

## NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR

HAMIRPUR (H.P.) - 177 005 (INDIA)

[An Institute of National Importance under Ministry of Education (Shiksha Mantralaya)]

# प्रशिक्षण एवं नियुक्ति कार्यातय

{OFFICE OF TRAINING & PLACEMENT}

No. NIT/HMR/TPO/Summer Training/Internship/2025/3717

Date: 17-03-2025

## Internship Opportunities @ NIT Hamirpur (H.P)

National Institute of Technology Hamirpur invites applications from the students studying in IITs/NITs/State Technical Universities/Other CFTIs, to do Summer Training/Internship in the different Departments/Centres of the Institute. There are various projects under which the candidates can apply.

The applicant must submit a brief proposal on the project area under which he/she intends to do internship/training in NIT Hamirpur (H.P). For more details, please go through the relevant Guidelines available on Institute website. The candidate can fill the "UG Training/Internship Request Form" along with "Undertaking Form" and submit it through the Google form link/QR Code provided below.

All the interested students can apply on or before April 20th 2025 (05:00 PM)

For more details, contact 01972-254591 and tpo.office@nith.ac.in.

### Google form link/QR Code

 $https://docs.google.com/forms/d/e/1FAIpQLSfUeL3tFU6C\_hb99BYwI0C3P06Jq7jGejBVREP6WGsT9FTnFg/viewform?$ usp=header



Dr. Somesh Kumar Sharma

Training & Placement Officer

प्रशिक्षण Will Hamirpur (H.P) Training & Placem

राष्ट्रीय प्रौद्योगिकी संस्थान हमीरपुर (हि0प्र0)

National Institute of Technology Hamirpur (H.P.)

LIST OF PROJECTS FOR SUMMER TRAINING/INTERNSHIP DURING 2025 AT NIT HAMIRPUR

|        | LIST OF PROJE                        | CTS FOR SUMMER TRAINING/INTERNSHIP 2025 AT NIT H   | AMIRPUR   |
|--------|--------------------------------------|--|---|
| Sr No. | Department                           | Project Title  | Name of Faculty<br>Mentor                             |
| 1.     | Architecture                         | <ol> <li>Transformations in vernacular architecture of<br/>Himachal Pradesh.</li> <li>Appropriate built environment in Hill Towns of<br/>India.</li> </ol>   | <b>Dr. Ashwani Kumar</b><br>Associate Prof. & Head    |
|        |                                      | <ol> <li>Assessment of heritage indicators- case of<br/>residential buildings.</li> <li>Development of model for garbage collection in<br/>NITH Campus.</li> </ol>   | <b>Dr. Amanjeet Kaur</b><br>Asstt. Professor          |
|        |                                      | <ol> <li>Deep Learning based Multimodal Biomedical Data Fusion</li> <li>Text-to-Image Synthesis Using Conditional GANs</li> <li>Energy Harvesting Techniques for Prolonging WSN Lifetime</li> <li>Deep Transfer Learning for IoT Attack Detection</li> </ol> | Dr. Robin Singh<br>Bhadoria<br>Asstt. Professor       |
| 2.     | Computer<br>Science &<br>Engineering | Distributed Systems, Artificial Intelligence, Soft Computing, Machine Learning   | Dr. Dharmendra<br>Prasad Mahato<br>Asstt. Professor   |
| 2.     |                                      | ML/DL for PCoS prediction & detection, Federated Learning for secure communication in IoT networks   | <b>Dr. Nitin Gupta</b> Asstt. Professor               |
| , V    |                                      | ML/DL , NLP, AI  | Dr Pardeep Singh<br>Asstt. Professor                  |
|        |                                      | Internet of Things, Service-Oriented Architecture, Wireless Sensor Network, Machine Learning   | Dr Siddhartha<br>Chauhan<br>Asstt. Professor          |
| 3.     | Civil<br>Engineering                 | <ol> <li>Impact of Climate Change on Water Availablity in a Watershed.</li> <li>Flood Risk Mapping and Mitigation Strategies in Urban Areas.</li> <li>Assessment of Groundwater Recharge Potential Using GIS and Remote Sensing.</li> </ol>                  | <b>Dr. Ray Singh Meena</b><br>Asstt. Professor (Gr-I) |
| 4.     | Chemistry                            | Design and development of sensors.   | Dr. K S Gosh  |
|        |                                      | <ol> <li>Natural Product Mimics and their application.</li> <li>Quadruplex blinder- spectrophotometric studies.</li> </ol>   | Dr. Pamita Awasthi                                    |
|        |                                      | <ol> <li>Designing and synthesis of novel metallodrugs<br/>and their biological evaluation.</li> <li>Transition metal complexes and their<br/>electrochemical characterization.</li> </ol>   | Dr. Raj Kaushal                                       |
|        |                                      | <ol> <li>Two dimensional nanomaterial's.</li> <li>Green synthesis of nanomaterial's.</li> <li>Metal oxide based nanocomposite materials.</li> </ol>  | Dr. Jai Prakash                                       |
|        | ± 00                                 | <ol> <li>Photophysical Study.</li> <li>Protein- DNA interation.</li> </ol>   | Dr. Jagannath<br>Kuchiyan                             |

|    | Chemical                                      | <ol> <li>Removal of Pollutants from Wastewater using<br/>Natural Adsorbent.</li> <li>Optimization of galacto-oligosaccharide<br/>production by RSM.</li> <li>Gas Explosion dynamics using Novel solver</li> </ol> | <b>Dr. Tapas Palai</b> Associate Professor   |
|----|---|---|--|
| 5. | Engineering                                   | <ul> <li>PDRFORM.</li> <li>Waste to value: CFD Modelling of biomass/Plastic particles in a horizontal or vertical set up.</li> <li>1-D Kinetic Modelling to design novel reactor.</li> </ul>                      | Dr. Manish Kumar<br>Dhiman<br>Asstt. Professor (G-II)  |
| ." |   | <ol> <li>VLSI Design</li> <li>Device Modelling in VLSI</li> <li>VLSI Design</li> </ol>  | Dr. Ashwani Kumar<br>Rana<br>Associate Prof. & Head<br>Dr. Gargi Khanna<br>Associate Professor |
|    |   | <ol> <li>Cyber-Physical Security in IoT: Challenges and Solutions.</li> <li>Next-Generation Wireless Networks: Exploring 5G and 6G Communication Technologies.</li> </ol>   | Dr. Sandeep Kumar<br>Singh<br>Assistant Prof. GrI  |
|    |   | <b>3.</b> Artificial Intelligence for 5G/6G Communication Systems: Enhancing Network Performance and Security.  |  |
| 6. |   | <ol> <li>Development of intelligent systems for<br/>biomedical signal analysis.</li> <li>Artificial Intelligence assisted smart healthcare<br/>system.</li> </ol>   | Dr. Abhijit Bhattacharyya Assistant Prof. GrI  |
|    | Electronics &<br>Communication<br>Engineering | <ul> <li>3. Development of low-cost prototype for cardiac sound signal processing.</li> <li>4. Development of deep neural networks for Speech Emotion Recognition.</li> </ul>                                     |  |
|    |   | <ol> <li>Design and Analysis of Compact Waveguide<br/>Filter using Planar Insert.</li> <li>Design and Analysis MIMO Antenna for Sub 6<br/>GHZ.</li> </ol>   | Dr. Amit Bage<br>Assistant Prof. GrI   |
|    |   | <ol> <li>Design and development of circularly polarized<br/>leaky wave antenna in Dielectric Image Line<br/>environment for millimetre wave application.</li> </ol>   | Dr. Chandra Shekhar<br>Prasad<br>Assistant Prof. GrI   |
| -  | Mechanical                                    | Gas Nozzle Design.     Combustion in High Speed Flows—Rayleigh Flow.  | Dr. Prashant Kumar<br>HOD & Associate<br>Professor   |
| 7. | Engineering                                   | <ol> <li>Supply Chain Management.</li> <li>Total Quality management.</li> <li>Industry 4.0 and 5.0</li> <li>Six-Sigma/Lean Methodology.</li> </ol>  | <b>Dr. Rajiv Kr. Sharma</b><br>Associate Professor   |

|     |                                    | <ol> <li>Automation and Manufacturing.</li> <li>Aviation and Defence Studies.</li> <li>Industry 4.0 and 5.0</li> </ol>  | Dr. Somesh Kumar<br>Sharma<br>Associate Professor &<br>TPO |
|-----|------------------------------------|---|--|
|     |                                    | <ol> <li>Battery Thermal Management System.</li> <li>Passive Heat Transfer Augmentation.</li> <li>To study Ammonia Combustion in IC Engine.</li> </ol>  | <b>Dr. Varun</b><br>Associate Professor                    |
|     |                                    | "Experimental & Numerical Investigation on Pool Boiling Heat Transfer Enhancement by Surface Modification".   | <b>Dr. Deepak Sharma</b><br>Asstt. Professor               |
|     |                                    | SERB funded project on: "Design & Development of<br>Extrusion Pressure Based Magnetorheological<br>Finishing".  | <b>Dr. Dilshad A. Khan</b><br>Asstt. Professor             |
| 8.  | Mathematics & Scientific Computing | <ol> <li>Artificial Neural Networks and Semi-Analytical methods for Partial Fractional Differential Equations.</li> <li>Qualitative Studies for Stochastic Differential Equation.</li> <li>Controllability for Fractional Differential Equations.</li> </ol>  | Dr. Ramesh Kumar<br>Vats                                   |
|     |                                    | <ol> <li>Bio-medical image Processing.</li> <li>Learning Numerical Methods for Partial<br/>Differential Equations.</li> </ol>   | Dr. Subit Kumar Jain<br>Asstt. Professor                   |
|     |                                    | <ol> <li>Design and Development of Iron Based low density alloys.</li> <li>Synthesis and characterization of advanced quasi-equiatomic high entropy alloys.</li> <li>Utilization of byproducts of metallurgical industries in developing the advanced materials.</li> </ol>   | <b>Dr. Raj Bahadur Singh</b><br>Asstt. Professor           |
| 9.  | Material Science<br>& Engineering  | <ol> <li>Compaction and Sintering of coal fly ash nanoparticles prepared by ball milling.</li> <li>Effect of co doping on the structural and optical behaviour of Cr<sub>2</sub>O<sub>3</sub></li> <li>Development of electrode material for supercapacitor.</li> <li>Development of p type transparent conducting oxides.</li> <li>Development of n type transparent conducting</li> </ol> | <b>Dr. Vikram Verma</b><br>Asstt. Professor                |
| 10. | Physics and Photonics science      | oxides.  1. Metal Oxide-based heterojunctions for energy storage and conversion.  | Dr. Nisha Kodan  |

प्रशिक्षण एवं नियुक्ति अधिकारी
Training & Placement Officer
राष्ट्रीय प्रौद्योगिकी संस्थान हमीरपुर (हि०प्र०)
National Institute of Technology Hamirpur (H.P.)



# राष्ट्रीय प्रौद्योगिकी संस्थान हमीरपुर हमीरपुर (हि॰प्र॰) — 177 005 (भारत) [ भारत सरकार शिक्षा मंत्रालय के तहत एक राष्ट्रीय महत्व का संस्थान ] NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR HAMIRPUR (H.P.) - 177 005 (INDIA) [An institute of National Importance under Ministry of Education (Shiksha Mantralaya)]

## **{OFFICE OF TRAINING & PLACEMENT}**

Annexure-III

|   |  | <u>UG Ti</u>   | raining/Internship<br>(For External Students                                |                           |                    |  |
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| ,   | 4<br>e of th<br>• W<br>• If  | hether Applying under<br>yes, Name of project:_  | where Training/Internsh<br>r projects floated by the o                      | department:               | :                  |  |
| ,   | e of the W   | hether Applying under<br>yes, Name of project:_<br>No, then areas/domai  | where Training/Internsh<br>r projects floated by the o                      | department:               | :                  |  |
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| 4. Tenta<br>5. Whe<br>(Sub<br>6. Nam<br>7. Nam  | e of the We If   | whether Applying under<br>yes, Name of project:<br>No, then areas/domain<br>time duration of Train<br>Hostel required: Yes/Notes availability of accompecific equipment/soft<br>faculty mentor if consequents be attached)   | where Training/Internship r projects floated by the or n of interest        | toto                      | :No. of Weeks:     |  |
| 4. Tenta 5. Whe (Sub 6. Nam 7. Nam (Pro   | e of the We If ative of the of see of Foof to  | whether Applying under<br>yes, Name of project:<br>No, then areas/domain<br>time duration of Train<br>Hostel required: Yes/Notes availability of accompecific equipment/soft<br>faculty mentor if consequents be attached)   | where Training/Internship r projects floated by the or n of interest        | toto                      | :No. of Weeks:     |  |
| 4. Tenta 5. Whe (Sub 6. Nam 7. Nam (Pro   | e of the We If   | whether Applying under yes, Name of project: No, then areas/domain time duration of Train Hostel required: Yes/Note availability of accompecific equipment/soft aculty mentor if consequents attached)  rules & regulations of the sequent in the sequ | where Training/Internship r projects floated by the confined in of interest | to ring my stay in the In | :No. of Weeks:     |  |
| 4. Tenta 5. Where (Subsection | e of the We If ative of the of | whether Applying under yes, Name of project: No, then areas/domain time duration of Train Hostel required :Yes/Note availability of accompecific equipment/soft aculty mentor if conseive attached) rules & regulations of idate with date   | where Training/Internship r projects floated by the confined in of interest | to ring my stay in the In | stitute.           |  |



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Annexure-IV

(course

### **{OFFICE OF TRAINING & PLACEMENT}**

S/O/D/O \_\_\_\_\_pursuing \_\_\_\_

### **UNDERTAKING**

| name) from  | (Institut                               | te/University),      | wish to          | undertake     |
|---|---|----------------------|------------------|---------------|
| training/internship at  | (Department) of N                       | ational Institute o  | f Technology     | , Hamirpur    |
| (H.P.) fromto   |   |                      |                  |               |
| 1. I undertake that I will be governed by the rule of the Institute for the duration of the internship. | Š                                       | ate and will be und  | er administrat   | tive control  |
| 2. I will utilize the basic infrastructure, Departm<br>my cost and only with the permission of concern  | • | arces of Institute w | rith all respons | sibilities at |
| <ol><li>Any damage caused to Institute property fr<br/>will bereimbursed by me.</li></ol>               | om my end will lead to the te           | ermination of my     | Training/Inte    | rnship and    |
| 4.I will make own arrangements for accommodatif any, caused during the course of my Training/           |   | Hamirpur will not l  | e responsible    | for injury,   |
|   |   |                      |                  |               |
| (Signature of Trainee with name ):  |   |                      |                  |               |
| Address:  |   |                      |                  |               |
|   |   |                      |                  |               |
|   |   |                      |                  |               |
| Phone No.:  |   |                      |                  |               |
|   |   |                      |                  |               |
| Signature of Head of Institute/Deptt.   |   |                      |                  |               |
| Seal of the Institution:  | ×                                       |                      |                  |               |
| (With Name and Address)   | ********                                | *****                | *****            | ****          |
|   |   |                      |                  |               |
| Office Use:   |   |                      |                  |               |
| The candidate has reported to the department on   |   |                      |                  |               |
| Mr/Ms   | is assigned Trainee/Intern N            | To:                  |                  |               |
| Training Coordinator Signature of HOD (with seal) (The record to be maintained in Department)           |   | (Name of Dep         | tt               | )             |