

VISVESVARAYA NATIONAL INSTITUTE OF TECHNOLOGY, NAGPUR

Summer Internship Program (SIP) at VNIT, Nagpur

Brief:

A student enrolled in a reputed institution is encouraged to apply for summer internship program (SIP) at VNIT, Nagpur. The students would be given an opportunity to work on research/consultancy oriented project component under the able guidance concern supervisor.

Rules & Regulations for undertaking internship at VNIT for summer 2021

- Students who have completed 3rd year BE/BTech, 3rd or 4th Year B. Arch/BS-MS (Integrated MSc Courses) or 1st year MSc course at any recognized university or institutes are eligible to enroll as interns. Student having first class or CGPA higher than 6.75 in the latest grade card will be considered for SIP.
- *The total time duration for SIP 2021 is 24th May- 16th July 2021.*
- The duly filled application form needs to be submitted along with the fees of Rs. 5000/- + GST (18%). The payment can be made by demand draft in favor of Director, VNIT. The submission process needs to be completed on or before May 20th, 2021 (Thursday) 5 PM. The whole process will be monitored by office of Dean (Acad).
- Internship taken against R & D project will get re-imburement of fees from the project fund after successful completion of internship.
- It is expected that at the end of internship, candidate will come out with tangible result such as conference/journal paper, development of lab experiment, filing of patent, etc. The intern will be required to give a seminar in the respective department at the end and submit a report to department head.
- A certificate of internship will be given to all interns after successful completion. A certificate will be signed by respective faculty in charge, HOD&Dean(Acd).
- This scheme will be available to outside VNIT students as well as VNIT students.
- During the internship period, the candidate will have to abide by all prevailing rules and disciplinary guidelines of the institute.



Summer Internship Program (SIP) - 2021 (Online Mode) at VNIT, Nagpur

Excellent Opportunity for Students to Work for Internship at VNIT Nagpur,
for Skill Development.

ARCHITECTURE AND PLANNING



BASIC SCIENCE

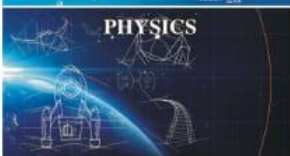
CHEMISTRY



MATHEMATICS



PHYSICS



HUMANITIES & SOCIAL SCIENCES



BRIEF

Scholars at undergraduate, PG or doctoral level enrolled in reputed institutions are encouraged to apply for summer internship program (SIP) at VNIT as per the prescribed guidelines. The students would be given an opportunity to work on research/consultancy oriented project components under the able guidance of the concerned supervisors.

Total time duration for SIP 2021 is from 24th May- 16th July 2021.

Hard copy of the completed (SIP) application form should reach the Dean Academic, VNIT, Nagpur on or before 07th May 2021. The applications will be evaluated and selected scholars shall be intimated by the respective departments. The selected scholars need to complete the desired joining formalities by depositing fees (Rs. 5,000 + Rs. 900 (GST) = Rs. 5,900/- by Demand Draft favoring Director, VNIT) in consultation with respective supervisor on or before 20th May 2021. The internships are to be conducted through online mode only. Physically working in campus is not possible due to prevailing conditions.

- 1) List of Summer Internship Projects is available on the website along with the respective supervisor.
- 2) Interested scholar should contact the supervisor based on the topic/title of the project offered.
- 3) Scholar should seek consent from the respective supervisors.
- 4) Scholar should submit dully filled application form.
- 5) Separate application should be submitted for every topic selected.

General Instructions for Students :

1. The period of work should not be less than 6 weeks including Sundays and Holidays under any circumstances. If the final duration turns out to be less than 6 weeks, the internship will not be deemed to have been satisfactorily completed to entitle to the certificate.
2. All correspondence and enquiries should be addressed to the Dean Academic, Visvesvaraya National Institute of Technology, South Ambazari Road, Nagpur 440010.
3. Summer interns must strictly follow the rules and regulations (oral and written) stipulated by VNIT. If any mal practice on the part of the summer intern is reported, the VNIT will be constrained to terminate their fellowship.
4. Based on specific supervisor's satisfactory recommendation the scholar will be entitled for the award of certificate.
5. For any accident occurring during the summer intern program, VNIT or Faculty or staff members involved in the programme will not be responsible.
6. Student has to sign indemnity bond prior to start of SIP.

SIP Certification :

After completion of the program, hard copy of the detail project report and no dues form duly signed by the guide, should be send to dean academic office. The SIP certificate shall be released for the successful scholars by post.

For more details, please follow the link : http://vnit.ac.in/wp-content/uploads/2021/01/Summer_Internship_Program-for_website.pdf

ENGINEERING

APPLIED MECHANICS



CHEMICAL ENGINEERING



CIVIL ENGINEERING



COMPUTER SCIENCE ENGINEERING



ELECTRICAL ENGINEERING



ELECTRONICS & COMMUNICATION ENGINEERING



MECHANICAL ENGINEERING



MATERIALS & METALLURGICAL ENGINEERING



MINING ENGINEERING



| S.N | Name of Faculty | Email id | Department | Broad Area of Internship (Only online mode) | Pre-requisite if any | Students core discipline choice if any | Remark if any |
|-----|--------------------|------------------------------|-------------------------|--|---|---|------------------------------|
| 1 | Dr. Ratnesh Kumar | ratneshkumars@apm.vnit.ac.in | Applied Mechanics | Design and development of low-cost post-disaster emergency shelters using bamboo | Knowledge of basics of structural design and IS codes | B. Tech. in Civil/Structural engineering or M. Tech. in Structural Engineering/Structural Dynamics/ Disaster Management | 2 UG/1 PG |
| 2 | Dr. A Y Vyavahare | ayv@apm.vnit.ac.in | Applied Mechanics | Analysis and Design of PEB structures | Knowledge of design of steel structure, finite element analysis | B. Tech. in Civil/Structural engineering or M. Tech. in Structural Engineering/Structural Dynamics | 2UG / 1PG |
| 3 | Dr. Sameer Deshkar | smdeshkar@arc.vnit.ac.in | Architecture & Planning | Climate Change Adaptation, Resilient Cities, Environmental Planning | Completed Urban Planning/ design course at UG Level, PG students to be well versed with GIS | B. Arch./ B. Plan./ B.Tech. (Plan), Masters in Urban Planning/ Regional Planning/ Environmental Planning | 3 UG / 2 PG / 1 Ph.D Scholar |
| 4 | Dr. Kailas Wasewar | klwasewar@che.vnit.ac.in | Chemical Engineering | Mathematical Investigation on Recovery / Separation of Valuable Biochemicals as Biorefinary Approach | Knowledge of mathematical modeling | BTech/BE 2nd year completed and above including MTech/MSc in Chemical Engg./Technology / Biotechnology/ Biochemical/ Chemistry / Environmental / Bioprocess | 3 UG / 2 PG |

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|---|---------------------|-----------------------------|----------------------|--|---|--|---|
| 5 | Sachin Mandavga ne | sam@che.vnit.ac.in | Chemical Engineering | Design of biorefinery process | Unit operations and unit processes | B.Tech/ M Tech Chemical/Bio Tech/ Environment | 2 UG/PG (Students should have studied courses like Mass Transfer, Mechanical Operations) |
| 6 | Dr. A. S. Chaurasia | aschaurasia@che.vnit.ac.in | Chemical Engineering | Computational Studies of Biomass Gasification Processes for Valuable Products. | Basic Knowledge on design, modelling and simulation | BTech/BE 2nd year completed and above including MTech/MSc in Chemical Engg./Technology / Biotechnology/ Biochemical/ Chemistry / Environmental / Bioprocess/Energy/Environment | 2 UG/2PG |
| 7 | Dr. Chayan Das | chayandas@chm.vnit.ac.in | Chemistry | Synthesis and characterisation of nanocomposites | Basic knowledge of Chemistry | M.Sc in chemistry/ Material Science | 2 students (PG Final year /PG passed out) |
| 8 | Dr. Anupama Kumar | anupamakumar@chm.vnit.ac.in | Chemistry | Selective extraction of phytochemicals from Biomass waste | | M.Sc in chemistry/ biochemistry /biotechnology/ microbiology/ environmental. | 2 PG students |

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|----|-------------------------|-------------------------------|----------------------------------|---|---|--|-----------------------------------|
| 9 | Dr. Anupama Kumar | anupamakumar@chm.vnit.ac.in | Chemistry | Theoretical studies of Phytochemicals | | M.Sc in chemistry/ biochemistry /biotechnology/ microbiology/ environmental. | 1 PG student |
| 10 | Dr. Srinivasan V | srinivasanv@civ.vnit.ac.in | Civil Engineering | Evaluation of foundation systems | Strong basics in Engineering mechanics, Mechanics of Solids, Numerical methods, Engineering Mathematics | B Tech in Civil Engineering, 2nd year and above, M Tech in Geotechnical Engineering/Allied disciplines | 2 UG, 2 PG |
| 11 | Dr. Ashwini Mirajkar | abmirajkar@civ.vnit.ac.in | Civil Engineering | Water Resources Engineering/ Reservoir operation/ irrigation planning | Irrigation Engineering /Hydrology | - | 2 UG, 2 PG |
| 12 | Dr. Rahul V Ralegaonkar | rvralegaonkar@civ.vnit.ac.in | Civil Engineering | Evaluating building performance by simulation | Knowledge of soft computing | B.tech in Civil engineering & allied braches of specialisations | Pre-final yr/ final yr students |
| 13 | Dr. V A Dakwale | vaidehidakwale@civ.vnit.ac.in | Civil Engineering | Performance evaluation of sustainable Building Materials | basic knowledge of building simulation tool | B Tech civil Engineering / M Tech in allied branches of Civil Engineering | 2 UG pre final/final year or 1 PG |
| 14 | Dr. Mansi A. Radke | mansi.radke@cse.vnit.ac.in | Computer Science and Engineering | Multimodal Information Retrieval | Basic programming and fundamentals of Computer science | Computer Science and Engineering pursuing B.Tech or M.Tech/ Information Technology | 2 UG / 1 PG student |

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|----|--------------------------|--|----------------------------------|---|---|---|------------------------|
| 15 | Dr.Parag Deshpande | psdeshpande@cse.vnit.ac.in | Computer Science and Engineering | Data analytics,GIS database,Machine learning | Python, Web development,DBMS | Computer Science and Engineering pursuing /completedB.Tech or M.Tech/ Information Technology | 1UG/1PG |
| 16 | Dr. Praveen Kumar | praveenkumar@cse.vnit.ac.in | Computer Science and Engineering | computer vision and deep learning | Basic fundamentals of image processing, computer vision, machine learning | Computer Science and Engineering pursuing (3rd year or later)/completedB.Tech or M.Tech/ Information Technology | 2UG/1PG |
| 17 | Dr. Makarand M. Lokhande | mml@eee.vnit.ac.in | Electrical Engineering | Electrical modeling battery for solar PV and EV application | Good in Matlab/scilab programming, power electronics | Electrical Engineering | 2 PG / 1 Ph.D. scholar |
| 18 | Dr. Jay Prakash Singh | jayprakashsingh@eee.vnit.ac.in | Electrical Engineering | Effective control for a telerehabilitation system, Applications of nonlinear dynamics, chaos theory | Knowledge of control systems, nonlinear dynamics | B.Tech/M.Tech in Electrical Engg., Electronics Engg. MSc. in Phy./Maths | 2 UG/1 PG |
| 19 | Dr. Pradyumn Chaturvedi | pradyumn.c@eee.vnit.ac.in | Electrical Engineering | Impact of EV Charging Infrastructure on Grid Power Quality (study, simulation, analysis), Design and modelling of Smart | Knowledge of MATLAB Simulink/Programming, Control System Design, Modelling of Power Electronic Converters | Electrical Engineering | 2UG/2PG/1PhD |

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|----|----------------------|-----------------------------|---|---|--|---|---|
| | | | | Transformer (study, simulation, analysis) | | | |
| 20 | Dr. P. S. Kulkarni | pskulkarni@eee.vnit.ac.in | Electrical Engineering | Feasibility of various Energy Sources for powering telecom towers | Sound Knowledge of Matlab/ Simulink programming, Energy Sources, power electronics | Electrical Engineering | 2 PG / 1 Ph.D. scholar |
| 21 | Dr. Ankit A. Bhurane | ankitbhurane@ece.vnit.ac.in | Electronics and Communication Engg | Biomedical Signal Processing | Student should have worked on Machine/Deep learning projects with hands-on experience in Matlab/Python | Any engineering student satisfying the pre-requisite is eligible. | Predicted outcome: Publications in reputed journals/conf. |
| 22 | Dr. Vishal Satpute | vrsatpute@ece.vnit.ac.in | Electronics and Communication Engineering | Computer vision for object detection | Knowledge of Digital Signal Processing | B.Tech/M.Tech in Electronics Engg., Electronics and Communication Engineering and allied branches | 2UG/1PG/3UG |
| 23 | Naga Raju Gande | gnagaraju@mth.vnit.ac.in | Mathematics | Numerical methods for conservation laws | Python 3.x, Partial differential equations | Mathematics: M. Sc. final year; Integrated M. Sc. third year and above; First year Ph.D. | 2 students, fellowship may be provided. |
| 24 | Dr. Vishnu Pratap | vpsingh@mth.vnit.ac.in | Mathematics | Optimization, Fuzzy Set | - | Mathematics: MSc, Integrated MSc | 1UG/1PG |

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|----|------------------------|---------------------------------|------------------------|--|---|--|------------------------------|
| | Singh | | | Theory | | | |
| 25 | Dr. Ravikumar Dumpala | ravikumardumpala@mec.vnit.ac.in | Mechanical Engineering | Surface Engineering - Tribology and Bio-medical Related Applications | UG 2nd year and above | Mechanical, Materials Science | 3 UG |
| 26 | Dr. Ravi K. Peetala | rkpeetala@mec.vnit.ac.in | Mechanical Engineering | Compressible flows and Convective Heat Transfer | - | Mechanical | 2UG/ 2PG |
| 27 | Dr. T V K Gupta | tvkgupta@mec.vnit.ac.in | Mechanical Engineering | Manufacturing | atleast UG 3rd Year and interest to work in Manufacturing, COMSOL sotware, etc | Mechanical, Aerospace | 2 UG |
| 28 | Dr. Sukanta Roga | rogasukanta@mec.vnit.ac.in | Mechanical Engineering | Renewable Energy (Wind & Solar), and Scramjet Engines | UG 6th semester onwards and knoledge of CFD is preferable | Mecahnical, energy, aerospace and chemical engineering | 3 UG / 2 PG / 1 Ph.D Scholar |
| 29 | Dr. Nitin Kumar Lautre | bidunitin@gmail.com | Mechanical Engineering | Advance processes, welding, Joining, Production and Industrial engineering | - | Mechanical | 1 UG/ 1 PG /1 PhD |
| 30 | Dr. Gaurav Tiwari | gauraviitdelhi@gmail.com | Mechanical Engineering | Finite element analysis, crashworthiness , ballistics | strength of material, basic idea about modeling and finite element analysis softwares | Mecahnical, civil, applied mechanics, production, manufacturing, aerospace engineering | 1 UG/ 1 PG |

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|----|-----------------------------|--------------------------------|---|--|---|--|--|
| 31 | Dr. Avishkar Bhauroo Rathod | avishkarrathod@mme.vnit.ac.in | Metallurgical and Materials Engineering | Wear - Surface Engineering, Physical Metallurgy, Special Steel Making | Basic Knowledge of Metallurgical and Materials Engineering | BTech/BE 2nd year completed and above including MTech in Process Metallurgy/Materials Engineering/Mechanical Engineering | 3 UG / 2 PG / 1 Ph.D Scholar |
| 32 | Dr. Y.Y. Mahajan | yymahajan@mme.vnit.ac.in | Metallurgical and Materials Engineering | Material characterisation by Non destructive Testing (UT/Phase array) | Basic knowledge of Ultrasonic testing | B.Tech. Final year in Metallurgical and Materials Engineering / MTech in Process Metallurgy/Materials Engineering | 1UG/1PG |
| 33 | Dr. Y.Y. Mahajan | yymahajan@mme.vnit.ac.in | Metallurgical and Materials Engineering | Developments in the aluminum metal matrix composites | Basic knowledge of Composite Materials | B.Tech. Final year in Metallurgical and Materials Engineering / MTech in Process Metallurgy/Materials Engineering | 1UG/1PG |
| 34 | Dr. Nikhil Ninad Sirdesai | nikhilsirdesai@mng.vnit.ac.in | Mining Engineering | Physico-mechanical response of rocks under varied thermal environments | UG/PG/PhD candidates with sufficient knowledge of rock mechanics, thermo-dynamics and statistical methods | Mining: B.Tech (3rd Year and Above), M.Tech (1st Year), PhD; Civil: B.Tech (Geotech) (3rd Year and Above), M.Tech (Geotech), PhD | 2 students (UG/PG/PhD), fellowship may be provided |
| 35 | Dr. Nikhil Deep Gupta | nikhildeepgupta@cvn.vnit.ac.in | VLSI and Nanotechnology | Optoelectronics Devices, Photonic Switches | Knowledge of Electromagnetic Fields and Theory and Electronic Devices | B.Tech./M.Tech. in Electronics/Optics related domains or M.Sc. (Physics/Electronics/Optics) | 2 students at max. |

APPLICATION FORM FOR SUMMER INTERNSHIP AT VNIT

Applicant Type – Student

Area of Interest (Dept)–

If Student – UG (B.E.,B.Tech) /PG (M.Sc.)

Broad area of Research Interest:

➤ PERSONAL DETAILS–

▪ **NAME** – _____

FIRST NAME

LAST NAME

▪ **GENDER** –**M/F**

▪ **Date of Birth (DD-MM-YYYY)** –

▪ **EMAIL** – _____

▪ **CONTACT NO.** – +91

▪ **ADDRESS FOR CORRESPONDENCE** –

• **CITY** – _____

• **STATE** – _____

• **PINCODE** –

▪ **PERMANENT ADDRESS** –

• **CITY** – _____

•

• **STATE** – _____

• **PINCODE** -

➤ **ACADEMIC DETAILS –**

| | INSTITUTION | YEAR OF COMPLETION | CGPA / % |
|-----------------|--------------------|---------------------------|-----------------|
| CLASS X / SSC | | | |
| CLASS XII / HSC | | | |
| UG – SEM I | | | |
| SEM II | | | |
| SEM III | | | |
| SEM IV | | | |
| SEM V | | | |
| SEM VI | | | |
| SEM VII | | | |
| SEM VIII | | | |
| PG- SEM I | | | |
| SEM II | | | |
| SEM III | | | |
| SEM IV | | | |
| ANY OTHER | | | |

➤ **OTHER DETAILS –**

▪ **CURRENTLY STUDYING IN –**

- COURSE - _____
- SEMESTER –
- INSTITUTION & PLACE - _____

▪ DETAILS OF PREVIOUS INTERNSHIPS –

| SUBJECT | GUIDE | INSTITUTION | DURATION | YEAR |
|---------|-------|-------------|----------|------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

▪ DETAILS OF PROJECTS / TRAINING, IF ANY -

▪ ANY OTHER ACADEMIC/CO-CURRICULAR ACHIEVEMENT –

▪ ANY OTHER INFORMATION/EXTRA CURRICULAR ACTIVITIES -

➤ NAME OF THE GUIDES WITH WHOM YOU WOULD LIKE TO WORK (along with the consent letter of the respective guide(s) –

1. _____
2. _____
3. _____

DECLARATION

I affirm that the information given above is correct. I have carefully read all the “**Instructions to Applicants**” given under the **VNIT Summer Research Internship Programme** as mentioned on website of VNIT and shall abide by the same.

Name – _____

Signature – _____

Place - _____ Date - _____

Payment Details –

1. Name of the Bank:
2. Bank Address:
3. DD Number:
4. Amount (Rs.)-

CHECKLIST (Please tick the Box)

- | | |
|--------------------------------------|--------------------------|
| 5. Duly completed Application Form – | <input type="checkbox"/> |
| 6. Letter of Recommendation(s) – | <input type="checkbox"/> |
| 7. Consent letter of the guide | <input type="checkbox"/> |

Note – 1. LoR from the professor from the institution where candidate is currently studying is must. Extra Sheets can be attached for further information

Two Referee Name with complete address, email address and contact details