



# Information Brochure



# **VIPS-TC**

# SCHOOL OF ENGINEERING & TECHNOLOGY

# VISI∰N

To empower and build a sustainable future for the engineering sector by providing high-quality education to young minds and inculcate innovative practices that support the planet and its people.

# MISSI®N

To groom future engineers with the help of value-based education; and awaken their intellectual curiosity by nurturing creativity and instilling world-changing capabilities.



## **ETHOS**

We at VIPS-TC, School of Engineering & Technology help students unleash their potential and refine the engineer within by laying the solid foundation of four cornerstones of our Ethos: Curiosity, Creativity, Capability, and Contribution. These Ethos will be students' northern star in personal, academic, and professional endeavors. At the end of their undergraduate voyage, students will unlock their full potential as an individual, as an engineer and as a technocrat.



### **Curiosity**

It is the very step of innovation - the brickwork of every greatest invention. It sparks excitement and in return, fills our students with ideas. At VIPS-TC, School of Engineering & Technology, we ignite students' curiosity and help them to find the very answers. We help students to develop a problemsolving mind set and encourage them to ask questions.



## Creativity

The essence of everything is thinking out of the box. Every problem is unique and so is the solution - all it takes is to have a different and innovative point of view. At VIPS-TC, School of Engineering & Technology, we help our students develop the mind set to see things with a creative perspective. We support students' ideas and aid them to think differently through our dedicated team of mentors, centres and cells.



# • Capability

Being a capable individual is the most important trait to contribute not only to one's own life but also to the society. At VIPS-TC, School of Engineering & Technology we help our students to become proficient and skilled enough to realize their vision and ideas. Without a strong capacity, curiosity and creativity are just the figments of one's imagination. We provide our students with adequate knowledge, holistic skills and confidence to manifest the workable solutions in real-time. At VIPS-TC, School of Engineering & Technology, we empower our students with this capacity with pre-eminent guidance.



CURIOSITY
CREATIVITY
CAPABILITY
CONTRIBUTION

### Contribution

A revolution starts with an individual and spreads like a forest fire. This individual process of change and contribution is the very key to sparking a change on a global scale. For example, it is said, "A great human revolution in just a single individual will help achieve a change in the destiny of a nation and, further, will enable a change in the destiny of all humankind." We at VIPS-TC, School of Engineering & Technology work along with our students to encourage their ideas, solve their queries and guide their passion so as to make them capable individuals ready to contribute to the world by making innovative and relevant technologies that will change the future of the society for good.

# INTRODUCTION

# A BUDDING GROUND FOR THE NEXT GENERATION OF ENGINEERS

Backed by the two-decade-long and profound legacy of Vivekananda Institute of Professional Studies-Technical Campus, VIPC-TC, School of Engineering & Technology, has a state-of-the-art campus dedicated to impart knowledge and experience that are essential for leading the future of engineering. It aims to create a generation of engineers who are equipped with the right mindset and skillset to shape and build a stronger society. VIPS-TC, School of Engineering & Technology, is now en-route to prepare young minds to lead and innovate Industry 4.0.

The school focuses on promoting a student-centered approach with a blended learning curriculum. The curriculum is curated to develop a deep understanding of how things function and find practical solutions by applying the learned theories and scientific processes with hands-on exposure.

At VIPS-TC, School of Engineering & Technology, we strive to provide opportunities for students to hone their social skills and soft skills along with their technical expertise. The B.Tech programme takes a holistic approach to educate students by developing their overall personalities and nurturing them in the field of technology by enabling their creativity and innovation, which eases their transition to the next phase of their professional lives.



# **PROGRAMMES**

# B.Tech

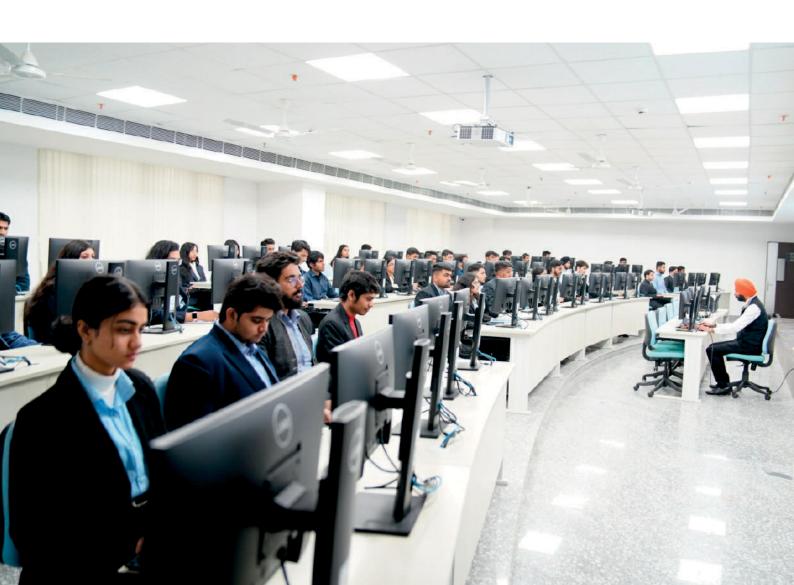
# 4 Years

**B.Tech- Computer Science & Engineering (CSE)** 

B.Tech- Artificial Intelligence & Data Science (AI & DS)

B.Tech- Artificial Intelligence & Machine Learning (AI & ML)

**B.Tech- Industrial Internet of Things (IIoT)** 



# **DISTINGUISHING FEATURES**

### New-age Engineering

VIPS-TC, School of Engineering & Technology, rigorously promotes research and innovation. This is accomplished by providing an environment where ideas, artistic works, literary works, discoveries, outcomes of research, and developmental work can prosper, leading to the development of intellectual property. Young learners are bestowed with opportunities to file patents and encourage life-projects.

### State-of-the-Art Infrastructure and Technology

- CISCO networking and a Wi-Fi enabled campus
- Computer Centre and Computer Labs is equipped with Dell Systems having 11th-gen and 12th-gen Intel Core i7 processors, 16 GB RAM, with 1TB SSD HD configuration
- Well-structured laboratories to address quality technical learning

## Faculty from Renowned Institutions

- Highly qualified faculties with industrial experience from IITs, NITs and other reputed universities.
- All the faculty members are PhDs.

## Dynamic Learners

• We wholeheartedly enable our students to develop their full potential in every field of interest. For this, we have numerous centres that nurture excellence, like the Centre for Sustainable & Smart Future, Centre for Performing Arts & Creativity, etc.

### **Pe**dagogy

• To ensure relevant learning, our programs are created, refined, and assessed after working with renowned business professionals and academic experts. Our students participate in certifications, and research internships. As a result, they develop the skills required to achieve highly-competitive job placements.



# A SOLID INFRASTRUCTURE FOR THEIR ROBUST FUTURE



### **Computer Centre**

Wi-Fi and Networking
The campus is Wi-Fi enabled with
high speed internet and CISCO
Networking Architecture 6.

### **Library with Digital Facilities**

The school provides a well-stocked library and offers a premium collection of books and learning resources. The campus also has a library with digital facilities and ample IEEE resources.



# **LABORATORIES**

The School has well-equipped Computing Lab, Artificial Intelligence Lab, Data Science Lab, Digital Logic Design Lab, Internet of Things Lab, Electrical Science Lab, Engineering Graphics Lab, Workshop Practice Lab, Applied Physics Lab, Applied Chemistry Lab, Environmental Studies Lab, Language Lab and Project Lab.













# **CAMPUS FACILITIES**

The campus also has smart classrooms, reading room, seminar hall, auditorium, common rooms, basketball court, indoor games, library with digital facilities, centralised air-conditioning and a medical room.



Classroom







**Auditorium** 

**Sports Room** 





**Boys Common Room** 

**Girls Common Room** 

# **OUR TORCHBEARERS**



Prof. (Dr.) Deepali Virmani Head of Department of B.Tech Programmes Machine Learning, Data Analysis, Knowledge Engineering, Information Retrieval, Sensor Networks



Prof. (Dr.) Nidhi Sharma Professor and Controller of Examination Environmental Organic Chemistry, Environmental Modelling, Environmental Electrochemistry



**Dr. Pramod Bhatia Professor**Computational Fluid
Dynamics, Combustion



Dr. Suman Bhatia
Associate Professor
Computational Neuroscience,
Operating Systems,
Artificial Intelligence,
Software Project Management,
Object Oriented Software
Development



**Dr. Vanita Bhardwaj Assistant Professor** Photonics, Fibre Optics, Optical fiber sensors



**Dr. Navneet Kumar Assistant Professor**Condensed Matter Physics,
OLED & Display Devices



**Dr. Ashish Kumar Assistant Professor** Information Security, Computer Vision, AI, IoT



**Dr. Lakshika Chutani Assistant Professor** Complex Analysis, Dirichlet series



Dr. Deepak Tiwari
Assistant Professor
Low-grade solar heat source
Power generation and
Cooling system and
Computational Intelligence



**Dr. Sonal Khurana Assistant Professor**Sustainable Oriented Innovation,
Sustainable Supply Chain,
Industry 4.0



Dr. Sonakshi Vij Assistant Professor Artificial Intelligence, Natural Language Processing, Machine Learning, Data Science



Dr. Srishti
Assistant Professor
Renewable Energy, Soft
Computing Techniques,
Hybrid Energy System,
Energy Management System,
Image Processing.



Dr. Nikita Sharma
Assistant Professor
Literature, Communication Skills,
Language and Literary Theory,
Soft Skills and Personality
Development, Universal Human
Values.



**Dr. Deepika Kumari Assistant Professor** Differential Geometry, Real Analysis, Algebra and Information Geometry



Dr. Garima Chanana Assistant Professor Molecular Modelling, Density Functional Theory, Optical Properties of Molecules, Quantum Chemistry



**Dr. Mudita Nagpal Assistant Professor**Physical Chemistry,
Material Science,
Wastewater treatment,
Environmental Science



**Dr. Vishal Srivastava Assistant Professor**Metaheuristics algorithms,
Soft Computing Techniques,
Nonlinear Control, Lyapunov
Stability, Electrical drives and
Control



**Dr. Nivedita Palia Assistant Professor**Speech Processing,
Biometrics,
Speaker Recognition



Dr. Praveen Chaurasia Assistant Professor Wireless Application, Fibre Optics, Microwave, IoT, Engineered Materials



**Dr. Deepika Bhatia Assistant Professor**Data security,
Data Warehousing and Mining



Ms. Bharti Seth Assistant Professor Data Envelopment Analysis, Decision Making, Optimization



**Dr. Archa Gulati Assistant Professor**Physical Chemistry,
Material Science,
Environmental Science



Dr. Gopal Assistant Professor Artificial Intelligence, Soft Computing, Biometrics, Machine Learning, Fusion Strategies



Dr. Divya Agarwal
Assistant Professor
Robotics, Automation,
Internet of Things, Mechatronics,
Path Planning and Obstacle
Avoidance Algorithms,
Optimization Algorithms,
Facility Layout Planning



Dr. Shivanka
Assistant Professor
Optimization technique used
in Wireless sensor network,
IoT. Al and DS

# **PROJECTS**

Students are encouraged to hone their skills by applying concept to practical applications under the guidance of our highly qualified faculties.















# THE BRIDGE TO

## **FUTURE POSSIBILITIES**



Prof. S. Sadagopan Chairman, BoG IIITDM Kancheepuram Founding Director, IIIT Bengaluru



Mr. Uday Raghunath Birje Co-Founder & Director, Think Street Technologies



Mr. Madhav Bissa Programme Director, Data Science and AI, NASSCOM



**Dr. Ajay Kumar**Defence Secretary
Government of
India



Mr. Ashish Khare Founder & CEO, MentorKart



Mr. Pushpendra Kumar Gupta Global CTO & APJ Presales Lead, Global Alliances Presales, Dell Technologies



Mr. Kamal Kant Vice President Global Head of Business at Amdocs



Mr. Sudhir Bahl Founder & CEO, Life Force Health Systems Pvt. Ltd.



Mr. Vikas Kumar Managing Director, DMRC LTD.

### **INDUSTRY-ACADEMIA CONNECT**





Students Interaction with Prof. S. Sadagopan, Founding Director IIIT, Bengaluru and Mr. Uday Raghunath Birje, Co-Founder & Director, Think Street Technologies.





Group Mentoring Workshop by Mr. Ashish Khare, Founder & CEO, Mentorkart.



Address by Dr. Ajay Kumar, Defence Secretary, Government of India



A talk by Mr. Pushpendra Kumar Gupta, Global CTO & APJ Presales Lead, Global Alliances Presales, Dell Technologies.



Leadership Session by Mr. Madhav Bissa, Programme Director, Data Science & Al, NASSCOM.



Students demonstrating at project presentation



Technical Session by Mr. Vikas Kumar, Managing Director, DMRC Ltd.

# MEMORANDUM OF UNDERSTANDING

#### Between VIPS-TC and IIT's

MoUs with leading universities, IITs and partnerships with eminent industries to enhance academic and working knowledge of the field.



# Indian Institute of Technology, Jammu (IITJ)

MoU has been signed between Vivekananda Institute of Professional Studies - Technical Campus and Indian Institute of Technology, Jammu for academic excellence and research collaborations on 7th July, 2023.



IIT, Jammu Campus



# Indian Institute of Technology Gandhi Nagar (IITGN)

MoU has been signed between Vivekananda Institute of Professional Studies - Technical Campus and Indian Institute of Technology, Gandhi Nagar for academic excellence and research collaborations on 25th May, 2023.



Director, IITGN with B.Tech Students at VIPS-TC



## Indian Institute of Technology, Guwahati (IITG)

MoU has been signed between Vivekananda Institute of Professional Studies - Technical Campus and Indian Institute of Technology, Guwahati for academic excellence and research collaborations on 10th April, 2023.



Prof. Sukumar Nandi, IIT Guwahati with B.Tech Students at VIPS-TC



# IITK Foundation for Advanced Continuing Education & Training (IFACET)

MoU has been signed for academic excellence and research collaborations during 16th - 31st December, 2022.



B.Tech Students at IIT, Kanpur Campus

## **ADDRESSING**

## INDUSTRY NEEDS WITH THE BEST-IN-CLASS RESOURCES

At VIPS-TC, School of Engineering & Technology, we address the need for talented professionals through a highly comprehensive and long-term approach to education in a professional environment. Our graduates bring forth a perfect amalgamation of critical thinking, hard work and strong fundamentals.

# COLLABORATING FOR A ROBUST AND REWARDING ALLIANCE

















































































# PAINTING THE WORLD WITH THEIR ACTIVITIES & ACCOMPLISHMENTS

#### CONGRATULATIONS

YASH LAKHWANI & SANSKAR RANA won the first & second position respectively in Full Stack Development Event held at IIT Kanpur.

GAURAV SARDAR won first position in Competitive Coding Engoty held at IIT Kanpur.

Out of 25 teams in Ciena Space Program, 3 teams have been selected for exclusive prototype funding support.

#### KHUSHI KALRA

She received the Best Paper Award at the 1st International Conference on Sustainable Materials, Manufacturing and Energy Technologies, held in Raj Kumar Goel Institute of Technology, Ghaziabad.

#### **PRAKHAR JAIN**

Successfully completed and achieved position among top 5% students in the "Data Analytics with Python" NPTEL course with a consolidated score of 88%.

#### **ACHAL SINGHAL**

Successfully completed the following NPTEL course certification

Programming, Data Structure and Algorithm using Python

#### KRITIK SHARMA

Successfully completed the following NPTEL course certifications

Programming, Data Structure and Algorithm using Python | Machine Learning

# Our 1<sup>ST</sup> Year University Toppers (2021-2022)

B.Tech (AI & DS)







Vridhi Mittal P



Pushpinder Singh Nishant

B.Tech (AI & ML)



Ashutosh Khanna



Samridhi Bisht



Garvit Ahuja

B.Tech (IIoT)



Prisha Gupta



Kanak Ahuja



Vaibhav Sharma

# STUDENT ACTIVITIES

Time and again, the students of VIPS-TC, School of Engineering & Technology, have been recognised for their efforts in presenting their research papers at International and National Conferences.

Students are seeking certification for professional development from EdX, Coursera, NASSCOM, MOOCs, NPTEL, and Swayam freshman orientation programme, outreach, and immersion programmes.

Few students have been selected by NASSCOM for the internship programme.

"Cyber Security Essentials" hands-on workshop in association with CISCO was organised to gain and enhance knowledge on cyber security.

Students of VIPS-TC, School of Engineering & Technology, accompanied by 2 faculty members went to IIT Kanpur to attend the winter training session on Full Stack Web Development & Competitive Coding.

An inter-college event, IDEATHON 2K22 was organized to enable students to hone their entrepreneurial skills.

'Seeds of Hope & Action', a unique Sustainability Exhibition was organised for the students to learn, reflect, empower and lead by the Centre for

STUDENT LIFE @CAMPUS exciting, buzzing and invigorating

































# **VIVEKANANDA INSTITUTE OF PROFESSIONAL STUDIES TECHNICAL CAMPUS**

## **Grade "A++" Accredited Institution by NAAC**

(Affiliated to Guru Gobind Singh Indraprastha University, recognised by Bar Council of India & approved by AICTE) NBA Accredited for MCA programme, Recognised under Section 2(f) by UGC ISO 9001:2015 Certified Institution

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