develop proficiency in the field of photonics as well as in Nano techniques involved in photonics. • Providing a platform to exchange views, ideas & the latest advances in the field of photonics and Nano Technology. • Enhancing capability of participants in carrying out research in the area of Photonics and Optics Technology. • Providing practical and experimental exposure using different tools to demonstrate fundamental concepts of Photonics based applications. • Developing professionals in the area in order to guide and motivate young students.  <p align="center">CONTACT PERSON</p> <p>Dr. Rukhsar Zafar (+91-8058318786) Associate Professor, Department of ECE</p> <p>Mr. Ankit Agarwal (+91-7877556914) Assistant Professor, Department of ECE</p> <p>Email us at: sttpece@skit.ac.in</p>	<p align="center">CONTENT OF STTP</p> <ul style="list-style-type: none"> □ Fundamentals of Photonics Communications □ Photonic Devices □ Multicore Fiber Technology and their Application □ Photonic Crystal Fibers and their Applications □ Recent trends in Nanophotonics □ Tera Hertz Plasmonics □ Nano Biosensors □ Applications of photonics in nanoscale □ III - IV group Integrated Photonics <p align="center">RESOURCE PERSON</p> <p>Resource person of this short term training program is from IITs, NITs, Institutions of National Importance and reputed Institutes</p> <p align="center">REGISTRATION FEE</p> <p>There is No Registration Fee.</p> <p align="center">TARGETED AUDIENCE</p> <p>The Training Program is open to Faculty members from AICTE approved engineering colleges, Research Scholars and Industry Persons, which aims to provide the participants with the latest techniques in Optical and Photonics through lecture sessions and hands on by experts in the field</p> 
--	---	---

3.2 Resource Persons:

- 1) Prof. Ajoy Ghatak, Former Professor, IIT Delhi & Distinguished Professor, NASI
- 2) Prof. Vijay Janyani, Professor, Malviya National Institute of Technology Jaipur
- 3) Prof. BC Choudhary, Professor, NITTTT Chandigarh
- 4) Dr. Mukesh Kumar, Associate Professor, Centre for Advanced Electronics, IIT Indore
- 5) Dr Amritanshu Pandey, Associate Professor, IIT BHU
- 6) Dr. Rajan Jha, Associate Professor, IIT Bhubaneshwar
- 7) Dr. Debabrata Sikdar, Assistant Professor, Indian Institute of Technology, Guwahati
- 8) Dr. Saurabh Sahu, Assistant Professor Jabalpur Engineering College, Jabalpur
- 9) Dr. Ajeet Pandey, Assistant Professor, DTU Delhi
- 10) Dr. Ravi Hegde, Assistant Professor, IIT Gandhinagar
- 11) Dr. Kapil Debnath, Assistant Professor, IIT Kharagpur
- 12) Dr. Basudev Lahiri, Assistant Professor, IIT Kharagpur
- 13) Mr. Ankush Sharma, Application Engineer, CADFEM India Private Limited



AICTE-AQIS Sponsored
One Week Online Short Term Training Program (STTP-III)
on
Recent Advances in Nano-Photonics Technology (RANPT-2021)
February 15-20, 2021
Inaugural Ceremony



Shri Surja Ram Meel
Chairman
SKIT, Jaipur



Shri Jaipal Meel
Director
SKIT, Jaipur



Chief- Guest
Padma Shri Dr. Virander S Chauhan
Executive Chairman
NAAC



Guest of Honour
Dr. Niranjn Prasad
DIRECTOR-II
DLRL, Hyderabad



Prof. S. L. Surana
Director (Academics)
SKIT, Jaipur



Prof. Ramesh Kumar Pachar
Principal
SKIT, Jaipur

————— Organized By —————

Department of Electronics and Communication Engineering
Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur



AICTE-AQIS Sponsored

One Week Online Short Term Training Program (STTP-III)



on

Recent Advances in Nano-Photonics Technology (RANPT-2021)

February 15-20, 2021



Prof. Ajoy Ghatak
Meghnad Saha Professor
The National Academy
of Sciences, India



Dr. Vijay Janyani
Professor
MNIT, Jaipur



Dr. B. C. Choudhary
Professor
NITTTR, Chandigarh



Dr. Amritanshu Pandey
Associate Professor
IIT- BHU



Dr. Mukesh Kumar
Associate Professor
IIT, Indore



Dr. Rajan Jha
Associate Professor
IIT, Bhubaneswar



Dr. Kapil Debnath
Assistant Professor
IIT Kharagpur



Dr. Debabrata Sikdar
Assistant Professor
IIT, Guwahati



Dr. Anshuman Kumar Srivastava
Assistant Professor
IIT Bombay



Dr. Basudev Lahiri
Assistant Professor
IIT, Kharagpur



Dr. Ravi Hegde
Assistant Professor
IIT, Gandhinagar



Dr. Ajeet Kumar
Assistant Professor
DTU, Delhi



Dr. Saurabh Sahu
Assistant Professor
JEC, Jabalpur



Mr. Ankush Sharma
Application Engineer
CADFEM, India

Organized By

Department of Electronics and Communication Engineering
Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur

3.3 Schedule

Date	Timing	Details/ Title of Talk	Resource Person
15 Feb 2021	9:15-10:00 am	Inaugural	
	10:00-11:30 am	LIGHT & EINSTEIN'S $E = mc^2$	Prof. Ajoy Ghatak,
	12:00-1:30 pm	Hands-on Lumerical software	Mr. Ankush Sharma
	2:15-3:45pm	Methods for Theoretical Modelling and Simulation of photonic devices involving nanoparticle arrays	Dr. Debabrata Sikdar
16 Feb 2021	10:00-11:30 am	Silicon photonics for optical interconnects	Dr. Kapil Debnath
	12:00-1:30 pm	Towards chip-scale nanophotonics -- enabling next-generation sensing, machine vision and computing.	Dr. Ravi Hegde
	2:15-3:45pm	Low Dimensional Materials for High Performance Optoelectronic Devices	Dr Amritanshu Pandey
17 Feb 2021	10:00-11:30 am	Devices based on Optical Fiber: Laboratory to Field	Dr. Rajan Jha
	12:00-1:30 pm	Hands-on Lumerical software	Mr. Ankush Sharma
	2:15-3:45pm	Gigabit optical communication links: Design Issues and Future Prospects	Prof. Vijay Janyani
18 Feb 2021	10:00-11:30 am	Split Ring Resonator (SRR) based Nanoscale Metamaterials: Biosensing and Beyond	Prof. Basudev Lahiri
	12:00-1:30 pm	Promises of Nano photonics with new alternative materials and with deep learning	Dr. Debabrata Sikdar
	2:15-3:45pm	Hands-on Lumerical software	Mr. Ankush Sharma
19 Feb 2021	10:00-11:30 am	Optical Wireless Communication (OWC) Technologies for 5G Networks	Dr. BC Choudhary
	12:00-1:30 pm	Polaritons for nanoscale optics: a tutorial and recent advances	Dr, Anshuman Kumar Srivastava
	2:15-3:45pm	Design and analysis of specialty optical fibers and waveguides for high power laser	Dr. Ajeet Pandey
20 Feb 2021	10:00-11:30 am	Integrated Nanophotonic Devices: Introduction and Advances	Dr. Mukesh Kumar
	12:00-2:00 pm	Modelling and Simulation of Photonic Crystals	Dr. Saurabh Sahu
	2:15-2:45 pm	Valedictory	

3.4 REPORT OF STTP-III

The inaugural ceremony of the STTP witnessed the presence of **Padma Shri Dr. Virander Singh Chauhan Executive Chairman, NAAC** as the chief guest and **Dr. Niranjana Prasad, Director-II, DLRL (DRDO), Hyderabad** as the guest of honour.

The inaugural was opened up with the welcome address by **Sh. Jaipal Meel (Director, SKIT JAIPUR Jaipur)**. The welcome address is followed by some motivational words of chief guest and guest of honor highlighting the importance of STTP for participants.

In the first session of the first day **Prof. Ajoy Ghatak, National Academy of Science, India** delivered an expert talk on **Light and Einstein's $E = mc^2$** . In the subsequent session of Day 1, **Mr. Ankush Sharma, CADFEM, India** has taken hands on session on **lumerical software**.

In this continuation, **Dr. Debabrata Sikdar, IIT Guwahati** delivered an Expert talk on **Methods for theoretical modelling and simulation of photonic devices involving nanoparticle arrays**. Second day was yet energetic and started with an expert lecture of **Dr. Kapil Debnath, IIT Kharagpur** who shared his expertise in the area of **silicon photonics for optical interconnects**.

The session was followed by a lecture of **Dr. Ravi Hegde, IIT Gandhinagar**. He shared his knowledge **Towards Chip scale nanophotonics, enabling next generation sensing, machine vision and computing**.

The day 2 ended with the expert lecture of **Dr. Amritanshu Pandey, IIT Varanasi**. He sheds light on **Low dimensional materials for high performance optoelectronics devices**. Third day was signed in with an expert lecture of **Dr. Rajan Jha, IIT Bhubaneswar** who gave the deep insights on **Devices based on optical fiber: Laboratory to field**. This was followed by a hands-on practice sessions on **Lumerical software** by **Mr. Ankush Sharma, CADFEM, India**

The day 3 ended with the expert lecture of **Prof. Vijay Janyani, MNIT Jaipur**. He sheds light on **Gigabit optical communication links: Design issues and future prospects**. Next day was opened up with much awaiting session of **Dr. Basudev Lahiri, IIT Kharagpur**. He shared his expert talk on **Split Ring Resonator (SRR) based nanoscale metamaterials: Biosensing and beyond**. This lecture was followed by yet another knowledge enhancing session of **Dr. Debarata**

Sikdar, IIT Guwahati. He emphasized on **promises of nano photonics with new alternative materials and with deep learning.** The Day 4 was ended with Hands-on experience on **Lumerical software by Mr. Ankush Sharma CADFEM, India.**

Day 5 was started with one of the most honorable expert of this STTP, **Dr. BC Choudhary, NITTTR Chandigarh** who shared his expertise on **Optical wireless communication (OWC) technologies for 5G networks.** The Next lecture was taken by **Dr. Anshuman Kumar Srivastava, IIT Bombay.** He enlightened the participants with his expertise in **Polaritons for nanoscale optics and recent advances.**

The day ended with an expert lecture of **Dr. Ajeet Pandey, DTU Delhi** who puts light on **design and analysis of specialty optical fibers and waveguides for high power laser.**

Opening of Day 6 was carried on with the session of **Integrated nanophotonics devices: Introduction and advances** and this was delivered by **Dr. Mukesh Kumar, IIT Indore.** This session was followed by an expert lecture of **Dr. Saurabh Sahu, JEC Jabalpur.** He presented **Modelling and simulation of photonic crystals.**

The discussed areas will be proved as a great beneficial exposure for the participants as they are enlightened with the most widely used advanced tools, strategies and techniques being used in Nano Photonics. The assignment and feedback was collected from the participants in valedictory session.

3.5 Glimpses of Event

University of Glasgow

Unit Materials = Split Ring Resonators (SRRs)

Capacitance

Inductance

Plasma Peaks

LC Peak

TE

TM

Wavelength (λ)

$$\lambda_{LC} \approx 2\pi\sqrt{\epsilon_c}\sqrt{w/d}$$

Participants (39)

Panelist: 6

- RZ Rukhsar Zafar Me
- ES ECE SKIT Host
- BL Basudev Lahiri
- GJ Gloria Joseph
- PC Pooja Choudhary
- RP Rahul Pandey

Attendee: 33 (0 displayed)

Q&A

University of Glasgow

Bending of Light in the "Wrong Way"

(a) Refraction in a material with positive refractive index

(b) Refraction in a material with negative refractive index

$n_2 > n_1$

n_1 n_2

θ_1 θ_2

n_1 n_2

θ_1 $-\theta_2$

Participants (35)

Panelist: 6

- RZ Rukhsar Zafar Me
- ES ECE SKIT Host
- BL Basudev Lahiri
- GJ Gloria Joseph
- PC Pooja Choudhary
- RP Rahul Pandey

Attendee: 29 (0 displayed)

Q&A

Cisco Webex Events | Event Info | Hide Menu Bar

File Edit Share View Audio & Video Participant Event Help

Participants: Rukhsar Zafar, Rahul Pandey, Pooja Choudhary, Anush Sharma, Gloria Joseph

Viewing Anush Sharma's screen

Material Database

Name	Match Order	Color	Type	Last modified	Export
GaAs - Falc	2		Sampled ID	2006-07-03 09:11	
Ge (Germanium) - CRC	2		Sampled ID	2006-06-14 09:21	
Ge (Germanium) - Falc	2		Sampled ID	2006-07-03 09:11	
Si (Silicon) - Falc	2		Sampled ID	2006-07-03 09:11	

Material Properties (Ag 200nm) - CRC

Wavelength (nm)	Refractive Index	Imaginary
1.1267e+05	9.91	90.27
4.2035e+06	2.84	45.7
4.15599867e+08	1.47	30.31
4.13073e+08	0.8000000000000000	22.89
1.2411e+08	0.8000000000000000	18.32
1.14075e+08	0.78	9.01

Unmute Start video Share

2:24 PM 2/18/2021

Cisco Webex Events | Event Info | Hide Menu Bar

File Edit Share View Audio & Video Participant Event Help

Participants: Rukhsar Zafar, Ankit Agarwal, A K, Gloria Joseph

Viewing A K's screen

Plasmons in gapped Dirac systems (chiral)

When is Berry curvature correction important? - use symmetry

- Spatial inversion: $\Omega_n(\mathbf{k}) = \Omega_n(-\mathbf{k})$
- Time reversal: $\Omega_n(\mathbf{k}) = -\Omega_n(-\mathbf{k})$

For gapped Dirac material:

$$\Omega(\mathbf{k}) = \tau_z \frac{2(\hbar v_F)^2 \Delta}{(\Delta^2 + (2\hbar v_F k)^2)^{3/2}}$$

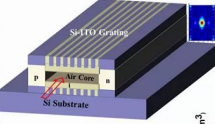
A. Kumar et al.: Phys. Rev. B (2016)

Prof. Anshuman Kumar | loqm.tech | Polaritons for nanoscale optics, STTP on Nanophotonics, 2021 32

Unmute Start video Share

1:08 PM 2/19/2021

Slow Light Enhanced Si Hybrid Waveguide



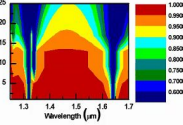
Group Index: 64
Group Delay: 16psec

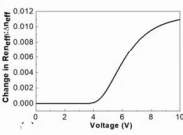
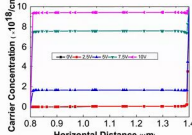
$$\Delta\varphi = \frac{2\pi \Delta n_{eff} L}{\lambda_0}$$

Why ITO...??

- Exhibits Epsilon near zero (ENZ = 1.24μm) in near-infrared region
- Electrically tunable permittivity
- Unity order change in refractive index
- Drude-Lorentz model supports change in permittivity

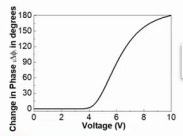
Change in ITO's refractive index is because of change in carrier concentration



Accumulation of charge carriers with voltage in pin junction introduced near hollow core

- Low loss guidance of slow light mode
- Slow light enhanced phase modulation



S. Rajput et. al. **IEEE Photonics Journal**, Vol.11, No.1, pp.1-8, February 2019
S. Rajput et. al. **J. Lightwave Technology** vol 38 (6) pp. 1365-1371 (2020)

Optoelectronic Nanodevice Research Laboratory | IIT Indore

Participants (38)

Search

- MK Mukesh Kumar
- GJ Gloria Joseph
- PC Pooja Choudhary

Chat

from Dr Dhiren Kumar Behera to all panelists: 10:25 AM

Dr Dhiren Kumar Behera

from Rahul Pandey (onstate): 10:49 AM

from which technology node we start facing significant effect of short channel effect in CMOS technology

from Faizan Ahmad to all panelists: 10:58 AM

Please share the attendance link

from Pooja Choudhary to everyone: 11:07 AM

https://docs.google.com/forms/d/e/1FAIpQLSdqHEjZd1NdPshACNZk6yPTAssiAvzq8BVNpaGzr5C_kZg/viewform

from Pooja Choudhary to everyone: 11:08 AM

attendace Link Day 6 Session I

from Pooja Choudhary to everyone: 11:08 AM

https://docs.google.com/forms/d/e/1FAIpQLSdqHEjZd1NdPshACNZk6yPTAssiAvzq8BVNpaGzr5C_kZg/viewform

To: Gloria Joseph

Enter chat message here

3.6 Print News:



'रिसेंट एडवांसेज इन नैनो फोटोनिक्स टेक्नोलॉजी' पर कार्यक्रम शुरू

जयपुर (का.सं.)। जगतपुरा स्थित स्वामी केशवानंद इंस्टीट्यूट ऑफ टेक्नोलॉजी मैनेजमेंट एंड ग्रामोथन में 'रिसेंट एडवांसेज इन नैनो फोटोनिक्स टेक्नोलॉजी' विषय पर एआईसीटीई, क्वालिटी इंप्रूवमेंट स्कीम के तहत आयोजित शॉर्ट टर्म ट्रेनिंग प्रोग्राम (एस. टी. टी. पी.) श्रृंखला की तीसरी एस. टी. टी. पी. का शुभारंभ हुआ।

इस एस.टी.टी.पी. के इनांग्रेशन समारोह में मुख्य अतिथि पद्मश्री डॉ. वीरेंद्र सिंह चौहान (एकजीक्यूटिव चेयरमैन एनएएसी) तथा विशिष्ट अतिथि डॉ. निरंजन प्रसाद (डायरेक्टर द्वितीय डीएलआरएल, डीआरडीओ) रहे। कार्यक्रम की शुरुआत में संस्था के डायरेक्टर जयपाल मील ने सभी आगंतुकों का स्वागत किया तथा प्रिंसिपल डॉ. रमेश पचार ने संस्थान की विभिन्न क्षेत्रों में विशिष्ट उपलब्धियों से सभी अतिथियों को परिचित कराया। संस्था के डायरेक्टर एकेडमिक्स प्रो. एसएल सुराना ने फोटोनिक्स टेक्नोलॉजी की विशेषताओं को बताते हुए इस एसटीटीपी के उद्देश्यों का उल्लेख किया। मुख्य अतिथि चौहान ने इस एसटीटीपी को रिसर्च, फैकल्टी तथा छात्रों के लिए बहुपयोगी बताया। सम्मिलित विभिन्न एक्सपर्ट्स की सराहना की। उन्होंने उच्च शिक्षा के लिए नई शिक्षा नीति से सभी को

अवगत कराया। डॉ. निरंजन प्रसाद ने डीआरडीओ में इलेक्ट्रॉनिक वार फेयर सिस्टम से संबंधित तकनीकियों के बारे में बताया। उन्होंने नैनो फोटोनिक्स का विभिन्न क्षेत्रों में अनुप्रयोगों पर चर्चा की। इलेक्ट्रॉनिक्स एंड कम्युनिकेशन के विभागाध्यक्ष डॉ. मुकेश अरोड़ा ने सभी गणमान्य अतिथियों को धन्यवाद अर्पित किया।

एस.टी.टी.पी के पहले दिन तीन सत्र रहे ...

- प्रथम सत्र : प्रो. अर्जुन घटक ने ऑप्टिकल टेक्नोलॉजी की स्तंभ माने जाने वाली आइंस्टीन थियरी ऑफ रिलेटिविटी के बेसिक एस्पेक्ट के बारे में प्रतिभागियों को बारीकी से समझाया।

- द्वितीय सत्र : मि. अंकुश शर्मा (सीएडीएफईएम) ने लुमेरिकल सॉफ्टवेयर पर प्रयोगात्मक तरीके से एफडीटीडी मेथड से सिमुलेशन प्रेसिंस को समझाया।

- अन्तिम सत्र: डॉ. देबब्रत सिकंदर (आईआईटी गुवाहाटी) ने प्लास्मोनिक नैनो पार्टिकल के विभिन्न क्षेत्रों में अनुप्रयोगों को बताया। उन्होंने लाइट ड्रिवन प्लासमोनिक नैनो स्विच तथा उसके उपयोगों पर विस्तृत चर्चा की।



NANO-PHOTONICS TECHNOLOGY

A one-week short term training program (STTP-III) on Recent Advances in Nano-Photonics Technology (RANPT-2021) concluded at Swami Keshvanand Institute of Technology (SKIT), Jaipur on Saturday. The STTP was sponsored by AICTE under the AQIS scheme. The valedictory ceremony was graced by the Chief

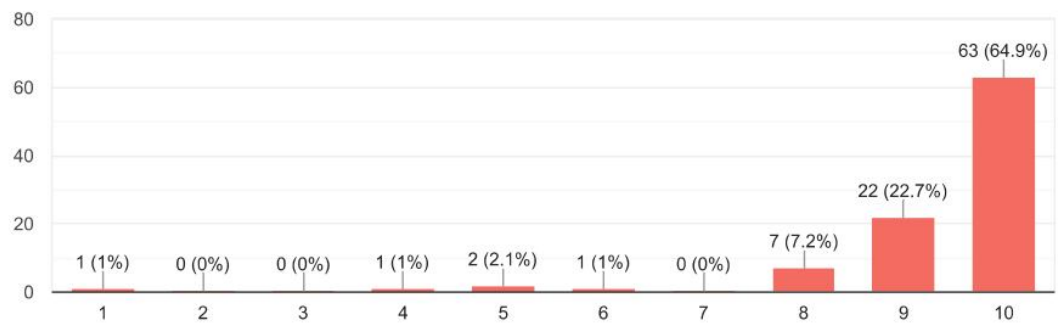
Guest Dr Mukesh Kumar, Head, Centre for Advanced Electronics, Indian Institute of Technology (IIT), Indore, who shared his expertise in the realm of Nano-Photonics Technology. The inaugural ceremony of STTP was graced by the benign presence of Padma Shri Dr Virender Singh Chauhan, Executive Chairman, NAAC as the chief guest. —CITY FIRST



Sample of Feedback Collated from participant

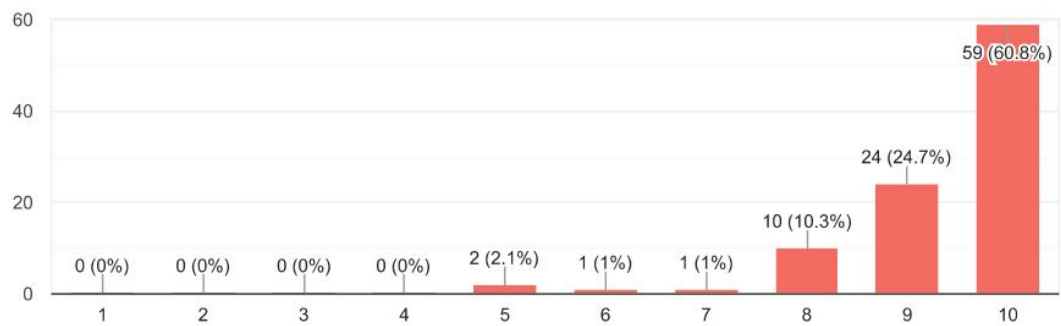
1. Your experience about the course.

97 responses



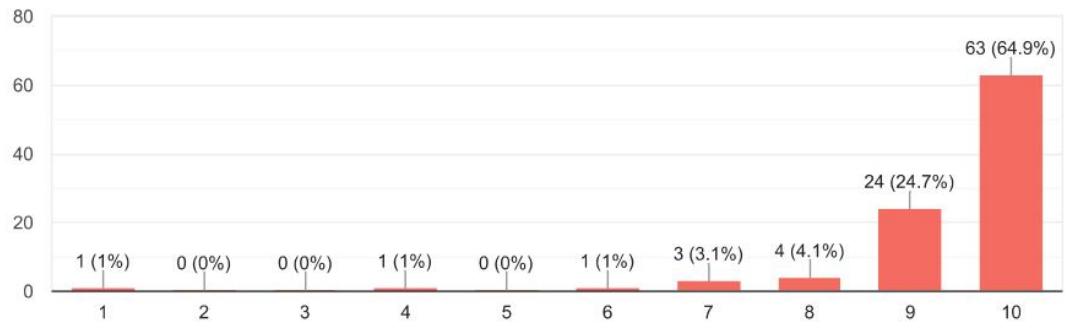
2. Knowledge enhancement.

97 responses



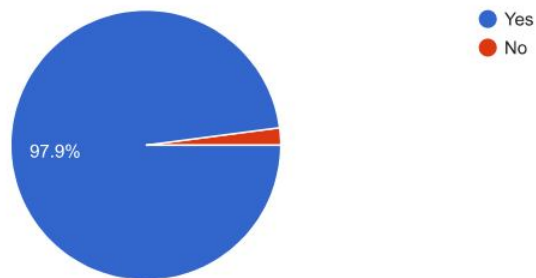
3. Relevancy of topics

97 responses



6. In future you want to attend such course at this Institute (SKIT, Jaipur).

97 responses



STTP-RANPT 2020-21 (15-20 Feb 2021)
PARTICIPANTS DETAILS

Attendance																						

S.No.	Email Address	Participant Name	Organization	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	total Attedance	Quiz	Eligible for certification
1	nithyashree.a@gmail.com	A.NITHYA	PANIMALAR ENGINEERING COLLEGE	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	0	14	24	yes
2	jainabhinandan86@gmail.com	Abhinandan Jain	SKIT,JAIPUR	1	1	1	1	1	0	1	0	1	1	1	1	0	1	1	1	1	14	27	yes
3	akgangwarr@gmail.com	Ajay Kumar	HMR Institute of Technology and Management, New Delhi	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	3	0	No
4	chaudharyjaydeshwal007@gmail.com	Ajay Kumar	Subharti Institute of Technology and En	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	26	yes
5	akash2011srivastav@gmail.com	AKASH SRIVASTAVA	MNNIT Allahabad	1	1	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	5	7	No
6	ambika13891@gmail.com	Ambika Patil	Godutai Engineering College for Women	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	3	6	No
7	amrithatomson@gmail.com	AMRITHA TOMSON	Government Model Engineering College	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	3	0	No
8	anandraj@jnnce.ac.in	Anand Raj S N	JNNCE	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	15	26	yes	
9	ananya.barman@jiscollege.ac.in	Ananya Barman	JIS College of Engineering	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	15	27	yes	
10	as@kit.ac.in	Anshu Srivastava	Kanpur Institute of Technology,Kanpur	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	15	28	yes
11	asha.kumawat@poornima.org	Asha Kumawat	Poornima College of Engineering, Jaipur	0	0	1	1	0	0	1	1	1	0	0	0	1	0	0	0	1	7	8	No
12	ashutoshsatpathy2017@gmail.com	Ashutosh Satpathy	Synergy Polytechnic Bhubaneswar	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	0	14	24	yes
13	alagesan253@gmail.com	B ALAGESAN	NLC BOY'S HR SEC SCHOOL BLOCK-10 NEYVELI	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	16	26	yes	
14	anji.bapathu555@gmail.com	Bapathu Anji Reddy	PNC & VIJAI Institute Of Engineering & Technology	1	0	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	14	24	yes
15	bkgupta252@gmail.com	BIJAY KUMAR GUPTA	BDA COLLEGE PICHRI BERMO BOKARO JHARKHAND affiliated to BBMKU DHANBAD	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	29	yes
16	chandan.elex@gmail.com	Chandan Tamrakar	Guru Ghasidas Vishwavidyalaya	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	No
17	vchandrakala.et@drait.edu.in	Chandrakala V	Dr. Ambedkar Institute of Technology	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	No
18	selwal@gweca.ac.in	Chetan Selwal	Government Women Engineering College Ajmer	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	1	5	3	No
19	devkthapa01@gmail.com	Dev Kumar Thapa	SRM University Sikkim	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	0	14	26	yes	
20	ruchita.gautam@kiet.edu	Dr Ruchita Gautam	KIET Group Of Institutions, Delhi-NCR, Ghaziabad	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	16	24	yes
21	rashmisinghai024@gmail.com	Dr. Rashmi Jain	DYPIT Pimpri Pune	1	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	15	26	yes
22	sujitvj.kumar@gmail.com	Dr. Sujit Kumar	Jain (Deemed-to-be University), Bangalore	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	1	5	2	No
23	trina.dutta@jiscollege.ac.in	Dr. Trina Dutta	JIS College of Engineering	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1	1	1	14	27	yes
24	f4faizahmad1989@gmail.com	Faizan Ahmad	Aligarh Muslim University	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	15	28	yes
25	selvigau@gmail.com	Gayathri G	MURUGAPPA POLYTECHNIC COLLEGE	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	4	1	No
26	geethaanjalig.g@gmail.com	Geethanjali G	MVJCE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	No
27	gloria.joseph@skit.ac.in	Gloria Joseph	SKIT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	26	yes
28	ganesh.gorla@gmail.com	GORLA VENKATA GANESH	KL UNIVERSITY	1	1	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	14	26	yes
29	msgowtham05@gmail.com	Gowtham M S	Karpagam Institute of Technology	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	15	28	yes
30	jovenhanuel@gmail.com	IMMACULATE REXI JENIFER.P	AAMEC	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	15	24	yes
31	jskumar.p@gmail.com	Janardhan Saikumar	Audisankara College of engineering and technology	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	15	23	yes
32	palanicse86@gmail.com	K.PAZHANIVEL	Anjalai Ammal Mahalingam Engineering College	1	0	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	14	24	yes
33	kalyankumarjena@gmail.com	Kalyan Kumar Jena	PMEC, Berhampur	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	15	25	yes
34	ksvipinbalan@gmail.com	Vipin Balan	CUSAT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	24	yes
35	rainhari@gmail.com	LAKKAKULA HARI PRASAD	ANURAG ENGINEERING COLLEGE	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	26	yes

STTP-RANPT 2020-21 (15-20 Feb 2021)
PARTICIPANTS DETAILS

Attendance																					
------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

S.No.	Email Address	Participant Name	Organization	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	total Attedance	Quiz	Eligible for certification	
36	lnbalai@yahoo.com	LAXMI NARAYAN BALAI	Yagyavalkya Institute of Technology, Jaipur	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	15	24	yes	
37	mamta.jain@skit.ac.in	Mamta Jain	SKIT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	28	yes	
38	ghousegmk@gmail.com	MD GHOUSE MOHIDDIN KHAN	Bharathiar University, Coimbatore	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	0	1	14	25	yes	
39	minal.dhankar@gmail.com	Minal Dhankar	Maharaja Surajmal Institute	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	16	25	yes	
40	mohitforme@gmail.com	MOHIT KUMAR PANDEY	RAJSHREE INSTITUTE OF MANAGEMENT & TECHNOLOGY	0	0	0	0	0	0	0		0	0	0	0	0	0	1	0	1	2	2	No	
41	jjyoti2931969@gmail.com	MRS JYOTI PRALHAD PATIL	Government polytechnic College Ratnagiri Maharashtra India	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	15	27	yes	
42	muralidharansugumar14@gmail.com	MURALIDHARAN S	P.S.R ENGINEERING COLLEGE	1	1	1	1	0	1	0	1	1	1	1	1	1	0	1	1	1	14	25	yes	
43	murugan.acetw@gmail.com	Murugan K	RAAK COLLEGE OF ENGINEERING AND TECHNOLOGY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	6	No	
44	2019rec9562@mnit.ac.in	Neeraj Sharma	Vivekananda Global University	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	2	No	
45	nithyashree.26@gmail.com	Nithyashree s	Dr.AIT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	No	
46	partha.padhy@gmail.com	Partha Sarathi Padhy	Roland Institute of Technology	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0	14	26	yes	
47	poojatyaggi@gmail.com	Pooja Tyagi	KIET Group of Institutions Ghaziabad	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	1	1	6	No	
48	pamane500@gmail.com	PRAJIT ASHOK MANE	SINHGAD ACADEMY OF ENGINEERING, KONDHWA, PUNE	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	15	26	yes	
49	prof.pramodkumarsingh@gmail.com	PRAMOD KUMAR SINGH	School of Management Sciences, Lucknow	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	15	27	yes	
50	nigam.rntu@gmail.com	Prateek Nigam	Rabindranath Tagore University Bhopal	0	0	0	0	0	0	0		0	0	0	0	0	0	1	0	1	2	2	No	
51	raghavendrapatidar@gmail.com	RAGHAVENDRA PATIDAR	Global Institute of Technology,Jaipur	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	1	1	6	No	
52	rajeshbhatttrtu@gmail.com	RAJESH BHATT	University Departments, Rajasthan Technical University, Kota	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	No
53	rajinder.ece@mietjammu.in	Rajinder Tiwari	Model Institute of Engineering & Technology (Autonomous), Jammu	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	26	yes	
54	rajni.idiwal@skit.ac.in	Rajni Idiwal	Skit Jaipur	1	0	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	14	24	yes	
55	drkumarntu@gmail.com	Rakesh Kumar	Rabindranath Tagore University	0	0	0	0	0	0	0		0	0	0	0	0	0	1	0	1	2	2	No	
56	mahatoramesh873@gmail.com	Ramesh Mahato	Moonlight Secondary School	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	15	25	yes	
57	engg.ravi.123@gmail.com	RAVI AGARWAL	Subharti Institute of Technology & Engineering, Swami Vivekanand Subharti University, Meerut.	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	4	1	No	
58	rbkallam2510@gmail.com	RAVINDRA BABU KALLAM	Kamala Institute of Technology and Science	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	No
59	rochak.bajpai@kiet.edu	Rochak Bajpai	KIET group of institutions, ghaziabad	0	0	0	0	0	0	0		0	0	0	0	0	0	1	0	1	2	2	No	
60	praga1994@gmail.com	S.PRAGADESWARAN	KARPAGAM INSTITUTE OF TECHNOLOGY	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	4	1	No	
61	sachin.tyagi@kiet.edu	SACHIN KUMAR TYAGI	KIET GROUP OF INSTITUTIONS	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	16	26	yes	
62	sakees.chidambaram@nestgroup.net	Sakees Chidambaram	SFO Technologies R&D Solutions	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	1	5	3	No	
63	sandeep_jain@vgu.ac.in	Sandeep Kumar Jain	Vivekananda Institute of Technology-East, Jaipur	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	4	1	No	
64	snjblimbu.hsg@gmail.com	Sanjeeb Limbu	North Eastern Hill University, Shillong	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16	26	yes	
65	sankata20@gmail.com	Sankata Bhanjan Prusty	Madanapalle Institute of Technology & Science, Madanapalle	0	0	0	0	0	0	0		0	0	0	0	0	0	1	0	1	2	2	No	
66	sapna.katiyar@abesit.in	Sapna Katiyar	ABES Institute of Technology, Ghaziabad	1	1	0	1	1	1	1	0	1	1	1	2	1	1	2	1	1	17	27	yes	
67	saradas2012@gmail.com	SARADA MARELLAPUDI	GLOBAL INSTITUTE OF ENGINEERING AND TECHNOLOGY	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	15	26	yes	
68	saranyak249@gmail.com	Saranya K	Sri Ramakrishna Institute of Technology	0	0	0	0	0	0	0		0	0	0	0	0	0	1	0	1	2	2	No	

STTP-RANPT 2020-21 (15-20 Feb 2021)
PARTICIPANTS DETAILS

Attendance																					
------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

S.No.	Email Address	Participant Name	Organization	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	total Attedance	Quiz	Eligible for certification
69	sskasarla@gmail.com	SARVESHWAR KASARLA	Institute of Science Nagpur	1	0	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	14	24	yes
70	satish.alaria@gmail.com	Satish Kumar Alaria	Arya Institute of Engineering and Technology	0	0	0	0	0	0	0		0	0	0	0	0	0	1	1	1	3	4	No
71	nazrulshaiikh2@gmail.com	SHAIKH NAZRUL	NORTH ORISSA UNIVERSITY, BARIPADA, ODISHA, INDIA	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	16	25	yes
72	goswamishailendra7@gmail.com	SHAIKENDRA GOSWAMI	Engineering College Baran	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	No
73	shakun227@gmail.com	Shakun Srivastava	PSIT Kanpur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	No
74	shanu.tripathi@skit.ac.in	Shanu Tripathi	Swami Keshvanand Institute of Technology, Management & Gramothan (SKIT Jaipur)	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	16	27	yes
75	patil.sheelal89@icloud.com	Sheetal Patil	D Y Patil Institute of MCA and Management	0	0	0	0	0	0	0		0	0	0	0	0	0	1	0	1	2	2	No
76	shiva_konade@rediffmail.com	SHIVANAND BHIMASHANKAR KONADE	G V Acharya college shelu Mumbai	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	15	25	yes
77	shrutisumitkalra@gmail.com	SHRUTI KALRA	Jaipur Engineering College and Research Centre, Jaipur	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	15	24	yes
78	shwetagoyal19nov@gmail.com	SHWETA MITTAL	Manipal University Manipal	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3	0	No
79	shwetashri.26@gmail.com	Shweta Shrivastava	LNCT	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	4	6	No
80	ssmanaktala.ece@jecrc.ac.in	ShyamSunder Manaktala	JECRC JAIPUR	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	14	26	yes
81	sivasakthi@gvncollege.edu.in	SIVASAKTHI S	G.	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	3	0	No
82	subhadipsarkar555@gmail.com	SUBHADIP SARKAR	ABS academy of polytechnic	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	15	26	yes
83	ambreensubia@gmail.com	Subia Ambreen	Rajkiya Engineering College Bijnor	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	5	11	No
84	sudeshneyol@gmail.com	Sudesh Kumar	Banasthali Vidyapith	1	0	0	1	1	0	1	0	0	0	0	0	0	1	1	0	1	7	10	No
85	suneetcit81@gmail.com	Suneet Kumar	Maharishi Markandeswar Engineering College	1	1	1	1	1	0	0	0	0	0	1	0	0	0	1	0	0	7	0	No
86	supratimsubhradas@gmail.com	SUPRATIM SUBHRA DAS	M. I. T.	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	27	yes
87	sushantaie@cet.edu.in	SUSHANTA KUMAR SAHU	College of Engineering and Technology Bhubaneswar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	No
88	sushilkumar0108@gmail.com	Sushil Kumar	NIU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	No
89	sksivakumar98@gmail.com	T.A.Sivakumar	Ponjesly College of Engineering	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3	22	No
90	tapas.bse@gmail.com	Tapas Ranjan Das	B.S.E., Balasore	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	No
91	anshbiet@gmail.com	Tej Pratap Singh	BIET, Jhansi	0	0	0	0	0	0	0		0	0	0	0	0	0	1	0	1	2	2	No
92	upanyaskushwaha.ind@gmail.com	UPANYAS KUSHWAHA	Central university of jharkhand	0	0	1	1	0	1	0	1	0	1	0	0	0	0	0	0	0	5	22	No
93	veereshmlbk@gmail.com	VEERESH	Basavakalyan Engineering College	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	15	27	yes
94	vijay5686@gmail.com	Vijay Kumar	IMS ENGINEERING COLLEGE	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	15	26	yes
95	vikas741@gmail.com	VIKAS SHARMA	S.I.E.T.S.V.S.U,MEERUT	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	No
96	vpms1408@sjce.ac.in	VINAYPRASAD M S	Sri Jayachamarajendra college of Engineering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	No
97	vishnumkota@gmail.com	Vishnu Kumar	Modi Institute of Technology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	No
98	anuragh2468@gmail.com	Y N S VAMSI MOHAN	BVC Institute of Technology and Science	1	0	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	14	24	yes
99	yamini.yadav123@bbdnitm.ac.in	YAMINI YADAV	BABU BANARSI DAS INSTITUTE OF TECHNOLOGY AND	1	1	1	1	0	1	1	1	1	2	1	1	1	1	1	1	1	17	28	yes
100	yazushasharma@gmail.com	Yazusha sharma	JECRC JAIPUR	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17	26	yes