

upes.ac.in



**SCHOOL OF ADVANCED  
ENGINEERING**  
Engineering Solutions for Tomorrow

**SCHOOL OF COMPUTER  
SCIENCE**  
Building a Smarter World





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# ENGINEERING SOLUTIONS FOR TOMORROW

As we approach the era of Industrial Revolution 4.0, engineering and technology are poised to revolutionise our way of life. With countless opportunities and potential challenges, innovative engineering requires a clear roadmap that incorporates the Internet of Things for industrial applications, Augmented Reality for enhanced manual processes, and Smart Factories for efficient production.

Additive Manufacturing, which enables the creation of 3-D objects from materials like plastic, metal, and concrete, along with Generative Designs that utilise Artificial Intelligence and Cloud Computing, will unlock new problem-solving approaches. Engineers must position themselves as the architects of a smart and interconnected world.

The UPES School of Advanced Engineering (SoAE) is dedicated to nurturing future engineers with a strong foundation in theoretical knowledge and the ability to apply it to address local and global challenges. Through advanced curriculum, academic collaborations, and industry partnerships, SoAE equips students with trade-specific knowledge and concepts that are relevant to the future of engineering.

SoAE promotes a learning environment that adapts to the evolving needs of the world, combining technology and human expertise to elevate engineering to new heights each day.

**Dr. Ram Sharma**

Dean, School of Advanced Engineering



Meet the Expert

# BUILDING A SMARTER WORLD

Smart technology holds immeasurable benefits for the world we live in. Today, computational power has pervaded almost all aspects of human existence. A wide range of sectors, including power, healthcare, infrastructure, consumer electronics, mobile communication, smart home devices, and automobiles, among others, are using intelligent systems and technologically-advanced machines. Artificial Intelligence, Machine Learning and Big Data are increasingly being used to provide cognitive awareness to objects that were hitherto considered inanimate.

Currently, there is a huge industry demand for people who understand intelligent systems technology and know how to apply it to real-world problems. UPES School of Computer Science (SoCS) prepares students to understand and integrate knowledge from various subject areas, including programming, data structures, algorithms, pattern recognition, blockchain technology, machine learning 2.0, and artificial intelligence 2.0, and apply them to address some of the most critical societal challenges of the 21<sup>st</sup> century. SoCS has a progressive curriculum that emphasises diversity, interdisciplinary teamwork, entrepreneurial thinking, and inventiveness.

Through long-standing partnerships with some of the leading technology companies, SoCS graduates from UPES are equipped to pursue advanced positions in global organisations that thrive on constant innovation and shape the future of the world.

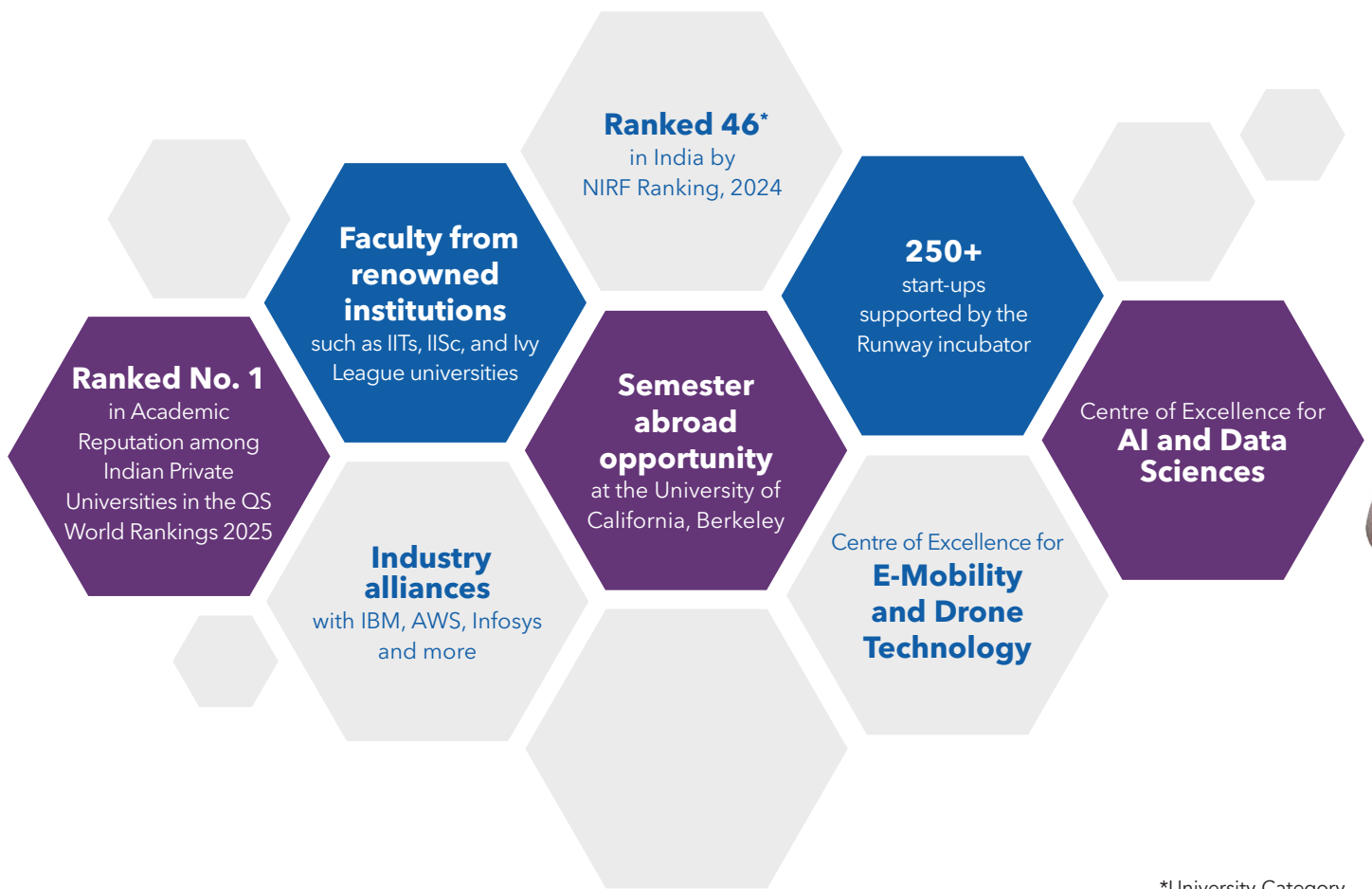
**Dr. Vijaysekhar Chellaboina**  
Dean, School of Computer Science



Meet the Expert



# UPES ADVANTAGE



\*University Category

## UNIVERSITY OF TOMORROW

UPES - the University of Tomorrow - stands as a beacon of transformative education, cultivating a dynamic learning environment that transcends conventional boundaries. At UPES, the commitment to academic excellence is seamlessly woven with a robust emphasis on digital preparedness that propels students into the future with cutting-edge skills.

Runway, the business incubator at UPES, has encouraged student-led start-ups, fostering a culture of entrepreneurship and innovation on campus.

The university's global exposure initiatives ensure that students are not just educated but are globally aware and prepared to navigate diverse landscapes. UPES has forged partnerships with prestigious institutions worldwide, including the University of California in Berkeley, The University of Edinburgh, UNSW Sydney, The University of Queensland in Australia, King's College London, University of Gothenburg, University of Bologna, and University of Aberdeen, among others.

Through the Global Immersion Program, students at UPES avail experiential learning opportunities that not only prepare them for the global economy, but also inspire personal growth.

UPES envisions, designs, and delivers education that is not just relevant for today, but also anticipates the challenges and opportunities of the future, moulding students into leaders who will make a positive impact on the world.



# PROGRAMS OFFERED

## School of Advanced Engineering

B.Tech	
CORE	SPECIALISATIONS*
B.Tech (Electronics and Computer Engineering)	Microelectronics
	5G and 6G Technology
	AI and ML Applications
B.Tech (Applied Petroleum Engineering)	Energy Systems and Storage
	Gas Engineering Informatics
	Intelligent Petroleum Systems
B.Tech (Aerospace Engineering)	Space Technology
	Avionics
	Defence Technology
B.Tech (Chemical Engineering)	Energy Systems and Storage
	Refining and Petrochemicals
	Digitalization of Process Technology
B.Tech (Electrical Engineering)	E-Vehicle and Industrial Drives
	AI and ML Applications
	Smart Grid Technologies.
B.Tech (Fire and Safety Engineering)	No Specialization
B.Tech (Mechanical Engineering)	Advanced Manufacturing
	Defence Technology
	Automotive
	Mechatronics
B.Tech (Sustainability Engineering)	No Specialization
B.Tech (VLSI Design and Technology)	No Specialization
B.Tech (Civil Engineering)	Transportation Engineering
	Environmental Engineering
	Construction Management

\*The program offerings are subject to the approval of the UPES Academic Council, and the university reserves the right to add, drop, and modify programs at its discretion at any point of time without prior notice.

## Global Pathway Program - 2 Years in the UPES Campus + 2 Years at a Partner University

CORE	SPECIALISATIONS*
B.Tech (Chemical Engineering)	Specialisation as per Partner University: - University of Edinburgh   University of Queensland
B.Tech (Electrical Engineering)	Specialisation as per Partner University: - University of Edinburgh   University of Queensland
B.Tech (Mechanical Engineering)	Specialisation as per Partner University: - University of Queensland - University of Aberdeen
B.Tech (Applied Petroleum Engineering)	Specialisation as per Partner University: - University of Aberdeen
B.Tech (Civil Engineering)	Specialisation as per Partner University: - University of Aberdeen

## B.Sc

CORE	SPECIALISATIONS*
B.Sc. (Hons.) Chemistry	Polymer Chemistry
	Industrial Chemistry
B.Sc. (Hons.) Physics	Astronomy and Astrophysics
	Computational Physics
	Material Science and Nanotechnology
B.Sc. (Hons.) Geology	Geoinformatics
B.Sc. (Hons.) Mathematics   Mathematics by Research	Pure Mathematics
	Applied Mathematics

## M.Tech

CORE	
M. Tech (Computational Fluid Dynamics)	M.Tech (Renewable Energy)
M.Tech (Chemical Engineering)	M.Tech (Sustainability Engineering)
M.Tech (Health, Safety, and Environment)	M.Tech (Construction Technology and Management)
M.Tech (Petroleum Engineering)	M.Tech (E-Mobility)
M.Tech (Robotics Engineering)	

## M.Sc

CORE	SPECIALISATIONS*
M Sc (Hons.) (Applied Geology)	No Specialisation
M.Sc (Chemistry)	Organic Chemistry
	Instrumental Chemical Analysis
	Polymer Science
M.Sc (Physics)	Material Science and Nanotechnology
	Astronomy and Astrophysics
M.Sc (Mathematics)	Applied Mathematics
	Pure Mathematics

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## School of Computer Science

### Undergraduate Programs

CORE	SPECIALISATIONS*
<b>B.Tech (Computer Science and Engineering)</b>	Core Computer Science
	Artificial Intelligence and Machine Learning
	Big Data
	Cloud Computing and Virtualization Technology
	Cyber Security and Digital Forensics
	Data Science
	DevOps
	Graphics and Gaming
	Internet of Things
	Full Stack Development
<b>B.Tech (Mathematics and Computing)</b>	No Specialization
<b>B.Sc (Computer Science)</b>	Artificial Intelligence and Machine Learning
	Cyber Security and Digital Forensics
	Data Science
<b>BCA</b>	Data Science
	Artificial Intelligence and Machine Learning
	Cyber Security and Digital Forensics

### Global Pathway Program - 2 Years in UPES Campus + 2 Years at a Partner Campus

CORE	SPECIALISATIONS*
<b>B.Tech (Computer Science &amp; Engineering)</b>	Specialisation as per Partner University:- University of Queensland   University of Auckland

\*The program offerings are subject to the approval of the UPES Academic Council, and the university reserves the right to add, drop, and modify programs at its discretion at any point of time without prior notice.

## Postgraduate Programs

CORE	SPECIALISATIONS*
M.Tech (Computer Science and Engineering)	Artificial Intelligence and Machine Learning
	Cyber Security and Digital Forensics
	Data Science
MCA	Artificial Intelligence and Machine Learning
	Cyber Security and Digital Forensics
	Data Science

## B.Tech. Eligibility Criteria

For B.Tech Mathematics and Computing, a minimum of 70% in Class X and XII and 70% in PCM (Physics/ Chemistry and Mathematics) is required. For All other UG Program- Minimum 50% marks in Classes X and XII with 50% in PCM (Physics/ Chemistry and Mathematics) in Class XII along with minimum 50% marks in graduation for M.Sc/MCA Programs / 60% marks for M.Tech Programs in relevant subjects.

## Selection Criteria

UPSEAT / JEE / Board Merit / SAT/ CUET (for B.Tech) / Personal Interviews (for other programs)

# SCHOLARSHIPS\*

### Merit Scholarships

Up to 30% based on 12<sup>th</sup> Board Marks/ JEE Score/ CUET Score

Special Scholarship for B.Tech (Mathematics and Computing)  
- First 30 Admissions\*

### 25% Fee Concession

to Bonafide Residents of Uttarakhand

### Sports Scholarships

for talented sportspersons

for underprivileged students

\*T&C Apply

\*The program offerings are subject to the approval of the UPES Academic Council, and the university reserves the right to add, drop, and modify programs at its discretion at any point of time without prior notice.

# GLOBAL OPPORTUNITIES

## School of Advance Engineering

Semester Abroad

Berkeley Global

Global Pathway Program



THE UNIVERSITY OF QUEENSLAND AUSTRALIA



1495 UNIVERSITY OF ABERDEEN



THE UNIVERSITY of EDINBURGH

Student Exchange and Research



POLYTECH  
Peter the Great  
St. Petersburg Polytechnic  
University



TAYLOR'S UNIVERSITY  
Wisdom • Integrity • Excellence



SURANAREE UNIVERSITY OF TECHNOLOGY



UTP  
UNIVERSITI TEKNOLOGI PETRONAS

and more...

Masters Progression



THE UNIVERSITY OF QUEENSLAND AUSTRALIA



Nottingham Trent University



THE UNIVERSITY of EDINBURGH

and more...



# School of Computer Science

Semester Abroad

Berkeley Global

Student Exchange  
and Research



**POLYTECH**  
Peter the Great  
St. Petersburg Polytechnic  
University



**HSE**  
University



**TAYLOR'S  
UNIVERSITY**  
Wisdom • Integrity • Excellence

and more...

Global Pathway  
Program



**THE UNIVERSITY OF  
AUCKLAND**  
Te Whare Wānanga o Tāmaki Makaurau  
NEW ZEALAND



**THE UNIVERSITY  
OF QUEENSLAND**  
AUSTRALIA

Masters  
Progression



**Nottingham Trent  
University**



**THE UNIVERSITY  
OF QUEENSLAND**  
AUSTRALIA



**LUDDY**  
SCHOOL OF INFORMATICS,  
COMPUTING, AND ENGINEERING

and more...



# STUDENT OUTCOMES

**50 LPA\***  
HIGHEST PACKAGE

**100%#**  
PLACEMENT

**18.06 LPA\***  
TOP 10% AVG. CTC

TOTAL OFFERS  
**2760+**

**310**  
TOTAL NO. OF  
RECRUITERS

## RECRUITERS

**Schlumberger**

 **BOEING**

 **Microsoft**

**AIRBUS**

  
**CAIRN**  
WE FUEL AMAZING

McKinsey  
& Company

  
**Reliance**  
Industries Limited

 **MARUTI SUZUKI**

  
**ROYAL ENFIELD**

  
**asianpaints**

  
**L&T Technology Services**

**IndiGo**

**SIEMENS**

 **vedanta**  
transforming for good

 **Hero**

#Placement statistics (2022) refer to the no. of students who have opted for and are eligible for placements.  
\* T&C apply

# STORIES OF EXCELLENCE



**Garvit Khurana**  
**B.Tech - CSE AIML, 2023**

## **Patent for Face Mask Detection System**

Garvit Khurana was granted a patent for the Face Mask Detection System, published by Intellectual Property India.



**Sarthak Arora**  
**B.Tech - Cloud Computing, 2026**

## **NASA's Bug Crowd Hall of Fame**

Sarthak earned a spot in NASA's Bug Crowd Hall of Fame for identifying a critical vulnerability, contributing to the security of NASA's digital infrastructure by reporting vital system weaknesses.



**Jaskirat Singh**  
**B.Tech - CSE AIML, 2024**

## **Youngest Google Open-Source Mentor**

Jaskirat Singh, apart from becoming the youngest mentor at Google Open-Source programs, has also worked as a research assistant in Robotics at IIIT-Hyderabad.





**Ashmeet Bhogal**  
**BSc Hons in Chemistry, 2025**

**Device for detecting harmful chemicals in beverages**

Ashmeet's Adulteration Detection Kit is a portable, reusable device that instantly identifies harmful adulterants in beverages. Cost-effective and user-friendly, it enhances food safety, public health, and industry compliance.



**Gaurav Dwivedi**  
**B.Tech - Energy, 2023**

**Founder of Forbes Top 100 startups 2023**

Gaurav Dwivedi is the founder of UGreen Technology, a Forbes India Top 100 Startup (2023), pioneering carbon capture for hard-to-abate sectors. UGreen enables industries to achieve sustainability goals and profitably transition to net-zero emissions.



**Krishna Singh**  
**School of Advanced Engineering 2026**

**3D printing startup**

Krishna's 3D printing startup, specialising in water-soluble support and AI-based print failure detection, is redefining innovation. He received grant from Startup India Seed Fund (SISFS) and the Department of Science and Technology (DST-ITBI Runway).

# STUDENT PROJECTS



## **The Virtual Tour of Raj Bhawan, Uttarakhand**

The Virtual Tour of Raj Bhawan, Uttarakhand, developed by UPES School of Computer Science students, provides an immersive and interactive experience of the historic landmark. This remarkable project was inaugurated by the President of India, showcasing the students' expertise in virtual reality and innovative technology solutions.

## **Quad Bike - All-Terrain Vehicle**

Students developed this light utility vehicle with a 250 cc engine and a 12-inch ground clearance. It travels on low-pressure tyres and has handlebars for steering control.



## **Veer-Gatha Museum: Indian Army Museum in the Metaverse**

Developed as a memorial to the Indian Army, the app honours the Indian Army's bravery, commitment, and patriotism through artillery exhibitions, war memorials, galleries, weapons, and a shooting game. The app pays homage to all military heroes who participated in the 1965, 1971, and 1999 wars.



### **Affordable Prosthetic Limb: Redefining Accessibility**

With millions in need and high costs limiting access, this UPES-developed prosthetic limb offers a lightweight (under 500g), cost-effective solution without compromising functionality. Featuring thumb-powered adduction, advanced brushless motors, and a powerful grip force, it ensures precision and ease of use. Designed for durability and efficiency, this innovation makes quality prosthetics more accessible, empowering lives worldwide.

### **Autonomous Electric Tractor**

The Autonomous Electric Tractor redefines agricultural machinery by replacing fossil fuels with clean electric energy, cutting greenhouse gas emissions and reducing reliance on limited resources. This innovation marks a sustainable leap forward in modern farming practices.



### **Revolutionizing Mobility: Gesture-Controlled Ergonomic Wheelchair**

This cutting-edge wheelchair empowers individuals with mobility challenges by allowing effortless movement through simple hand gestures—no joystick needed! Powered by an advanced STM32 microcontroller, MEMS IMU sensors, and Bluetooth connectivity, it ensures precision, balance, and ease of use. Designed for independence and inclusivity, this innovation redefines assistive technology, offering greater freedom and improved quality of life.

# INDUSTRY IN THE CLASSROOM

## Industry Alliances

The educational framework seamlessly integrates practical knowledge, bridging the gap between academia and real-world practices and providing students with insights and skills relevant to their future careers.

virtusa



CompTIA



Xebia



JSW



incedo

and more...

## Experts on the Advisory Board

- Dr. NK Goel, Professor, Department of Hydrology, Professor of Water Resources, Indian Institute of Technology, Roorkee
- Dr. D. Kanjilal, Prof. Material Science Engineering, Raja Ramanna Fellow, Inter University Accelerator Centre, New Delhi
- Dr. R. K. Malhotra Former Director (R&D), Director General, Petrofed, New Delhi
- Prof. A.K. Nangia, Senior Professor, University of Hyderabad, Former Director, National Chemical Laboratory, Pune
- Prof. Gautam R. Desiraju, Honorary Professor, Indian Institute of Sciences, Bangalore-560012
- Prof. Vikram Chandra Thakur, Former Research Director, Wadia Institute of Himalayan Geology, Dehradun
- Prof. Ravi Vatrupu, Director (DEAL) & Loretta Rogers Chair, Ted Rogers School of Management, Toronto Metropolitan University, Canada.
- Mr. Pavan Chavali, CEO & Co-Founder, ROQIT
- Ms. Bharti Goyal Maan, Vice President & India Client Leader, Capgemini
- Dr. Shailesh Kumar, Chief Data Scientist, COE AI/ML. JIO
- Manik Garg (Alumni), Senior Security GRC Engineer, Atlassian

## Masterclasses

UPES hosts industry interactions where experts talk about the latest developments in their respective field. Students get an up-close and in-depth exposure of the industry, enabling the development of skillsets required for a successful career.

These classes are moderated by stalwarts like:

- Dr. Deepak Vohra, Ambassador, Made in India
- Dr. K Sivan, Chairman, Indian Space Research Organisation (ISRO), Govt. of India
- Mr. Anand Kumar, Mathematician-Academician Super 30, and more... AI Applications by Mithun Kumar, Senior Software Engineer, Google.
- Inspire and Innovate: AI Workshop in collaboration with IIT Ropar
- Enhancing Diagnostic Accuracy in Medical Imaging Through AI-Powered Image Analysis" by London South Bank University
- The Future of AI: Opportunities & Upskilling for the Next Generation by Amit Mehta, Head Business Development- Education & Training, AWS
- Ever-evolving tech landscape at Code Hustle by Mr. Shikhar Goel, Chief Technology Officer at GeeksforGeeks

# RESEARCH MILESTONES

UPES has made significant strides in research, contributing to solving critical local and global problems, and has become a hub for innovation and scholarly pursuits.

## Research Initiatives

- Internal SEED funding for testing research ideas, developing state-of-the-art in-house synthesis and characterisation facility and high computation facilities.
- Capacity-building initiative Anusandhan keeps faculty and students updated with the latest developments around the globe
- IPR Cell focuses on technology transfer opportunities through patents and copyrights

## Research Milestones\* (as of May 28, 2024)\*

- One of the fastest growing universities in India in terms of research output
- Current publications output is 4 papers per faculty per year
- Average citations of recently published papers similar to top institutions such as MIT, NUS, Oxford and Cambridge University and better than top research institutions such as IISc Bangalore, IITs, etc.
- Nearly 54% of publications at UPES in 2024 had international co-authors
- Scholarly output has grown by more than 370% since 2018
- The Field-Weighted Citation Impact was 1.76 in 2023, and in 2024 it was 1.59
- 30% of publications in the top 10% journals by CiteScore percentiles
- 46 UPES faculty members have featured among the world's top 2% researchers in their respective fields, according to a research study published by a Stanford University-based research group

## Academic Team

- UPES academic community has leading scholars and researchers such as a Nobel Prize Nominee, Rhodes, Fulbright, Chevening, Commonwealth, Erasmus, Eiffel and DAAD scholars, trained at some of the best institutions in the world such as Harvard, Columbia, Cornell, University of California Berkeley, Oxford, Cambridge, National University of Singapore, Indian Institute of Science, IITs (Indian Institute of Technology) and so on.
- The university has onboarded esteemed faculty members such as Shanti Swarup Bhatnagar Awardee Prof. Karmeshu, who specialises in mathematical modelling and Computer Simulation and Prof. Madan Gopal, who specialises in AI/ML
- Several international faculty co-teach modules at different schools, providing students with a global perspective on their subjects

## Industry Collaborations and Global Partnerships

- UPES researchers have joined forces with Russian bioenergy experts to revolutionise biodiesel production using AI and ML algorithms
- Collaborations with CERN and KEK in Switzerland and Japan, respectively, for Future Circular Collider (FCC) and Belle II projects
- UPES and Bajaj Auto Limited have partnered to host the Bajaj Engineering Skills Training (BEST) and set up labs in Robotics, Mechatronics, IoT, and Smart Manufacturing



# 46

UPES FACULTY MEMBERS ARE ON THE STANFORD LIST OF THE TOP 2% RESEARCHERS IN THE WORLD, AND 5 OF THESE RESEARCHERS HAVE FOUND A PLACE ON ONE OF THE MOST COVETED 'HIGHLY CITED RESEARCHERS' LIST PUBLISHED BY CLARIVATE.

# ACADEMIC EXCELLENCE

## WORLD-CLASS FACULTY



and more...

## FACULTY WITH EXCEPTIONAL CREDENTIALS



and more...



**Dr. Siddharth Jain**

Associate Professor

A renowned sustainable energy researcher, Dr. Jain focuses on extracting energy from non-edible resources like algae and agricultural waste. With 80+ publications, 3 books, 6770+ citations (H-index: 44), and global recognition, his work spans bioenergy, wastewater treatment, and fuel cells. Ranked among the top 2% scientists globally (2020-2024), he recently secured SERB funding for groundbreaking algae-based biodiesel and wastewater treatment research.

**Dr. Akarsh Verma**

Assistant Professor - Senior Scale

Dr. Verma excels in atomistic modelling of nanomaterials using MD and DFT. With 86+ publications, 8 books, 5750+ citations (H-index: 46), and prestigious fellowships like JSPS and Fulbright, he is a globally ranked top 2% scientist (2020-2024). An editor and reviewer for leading journals, he has received multiple high-citation awards.



**Dr. Durga Madhab Mahapatra**

Assistant Professor (Selection Grade)

Affiliated with Oregon State University, he is actively working on two projects addressing the Food, Water, and Energy Nexus challenges, with an emphasis on sustainability. His impressive accomplishments include five R&D projects, 80+ publications across domains, eight edited books, 2570+ citations, an H-index of 23, an i10-index of 37, and a cumulative impact factor of over 250.



**Dr. Tridib Kumar Sinha**

Associate Professor

Dr. Sinha specializes in green energy and polymer-based materials. A PhD from IIT Kharagpur and co-founder of UGreen Technology, he developed a low-cost CO<sub>2</sub> capture tech recognized by MoE, Tata Sons, and Forbes. His work bridges academic innovation and practical solutions for global challenges.





### **Dr. Bhawna Yadav Lamba**

Professor

Dr. Lamba specialises in waste management, alternate fuels, and converting waste into plasto oil, enhancing biofuel stability, and treating wastewater with microalgae. With six funded projects, collaborations with companies like Maruti and Nissan, and two patents, she has published extensively. Honored with the S.R. Bhatnagar Memorial Research Award 2023-24 and the Young Scientist Award 2023, she continues to advance sustainable energy and waste solutions.

### **Dr. Vipin Gaur**

Associate Professor

Dr. Gaur has been contributing to global science projects like “Belle” and “Belle II” at KEK, Japan, and the FCC at CERN, with “Belle” linked to the 2008 Nobel Prize. India’s representative in the Belle II CSG, he collaborates with leading institutions and has over 23,000 citations (H-index 70). A former research scientist at Virginia Tech and KEK, he mentors students for top global universities.



### **Dr. Sunita Varjani**

Sr. Associate Professor

Dr. Varjani is a global leader in industrial biotechnology and waste management. With 475+ publications, an H-index of 78, and recognition as a Clarivate Highly Cited Researcher, she has made significant strides in sustainable science and serves on editorial boards of top journals.

### **Dr. Abhinav Sharma**

Associate Professor

A Stanford-recognised top 2% scientist, Dr. Sharma leads research in AI-driven vertical hydroponics and biomedical signal processing for prosthetic control. With numerous publications in top journals and books with leading publishers, his work spans smart antennas, adaptive signal processing, and sustainable technologies.





**Dr. Madan Gopal**

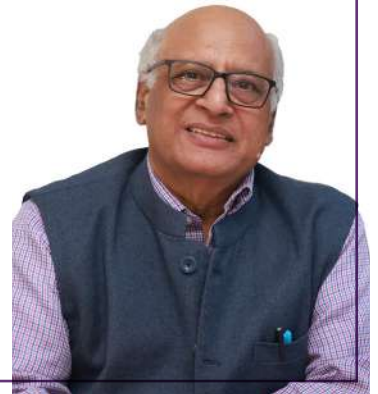
Professor

A distinguished Professor at the School of Computer Science and former IIT Delhi professor, he is globally recognised for Control Systems, Machine Learning, and Deep Learning. His books are used worldwide, and his NPTEL course benefited over a million students. As Founding Director of Shiv Nadar University's Engineering School, his expertise has enriched institutions like IIT Delhi, IIT Bombay, BITS Pilani, and international universities.

**Dr. Karmeshu**

Professor

He is an acclaimed academician, a Shanti Swarup Bhatnagar Award winner, and has served as a visiting scientist and editorial board member for various journals. He has served in distinguished professor roles in Computer Science at Shiv Nadar University and Jawaharlal Nehru University, among others.



**Dr. Vinod Patidar**

Professor

His specialisations include Nonlinear Dynamics, Chaos Theory, Modelling, Simulation, and various cryptography methods. With 95 publications, 4350+ citations, an H-index of 21, and an i10-index of 36, he has received a Most Cited Paper Award and had four papers rank among ScienceDirect's top 25 downloads.

**Dr. Deepika Koundal**

Associate Professor

Dr. Koundal, with over 14 years in academia, Currently a Senior Researcher at the University of Eastern Finland, as well as an Adjunct Professor at Ho Chi Minh City Open University, Vietnam. Recognised globally, she has received the MSCA Seal of Excellence from the European Commission, Best Paper Award from JCVIR-Elsevier, and was named among the world's top 2% scientists by Stanford University in 2023 and 2024.





### Dr. Adarsh

Professor

With over 19 years of experience in research and academia, Dr. Adarsh has previously served as a postdoctoral researcher at Athlone Institute of Technology, Ireland, and Mohammed VI Polytechnic University, Morocco, contributing to EU-funded projects on cybersecurity with partners from eight European countries. He has over 150 publications and is co-PI in an OCP-sponsored research project.

### Dr. Akashdeep Bharadwaj

Professor

He spearheads cybersecurity collaborations at UPES, serves on mentor teams and Boards of Studies for Sri Sri University and Sanjivani Education Society. He is also an advisory board member for EC-Council USA's CHFI and a Subject Matter Expert for CompTIA's Security+.



### Dr. Neelu Jyothi Ahuja

Professor

Professor Neelu Ahuja has delivered R&D projects worth INR 1.5+ crores since 2013, focusing on AI applications in education. She developed tutoring tools for individuals with learning disabilities and is currently working on an AI-based smart snake trapper. Her research emphasizes technological benefits at the grassroots level of society.

### Dr. Alok Aggarwal

Professor

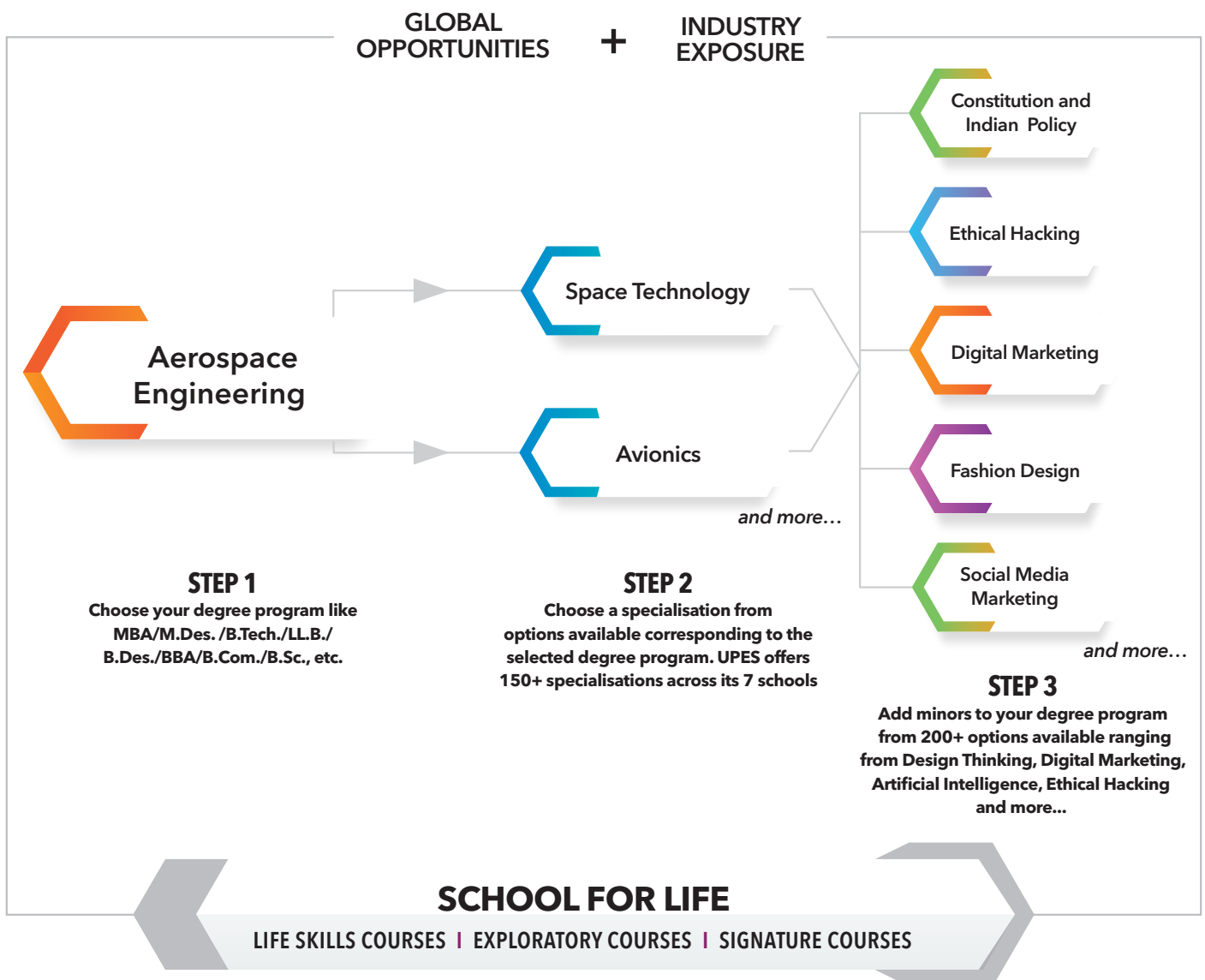
With over 26 years in teaching and software development, he holds a PhD in Mobile Computing from IIT Roorkee, his research focuses on AI, Machine Learning, DevOps, and wireless networks. Previously, he served as Professor & Director at JP Group and Associate Dean at Chandigarh University. Recognized among the top 2% of global researchers by Stanford University in 2023.

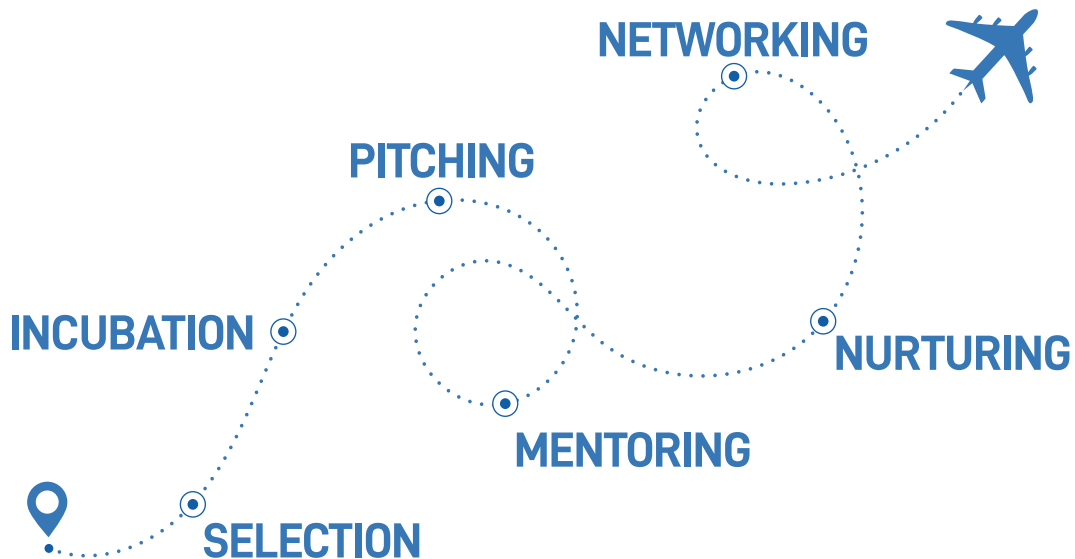


# DESIGN YOUR OWN DEGREE

The UPES curriculum framework is holistic in its overall structure, yet focuses on the individual needs of students to discover, experience, explore, and challenge. Along with the core subject, students can choose from subject focused specialisations. They are also allowed to choose minor/exploratory subjects from other schools at UPES, which include: School of Advanced Engineering, School of Computer Science, School of Law, School of Business, School of Health Sciences and Technology, School of Design, and School of Liberal Studies and Media.

The curriculum also offers Signature and Life-Skills courses through the School for Life. To round off this learning experience, students are required to undertake mandatory internships in the social sector, government/public sector, and industry. The combinations available for students to pick and choose from are endless, ensuring both depth and breadth of knowledge.





We help start-ups convert their ideas into real and viable businesses. Our goal is to assist brilliant innovators in navigating the early stages of setting up a start-up and reaching the point where they have developed a product/service impressive enough to raise money. This will be achieved through a mix of mentorship, grants and investments, legal and incorporation support, and allocation of workspaces.

**75+**  
**START-UPS**

RECEIVED GRANTS  
FROM THE UNIVERSITY

**250+**  
**START-UPS**

PRE-INCUBATED

## Runway Incubator Gains Ground

### Prestigious Grants



₹3.46 Crore fund  
raised by start-ups



₹5 Crore DST  
to set up iTBI



ATAL INNOVATION MISSION

₹5 Crore to set up  
Atal Community Innovation  
Centre (ACIC)  
(Approved by NITI Aayog)



₹4.02 Crore  
BIRAC Sparsh



₹4.9 Crore MEITY  
Genesis Scheme Grant Funding



₹2 Crore State Business  
Incubator-Grant Support

# LAB FACILITIES

- ◆ Alternate Energy Lab
- ◆ High Performance Computational Lab
- ◆ Rig Zone
- ◆ Aerodynamics Lab
- ◆ Bosch Lab
- ◆ HSE lab
- ◆ Robotics Lab
- ◆ Graphics And Gaming Lab
- ◆ Machine Intelligence Research Centre (MIRC)
- ◆ Centre for Stochastic Modelling and Simulation
- ◆ Centre for Data Science and Artificial Intelligence

and more ...





# ABOUT UPES

Established through the UPES Act, 2003, of the State Legislature of Uttarakhand, UPES is a top-ranked, UGC-recognised, private university. As per the National Institutional Ranking Framework (NIRF) 2024, the Ministry of Education, Government of India, UPES has been ranked 46 among universities, with a rank of 28 in Law, 41 in Management, and a rank of 42 in Engineering. According to the Times Higher Education (THE) World University Rankings 2025, UPES now stands in the 501-600 band globally and 7th in India with a leap of over 300 ranks from 2024. In addition to this, the university has been ranked the No. 1 private university in academic reputation in India by the QS World University Rankings 2025. It is among the top 2% of universities in the world.

UPES has also been accredited by NAAC with a grade 'A' and has received 5 stars on Employability (placements) by globally acclaimed QS Rating. The university has had 100% placements over the last five years. Forty-six (46) faculty members of UPES are among the world's top 2% researchers as per Stanford University list.

UPES offers graduate and postgraduate programs through its seven schools: School of Advanced Engineering, School of Computer Science, School of Design, School of Law, School of Business, School of Health Sciences & Technology, and School of Liberal Studies and Media, with 16,000+ students and 1,500+ faculty and staff members.



**\*NO.1 PRIVATE UNIVERSITY  
IN ACADEMIC REPUTATION**



\*QS World University Rankings 2025

**#RANKED 46<sup>TH</sup>  
IN INDIA**



**Ranking 2024**  
#University Category



**World  
University  
Rankings 2025**

**7<sup>TH</sup> RANK IN  
INDIA**





# HOLISTIC DEVELOPMENT

What is the purpose of education? Is it merely to make students employable, remove ignorance and impart knowledge? Or is it to create a better world? The seismic shifts taking place globally necessitate action to ensure a secure and equitable future for all. Learners today are, therefore, required to be creative, collaborative and communicative. They must develop skills to solve complex problems that plague humanity, work towards equity, uplift the underserved, live healthy, happy, and productive lives. UPES School for Life (SFL) was established with the intention to create true changemakers. Students learn to apply an in-depth understanding of attained life skills and broad-based subject competencies along with core subject qualifications, to take advantage of educational and employment opportunities. This broad-based learning experience helps them evolve throughout their professional and personal lives.

The undergraduate program at UPES offers four clearly demarcated, yet academically integrated areas, covering Core Specialisation courses, Exploratory (Interdisciplinary Electives), Signature, and Life Skill courses, all of which are credited and form the basis of the degree awarded. School for Life offers the latter three selections of courses, which are structured to be read alongside the students' core academic curriculum.



## SIGNATURE COURSES

These courses include areas that are not specifically linked to a vocation and focus on 21<sup>st</sup> century learner skills and attributes to meet the requirements of the graduate profile.

They empower students as global citizens of the future. These courses are undertaken by all UPES undergraduates and select graduate students from specific disciplines.



## EXPLORATORY COURSES

(Interdisciplinary Electives)

These courses encourage students to develop a broad-based approach to learning by selecting subjects of study from other schools at the university. This helps them grow their breadth and depth of knowledge beyond their chosen specialisation and exposes them to the wider scope of university education.



## LIFE SKILL COURSES

These courses allow students to upskill into university learning styles and pick up additional skills with a focus on enhanced employability and communication, along with management and professional skills, including critical thinking, problem-solving, and creativity.



## 'SRIJAN' SOCIAL INTERNSHIPS

Srijan Social Internships are full-time, 8-week-long internships with social sector organisations. These internships are offered as part of School for Life at UPES and are for all first-year students. Through these internships, students will be exposed to a variety of social sector challenges that our society is facing and find ways to overcome them. In the process, they will build empathy and learn valuable leadership skills that will be useful in both work and life.



# CAMPUS LIFE

- Life at UPES is truly an enriching experience, where students can create memories that will last a lifetime. It is about young learners discovering themselves through engaging activities that broaden their understanding of the world.
- There are more than twenty student chapters, including the Society of Petroleum Engineers, Cloud Security Alliance, the Society of Law and Literature, the Institute of Electrical and Electronics Engineers, the Moot Court Association, etc., as well as several clubs such as the National Service Scheme, Ras Rang Raag, Avishkarnam, Sphurit, etc., that cater to different interests and fields of study.
- Events such as Spandan, the annual youth festival; and 'Wow Wednesday', a mid-week activity for showcasing talent, bring together students from across all the schools on one stage.
- Sports events and activities at UPES offer students a wide range of opportunities for personal growth and skill development. Students develop important values such as discipline, team spirit, patience, and resilience.
- From learning to leisure and path-breaking innovations to life-long friendships, life at UPES is a vibrant blend of everything a learner aspires for. It is a place where artists, explorers, athletes, and innovators come together to pursue their passions and explore new horizons.

Scan to explore  
Life @ UPES



# HOSTEL FACILITIES

At UPES, we prioritise the safety and comfort of every student, both on campus and in the hostels.

- Deep Cleaning and Sanitization
- Hostel Access Control
- Mess and Food Outlets
- Medical Facilities
- Security Procedures at Entry Gates



# SPORTS INFRASTRUCTURE

- A top-tier natural turf cricket ground featuring floodlights, locker rooms, and dugouts, specifically designed for regional tournaments.
- Three natural turf and cemented cricket nets, equipped with floodlights, available for practice throughout the year.
- Two premium synthetic basketball courts for both competitive games and practice sessions.
- Two synthetic outdoor volleyball courts, marked to regulation standards for competitive and recreational play, open to all genders.
- Two indoor badminton courts for year-round play, with plans to expand to a third court.
- Two semi-indoor badminton courts for casual, recreational use.
- Three hostel badminton courts—one in the men's hostel and two in the women's hostel—designed for recreational play.
- High-quality table tennis equipment suitable for both competitive and casual play.
- A fully equipped gym with professional trainers, offering facilities for fitness and athletic training.



# EXPERIENCE CENTRES

## KOTA

### Shivam Residency

Narcotics Road,  
Mahaveer Nagar-1,  
Kota, Rajasthan

## DELHI

### Eros Corporate Tower

15th Floor, Eros Corporate Tower,  
Nehru Place, New Delhi

## PATNA

### Patna One Mall

2<sup>nd</sup> Floor, Maurya Lok Complex,  
New Dak Bungalow Road, Fraser  
Road Area, Patna

## NOIDA

### The Iconic Correnthum

2<sup>nd</sup> Floor, The Iconic Correnthum,  
Tower C, Plot No 41, Sector 62,  
Noida, Uttar Pradesh

## JAIPUR

### Workhauz

Plot No. 3, Power House,  
Mirza Ismail Rd, Jaipur,  
Rajasthan

## LUCKNOW

### Vision Space

4<sup>th</sup> Floor, Office No. 5,  
BBD Viraj Tower, Vibhuti Khand,  
Gomti Nagar, Lucknow

## GUWAHATI

### Office tribe Coworking

Cabin No-7, First Floor,  
Shreeji Tower, Christian Basti,  
G.S. Road, Guwahati

## INDORE

### Smartworks

Ground Floor, Brilliant Center, 17,  
Race Course Rd, Janjeerwala  
Square, New Palasia, Indore

## Kochi

### Incuspace Coworking Space

Cabin No. 20, Kochi Oberon Mall,  
34/195, 3rd floor NH bypass,  
Padivattom, Edappally, Kochi, Kerala



SCAN TO FOLLOW US ON

**1800 102 8737 (10 am to 7 pm)**  
**[enrollments@upes.ac.in](mailto:enrollments@upes.ac.in) | [www.upes.ac.in](http://www.upes.ac.in)**

INTERNATIONAL STUDENTS WRITE TO US AT: [international.admissions@upes.ac.in](mailto:international.admissions@upes.ac.in)

BIDHOLI VIA PREMNAGAR, DEHRADUN-248 007 (UTTARAKHAND), INDIA

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