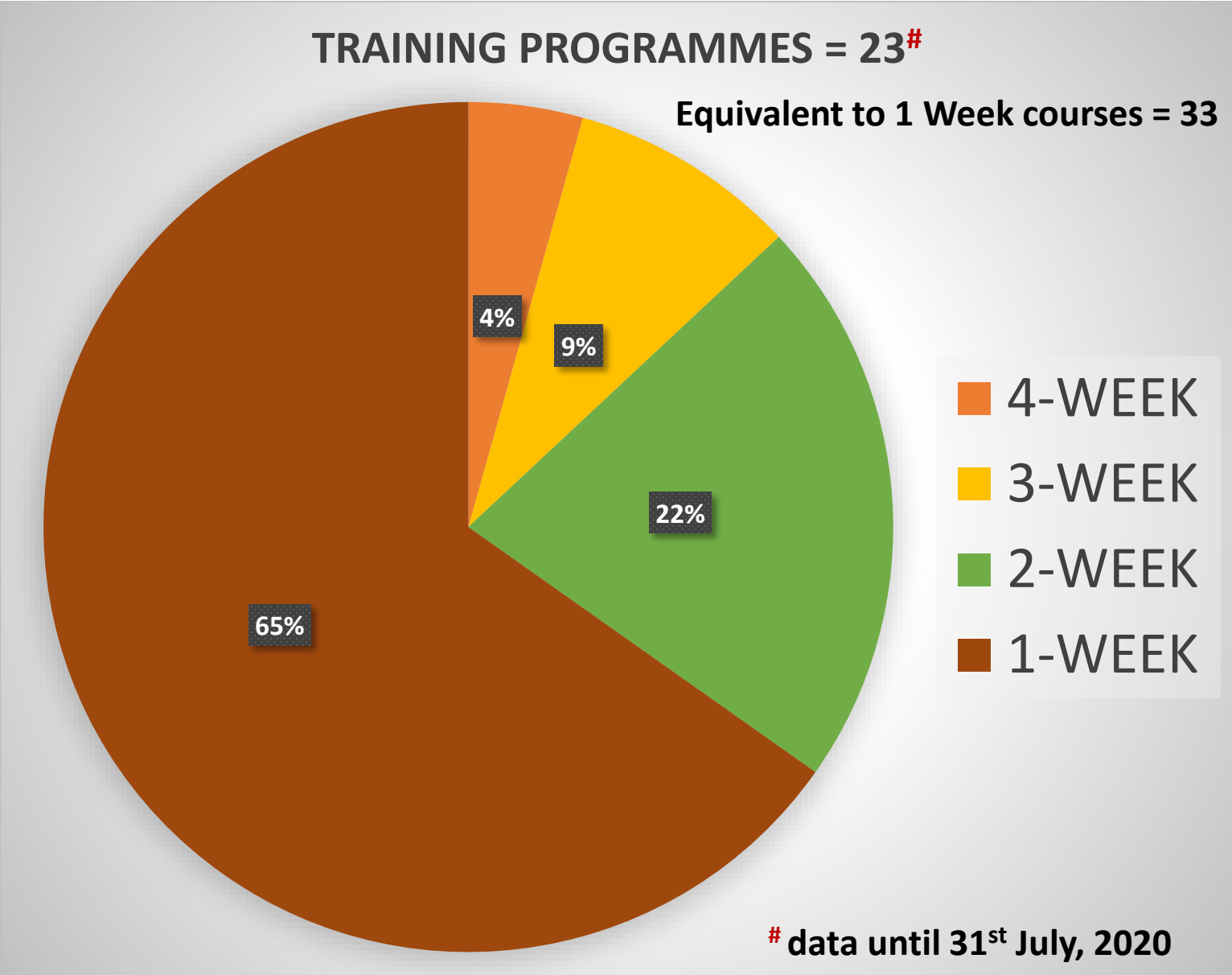


Report on Departmental Activities during Covid-19



**Applied Science Department
NITTTR Chandigarh**

Online Training Programmes:



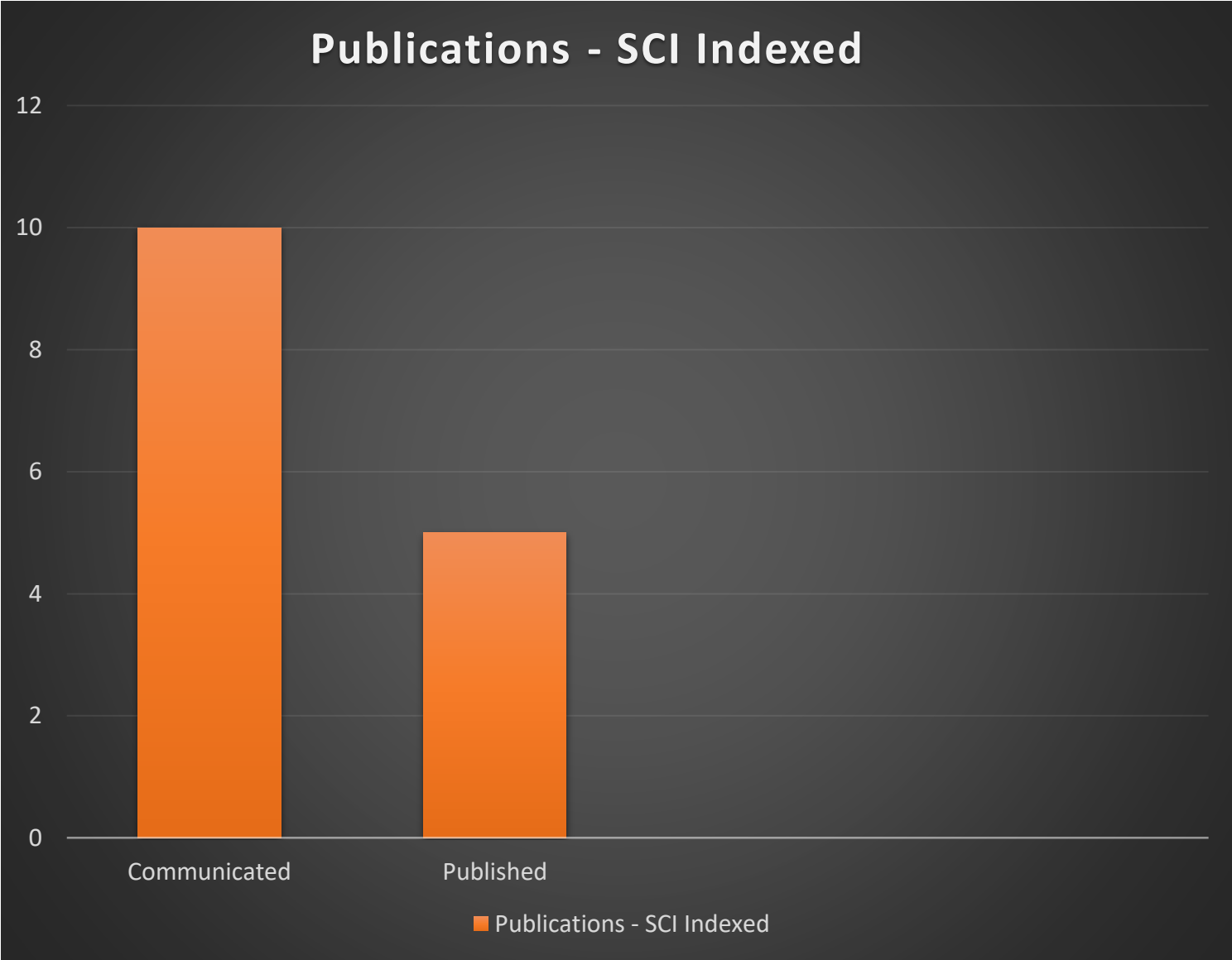
Number of Participants trained/week = 3794*

* Number may vary a little as attendance is being compiled for 4 courses conducted in July 2020.

Project Proposal Submitted

S. No.	Name of the Project/ Activity	Beneficiary State/Institute/ Organisation Group
1	Development of Perovskite Nanostructures for Innovative Applications	SERB- DST
2	Complex Te - Based Glassy Alloys for Mid to Far Infrared Applications	SERB-DST
3	India South Korea Joint Research Proposal on 'Piezoelectric-/Magnetolectric- Perovskites Based Health-monitoring Sensors'	DST
4	TEACHERS ASSOCIATESHIP FOR RESEARCH EXCELLENCE on 'Controlled Synthesis of Pure and Mixed Transition Metal Nanoferrites for Supercapacitor Applications'	SERB-DST
5	Submitted the following proposal of USD 35000/- value to NineSigma. The proposal request was through invitation (Passed first screening, request received on April 24.04.2020 to submit additional details) "Synthesis of High Purity Monocrystalline Perovskite Oxide Nanoparticles- Phase -I (lab scale demonstration by 2022)"	NineSigma
6	FIST- PROJECT (Level-0) Dr. B S Pabla, Dr. S S Dhami, Dr. Rupinder Singh, Dr. Srinivasa K G, Dr. Ashok Kumar, Dr. Balwinder Raj (Total Six PIs)	DST
7	Novel cobalt-free nanostructured double perovskites for energy storage application	UGC-DAE CSR
8	Energy harvesting and storage devices	ATAL-AICTE
9	Nanomaterials, sensors and devices	ATAL-AICTE
10	Nanoscale novel materials for energy applications	ATAL-AICTE

Publications:



Instructional Material Development:

- Course PPTs for STC's
- Assignments/Quizzes for STC's
- Worksheets for Mathematics Laboratory Practice = 3 (in progress)
- Worksheets for Applied Physics Laboratory Practice = 6 (completed) and 6 (in progress)
- Reader – 01
- Laboratory manual = 01 (in progress)

Curriculum Development:

MSc Physics (Specialization in Nanophotonics)

Extension Services & Consultancy Projects:

• Invited talks (online)

- Physics of Nanomaterial Synthesis and Characterization with Practical Examples, Department of Physics & Physics Alumni Association (PAA) St. John'S College, Agra, June 20, 2020.
- Optical band gap tuning in nanofilms in STC Nanoscience for Engineering Applications, jointly Organized by NITTTR Chandigarh and NIT Jalandhar.
- Understanding nanotechnology by practical examples in the webinar on Emerging Trends in Physics and its applications in Agriculture, Department of Physics, CCSHAU, Hisar, June 29, 2020
- Role of Applied Science in Industry 4.0, Entrepreneurship Development and Industrial Coordination (EDIC) Department, July 02, 2020
- Photovoltaics and other energy, Department of Physics, BMSIT & M Bangalore, July 07, 2020
- Chalcogenide Thin Films & Applications, Department of Physics, BMSIT & M Bangalore, July 08, 2020
- Energy Harvesting through Renewable Sources, Rural Development Department, July 28, 2020
- Online invited expert lectures during Two weeks STC on "Two weeks Professional Training on Latest software tools for Engineering and Sciences" from 17 -23 May' 2020 conducted by University College of Engineering and Technology, Bikaner.
- Delivered expert talk in STC on "'Engineering Optimization' from July 13 - 17, 2020 in online mode - On Introduction of Multi criteria Decision making problems & Solution of MCDM problems.

Courses/Webinar/Conferences attended (online)

- Capacity Building AICTE-NITTT Modules (M5, M6, M7)
- CPSC Online Regional Program on "Strengthening TVET Instructional Management System" 13-17 July, 2020
- Webinar on "Getting Specific About Coating Specifications" on 15.04.2020 from Dan Fiore (Director) North American Coating Laboratories (NACL).
- Webinar on Enabling massive material ablation by combining an ultra-short pulsed laser with a FIB-SEM on April 10, 2020 from ZEISS Microscopy.
- Webinar on Response Letter Norms and Handling Reviewers, April 17, 2020 from LetsPub your Manuscript Editor
- Managing Virtual Classroom and Online Teaching' conducted by Panjab University Chandigarh online during July 03-04, 2020
- Atmanirbhar Bharat: Transmutation from Privation to Exuberance, webinar series July 27-31, 2020 (App Sc faculty - member organizing committee)
- IEEE & TEQIP FDP: NanoDev2020- Nanotechnology in Electronic and Photonics Applications (15-19 June) ECE, PEC Chandigarh - Online
- Attended online MOOCs STC on (i) "Mathematical methods and Its applications" conducted on SWAYAM portal in March -April' 2020
- A certificate training on "Learn the IMRAD structure" on 31.03.2020 from Editage Training Academy
- A certificate training on "How to conduct a literature search and review" on 04.04.2020 from Editage Training Academy
- A certificate training on "An overview of the peer review process" on 09.04.2020 from Editage Training Academy
- A certificate training on "How to conduct a literature search and review" on 01.04.2020 from Editage Training Academy

- International Conference SPIE Photonics Europe Digital Forum 2020 during April 6-10, 2020.
- International Conference SPIE Defense + Commercial Sensing Digital Forum 2020 during April 27- May 01, 2020.

Faculty as External Expert

- Physics Dept. PU Chd – 14 July & 27th July (02 days)
- PEC, Chandigarh – 16 July 2020
- Carrier Point University, Hamirpur

Student completed the Ph.D.

PhD student Mr. Jashandeep Singh graduated on July 09, 2020 under the supervision of Dr Ashok Kumar.

Departmental Highlights:

M.Sc. Physics. (Specialization in Nanophotonics)

National Technology Day programme celebrated digitally by AMPRI

■ Staff Reporter

UNDER CSIR Jigyasa Programme, AMPRI and NITTR Chandigarh jointly organized National Technology day programme in zoom session online . The coordinator of the Jigyasa programme Dr. Satanand Mishra, Senior Scientist welcomed and expressed gratitude to all officials both institutions and associated institute SATI Vidisha, KVS and NVS officers, teachers and students. Dr. Mishra briefed about National Technology Day which is observed on May 11 across country. Director, CSIR AMPRI, Dr. Avanish Kumar Shrivastava delivered a technology day special lecture on "Nanostructure Material and their Applications". He gave an overview of CSIR AMPRI and its functional research areas specially emphasizing the

role of nanomaterials, especially graphene in combatting COVID-19. Now a days, nanomaterials play a vital role in medical as well as in engineering fields. Dr. Srivastava introduced the journal "Applied Innovative Research (AIR)" jointly published by CSIR-NISCAIR, Delhi and CSIR AMPRI Bhopal. It focuses on innovative field of science and technology. Professor (Dr.) Shyam Sundar Pattnaik, Director, NITTR Chandigarh.

He emphasised on Vedic period technology such as Brahmastra, Agniastra and Pushpak Viman and encompassed current missile technology, aircraft technology and encouraged CSIR AMPRI, NITTR Chandigarh, Samrat Ashok Technological Institute Vidisha to come together as a team and do some fruitful and revolutionary work.

नैनोपोटॉनिक्स में पीयू और निटर छात्रों को देंगे एमएससी की डिग्री

दोनों के बीच करार, फिजिक्स विभाग के जरिये होगी पढ़ाई

माई सिटी रिपोटर

चंडीगढ़। पंजाब विश्वविद्यालय और नेशनल इंस्टीट्यूट ऑफ टेक्निकल टीचर्स ट्रेनिंग एंड रिसर्च (निटर) मिलकर काम करेंगे। भौतिक साइंस में एमएससी मिलकर करवाएंगे। उसकी विशेषज्ञता नैनोपोटॉनिक्स होगी। इसकी बाजार में काफी डिमांड है। इसी वजह से पीयू ने इस दिशा में कदम बढ़ाया है।

पीयू के फिजिक्स विभाग की दुनियाभर में एक अलग छाप है। एमएससी की डिग्री यहां से हासिल होने के बाद विद्यार्थियों को कहीं न कहीं बेहतर जॉब मिल जाती है। साथ ही यहां का प्लेसमेंट भी बेहतर है। कुछ नए कोर्सेज का पीयू को संचालन करना था ताकि विद्यार्थी आकर्षित हो सकें। इसे ध्यान में रखकर पीयू आए दिन किसी न किसी

पीयू की सिंडिकेट से प्रस्ताव को मिल गई मंजूरी

विश्वविद्यालय से करार कर रहा है। नैनोपोटॉनिक्स में एमएससी दोनों संस्थान मिलकर करवाएंगे। दोनों संस्थानों के मिलने से संसाधनों की कमी दूर होगी। इसके साथ ही छात्रों को बेहतर सुविधाएं भी मिलेंगी।

सूत्रों का कहना है कि पीयू विदेशी विश्वविद्यालयों के साथ भी करार करने जा रहा है ताकि मिलकर नए ऑनलाइन कोर्सेज शुरू किए जा सकें। दोनों संस्थान विद्यार्थियों को ऑनलाइन डिग्री प्रदान करेंगे। पिछले साल भी एक दर्जन से अधिक एमओयू हुए थे, लेकिन इस साल हालात कोरोना के कारण अलग हैं। ऐसे में ऑनलाइन कोर्सेज को पीयू बढ़ावा देगा। विदेशी विश्वविद्यालयों में भी ऑनलाइन कोर्सेज को ही बढ़ावा दिया जा रहा है।

एमडीयू में आवेदन आज से

गुरुग्राम। एमडीयू सेंटर फॉर प्रोफेशनल एंड अलाइड स्टडीज में विभिन्न पाठ्यक्रमों में 15 जुलाई से आवेदन किए जा रहे हैं। प्रवेश लेने के इच्छुक छात्र महर्षि दयानंद विश्वविद्यालय की वेबसाइट से ऑनलाइन आवेदन कर सकते हैं। केंद्र के निदेशक प्रो. संतोष नांदल ने बताया कि इस वर्ष आवेदन भरने से लेकर काउंसलिंग और शुल्क जमा करने तक की पूरी प्रवेश प्रक्रिया को ऑनलाइन किया है। इस वर्ष किसी भी तरह कि प्रवेश परीक्षा नहीं ली जाएगी। प्रवेश 12वीं या स्नातक में प्राप्त अंकों के मरिट के हिसाब से दिया जायेगा। स्नातक पाठ्यक्रम बीए, एलएलबी 5 वर्षीय की 240 सीटों, एलएलबी 3 वर्षीय की 120 सीटों के लिए ऑनलाइन पंजीकरण 15 जुलाई 2020 से शुरू होगा। अभ्यर्थी 7 अगस्त तक ऑनलाइन आवेदन कर सकते हैं। वहीं स्नातकोत्तर पाठ्यक्रम एमबीए 5 वर्षीय कोर्स की 60 सीटों, एमबीए 2 वर्षीय की 180 सीटों और एलएलएम द्विवर्षीय में 60 सीटों के लिए आवेदन के इच्छुक अभ्यर्थी 24 जुलाई से लेकर 14 अगस्त तक अपना आवेदन कर सकते हैं।

National Technology Day - 2020 celebrated in Collaboration with CSIR-AMPRI, Bhopal on May 11, 2020. Approximately 1000 participants had joined the event across the country.

<https://www.royalpatiala.in/nittr-chandigarh-online-celebrated-national-technology-day-2020/>

Upcoming activities (August – September, 2020)

ICTO-109	Advances in Laser Technology	03/08/2020	07/08/2020	One Week	Dr. B.C. Choudhary	Rs.118/-
ICTO-134	Mathematical Programming and Optimization Techniques	27/07/2020	14/08/2020	Three Weeks	Dr. Kailash Chandra Lachhwani	Rs.1770/-
ICTO-146	Smart Materials and Nanotechnology	31/08/2020	04/09/2020	One Week	Dr. B.C. Choudhary	Rs.118/-

One Week Short Term Course on 'Energy storage materials' w.e.f. 24.08.2020- 28.08.2020 {Course Fee: Rs 100/- + GST}, (Coordinators: Dr Ashok Kumar & Dr Pankaj Sharma)

One Week Short Term Course on 'Materials characterization techniques' w.e.f. 31.08.2020- 04.09.2020 {Course Fee: Rs 100/- + GST}, (Coordinators: Dr Pankaj Sharma & Dr Ashok Kumar)

One Week online STC "Optical Fibers: Potential and Applications" from 21-25 September 2020. Coordinator: Dr BC Choudhary

FIVE DAYS AICTE TRAINING AND LEARNING FACULTY DEVELOPMENT PROGRAMME (FDP) ON 'NANOMATERIALS, SENSORS AND DEVICES' from 21-25 September, 2020.

Thank You