

VIRTUAL RESEARCH PROJECTS



ABOUT UPES

UPES is a UGC recognized multi-disciplinary university, with a sprawling 44-acre campus in the safe and scenic environs of Dehradun. The university offers its students a world-class academic infrastructure, multimedia-enabled classrooms, modern research labs, playing fields, food courts, hostels and facilities for curricular and extra-curricular activities. With more than 150 programs, the university offers specialization-focused undergraduate and postgraduate programs in various disciplines like Engineering, Computer Science, Design, Law, Business, Health Sciences and Modern Media.

UPES has always envisioned itself as an institution of global standing for developing professionally competent talent contributing to nation building. The QS 5 star ratings for Academic Development, Employability, Facilities and Program Strength, reflects the university's exceptional performance across a wide range of activities and strength in core areas. Amongst many other things, UPES provides industry-aligned curriculum by IBM, Microsoft, Xebia, L&T and many more, free access to 3900+ global courses from Coursera, 50% scholarship for PG programs abroad and placement support for 5 years after graduation to its students.



OUR VISION

At UPES, we believe that every student and staff should have an opportunity to gain international exposure. We intend to achieve this through

- International student mobility
- Hosting international faculty and thought leaders at the UPES campus
- Promoting online collaboration between students of various institutes and universities
- Promoting joint research between faculties
- Increasing institutional collaboration through MOU's and by participating in international academic events

In the wake of the current challenge and limited mobility, UPES is providing virtual research project opportunities to partner university students under the mentorship of our seasoned professors. We look forward to having a similar engagement for our students with partner universities. COVID-19 has slowed down the mobility beyond international borders, but education should not be compromised.

We look forward to a mutual association where our students have an opportunity to learn across the border, and our faculty have the platform to contribute to the learning of students from diverse backgrounds. The virtual projects will also give the students a chance to collaborate with UPES students through various projects.



ABOUT VIRTUAL PROJECT

The pandemic has significantly disrupted the higher education sector, and it has changed the way of engagement in the teaching-learning process through e-resources and digital connects. It has also created a gap in the international university cooperation programs. To enhance the student learning experience and to create experiential learning, UPES is happy to announce "Virtual research projects for international students."



Online opportunities **reduce the financial barriers** that study abroad can present, but still allow the crucial work experience in a different culture.



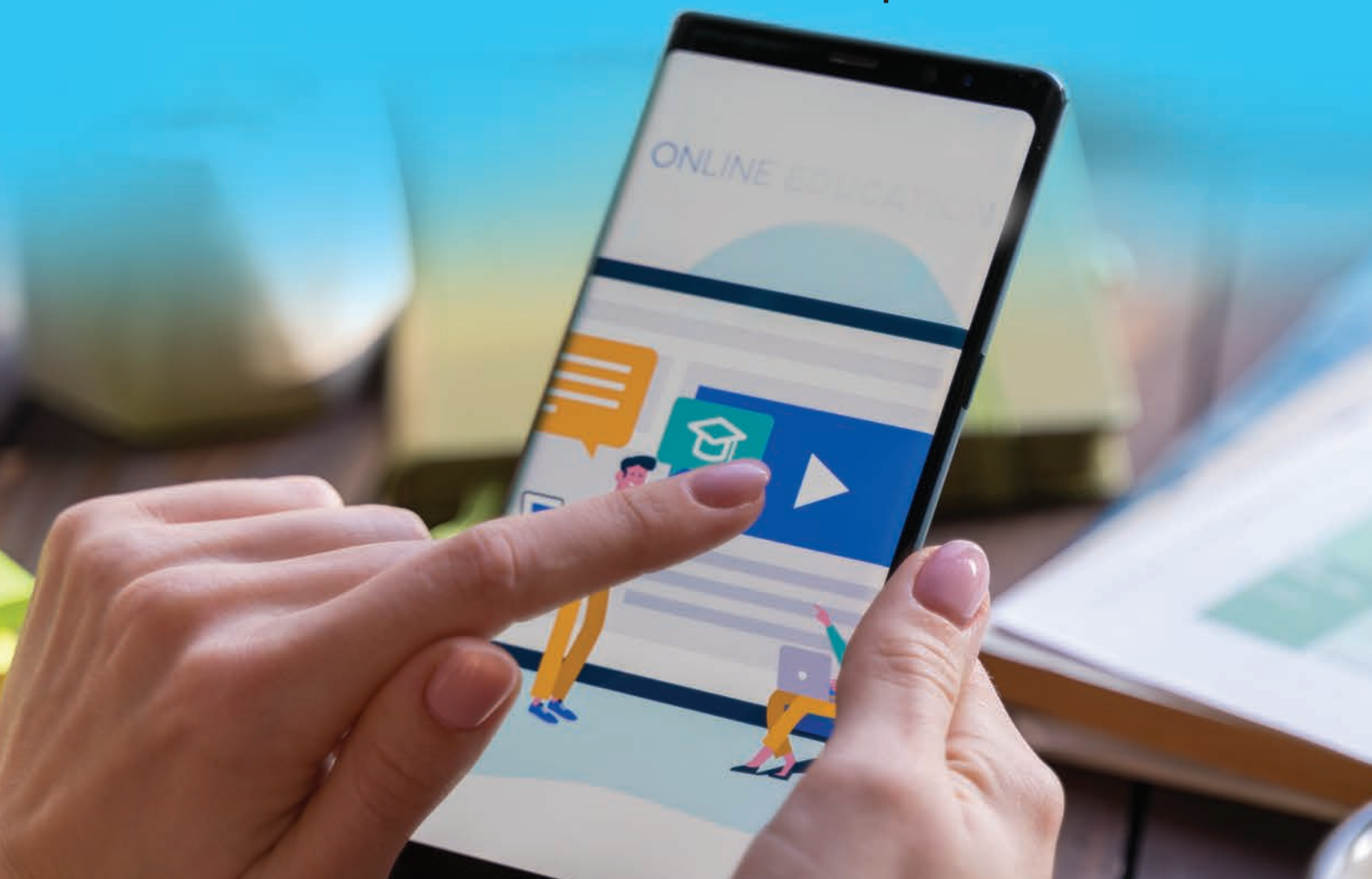
Internships remain grounded in cross-culture competencies, exposing students to new work cultures, future international career management and foreign languages.



In the light of present **COVID-19, keeping students home and safe is a major goal**, while still ensuring they aren't missing out on the crucial summer opportunities.



Online international opportunities unlock accessibility issues that may have previously been present **allowing any and all students to actively gain project-based work experience.**



CRITERIA TO APPLY

Usually, research programs are for a semester but can be extended for one year in some exceptional cases. Factors affecting the type of research include the availability of the program instructor and the number of interns or trainees required for the program. Interested students need to submit a research proposal, which is subject to approval by the supervisor or the instructor of the research program.

GUIDELINES FOR THE NOMINATION

1 Both undergraduate and postgraduate students can apply

2 Tenure of the Research can be from 2 months to 6 months

3 The student must have a minimum CGPA/ SGPA of 6.0 and above

4 The student should be able to connect with mentors through online platforms and discuss the progress of the work

5 Students will receive a research Certificate after successful completion of the project work

6 UPES will not charge any fee for the research to support the student community under these difficult times.



THE LIST OF TOPICS FOR STUDENT PROJECTS



School of Engineering

- Renewable Energy
- Computational Fluid Dynamics
- Chemical Engineering
- Refining Technologies
- Petroleum Engineering
- Automotive Engineering
- Mechatronics
- Aerospace Engineering
- Environmental Science
- Electrical Engineering
- Avionics Systems and UAVs
- Water Treatment and Pollution Control
- Nano Material and Composite Technologies
- Robotics and Automation Technologies



School of Computer Science

- A Secure Indigenous Approach for Data Identification using Human Imprints
 - Classification of bone X-Ray images using CNN
 - Implementation of 3D handwriting recognition systems with the help of Microsoft Kinect and Leap Motion Sensor
 - Computation of Eigen Values and Eigen Vectors for Large Matrices Using Secure Cloud Outsourcing
 - Information-Theoretic Entropy-Based Real-Time Scheduling Algorithms
 - Implementation of VANET on OMNET++
 - Classification of wildlife images
 - Cardiac Arrhythmia Detection Using Convolution Neural Network from ECG Signals
 - Vulnerability Hub
 - Self-Aware System
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School of Law

- Exploratory Research on Environmental Law and Policy
- Prisoner's Rights with special emphasis on legal aid to the prisoners and access to justice.
- Rights of Foreign National Prisoners in India
- Women and Child Rights under International Conventions: A study
- Law and Policy on Criminal Justice System
- Women in governance
- Energy Law and Policy: Exploratory research
- Law and International politics in trade and investment
- Comparative Intellectual Property Law
- International Commercial Arbitration
- Comparative Civil Procedure
- Refugee Law and Policy: An international perspective
- International Sports Law: A study
- Human Rights Violation amid COVID 19: An international Law study
- Impact of Digitization on the Banking system
- Law and Policy AI and Blockchain technology
- A comparative study on Media Law
- Analysis of corporate governance policies & practices
- Policies of corporate social responsibility
- Comparative Constitutional Law
- Critical Analysis of the Role of the International Labor Organization
- Safe harbour rules under taxation law
- Taxation Policy and Administration in Developing Countries
- International Tax Treaties and Their Functions
- International Health Law and Policy
- Food safety and Global health: An international Law
- Public health and patent law
- Medical Controversies Surrounding Stem Cell Research



School of Business

- The scope of block-chain application in electricity trading contracts: A comparative study of India and Canada
- Supply chain analytics in FMCG / Agriculture / Healthcare / Energy sector.
- A comparative study of Socio-Economic Benefits and Community Development through Homestay Tourism in Rural destinations
- How young consumers view Indian brands
- Comparison of Cultural value sensitivity towards ecosystem and nature (India vs France, Canada, Slovenia, US - choose one)
- Measuring efficiency and proposing supply chain sustainability of Cluster-Based Food Processing in the State of Uttarakhand
- Gap analysis of employability skills of students: India vs France
- Comparison of Cultural value sensitivity towards ecosystem and nature (India vs France, Canada, Slovenia, US - choose one)
- Anthropocene extinction, Climate Change and Biodiversity Loss: Empirical Evidences
- Innovative Approaches for sustained livelihood and employment
- Opportunities in Uttarakhand based on field survey and experience from the partner country
- Adopting Clean and Renewable Energy to Mitigate Climate Change in India: Status, Barriers and Way-forward
- Behavioural biases effect on Investment decision making
- Role of behavioural factors in financial risk tolerance
- The future of international collaborations
- How strategist formulates and executes strategy in a high and low regulated industry: Strategy as practice approach.
- Critique of Renewable energy policies of the UK, Germany, USA and China—What are the lessons for India.
- Impact of AI for the future of Business: a case study analysis
- Role of AI to improve the performance of firms: a device case analysis



School of Design

- Design of a Coffee Table book on Wood Carving of Uttarakhand
 - A video documenting the top folk musicians of Garhwal
 - Cultural Product Design
 - Amphibian Vehicle design for recreational purpose
 - Design of futuristic mobility solutions for Metropolitan cities in India
 - Design of a simple mobility device for pilgrims, where older adults have to walk and on hilly areas
 - Design of a public transportation system for Tier I cities in India
- Sports on Hilly terrains
 - Public Transportation for Hilly terrains
 - Stop Motion Animation
 - Design and Development of a Gamified Tourist Information System: An Inclusive Design Approach
 - Exploring applications of Augmented Reality / Virtual Reality (AR/VR) in various contexts
 - Application of Serious Games in Medical Education
 - Digital Medical Twin



School of Health Science

- Medicine / Pharmacology / Chemist
 - Microbiology
 - Pharmaceutical
 - Clinical Pharmacy
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APPLICATION LINK

https://lnkd.in/dvM4_jH

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