



सरदारवल्लभभाईराष्ट्रीयप्रौद्योगिकीसंस्थान,सूरत

**SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY,  
SURAT**

**SVNIT**

## **SVNIT Summer Internship Programme 2024**

**Applications are invited for SVNIT Summer Internship Programme 2024**

**The last date of application is 12<sup>th</sup> April, 2024.**

SVNIT Summer Internship Programme is a popular in house programme initiated in 2018. The objective of the programme is to enhance awareness and interest in quality academic research among young Engineering and Science students. To broaden its perspective; this year Institute has opened it for all (in house as well as students of different Institutes in India). It is expected that the students will pursue an innovative research and development project under the guidance of SVNIT Surat faculties.

### **Guidelines:**

1. Number of intake: **Total 50 interns**

2. Amount of fellowship: **Rs. 5, 000/- per month.**

3. Duration: **May 13-July 12, 2024**

4. Accommodation and Food:

- Hostel accommodation is to be provided in SVNIT Hostel with payment basis
- Mess / Canteen food charges to be borne by the interns.

5. Benefits & Facilities

- Laboratory, Library Facilities (without barrowing) and internet facilities.
- Medical facility (consultation with doctor at Institute dispensary).

6. Eligibility:

- Any student pursuing B.E./B. Tech with a good academic record, who has appeared at least 5th semester examination.

- Any Integrated M.Sc./Integrated M.Tech/Dual degree student with a good academic record, who has appeared at least 5th semester examination.
- Applicants should be among the top 20% based on CGPA / % score in all the previous years in his/her discipline in the College/ Institution/University and to be certified by the Dean (Academic) / Head of the Institute/Principal at the time of the application (Submit Annexure-I).
- Graduated students / Students who are in the final year of above mentioned degrees are not eligible to apply.
- The student should be free in the above mentioned period (May 13-July 12, 2024); otherwise he/ she should not apply. The request of late joining or early leaving will not be entertained (Submit Annexure-I).
- He/she should have all grade sheets till the previous semesters (Example, if he/she appears for 6th semester examination in April/May 2024, up to 5th semester result should be available at the time of online application).

#### 7. Application Submission:

- After the deadline (i.e. 12<sup>th</sup> April, 2024), no applications shall be accepted.
- Applications must be submitted through the web portal / online only.
- Do not forget to submit Annexure-I and Annexure-II.
- Offline applications, applications through emails shall not be entertained.

#### 8. Selection Procedure:

- The selection procedure consists of a preliminary screening of applications followed by an interview (online mode) department/mentor faculty wise at the option of the concerned Department.
- Selection may depend upon consistently brilliant academic performance, Project write up Annexure-II, work carried out by the student besides his regular academic work, participation/ recognition in competitions such as Olympiads, National Talent Search Exams, and performance in the interview.
- The decision of the SVNIT Surat authorities shall be final.
- No correspondence shall be entertained in this matter.

9. Notification of Selection:

- Selected candidates shall be informed through emails only.
- Declaration of results: 19.04.2024 (Tentative)
- Confirm your participation by intimating us online within a time frame, otherwise next person in the waiting list will be selected and your candidature will be cancelled permanently.

Application Form: (<https://forms.gle/nCpJzC8VKz74RLgY6> )

**Annexure-I (Attached at the End)**

**Annexure-II (Attached at the End)**

**Departments**

DoAI: Department of Artificial Intelligence  
DoC : Department of Chemistry  
DoCE : Department of Civil Engineering  
DoChE : Department of Chemical Engineering  
DoCSE : Department of Computer Science & Engineering  
DoECE : Department of Electronics Engineering  
DoEE : Department of Electrical Engineering  
DoM : Department of Mathematics  
DoME : Department of Mechanical Engineering  
DoP : Department of Physics

List of Interested Faculty to Mentor the interns

<b>Department</b>	<b>Name of the Faculty</b>	<b>Research Areas</b>
DoAI	Dr. Rahul Dixit	Digital Image and Video Forensics through Artificial Intelligence, Computer Vision, Natural Language Processing, Medical Imaging, Skin Cancer Detection using Artificial Intelligence
DoAI	Dr. Praveen Kumar Chandaliya	Explainable Face Recognition System (EXPI), Face Image Quality Component Assessment (FIQA), Biometrics, and Deepfake.
DoAI	Dr. Tanmoy Hazra	Applications of machine learning, Applications of deep learning

DoC	Dr. Sivaiah Areti	1. Synthesis of fluorescent organic molecular probes for detection of biological species. 2. Synthesis and optical properties of chiral materials
DoCE	Dr. Banti A. Gedam	1. Structural Fire Engineering 2. Concrete Technology 3. Artificial Intelligence
DoCE	Dr. Anant Parghi	Seismic analysis and design of structures using machine learning and deep learning, advanced use of smart and composite materials, sustainable use of construction materials, vibration control of structures using super-elastic shape memory alloys materials
DoCE	Dr. Vishisht Bhaiya	1. Seismic Vulnerability Analysis of Building Stocks of Surat City 2. Development of Mitigation Strategies for Seismic Hazard
DoCE	Prof. Dilip A Patel	1. Construction Demolition Waste and Safety Management 2. Heritage Conservation- Diaspora projects 3. Construction Technology and Management
DoCE	Dr. S M Yadav	1.Design of 24*7 water supply 2.Flood modelling 3.Water conservation 4.Soft computing application in Civil Engineering
DoCE	Dr. Satyajit Patel	1. DEVELOPMENT OF COARSE AGGREGATE FROM FLY ASH USING CARBONATION PROCESS 2. STABILIZATION OF FLY ASH FOR USE IN ROAD PAVEMENTS
DoChE	Dr. Parag Thakur	1. Calculate the Exergy Efficiency of Solar Panels using Nanofluids 2. Develop efficient mathematical models using reported thermo-physical values of Nanofluids
DoChE	Dr. Meghal A Desai	1. Extraction of phytochemical and kinetics 2. Drug delivery and modeling
DoChE	Dr.PA PARIKH	1. RESOURCE RECOVERY FROM PETRO- AND BIO-POLYMERS 2. INDUSTRIALLY IMPORTANT SEPARATIONS OF HYDROCARBONS
DoChE	Dr. Alka A. Mungray	1) Wastewater treatment/Desalination by Forward osmosis 2) Fertilizer loaded hydrogel for smart agriculture 3) Urine treatment for recourse recovery and portable water
DoChE	Dr. Jignasa V. Gohel	(1) Nanomaterials and Applications (2) Energy conversion and storage (3) Nanocomposites (4) Novel materials and it's applications
DoChE	Dr. Arvind Kumar	Human waste management for space applications,

	Mungray	Hydrothermal processes for biomass conversion to products, Microbial fuel cells for waste treatment and resources, Urine treatment for resources.
DoChE	Dr. Sundar S.K	Nanomaterial (Biopolymer) based drug delivery systems, and Water treatment
DoCSE	Dr. Bhavesh N Gohil	1. Depression detection using AI 2. Voice identification using AI
DoCSE	Dr. Chandra Prakash	Deep learning techniques for foot pressure profile.  Vision based realisation for Robotics hand
DoECE	Dr. Anand Darji	AI Hardware Acceleration, AI based bio signal Processing, Bio MEMS Design for Heavy Metal Ion Detection from water, Drone Flight Controller Design, Electronics Speed Controller design for Drone.
DoECE	Dr. Shilpi Gupta	1) Cell Free Massive MIMO system for 5G & Beyond Networks 2) Design and Development of Antenna for 5G Applications
DoECE	Dr. Vivek Garg	1. Development of Photoelectrodes for Photoelectrochemical Cells, 2. Fabrication of absorber material for Photovoltaic Applications, 3. Design and fabrication of Supercapacitors
DoECE	Dr. Shweta Shah	1. Simulation software development for satellite Navigation system 2. Implementation of Spoofing detection algorithm
DoECE	Dr. Nithin Chatterji	Optimization of Perovskite solar cells Indoor Photovoltaics
DoECE	Dr. Sandeep Mishra	1. Low Power Memory Design 2. Design of High Resolution Analog to Digital Converter
DoECE	Dr. Kamal Captain	Machine Learning for Next Generation Wireless Communication, Machine Learning based Disease Diagnosis
DoEE	Dr. Mahmadasraf A Mulla	Battery Charging and Intelligent Battery Management Systems  Digital Controller for Power Electronics System Implementation
DoEE	Dr. Suresh Lakhimsetty	Design of gate driver circuits, speed control of AC motor drives using FPGA / Micro-controllers, Design of Analog to Digital Converters
DoEE	Dr. Rajasekharareddy Chilipi	Power Electronics, Microgrid, Power Quality
DoM	Dr. Ranjan Kumar Jana	1. Integral Transform 2. Optimization
DoM	Dr. Sudeep Singh Sanga	Application of machine learning in queueing models

DoM	Dr Raj Kamal Maurya	1. Statistical Inference under Censored Data 2. Optimality under Censored Data
DoM	Prof. V.H.Pradhan	(i) Finite Difference Methods for flow problems (ii) Introduction to Finite element Methods
DoM	Dr. Shivam Bajpeyi	1) Approximation properties of Sampling Operators based on Neural Network (Requires basics of Real and Functional Analysis) 2) Sampling-Reconstruction Problem in Function spaces (Requires basics of Real and Functional Analysis)
DoME	Dr. Manish K Rathod	1. Experimental investigation of battery thermal management system using phase change material  2. Synthesis and encapsulation of phase change material (PCM) for building cooling application  3. Numerical and experimental investigation of tube finned heat exchanger with and without vortex generator
DoME	Dr. Biranchi Narayan Sahoo	Manufacturing Engineering, Additive Manufacturing
DoME	Dr. Purnanand V Bhale	The problem will be in the area of 1. Solar Energy 2. Biomass Bioenergy 3. Renewable and Sustainable Energy 4. Energy Efficiency 5. Energy System Engineering
DoME	Prof. Harshit K. Dave	(i) Ceramic/Clay 3D Printing (ii) Nano Composite 3D Printing (iii) Low cost hybrid filament for 3D printing of aerospace material (iv) Inhouse 3D printing of ceramic metal composite
DoME	Prof. Jyotirmay Banerjee	1. Computational Fluid Dynamics (CFD) simulation of transport phenomena in a Heat Pipe. 2. Development of a Convolution Neural Network (CNN) model for Transition of two-phase flow patterns.
DoME	Dr. Prabhansu	1) Waste to Energy, 2) Clean coal, 3) Wind turbine, 4) Lithium ion batteries
DoME	Dr. Rajesh Choudhary	1. Effect of boiling-condensation cycle of di-electric liquid in cooling of Li-ion batteries of electric vehicle 2. Effect of the nanoparticles in dielectric liquids on the cooling of Li-ion batteries of electric vehicle
DoME	Dr. Sandeep Soni	1. Fatigue Crack Simulation in Composite Materials; 2. Finite Element Analysis in Machine Component Design.
DoME	Dr. Shailendra Kumar	1) Influence of process parameters on mechanical properties of parts fabricated using SLA technique of additive manufacturing.

		2) Comparative study of surface roughness and strength of parts of different resins fabricated using SLA technique of additive manufacturing. 3) Influence of process parameters on mechanical strength of composite parts fabricated by FFF technique of additive manufacturing. 4) Influence of geometric parameters on mechanical strength of auxetic structures of composite material fabricated by FFF technique of additive manufacturing. 5) Comparative study of mechanical properties of auxetic structures made of composite materials and ABS material fabricated by FFF technique of additive manufacturing.
DoME	Dr. Shaileshkumar N. Pandya	(i) Automotive Mechanics (ii) Manufacturing Processes - Metal Welding and Testing.
DoME	Dr. Rohit Tamrakar	Design of cylindrical power harvesting system, Design of seesaw power harvesting system (Requirement- Good CAD software, 3-D modelling and simulation skills)
DoME	Prof. Hemantkumar B Mehta	1. CFD analysis of steel-making furnace 2. CFD analysis of lithium-ion battery module for electric vehicles
DoME	Dr. Amrut Mulay	1. Experimental and Simulation Studies on Multi-Stage Incremental Sheet Forming Processes 2. Micro-incremental sheet forming and damage prediction 3. Production of Tailor welded blanks for EV applications with dieless forming technology
DoME	Dr. Kamlesh Sorate	AI for anaerobic digestion process
DoME	Dr. Rohan Pande	Thermochemical Conversion Techniques (Pyrolysis and Gasification) Biological Conversion Techniques (Anaerobic Digestion)
DoP	Dr. Lalit Kumar Saini	Condensed Matter Physics
DoP	Dr. Dipika Patel	Nuclear Physics, Breakup and transfer reaction, Nuclear deformation
DoP	Dr. Dimple Shah	1) Optoelectronic properties of hybrid metal oxide chalcogenides. 2) Study of dye degradation using metal oxides nanoparticles

**Dr. Rajasekharareddy Chilipi**, Faculty Associated with Academic Section & Assistant Professor, Department of Electrical Engg., the Faculty in Charge, SVNIT Summer Internship Programme 2024. Email: rsreddy@eed.svnit.ac.in

**SVNIT SUMMER INTERNSHIP PROGRAMME 2024**

To,  
The Faculty in Charge,  
Summer Internship Programme 2024,  
SVNIT, Surat, Gujarat.  
PIN-395007.

Date: \_\_\_\_\_

**Recommendation Letter**

I recommend \_\_\_\_\_  
of \_\_\_\_\_ Department  
for summer internship with fellowship at SVNIT, Surat to be held during  
**13.05.2024 to 12.07.2024**. He/she will join the programme if selected.

It is also certified that his / her CGPA upto semester \_\_\_\_ is \_\_\_\_ and he / she is in the  
top 20% of his / her class.

\_\_\_\_\_

(Signature of the Head of the Department)

Name of the Head of the Department: \_\_\_\_\_

(Signature of Dean (Academic) / Head of the Institute / Principal)

Name: \_\_\_\_\_

Name of the Institution: \_\_\_\_\_

Office Seal:

By signing this form you also certify that there is no academic activity during this period in your college/institute that may clash with this internship dates.

**Note: Take a printout of this form, fill up properly, get signed and stamped by the HOD, scan it and upload it.**



**SVNIT SUMMER INTERNSHIP PROGRAMME 2024**

Project Write Up

**Title:**

**Description:**

Name of the Applicant: