

Leading From the Front

Message from the Director

Dear all,

Greetings from NITTTR Chandigarh!

I am delighted to reach you through our Institute Newsletter (संपर्क), reflecting on the remarkable events of the past three months (July-September 2023). The celebration of the 56th Institute Day was a testament to our collective achievements and the spirit of innovation that defines us. It was heartening to witness the enthusiasm of our students and the dedication of our faculty, staff and their families in making the event a grand success. The vibrant activities organized fostered a sense of cultural unity. We also commemorated Hindi Month, reaffirming our commitment to promoting the Official Language (Hindi).



I extend my heartfelt appreciation to our esteemed faculty and staff for their outstanding contributions. The recent surge in patents, publications, and projects is a testament to their relentless pursuit of excellence. Their dedication to advancing knowledge and contributing to the academic community is truly commendable.

As we move forward, let us continue to uphold the values that make NITTTR Chandigarh a beacon of teaching-learning and innovation, so as to make a positive impact in the domains of education, training, and systemic research.

With best wishes and compliments, Bhola Ram Gurjar Director, NITTTR Chandigarh



Prof. (Dr.) B. R. Gurjar was one of the panelists in the final session of 14th FICCI Global Skills Summit 2023, "Empowering TVET Leadership & Practitioners" and addressed vital issues in handling system-level change. Deliberations during the session also underscored the imperative of ensuring access to high-quality Technical and Vocational Education and Training opportunities.

National Institute of Technical Teachers Training & Research, Chandigarh











Major Contributions to the Nation Building

- Institute organized 53 Faculty Development Programmes through ONLINE Mode and 36 in Contact Mode, in which 8797 participants attended.
- Institute organized CPSC-NITTTR-IIT Roorkee collaborative International Colloquium on "Industry Academia Integration and Sustainable Development" on 6th September, 2023 with 84 participants.
- "Awareness, Sensitization and Hand Holding Program for NAAC Accreditation Procedures" was held on 26th-28th July, 2023 at NSUT Dwarka, with 120 participants.
- 02 Five Days capacity enhancement programmes on "CNC Machining" were organized from 22nd-26th August, 2023 and 28th August-1st September, 2023, with 61 participants.
- "Capacity Building Programme under STRIVE Project" was conducted for Rajasthan state from 11th-15th September, 2023 with 30 participants.
- 4 Days Training on "NABL Accreditation as per ISO/IEC 17025: 2017" was held from 25th-28th September, 2023 with 29 participants.
 - 6 MOOC courses were re-run, where total 7175 participants were enrolled.
 - 15 Curriculum Development Workshops were conducted with 96 participants.
 - Workshop on "Indian Knowledge System for Technical, Economic, Historical and Policy Aspects", was conducted on 29th-30th July, 2023 with 46 participants.
 - A workshop on Science Teacher Empowerment Meet in "Contribution of Scientist and Scientific Institutions in Indian Freedom Struggle: Prof. S.N. Bose" was conducted on 19th August 2023 at Sobhasaria Engg. College, Sikar with 350 participants.
 - A workshop on "Evaluation and Setting of Question Paper" was conducted on 21st-22nd September, 2023 with 48 participants.
 - A workshop on "National Education Policy-2020 and Indian Knowledge System" was conducted on 24th September 2023 with 25 participants.
 - Workshop on "ChatGPT and its usage as Teaching-Learning Tool" was conducted on 31st August 2023 with 31 participants.
- Workshop on "Preparing CSE and Civil Engg. Departments for NBA Visit" under AICTE Margdarshan Scheme was conducted on 5th August 2023 at MMEC, Mullana with 21 participants.
- A Seminar on "Industry 4.0 Innovation and 21st Century Skills" was conducted on 5th September, 2023 with 60 participants.

CURRICULUM DEVELOPMENT

- Designed the curriculum of part-time Diploma programme (for 1st Year) in "Civil Engineering" for Punjab State.
- Designed the curriculum of part-time Diploma programme (for 1st Year) in "Mechanical Engineering" for Punjab State.
- Designed the curriculum of part-time Diploma programme (for 1st Year) in "Electrical Engineering" for Punjab State.

Outreach

NITTTR Chandigarh hosted a workshop on "Implementation of NEP-2020 for Primary Heads" in Collaboration with Vidya Bharti, Uttar Kshetra from 18th–20th August, 2023 with 185 school principals.

NITTTR, Chandigarh signed 05 MoUs in this period with:

- Indira Gandhi National Centre for the Arts (IGNCA), Janpath New Delhi,
- · Malaviya National Institute of Technology, Jaipur,
- Teachers Training Centre (TTC), Jodhpur, Rajasthan,
- IBM India Private Limited, 12, Subarmanya Arcade, Bangalore
- Society for Promotion of Indian Classical Music and Culture Amongst Youth (SPIC MACAY), 41/42 Lucknow Road, Delhi.

More to Come ...

Below are some of the important STCs being organized by the Institute over the next few months. For more programs and registration to the STCs, visit NITTTR FDP Portal at https://fdp.nitttrchd.ac.in.

- Stem Teaching (Applied Sciences; December 2023; Online Mode)
- Vedic V/s classical Mathematics: Applications for Real-world problems (Applied Sciences; February 2024; Online Mode)
- NSQF Aligned Curriculum Design and Implementation (CDC; December 2023; Online Mode)
- Effective Curriculum Implementation Using FOSS (CDC; January 2023; Online Mode)
- Affordable Housing in Disaster Prone Areas (Civil; November 2023; Online Mode)
- Innovative Technologies for Village Development (Civil; January 2024; Contact Mode)
- Leadership, Motivation and Decision Making (EMGT; December 2023; Contact Mode)
- Stress Management (EMGT; January 2024; Online Mode)
- 5G and Beyond (ECE; February 2024; Online/Contact Mode)
- Free Simulators for ECE Lab Practices (ECE; March 2024; Online/Contact Mode)
- Cloud, Fog and Edge Computing (CSE; February 2024; Online Mode)
- Cyber Vulnerabilities and Safeguards (CSE; March 2024; Online Mode)
- Nurturing Intent, Initiative, and Innovation for Business Startups (EDIC; January 2024; Online Mode)
- Innovation Management & IPR (EDIC; December 2023; Online Mode)
- Hands on Practices in Control of Electric Machines (Electrical; January 2024; Contact Mode)
- Big Data Analytics in Smart Grid (Electrical; February 2024; Online/Contact Mode)
- Self Help Group Development through Technical Interventions (Rural; November 2023; Online Mode)
- Organic Farming, Sweet Revolution and Permaculture (Rural; February 2024; Online Mode)
- Digital twinning of material processing technologies (Mechanical; February 2024; Online/Contact Mode)
- Designing for Consumer (Mechanical; February 2024; Online/Contact Mode)
- Empowering Digital Learning through AI Powered tools (Media; December 2023; Online/Contact Mode)
- AR VR Applications (Media; January 2024; Online/Contact Mode)
- · How to Teach Emerging Engineering topics in Digital Era (IMEE; November 2023; Contact
- Mode)
- Branding of HEIs for Institutional Excellence (IMEE; December 2023; Online Mode)

Capacity Building

Prof. Pankaj Sharma and Dr. KC Lachhwani attended the two days Technology & Bharatiya Bhasha summit from September 30 to October 1, 2023 at New Delhi. Technology & Bharatiya Bhasha Utsav was inaugurated by Shri Dharmendra Pradhan, Hon'ble Minister of Education, Government of India. The summit aimed to explore and promote the integration of technology in the development and enrichment of Bharatiya languages, in line with the vision of the National Education Policy (NEP) 2020. This summit envisaged critical insights and discussions on the integration of technology to promote Bharatiya languages.



Er. Himmi Gupta, Assistant Professor, Civil Engineering Department attended FDP on "Linear and Non-Linear Finite Element Analysis with Programming" at BITS Pilani, Hyderabad Campus from 3rd July 2023 to 7th July 2023.

Dr. Maitreyee Dutt, Professor and Head, IMEE Department attended FDP on "People Analytics" at NITIE, Mumbai from 28th August 2023 to 31st August 2023.

A 2 days Workshop on 'Evaluation & Setting Question Papers' for Groundcrew Examining Board, 3BRD, Airforce, Chandigarh was conducted from 21 – 22 September 2023 at the Institute, coordinated by Prof. Sunil Dutt and Er. Amandeep Kaur. A total of 48 officers including ranks of Group Captain, Wing Commander, Warrant Officer participated.



NITTTR Chandigarh established an International Skill Centre in collaboration with National Skill Development Corporation (NSDC), New Delhi on 5th September 2023. Faculty from Germany came to impart training to health workers as participants from various states. A group of 40 Nursing health workers in two batches of 20 were trained on German Language in NITTTR Chandigarh.

Sh. Ved Mani Tiwari, the Chief Executive Officer of NSDC, had cited in his LinkedIn post that the successful launch of the NSDC International Skill Center at NITTTR Chandigarh is a significant milestone in the journey of skill development in India.

Making a Difference

- One patent Granted to Prof. B.S. Pabla on "Real time non contact vibration measuring system for structural health monitoring".
- One Patent published on "Household Waste Heat Harvesting System for Energy Generation" (202311047900) by Shruti Jain, Meenakshi Sood, and Pramod Kumar on 11th August 2023.
- One Patent published on "Mitigating Chromium Poisoning Effect in La2CrMnO6/rGO Composite Electrode for Excellent Electrochemical Performance", 2023, IN Patent Filed App. 202,311,063, 467 by Dr. Ashok Kumar, Anup Singh Deeksha Nagpal and Ajay Vasishth.
- One Patent Filed "Friction Damper for Beam-Column Joints of Building for improved Seismic Response and Method of use" in the Application no. 202311051848 A, Published. 2nd August 2023 by Dr. Goyal Amit, Kushal Chauhan, Bharati, Nagendra Dhooper.
- One Copyright granted on "Bhay Ka Manovigyaan Aur Prabhaav" (In Hindi Language, copyright number L-127909/2023) by Dr. Ashok Kumar.
- One Copyright granted on "Break Fear & Win" (copyright number L-128280/2023) by Dr. Ashok Kumar.
- Institute Received a sponsored project titled "AR/VR Integrated Immersive Multi-Lingual Videos on Water-Borne and Vector-Borne Diseases for Enhancing Awareness" by Department of Science and Technology and Renewable Energy, Chandigarh Administration for Rs. 1.00 Lakh, with Dr. Suniti Dutt as PI and Prof. S.S. Pattnaik and Dr. Kamaldeep as Co-PIs.
- Faculty of the institute published 02 Text Books: Fractal Antenna Design using Bioinspired computing algorithm ISBN: 978-981-5136-36-4 Bentham Science: Dr. Balwinder Singh Dhaliwal, Suman Pattnaik, Prof. Shyam S Pattnaik and Book on 3D Printing: Polymer, Metal and Gel Based Additive Manufacturing, (Published in the Series: Advanced Mechanical Engineering, ISBN 978-3-11-108061-1) DE GRUYTER, Berlin, Germany, 2023 by Prof. Rupinder Singh, Ranvijay Kumar, Vinay Kumar, J P Davim.
- Faculty of the institute published 05 Book Chapters, 08 papers in SCI indexed journals, 21 Non SCI indexed journals, 04 in National journals and 04 in International Conference proceedings.
- 33 Videos have been recorded, 101 videos edited, 66 videos for NCTEL.

Two Ph.D. scholars appeared for their final Viva-Voce examinations:

- Divya Sharma, "Augmented Perovskite Solar Cell Model Employing Viable Materials to Improve Efficiency"; Supervisors: Prof. Rajesh Mehra, Professor, Dept. of CDC, NITTTR, Chandigarh, and, Dr. Balwinder Raj, Associate Professor (on lien to Dr. B.R. Ambedkhar NIT, Jalandhar); Date of Viva-Voce: 06.08.2023.
- Kamaldeep, "Development of Lightweight Intrusion Detection and Prevention System for the Internet of Things"; Supervisor: Prof. Maitreyee Dutta, Professor & Head, Dept. of IMEE, NITTTR, Chandigarh; Date of Viva-Voce: 01.09.2023.

The Institute organized a Press Conference on 24th July 2023 on the occasion of 3rd Anniversary of NEP2020 Implementation.





Mr. Shaurya Doval, Director, India Foundation, delivered a thought-provoking talk on "India's Vision 2047: Economic Achievements and the Role of NEP 2020" on 28th July 2023, which was attended by all faculty, staff and students of the Institute.

Live streaming of 'Akhil Bhartiya Shiksha Samagam' was done and the faculty, staff, and students of the Institute attended the address of Hon'ble Prime Minister Shri Narendra Modi on 29th July 2023 on the occasion of the 3rd anniversary of the implementation of the National Education Policy 2020. Two faculty along with the students of 'Yuva Sangam' participated in celebration of 3rd year NEP implementation at Pragati Maidan, New Delhi.





The Institute Celebrated India's 77th Independence Day on 15th August 2023. The Director hoisted the Indian flag on the occasion, which was attended by the employees and their families.

All the employees of the institute took Sadbhavana Diwas pledge on 21st August 2023 to promote national integration and communal harmony among people of all religions, languages and regions.





The Masters and Ph.D. students of NITTTR Chandigarh celebrated Teachers' Day on 5th September 2023 for the faculty members of the Institute. The students organized several competitions, fun filled games and other activities for the teachers and expressed their gratitude to their teachers.

NITTTR Chandigarh organized a seminar on "Industry 4.0, Innovation and 21st Century Skills" on 5th September 2023. The seminar had 05 broad sessions (across all disciplines) on Cybersecurity skills (Hands-on session), AR Across Industries: Successful Augmented Reality Implementations (Hands-on sessions), Startups in Academic Institutions, and Self-sustainable Startup Eco-System for Academia to update the Policymakers, faculty, Research scholars for the 21st-century skills.





The institute celebrated International Literacy Day on 8th September 2023 by organizing a quiz competition for faculty, staff and students, keeping in view the theme of UNESCO for International Literacy Day 2023, i.e., "Promoting literacy for a world in transition: Building the foundation for sustainable and peaceful societies".

The Institute celebrated its annual cultural programme on 6th September 2023, the eve of its 56th Institute Day. The Institute employees and their family members, as well as students, took part in the festivities with full enthusiasm and vigour. The cultural programme featured dances and song recitals in the Institute auditorium.



The Institute, in collaboration with Colombo Plan Staff College (CPSC), Philippines and IIT Roorkee organized a one day International Colloquium on "Industry Academia Integration and Sustainable Development" on 6th September 2023, which attracted 15 international delegates from 10 countries who made presentations on Industry academia integration and sustainable entrepreneurship.





The Institute celebrated its 56th Annual Day on 7th September 2023. Sh. Banwarilal Purohit, Hon'ble Governor of Punjab & Administrator of UT, Chandigarh was the Chief Guest, Prof. (Dr.) GLD Wickramasinghe, Director-General, CPSC Manila, Philippines and Prof. (Dr.) MP Poonia, Professor MNIT, Jaipur and Former Vice Chairman, AICTE, New Delhi were the Guests of Honour, during the event.

Prof. (Dr.) BR Gurjar presented Annual Report of the institute for the year 2022-23 highlighting the outstanding achievements made by the institute during its 56th Annual Day on 7th September 2023. During the event, Best Polytechnic and Engineering Colleges were awarded. The Meritorious students and Best employees in different categories were also awarded during the Annual Day Celebrations.





The Institute celebrated success of India's third lunar mission, named Chandrayaan-3, on 8th September 2023 by creating a Selfie Point and organizing a Poster Competition.

NITTTR Chandigarh organized an International Regional Programme on "Industry Academia Integration and Sustainable Entrepreneurship" in collaboration with CPSC Manila from 4th to 8th September 2023. Total 15 participants attended this programme from 10 different countries of the Asian region.





Institute arranged live screening of the G20 University Connect Finale Program held at Bharat Mandapam, New Delhi, on 26th September 2023, where Hon'ble Prime Minister Shri Narendra Modi Ji released 4 publications followed by an address to the youth. The G20 University Connect initiative was undertaken with the aim to build an understanding of India's youth and enhance their participation in various G20 programmes.

संस्थान में दिनांक 01 सितम्बर 2023 से 30 सितम्बर 2023 तक हिन्दी माह मनाया गया। समारोह का शुभारंभ माननीय केन्द्रीय गृहमंत्री श्री अमित शाह जी के संदेश को पढ़ कर किया गया एवं संस्थान में किए गए हिन्दी के कार्यों की वार्षिक प्रगति रिपोर्ट प्रस्तुत की गई।

सितम्बर माह के दौरान हिन्दी सुलेख, हिन्दी शब्द-ज्ञान, हिन्दी नोटिंग/ड्राफ्टिंग, हिन्दी टाइपिंग, हिन्दी श्रुतलेख, हिन्दी उच्चारण एवं हिन्दी कविता पाठ नामतः 07 प्रतियोगिताओं का आयोजन किया गया। संस्थान के 123 संकाय, कर्मचारियों और छात्रों ने प्रतियोगिताओं में बढ़-चढ़ कर उत्सुकता से भाग लिया और कई पुरस्कार जीते। हिंदी दिवस के समापन समारोह के दौरान विजेताओं को सम्मानित किया गया। इसके अलावा हिंदी भाषा में योगदान देने वाले कर्मचारियों को भी सम्मानित किया गया।



Farewell and Best Wishes to...



Prof. (Dr.) Amod Kumar Professor, ECE Served from 24.12.2018 to 30.09.2023



Sh. Tara Chand MSA Served from 15.07.1983 to 31.07.2023



Sh. Joginder Pal Tungal Section Officer Served from 26.07.1985 to 31.08.2023



Mrs. Jyothi PM Sr. Technical Assistant Served from 23.03.2001 to 31.08.2023



Sh. Rajiv Negi Sr. Technical Assistant Served from 11.04.1986 to 31.08.2023



Sh. Sidharatha Nanchahal Junior System Engineer Served from 30.09.1999 to 31.08.2023



Sh. Natwar Singh Lab Attendant Served from 15.10.1991 to 30.09.2023

Editorial Board

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