



UETR

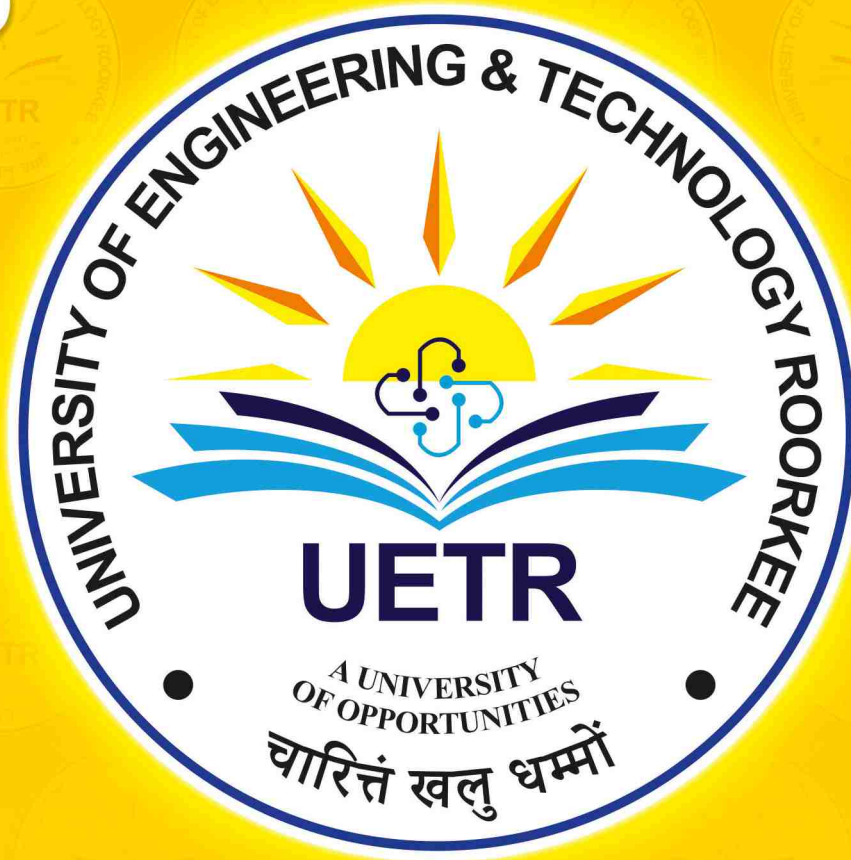
UNIVERSITY OF **ENGINEERING** AND **TECHNOLOGY** ROORKEE



UNIVERSITY OF
OPPORTUNITIES

A PART OF **COER INSTITUTIONS** OF
HIGHER EDUCATION

LOGO

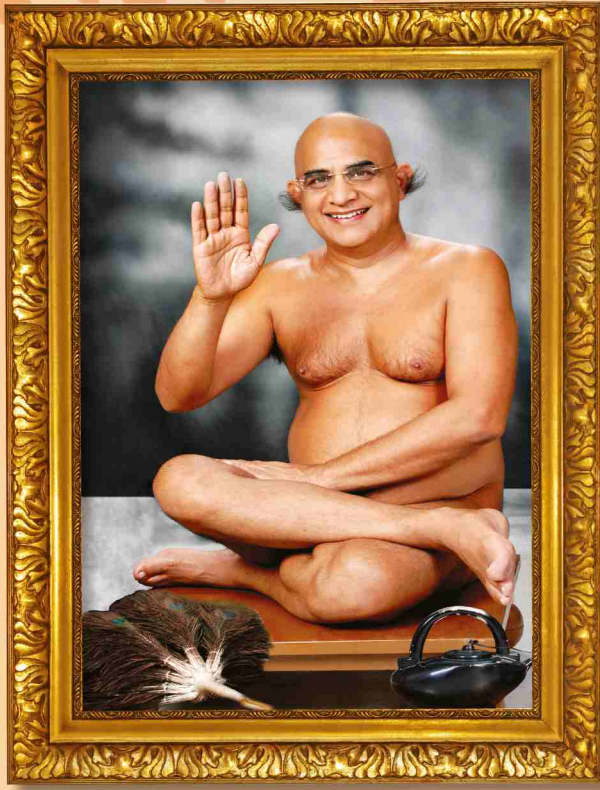


The logo symbolizes all-encompassing power of value based knowledge which is universal and free of boundaries. All domains of education harmonize into making the world a better place to live. Let the University of Engineering and Technology Roorkee rise and blossom into a Centre of Excellence in higher education.

**RISING SUN
SYMBOLIZES
HOPE, AMBITIONS,
ASPIRATIONS TO
ACHIEVE NEW
HORIZONS.**

**OPEN BOOK IS
AN INVITATION TO
THE OCEAN OF
KNOWLEDGE AND
WISDOM.**

**THE INNER
GEOMETRIC SHAPE
SYMBOLIZES 'MAKING IDEAS
HAPPEN THROUGH RESEARCH
AND INNOVATION'. IT ALSO
SYMBOLIZES SEAMLESS
INTEGRATION OF DISCIPLINES
FOR FLEXIBLE LEARNING.**



यूनिवर्सिटी ऑफ इंजीनियरिंग एण्ड टेक्नोलोजी रुड़की
के प्रेरणा स्रोत, राष्ट्र सन्त, महायोगी
(डॉ०) उपाध्याय मुनिश्री गुप्तिसागर जी

मंगल आशीर्वाद संदेश

देश की अखण्डता—एकता के लिए हमे सदैव दोस्ती का हाथ आगे बढ़ाना चाहिए । मन में घृणा, अमीर गरीब का भेद और कमजोर वर्ग का शोषण इन्सानियत के खिलाफ है । हमें बाग के फूलों की तरह खिलना चाहिए । खुशबू बिखेरना हमारा कर्तव्य है ।

जाहिर है, फूलों से खुशबू निकल जाने के बाद उनसे कोई प्यार नहीं करता । वे तो केवल वनस्पति जगत के अंश—वंश होते हैं । उनका अपना कोई महत्व नहीं । उनमें और कौटो में क्या फर्क । हमें रोज—गार्डन की तरह हर क्षण—हर सुबह खुशबू, सौन्दर्य और आनन्द बॉटना है । हम भारत की संतान हैं ।

प्यारे बच्चों !

हमें वर्ण, जाति और सम्प्रदाय के चक्कर में न पड़कर सूर्य की तरह आगे—ही—आगे बढ़ते जाना है । देखो ! सूर्य कितना विराट् है । नगर में एक निर्धन परिवार में जितनी रोशनी देता है, उतना ही नगर सेठ के परिवार को भी अपनी रोशनी से निहाल करता है । क्या हम सूरज की तरह सबसे समान बर्ताव नहीं कर सकते ? सूरज देवता है, तो हम उसके पुजारी हैं, अतः सूरज जैसी हमारी दृष्टि होनी चाहिए । तभी हम मानव—मानव का भला करने योग्य समझे जायेंगे । देश की अखण्डता में योगदान दे पायेंगे । भारत महान है, हम उसकी पहचान हैं ।

बच्चे मन के सच्चे, सारे जग की आँख के तारे ।

ये वो नन्हें फूल हैं जो, भगवान को लगते प्यारे ॥

बच्चे मन के सच्चे.....

तन कोमल मन सुन्दर है, बच्चे बड़ों से बेहतर हैं ।

इनमें छूत और छात नहीं, झूठी जात और पात नहीं ॥

भाषा की तकरार नहीं, मजहब की दीवार नहीं ।

इनकी नजरों में एक है, मन्दिर, मस्जिद, गुरुद्वारे ॥

बच्चे मन के सच्चे.....

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VISION, MISSION, OBJECTIVES AND QUALITY POLICY



VISION

To become a centre of excellence comparable to the international standards; helping define aspirations and possibilities for the long term, and producing 'life and career ready' professionals with leadership quality, who are ready to challenge and be challenged in the areas of technology, engineering, management, science, humanities and social sciences with research, innovation and entrepreneurship.



MISSION

- To develop a benchmark University in higher and professional education sectors.
- To provide international quality education and learning experience in the higher education space in a world-class infrastructure and research driven academic environment.
- To impart a well-rounded academic experience with enhanced employability prospects to students.
- To harness human capital for sustainable competitive edge and social relevance.
- Strengthen positive values to hone spiritually - anchored and environmentally - accountable individuals.



OBJECTIVES

- To develop Engineers that are technically proficient and quality aware.
- To create a functionally appropriate and favourable academic atmosphere for students and staff.
- To transform Schools into Centre of Excellence.
- To establish post-graduate centres for all branches.
- To establish collaborations with reputed Universities to provide international exposure and learning opportunities to the students.



QUALITY POLICY

- To offer students with a sound academic and research atmosphere for study.
- To provide cutting-edge technological infrastructure and to inspire students to use their full potential.
- To offer students with technological and managerial skills, as well as to assure their overall growth.
- To provide high-quality, cost-effective engineering programmes that meet the needs of industry and other sectors of employment.
- To provide research-creation, consulting, testing, and customised training to satisfy the industries' specific demands, thereby encouraging students to pursue self-employment and entrepreneurship.

**UETR ranked by Education Post, Vol. IX,
Issue 11, Feb. - March 2022 under
“IIRF 2022 University Ranking India” :**

No.1
**UNIVERSITY IN
THE STATE OF
UTTARAKHAND**

No.1
**IN THE NORTH ZONE
(UP, UTTARAKHAND,
HARYANA, RAJASTHAN
AND PUNJAB)**

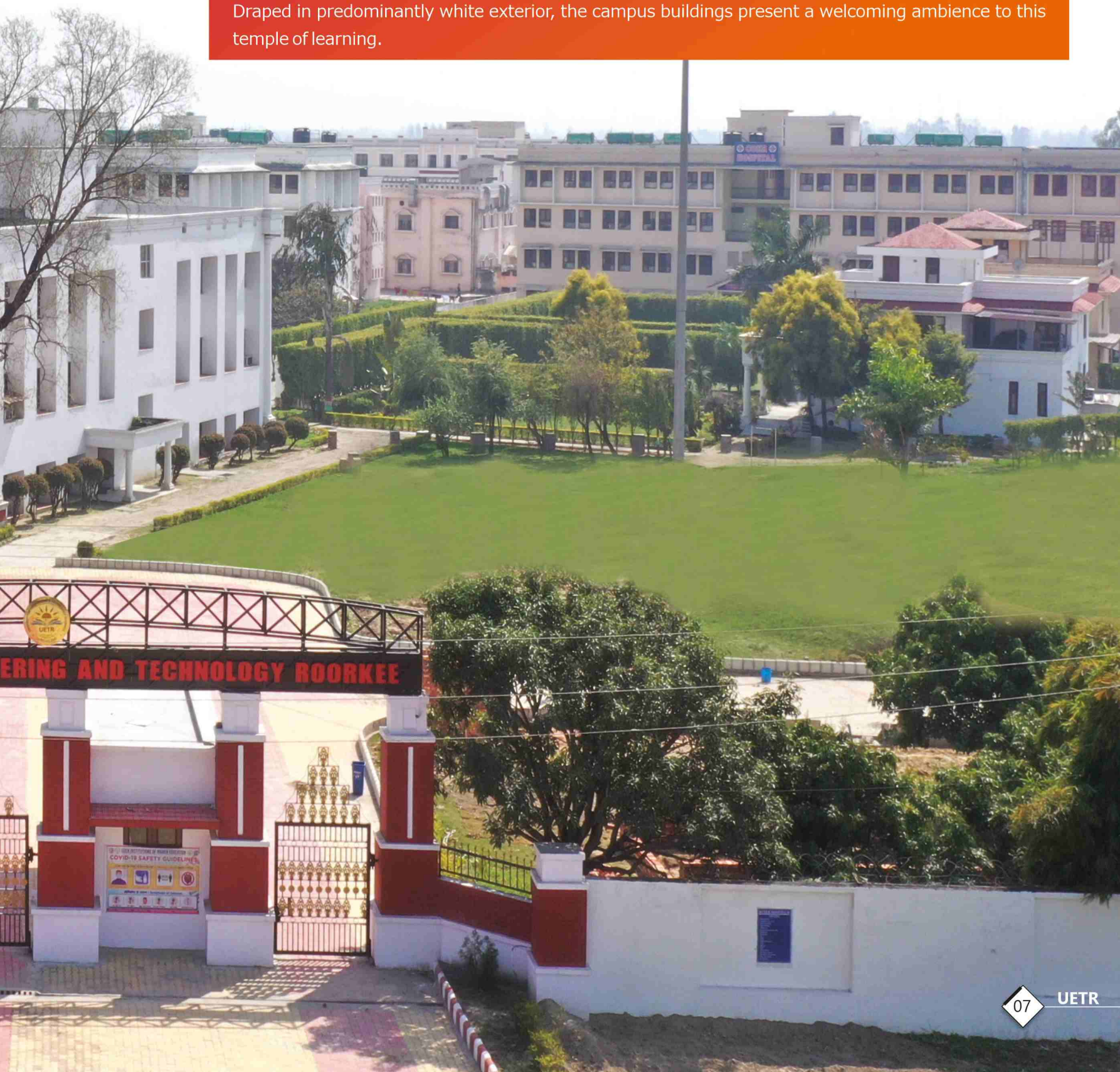
No.10
**IN INDIA AMONG
TOP 50 EMERGING
UNIVERSITIES**



B.Tech. (Hons.) CSE
AI & Machine Learning
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www.uetr.ac.in

W E L C O M E T O UETR

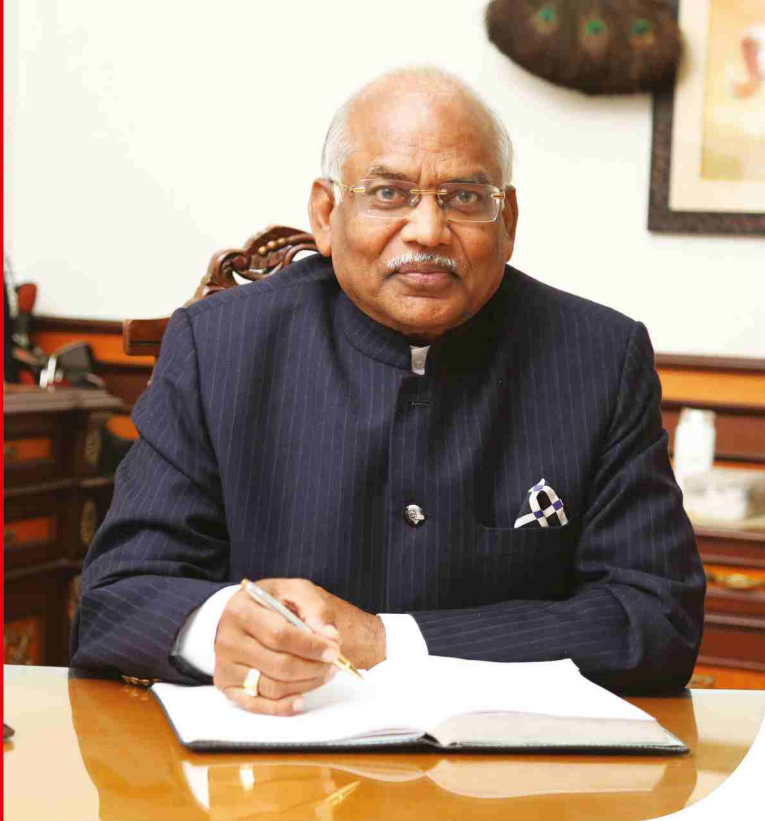
The University of Engineering and Technology Roorkee (UETR) aims to be the premier university in the state of Uttarakhand and a peerless champion in the world of facilitator of technical, design and fine arts, agriculture education and management education. Our Mission is to make UETR a brand name that gets finally established in the minds of young professionals technocrats and managers. The primary focus of UETR is to expose the students to the world of emerging technologies, instilling in them confidence to face new challenges and enabling them to shine in their chosen fields. UETR has been admitted by the University Grants Commission (UGC) as a State Private University. The Government of Uttarakhand State has approved the UETR through an Act on February 15, 2021. The UETR campus is established on NH-58, just 7 km from Roorkee, with lush green pollution free environment. The place is well connected with the national capital New Delhi by rail, road and air. Draped in predominantly white exterior, the campus buildings present a welcoming ambience to this temple of learning.





Our Inspiration

Seth Roshan Lal Jain was born in 1917 at village Khekra, District Baghpat, Uttar Pradesh. He took up his ancestral khadi business. The fact that he was known as "Seth Ji" was a reflection his popularity. He was also an honoured scholar of the Jain philosophy. His emotional strength was Smt. Taravati Jain, his wife, who supported him in all his endeavours to build Jain Institutions in Khekra. As a couple, they were dedicated to spreading of karuna to human beings and other living organisms. They both had the vision to create institutions for enhancing value-based education. To the inspiring memory of Late Seth Roshan Lal Jain and Smt. Tarawati Jain his son Shri Jinesh Chand Jain with his wife Smt. Sunita Jain created Seth Roshan Lal Jain Trust which is dedicated to the spread of technical education in North India.



A Visionary Leader with Professional Excellence

Shri J.C. Jain

Hon'ble Chancellor

At University of Engineering and Technology Roorkee, we believe that creating an academic foundation for social, cultural, scientific, economic and technological development in our Nation can mature into Global Interface by giving way to education exchange in the International territory as well. We aim at establishing benchmark in academic excellence and holistic grooming to help our students to meet the career challenges in the increasingly globalised economic conditions.

The university is committed to foster in its students, the pursuits of individual excellence and participate in full range of academic, spiritual, cultural, social and physical activities, and to make them evolve as all-rounder. It inculcates the development in all facets of life. Our team of dedicated and highly qualified faculty strives to widen the student's horizon of learning, thereby helping every student to taste success with high grades. In the short span of a time in its existence, the university has signed several MOUs with Foreign Universities and has been maintaining remarkably high percentage of pass every year. I am much pleased to inform that our university believes in quality education. We take special care that our ideas are not merely discussed but executed. The university is also a venue of national, international and state level conferences, seminars & symposiums.

UETR course content is based on industry requirements and will prepare graduates for employment. As the Chancellor of this institution, I anticipate the full participation and cooperation of the students and parents to make it possible for us to transform those dreams to reality. And if there is any assistance that you might need, may it be personal or professional, I shall always be willing to hear from you.

I wish you all the best!



Smt. Sunita Jain

Vice - Chairperson of
Seth Roshan Lal Jain Trust

The UETR is dedicated to improve people's lives through excellence in education, research and creative work, service and health care. As the university plays a critical leadership role by promoting diversity, inclusion, economic development and human well-being.

UETR facilitates learning, informed by scholarship and research, and serves a global community by disseminating, sharing and applying knowledge. It plays a critical leadership role by contributing to the economic development and quality of life within its borders and beyond. The University's goal is to provide holistic development at a reasonable cost. It nurtures a diverse community characterized by fairness and equal opportunity.

We create not the future instead we craft you for the future. There are strong challenges to great efforts but, always remember, great effort bears the sweet fruit of success. We want you to taste the fruit of success once and for the rest of your life, you will never rest.

"You don't have to be great to start, but you have to start to be great."
Best wishes.



Shri Shriyance Jain

Pro Chancellor of UETR
and Managing Director-
Texplas Group of Companies

UETR equips students with world-class skill education to enable access to aspirational jobs and inculcate entrepreneurial mindset and entrepreneurship. It aims to create a win-win for the youth and the industry by filling the existing gaps in skill training.

UETR strives to integrate the use of the hand, intellect, and heart for healthy living and engagement in lifelong learning, based on the education philosophy of thinker such as Mahatma Gandhi. The emphasis will be on instilling self-reliance for long-term independence as well as wisdom for cultivating and valuing interdependence.

The University wants to shift the present skilling paradigm by making skill acquisition aspirational and making skilling, up-skilling, and reskilling possibilities available to everyone. UETR will also provide incubation and ongoing support to entrepreneurs, as well as quality coaching to help the students. The University will provide courses to people from all walks of life, with the goal of empowering underprivileged and minority groups by giving them with access to world-class education. The University's goal is to create citizens who are well-informed and well-rounded.

Wish you the very best of luck with your studies and look forward to welcoming you on campus soon.

Dear Students,

"We cannot always build the future for our youth, but we can build our youth for the future."

Franklin D. Roosevelt



Smt. Charu Jain

Executive Director

At University of Engineering & Technology Roorkee, we acknowledge the students, parents, teaching and non teaching staff, and society in general as our stake holders for their continuous support in taking this institution to greater heights. We never compromise on any part of our quality and our policy of providing technical education in international standards. College education is the foundation for all future possibilities in the life of a student. Also, quality education is a passport to its steep rise in life and creates practical avenues to attain financial gains.

As the university administration, it is our responsibility and duty to provide the highest level of education to our students in every field. It provides golden opportunities to lead a life of dignity & prosperity. To achieve this goal, several add on courses, trainings in placement, personality development, communication skills, and other soft skills are provided by expert members.

I am extremely pleased to welcome you all to being a part of this University. I pray to the Almighty to bless you with a great future.



Prof. Satya P. Gupta

VICE CHANCELLOR

"The future belongs to those who can imagine it, design it, and execute it. It isn't something you await, but rather create."

HH Sheikh MBR Al Maktoum, Ruler of Modern Dubai

Dear Students,

The beautiful campus of the University of Engineering and Technology Roorkee with sprawling lush green open spaces and imaginatively designed academic and residential buildings is waiting to welcome you as a new student on its campus. To face the competitive challenges of highly complex professional world, our eminently qualified teachers will equip you from day one with technical skills, problem solving skills and sharpen your communication and presentation skills to make you confident and competent.

Some of the distinctive features to experience at UETR are:

NEP-2020 Oriented Curriculum :

The Curriculum at the UETR has been designed to be flexible, as stipulated in the National Education Policy (NEP-2020), in selection of subjects from a basket of diverse subjects to match your interest. For example, if you are doing a bachelor course in computer science you will also have opportunities of taking subjects of management, agriculture, creative arts and design, foreign language etc. as minors.

Research Based Learning :

According to the statistics, the Artificial Intelligence (AI) market is expected to reach \$190 billion by 2025 and will be part of the 75% technologies. Hence we have developed one of the finest Labs in computing in the emerging areas of Artificial Intelligence, Machine learning and Deep Learning, Cyber Security, Data Science and Robotics to provide you with cutting edge knowledge in AI for research based learning.

Additional Academic Activities for Career Enhancement :

Besides your course curriculum, you can do a number of add-ons such as: On-line certification courses delivered by IIT Professors through National Program on Technology Enhanced Learning (NPTEL) under mentorship of your faculty advisors; Write research papers under mentorship of your Faculty Advisors and present in national and international conferences; Seek copyright/patent and technology transfer for your original ideas and projects and become inventors.

Opportunities to Study Abroad in our Partner Universities :

At UETR you will also have ample of opportunities of international learning through our partner universities in the USA, Canada, Russia and other countries. Expert lectures are organized from the global leaders. There are also opportunities of even doing a part of your study in our partner universities.

Campus Placement and Career Counselling and Holistic Development :

Around the year placement activity and career counselling ensures that all our students are placed in suitable industrial jobs before they leave the University. Mentorship from experts is provided to those who wish to go for higher education or for a start-up of their own. As a member of the Association of Indian Universities (AIU), UETR students can participate in PAN India academic, cultural and sports events with students of more than 800 other universities.

The list is long. Come to UETR and have a life enriching experience from the opportunities waiting for you. Wishing you all the best in your career!

Join a network of employment ready graduates making a positive difference around the world. We are proud to provide our students with an outstanding education, founded on innovation and excellence. Our focus is on helping students to be the difference in their chosen career and equipping them with the lifelong employability skills to stand out from the crowd. Some milestones we focus on are :

MODERN CURRICULUM

UETR offers unique concept in education to be in line with global standards and shall endeavour to provide industry ready skilled graduates in engineering, management and agriculture and also many other areas encompassing science and humanities. **1**

HIGH IMPACT RESEARCH

Our world leading academicians are experts in their fields, whose work is centred on making an impact to the society. UETR is committed to teach in a research environment, which draws on many different traditions, practices and methods, providing unsurpassed opportunities to all students. **2**

SKILL BASED EDUCATION

The curriculum is designed to build the skills of the student through practical work to reinforce the knowledge gained through classroom lectures. The learning outcome is aimed at empowering the student with a firm grip on the concepts. **3**

GLOBAL EXPOSURE

The students at UETR will gain from our partner institutions in foreign countries through invited lectures and internship opportunities. International exposure enables students from the university to conduct themselves in any environment, gain confidence and develop networking skills. **4**

JOB ORIENTED TRAINING & INTERNSHIP

A job-oriented training is a course that aims at imparting life skills in communication, presentation, leadership etc to prepare a student to confidently face the recruitment process for a chosen job placement. Students are also given an opportunity for internship with carefully selected industries. **5**

NEP 2020 COMPLIANT

The National Education Policy (NEP 2020) of Government of India focuses more on experiential learning (learning by doing) than rote learning. Besides it aims at giving considerable flexibility to students to choose subjects of his/her interest from a basket of elective subjects including subjects offered by other schools or departments. The curriculum has been designed to support NEP 2020 with a focus on continuous skilling through internships all through the chosen course of study. **6**

PROJECT BASED LEARNING

Project-based learning is an instructional method in which students learn a range of skills and subject matter in the process of creating their own projects. **7**

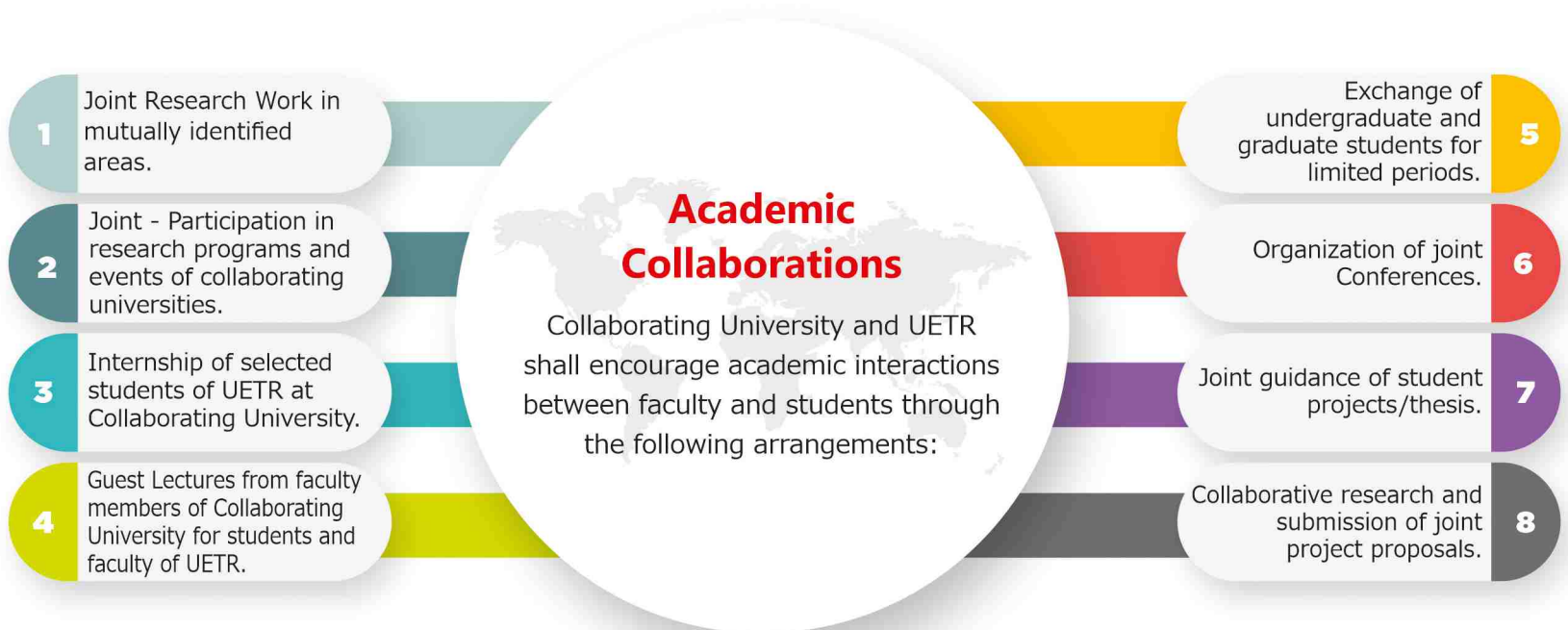
INNOVATION & ENTREPRENEURSHIP

UETR seeks to represent National and International standard and enduring innovation & entrepreneurship in its academic transactions. **8**



At UETR, we believe that the students from all over the nation help us to develop outward-thinking and graduates with limitless potential. UETR is located in Roorkee, Uttarakhand – but thinking and working globally is part of our daily

teaching, learning and research practice. It's part of who we are. Keeping this vision in mind we have collaborated with multiple institutes world wide and also have a diverse team of distinguished honorary mentors to guide the students.



University of Kentucky, US

With the QS Global Ranking between 600-650, it has been top ranked and is one of the leading universities in Research in Emerging Fields and Technology.



Kuban State Agrarian University, Russia

Kuban State Agrarian University has more than 16,000 students from 47 countries of the world, 17 faculties, 81 departments, 2,500 staff members.



International American University, USA

International American University, California is a leading University of higher learning in Management education offering programs through both distance education and classroom instruction.



École de technologie supérieure, Canada

Specialized in applied teaching in engineering and technology transfer to companies, where professors, engineers and researchers who are recognized for their practical, industrial and innovative approaches.



Debre Tabor University, Ethiopia

Debre Tabor University is a non-profit public higher-education institution located in Gondar, Amhara Region. Officially recognized by the Ministry of Education of Ethiopia, Debre Tabor University (DTU) is a coeducational Ethiopian higher education institution.



Himalayan Environmental Studies and Conservation Organization, India

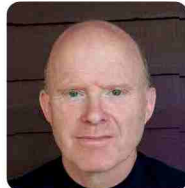
HESCO (Himalayan Environmental Studies and Conservation Organization) in its essence is truly rural as it derives inspiration from the villages and devises solutions for their problems. It helps them to focus on their economic and development needs and encourages them to tap local resources that open up new avenues to self-reliance.

At UETR, we are focused on providing education with a purpose. Our dedicated academicians are here to prepare you to go out into an increasingly global society and be the difference to help transform it for the better. Supporting continuously with our huge pool of distinguished mentors to make our graduates STAND OUT.

DISTINGUISHED HONORARY MENTORS



DR. GOPAL GUPTA
ERIK JONSSON CHAIR PROFESSOR
UNIVERSITY OF TEXAS AT DALLAS



DR. SVEN TRAVIS
PROFESSOR, PARSONS SCHOOL OF
DESIGN BROOKLYN, NEW YORK



DR. RAMESH BANSAL
PROFESSOR, UNIVERSITY OF
SHARJAH U.A.E.



DR. RAJAT AGARWAL
PROFESSOR, DEPTT. OF MANAGEMENT
STUDIES INDIAN INSTITUTE OF
TECHNOLOGY, ROORKEE



MR. R. MUKUNDAN
MANAGING DIRECTOR & CEO
TATA CHEMICALS LIMITED



MS. RUCHI VARSHNEYA
DIVISION VICE PRESIDENT, ABBOTT
RAPID DIAGNOSTICS LAKE FOREST,
ILLINOIS



MR. PITAMBER SHIVNANI
MANAGING DIRECTOR & CEO GE
T & D INDIA LIMITED



DR. NIKOLAY KURCHENKO
PROFESSOR
KUBAN STATE AGRARIAN UNIVERSITY (KubSAU)
RUSSIA



DR. ANJALI AGARWAL
PROFESSOR, CONCORDIA UNIVERSITY
MONTREAL



DR. HARPREET SINGH
PROFESSOR, WAYNE STATE UNIVERSITY
DETROIT



DR. IAKOV ILCHENKO
PROFESSOR
KUBAN STATE AGRARIAN UNIVERSITY (KubSAU)
RUSSIA



DR. P K JOSHI
PROF. SCHOOL OF ENVIRONMENTAL
SCIENCES, CHAIRPERSON SPECIAL CENTER
FOR DISASTER RESEARCH (IITU NEW DELHI)



DR. AMRISH CHANDRA
PROFESSOR ECOLE DE TECHNOLOGIE
SUPERIEURE (ETS), MONTREAL



**DR. DEBKUMAR
CHAKRABARTI**
PROFESSOR, DEPARTMENT OF DESIGN,
IIT GUWANATI



**MR. SOMESH
PALIWAL**
SCIENTIST C, REGIONAL
TASAR RESEARCH STATION BHIMTAL,
DISTT. NAHITAL



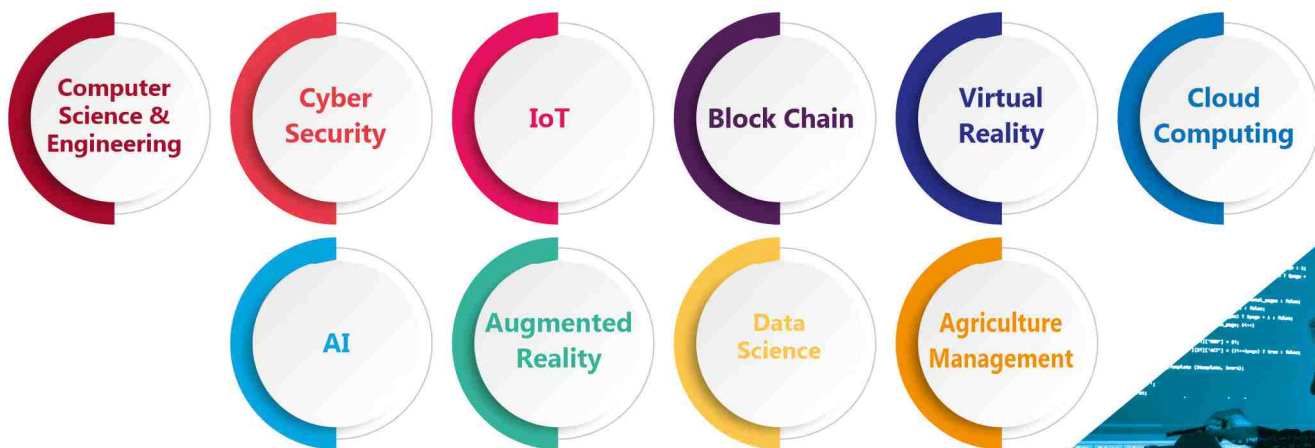
DR. ACHAL MITTAL
SR. PRINCIPAL SCIENTIST C. B. R. I.,
ROORKEE

“To tackle global challenges and improve lives worldwide”

UETR has research programs aimed at advancing knowledge, improve our world, and shape the future. Multi disciplinary research is key to our vision and strategy to address the diverse, complex and demanding problems of today’s society. Research activities are conducted collaboratively by our Expert Groups and in UETR

funded Centres of Excellence. Most of our research activities are sponsored by Government research funding agencies as well as industries. It helps in strengthening the undergraduate and postgraduate research programs. We aspire to become the leaders in research publications and patents. We also organize special lectures for research and Intellectual Property Rights.

RESEARCH AREAS



UETR focuses on the following to motivate students and faculty towards research:

1. Every student writes a research paper every year which is compiled into a research magazine published at the end.
2. Faculty members are entrusted to publish papers in reputed International journals.
3. Students and faculty members are motivated to file patents.
4. UETR also funds innovative research projects.
5. Monetary incentives are given to faculty and students for bringing research grants and publishing research papers.

RESEARCH FACILITIES





UETR LIBRARY lives up to the vision and mission of the university – empower the students in their pursuit of education and learning. One can find answer to any intellectual inquiry in the libraries of UETR which house the world's most diverse range of scholarly resources, books and journals and audio-visual material as well.

The Central Library has a good collection of **books, journals, E-journals, E-books, CDs etc..** It is fully automated. It contains a rich collection of **16,419 books**. (Text Books and Reference) **67 Print Journals and Magazines and Daily 11 titles of Newspapers, Employment oriented Newspapers, more than 20 Thousand e- books, and approximately 6500 e-journals.** A Rich collection of **Dictionaries, Encyclopaedias, Syllabi, Research Papers/Conference** publications, many rare books, books for competitive exams i.e. **Aptitude, GATE, GRE, Made Easy, TOFEL, Personality Development and Question bank** of previous years in the form of digital and bound form are available for easy access too. UETR library is a member of **DELNET for accessing e-resources.**

The Library is divided into the following sections

General Book Section

All the books available in General Book Section are arranged subject wise, users can pick the books of desired titles/subject and get them issued for a period of maximum fifteen days. Books related to all emerging technologies are also available.

Reference Section

This section contains Dictionary, Encyclopaedia, Reference books, Rare books, publications and Research Papers are available in general book section.

Digital Library Section

Our students aren't limited to the resources housed in our library because the University provides them access to a number of online journals, e-resources and e-books.

Periodical Section

All the journals magazines & newspapers come under this section. Library subscribes 67 print journals and Magazines of various disciplines and 11 titles of newspapers.

Some important links :

DELNET : <http://delnet.nic.in>

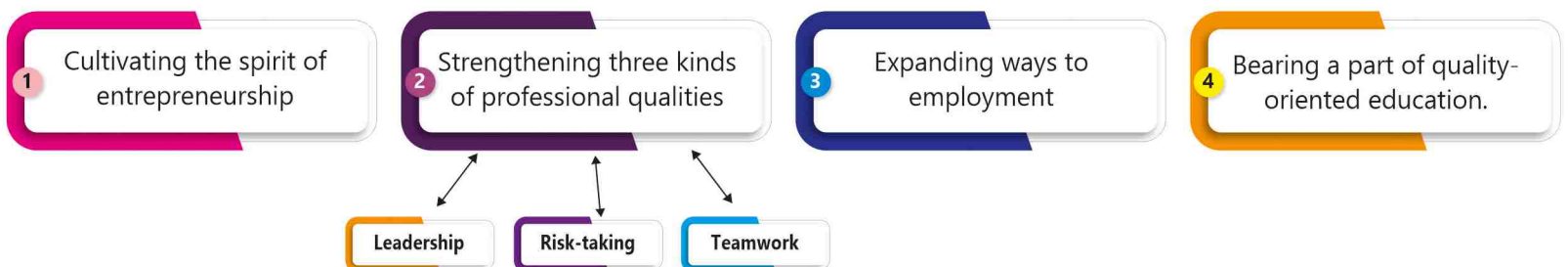


SHAPING IDEAS TO REALITY

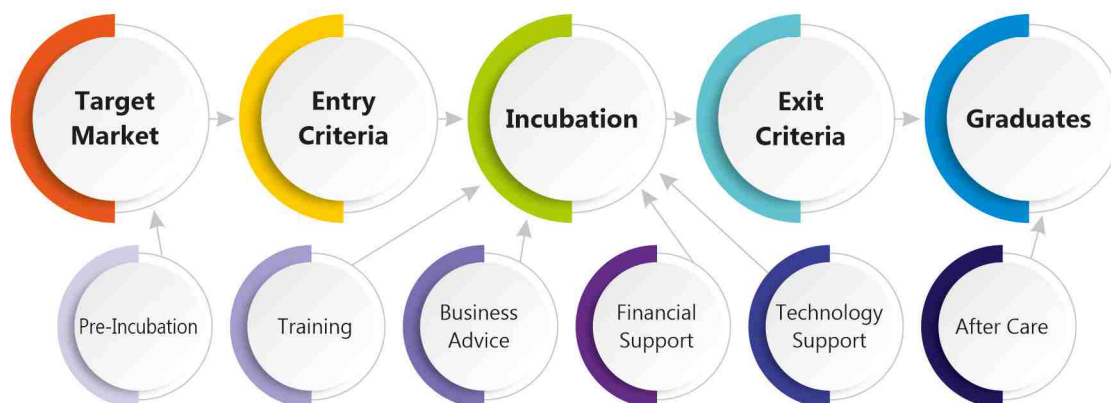
Through our unique **CIIC** we take pride in offering student entrepreneurs the ideal space to create, collaborate and dream. The Centre at UETR is actively involved in **developing the paradigm of entrepreneurial** mindset and environment of ideating, creating, and commercializing ventures by developing

entrepreneurial skills in students and providing physical, technical, business, and networking support. It has **five industry collaborations, eleven external mentors,** and has hosted **twenty-five awareness programs,** including **boot camps, concept competitions,** and interactions with successful startup founders.

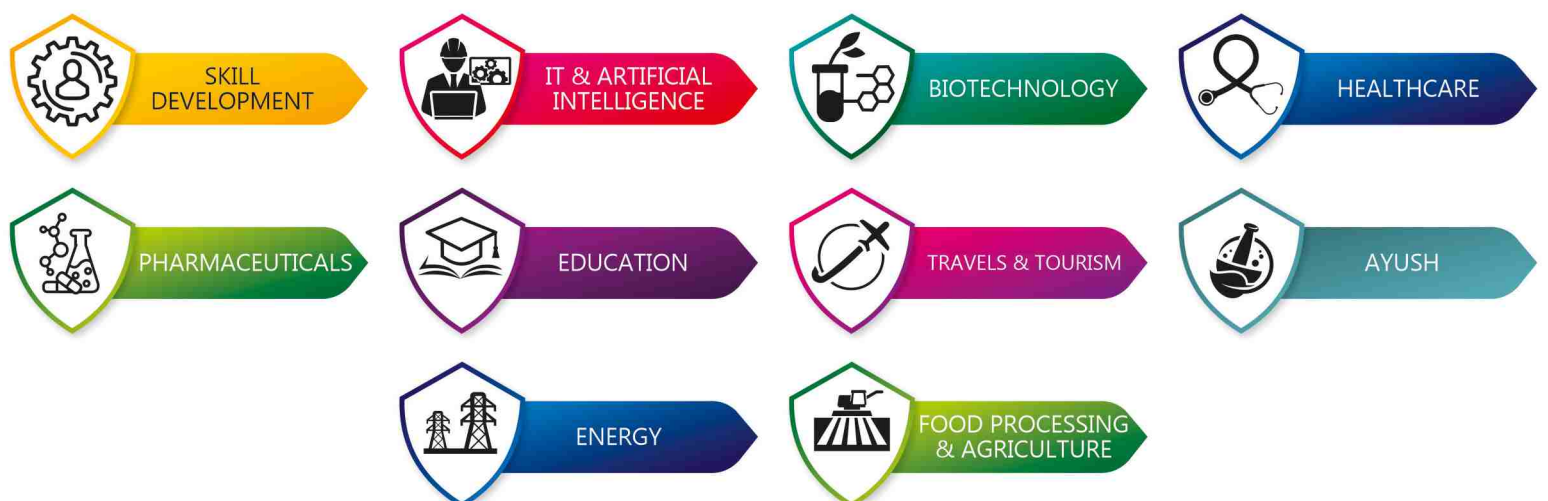
OBJECTIVES



WHAT WE DO



FOCUS SECTORS



At University of Engineering & Technology Roorkee, we push our students to take that extra step ahead from the conventional form of education. It is not just the book that define education, but is the experience and its quality that makes the students stand out and defines the path they take towards shaping their tomorrow. To help the student "Be a Game Changer" he/she gets to study at :-

- A. Centres of Excellence
- B. Emerging Tech Labs
- C. Do-It-Yourself (DIY) Labs

CENTRE OF EXCELLENCE (COE)

"A Tool for Capacity Building"

Centre for Industrial Technology on Pneumatic Application & Valve Research

Centre for Sensorics Technology & Application

Centre for PLC- Training & Application

Centre for Industry 4.0 Application Studies and Research

Centre for Internet of Things

COE focuses on the **empowerment of students, academicians and industrial** manpower by filling the gap between academic education and industry requirements. At CoE, certified training programs and courses are designed in such a manner that students get maximum exposure to hands-on practices from day one of their training programs.

Centre for Technology on Space Applications Development and Research (SDNx)

Centre for Renewable Energy - Bio Fuel and Solar

Centre for Product Design with AR / VR

Centre for Computer Hardware and Networking

Centre for Data Science & High-Performance Computing



CENTRE OF EXCELLENCE (COE)

“A Tool for Capacity Building”

The Centre's deed is to focus activity on the FOUR quadrants :

In each Centre of Excellence (CoE), we have a team of skilled, knowledgeable professionals and instructors whose mission is to provide the best practices around a particular area of interest. A CoE also includes representatives from industry, business and other national and international institutions.



EMERGING TECH LABS

"REIMAGINING OUR FUTURE LIVES WITH TECHNOLOGY"

AI and ML Lab

The Machine Learning Laboratory carries out research and develops different theoretical foundations for machine learning.

Data Science Lab

The Data Science Lab focuses on applying machine learning, data mining and neural network analysis.

Cyber Security Lab

The Cyber Security Laboratory is a state-of-the-art dedicated space in which students can safely engage in cyber related activities.

Graphics Lab

A hands-on computational laboratory includes crowd and behavioural animation; experiments with graphics designing softwares; facial animation; motion and planning.

Cloud and Informatics Lab

Focusing on resource allocation in Clouds, Cloud Security, Big Data Analytics, Software Defined Networks, Cloud Storage and Cloud for Telecom sector.

Computer Hardware, Software and Networking Lab

Train students in various aspects such as computer systems, motherboard, processor, RAM, routers, switches, hard disks, printers and keyboards etc.

Web and App Development Lab

This lab covers basic and advance knowledge of Web and App development softwares such as PHP, .NET, Angular JS, Node JS, Swift etc.

Communication Lab

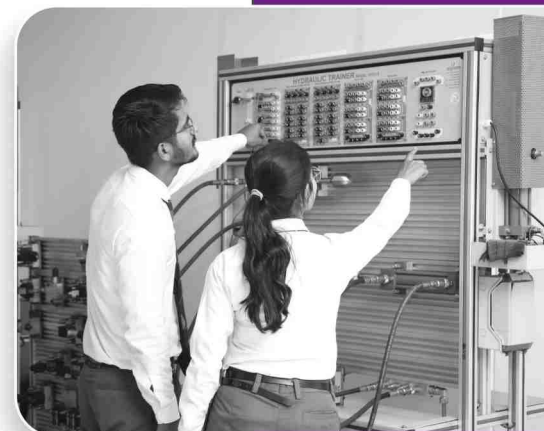
To facilitate computer-aided multi-media instructions enable individualized and independent language learning. To sensitize the students to the nuances of English speech sounds, word accent, intonation and rhythm.

Business Lab

Giving the exposure to students to investigate and creatively intervene the interface between business, technology, science and societal needs, with a focus on innovation catalysed by business design.

Advanced Agriculture Lab

It provides in-depth knowledge to students on advanced farming for many crop related practices along with the understanding of latest technologies like GIS and GPS used in agriculture.



DO IT YOURSELF

'NEW AGE EDUCATION, LEARNING BY DOING'

UETR guides the young talents to convert their dreams into reality for Innovation and Advance Technology in the field of **AI, Digital Intelligence, Drone Engineering, Robotics Engineering, Smart Agriculture and many more**. It provides Mentoring and Technical Support to each student in project implementation.

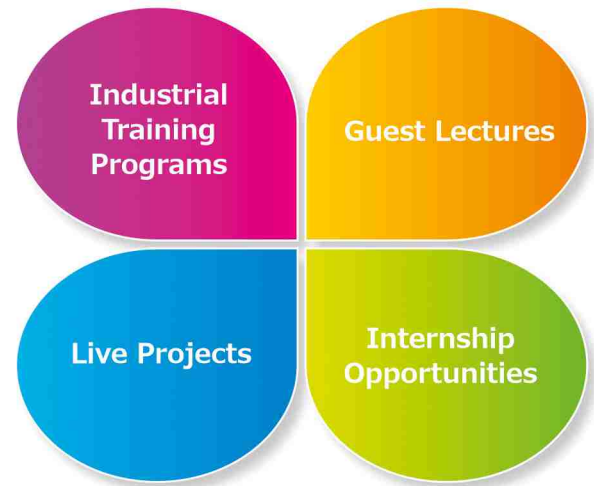
Here students are free to convert their innovative ideas into action. This lab is open 24X7 and viable projects are also funded by the management. All the tools and instruments required by the students are provided by the university.

SOME UPCOMING COLLABORATIONS

- All India Council of Robotics & Automation (AICRA)
- Automation Industry Association (AIA)
- India China Technology Transfer (ICTT)
- Darlo Group - Australia
- Yale University - UK
- DIC & Tinkering Lab, IIT Roorkee



Employability is at the heart of everything we do at UETR. We think outside the classroom to ensure our students graduate as confident and career-ready individuals, prepared to make a difference in their chosen field. UETR students will not only achieve a qualification, but leave campus equipped with life-changing skills. Our graduates will be motivated, self-confident, digitally aware, enterprising individuals who are making an impact on the world stage. Under graduates and post graduate students will stand out.



Collaborative Projects with Industries

1

We continue to build strong links with organizations in the public and private sectors for students to undertake collaborative projects with businesses for mutual benefit.

Summer Internships with Companies

2

We believe that unless students can apply their learning in a professional environment, their learning is incomplete. Students are provided with the opportunity of summer and winter internships to enhance their knowledge.

Continuous Mentorship

3

Through our faculty mentor, industry advisor, seniors, you will get a chance to share your experiences and challenges. Also, you will be able to get career related advice, insights and inspiration.

Industrial Visits and Field Trips

4

UETR uses its excellent relationships with companies to provide students with the chance to take their campus-based learning into a real world scenario.

Networking and Career Events

5

Working closely with faculties, and the Placement Team to arrange lot of opportunities for students to meet employers, professional bodies and industry experts on campus, including insight events, careers fairs and employer-led skills workshops.

Visiting Speakers and Guest Faculties

6

All of our courses include the opportunity for guest lectures, where students can hear directly from professionals, external experts and industry leaders in relevant sectors, and discover how their theoretical knowledge can be applied outside the classroom.

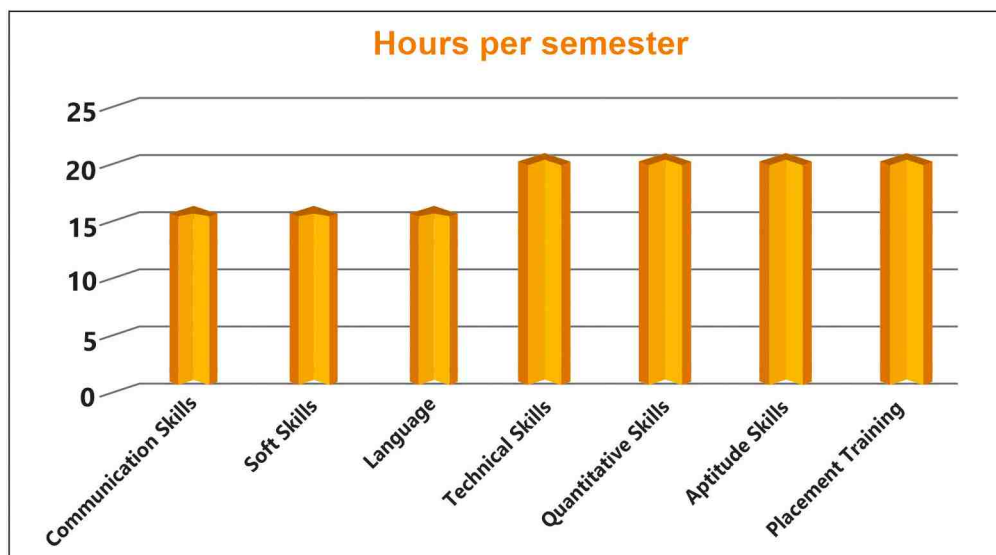
Training Framework

7

An intensive training regime which starts from first Semester to prepare students for their placements. Training for government jobs and competitive exams are also provided to students.



Additional hours are provided for training purpose in each semester on skilling in different proficiencies



Some of the Collaborations are :-

CISCO NetAcad



CISCO Networking Academy is a global workforce development program for learning institutions and individuals worldwide. It provides access to industry-relevant curriculum and content in areas of Networking, Cyber Security, Programming IoT, programmable infrastructure, Linux and General IT are available at Zero Cost to the institutions.

INTEL



Intel has a program known as Intel College Excellence Program. Under this, Intel has set up its lab in UETR Campus, where it provides intensive, industry ready training on Intel Software. The students are given live projects and problems to work upon by Intel Trainers.

CII



Confederation of Indian Industry

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the development of India partnering Industry, Government and Civil society, through advisory and consultative processes.

HESCO



Himalayan Environmental Studies and Conservation Organization, Dehradun in its essence is truly rural as it derives inspiration from the villages and devises solutions for their problems. It helps them to focus on their economic and development needs and encourages them to tap local resources that open up new avenues to self-reliance.

AIMA



ALL INDIA MANAGEMENT ASSOCIATION

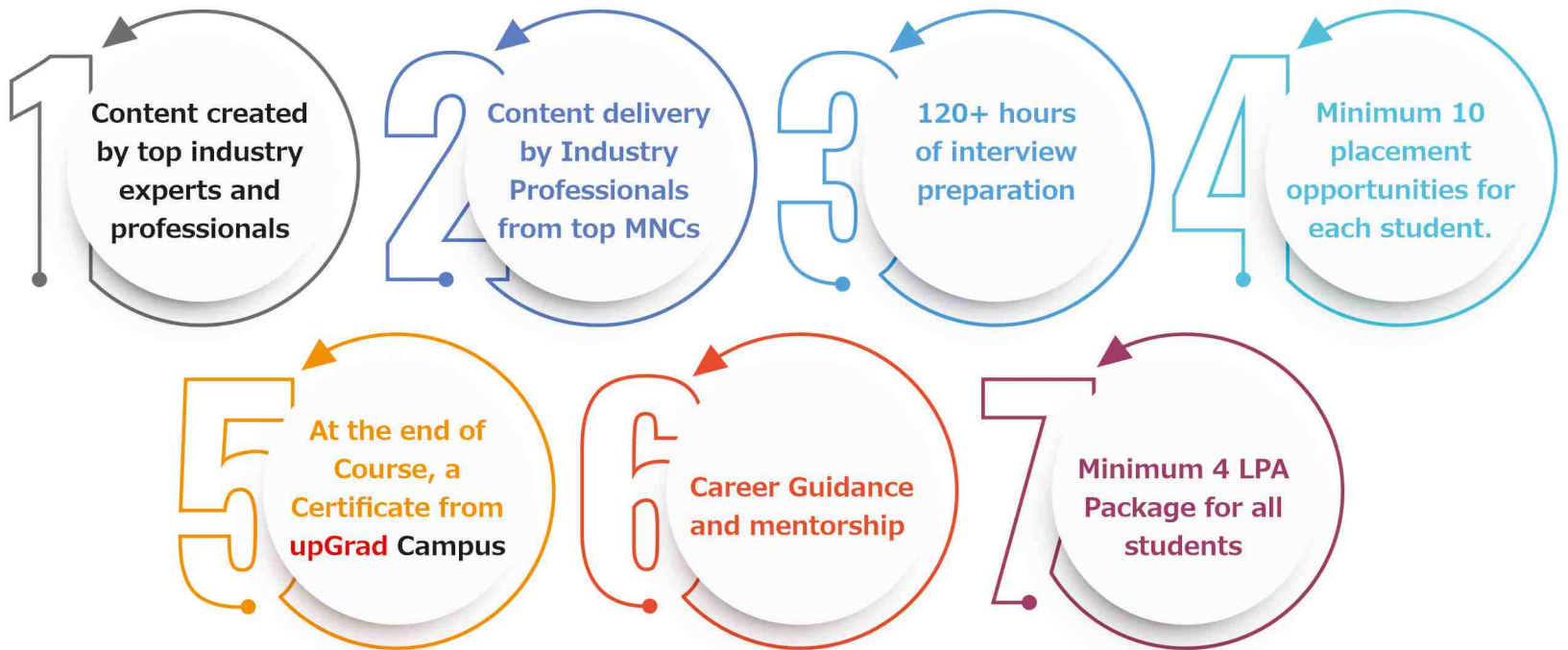
The All India Management Association (AIMA) is the national apex body of the management profession in India. AIMA is a non-profit, non-lobbying organisation, working closely with Industry, Government, Academia and students.



UETR has collaborated with upGrad campus to up skills its students and make them Industry ready. upGrad Campus focuses on getting college students job ready by bridging the gap between the college curriculum and the industry requirements.

Merging the latest technology, pedagogy, and services, upGrad is creating an immersive learning experience – anytime and anywhere.

How upGrad Campus will benefit UETR students ?



Programmes signed under the partnership are as mentioned below:

1.	2.	3.	4.	5.	6.
<i>B.Tech CSE specialization in AI/ML</i>	<i>B.Tech CSE specialization in Cyber Security</i>	<i>BBA specialization in Business Analytics</i>	<i>BBA specialization in Digital Marketing</i>	<i>MBA specialization in Business Analytics</i>	<i>MBA specialization in Digital Marketing</i>

CORE Modules taught under each certification are as follows :-

B. Tech (Hons.) CSE with specialization in AI and ML

- 1 Object Oriented Programming in Java
- 2 Algorithm Analysis & Design Techniques
- 3 Data Structures
- 4 Python for ML
- 5 SQL & Visualisation
- 6 Statistics & EDA
- 7 Machine Learning 1
- 8 Machine Learning 2
- 9 Natural Language Processing
- 10 Competitive Programming
- 11 Big Data Analytics
- 12 Deep Learning

B. Tech (Hons.) in CSE with specialization in Cyber Security

- 1 Java (OOP)
- 2 Algorithms
- 3 Data Structures
- 4 Competitive Programming
- 5 Python Programming
- 6 Fundamentals of Cyber Security & Anonymity
- 7 Cryptography
- 8 Infrastructure & Network Security
- 9 Web Application & Database Security
- 10 Malwares & Social Engineering Attacks
- 11 Memory Corruption Attacks

BBA with Specialization in Digital Marketing

- 1 Digital Marketing
- 2 Web Development, Design & Popular Website Tools
- 3 Designing Content for Websites and tracking
- 4 Designing your online website
- 5 Content Marketing Strategy
- 6 Search Engine Optimisation
- 7 Search Engine Marketing
- 8 Email Marketing
- 9 Inbound Marketing
- 10 Email Marketing
- 11 Social Media Marketing – I
- 12 Social Media Marketing – II
- 13 Mobile Marketing
- 14 Marketing Communication with focus on Public Relation
- 15 Marketing Data Analytics
- 16 Digital Marketing Analytics in Practice
- 17 Analyzing Data from reports/tools

BBA with specialization in Business Analytics

- 1 Introduction to Data
- 2 Data Analysis in Excel
- 3 SQL & Advance SQL
- 4 Data Analysis with python
- 5 Understanding the business problem and formulating hypothesis
- 6 Analysing Patterns and Storytelling
- 7 Data Visualization with Tableau
- 8 Exploratory Data Analysis & Inferential Statistics
- 9 Hypothesis Testing & Predictive Analytics
- 10 Big Data Analytics
- 11 Career Prep

MBA with specialisation in Business Analytics

- 1 Tools & Statistics for Business Analytics
- 2 Business Problem Solving & Visualisation
- 3 Machine Learning
- 4 Exploratory Data Analytics & Hypothesis Testing
- 5 Fraud, Risk & Supply Chain Analytics
- 6 Marketing, Social Media & HR Analytics
- 7 Career Prep

MBA with specialisation in Digital Marketing

- 1 Introduction to Digital Marketing
- 2 Web Development Fundamentals
- 3 Content Marketing
- 4 Search Engine Optimisation (SEO)
- 5 Search Engine Marketing (SEM)
- 6 Social Media Channel
- 7 Social Media Strategy
- 8 Social Media Marketing
- 9 Email Marketing
- 10 Marketing Data Analytics & Conversion Optimisation
- 11 Digital Marketing Analytics in Practice

Career Planning is an important aspect for every individual and we at UETR are dedicated to help you *Achieve your Dreams*. For this we have created a highly trained **Career Development Cell (CDC)**. The CDC aims to guide students to think in terms of careers where they can excel in their inherent potential. With an approach that combines theoretical foundations of academic disciplines and empirical demands of industries, UETR trains the professionals of tomorrow.



The main objectives of the CDC are :

Career Planning & Counselling

1

- a. Faculty Mentors and Industry Experts counsel the students
- b. Various talks on Job Opportunities at Campus

Experiential Training Methodology

2

- a. Result Oriented Content
- b. Continuous Evaluation Test
- c. Audio Video Presentation
- d. Games & Activities

Special Events

3

- a. Guest Lectures
- b. Workshops
- c. HR Summits & Conclaves

Holistic Soft Skill Training Program

4

- a. Interview Practice
- b. Personality Development Sessions
- c. Group Discussions
- d. Focus on Communication Skills

Periodical Evaluation

5

- a. Mock Test from various industries
- b. A question bank from previous years
- c. Recorded Lectures

Campus Placements

6

- a. Huge Pool of Companies for On Campus Placement
- b. Company Specific Training



We at UETR give equal weightage to extra-curricular and social activities for the complete experience. There are a huge range of Clubs and Committees to keep the students engaged and all round development of the students.

CLUBS

TRAIC (The Robotics and Innovation Club)

- To aware about different types of Industry Robots
- To provide facilities to students for new innovation
- To incorporate the thinking of engineers in a new way
- To create innovative robots for research & developments
- To shape the capabilities of upcoming generation



Eco Club (The Eco-friendly Club)

- To encourage students to be a part of solution not pollution.
- To create awareness among students for surrounding atmosphere.
- To enhance the environmental skills of students.
- To give a path to the students for clean and pious environment.



Events :

- Artificial Bird Nests : Related to friendly environment
- For Green and Clean campus : For Green Campus
- Haritima : Annual Festival
- NATURATHON : Marathon Event

DAKSH (The HR Club)

"People, Process, Power"

- The purpose of ensemble is to bring together students interested in the field of Human Resources Management.
- To help them develop interpersonal skills needed in the corporate world.
- To encourage them to meet professionals who work in the field of Human Resources Management.
- To give an exposure to the students so that they will be able to plan their future.



KUBER, (The Samriddhi Club)

"Learn Today Earn Tomorrow"

- Kuber club is a finance club which is the fountainhead of knowledge and new ideas in the field of Finance.
- To be the fountainhead of knowledge and new ideas in the field of Finance.



MARKIZONE (Marketing Club)

- To create awareness about Marketing.
- Marketing Activities are explored with new dimension.



GREEN LEAF CLUB

"Improving Agriculture, Improving Lives"

- To create entrepreneurship skills among students of agriculture discipline.
- To reduce pollution in the air and conserve vegetation.
- To focus on recovery of ecosystems.
- To conserve biodiversity in our society.
- To free the society from hazardous substance.
- To increase awareness of environmental issues among the public.



COMMITTEES

OORJA - (The Cultural Committee)

- It conducts various cultural events maintaining the norms of Indian tradition as well as touching global diversities of culture.
- To enhance the cultural skills of the students.
- To give opportunities to students for showing their hidden talents.
- To build up management and corporate management skills of the students.



The Events: ● Deep Sandhya ● Foundation Day ● Gandhi Jayanti ● Teachers Day ● Annual Cultural Fest

ABHYUDAYA - (The Literary Committee)

- To hone the literary skills of students.
- To give a platform for development of art of public speaking, debates and oral presentations.

The Events : ● War of Words ● English Ability Test (EAT)
 ● Group Discussion ● Pixit ● Vaad Vivaad Pratiyogita
 ● Colors of Satire - Vyang ke Rang ● India Awareness Quiz (AQ)
 ● Novelophillia



THE LINGUISTIC COMMITTEE

- Aim is to develop the Inter-Personal and Soft Skills of the students.
- Vision to prepare students for different competitive exams.
- English Aptitude Test to enhance the ability skills of the students.
- To prepare students for training and placement activities.

The Events :

- Foreign Language Courses
- TOPEL (Test of Proficiency in English Language)
- Regular Language Based Activities in Classrooms and Hostels
- Expressions (The Annual Linguistic fest)



'EARN WHILE YOU LEARN' COMMITTEE

'Earn While You Learn' committee of University of Engineering and Technology Roorkee encourages students to take up coding as their hobby and improve their skills for a better future.

List of projects under 'Earn While You Learn'

- Virtual reality game on football
- App for determining the appropriate thickness of glass used in buildings in different regions of the country
- App for integrating daylight for improving building energy system during daytime in all climates
- App for determining the appropriate thickness and u value for walling
- Hand Motion Gesture recognition through Machine Learning
- Climatic analysis mapping through arc gis and data science
- App development on wayside amenities on Char Dham Yatra of Uttrakhand

- Website Development of energy efficient building using IoT sensor
- Augmented reality assistant development through unity 3D



GAME DEVELOPMENT COMMITTEE

The GDC emphasises on overall development in the field of game development, IoT, etc.

List of projects under Game Development Committee

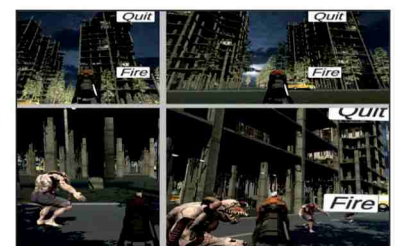
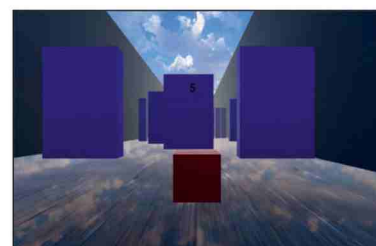
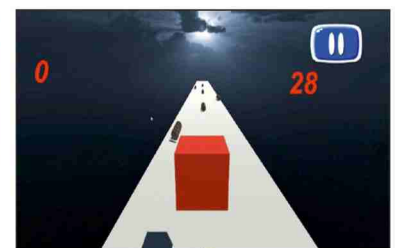
1. Voice Control Game
2. Zombie Attack
3. BlockRun

CODING GEEKS

In today's rapidly changing environment, programming skills are essential tools that can be utilized and incorporated into various fields and domains. Hence, it becomes absolutely essential to equip young minds with such skills.

List of projects under Coding Geeks

1. Human Action Recognition through detection system using Machine Learning



We believe that for “A healthy mind you need a healthy body”. The main objective of the sports club is to provide an opportunity for all students to take part in outdoor games such as **Football, Basketball, Volleyball, Cricket, Squash** competitions and some of the indoor games like **Carom, Table Tennis, Chess**, etc. Sports Club of UETR organizes the inter institution fest every year. The UETR sports team takes part in intercollegiate competitions, inter-district competitions and inter-state competitions.

Objectives :

- To enhance the sports skills of the students.
- Motivate students to pursue their passion along with academics.
- A platform for the students to show their potential.





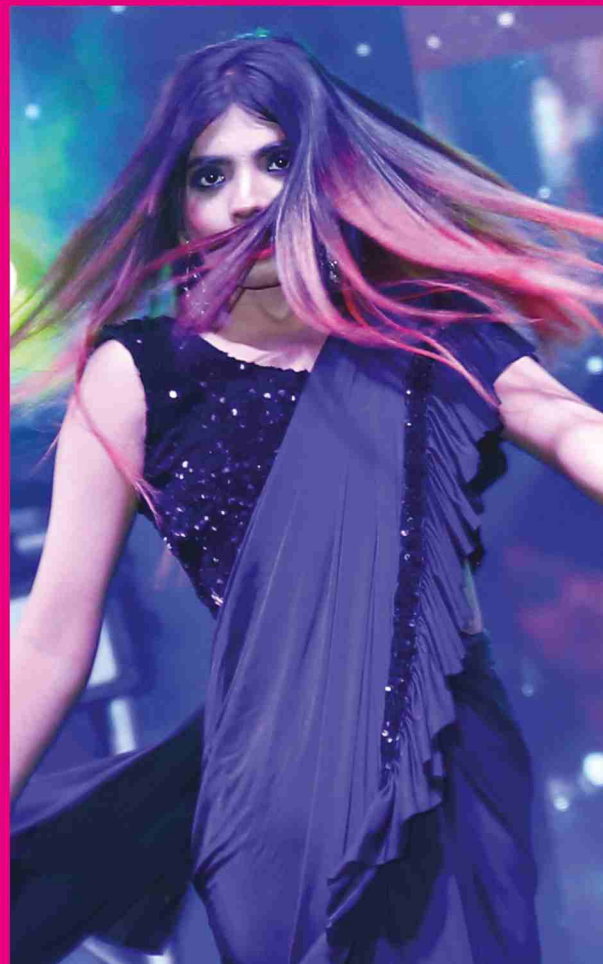
UETR Residential Complex has the uniqueness of many state-of-the-art buildings, sprawling lawns, well maintained playgrounds in pollution free environment. It has been planned, designed and constructed to address broader issues that relate to resource and energy conservation. Thoughtful landscaping creates a vibrant campus and motivates students to remain lively and active.

Separate Hostels are established for boys and girls that provide feeling of "a home away from home". Student hostels, at full strength, can accommodate around 1000+ students. The whole campus is wi-fi enabled.

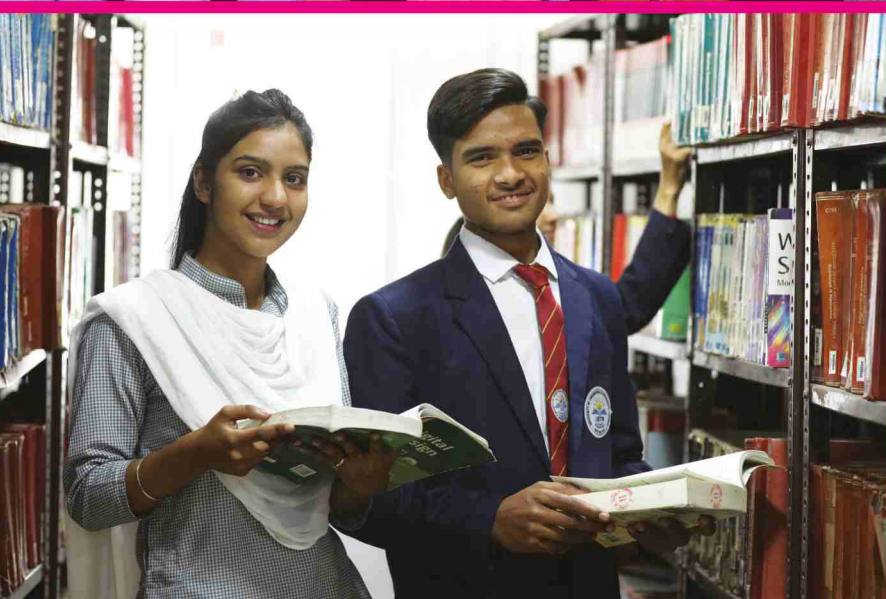
We at UETR, ensure that students can put their hundred percent into curricular and extracurricular engagements . Reading rooms and mini library is available in each hostel. Separate Gym is available for Boys and Girls. Reading room in each hostel has magazines, newspaper, books etc. Indoor games like **Table-Tennis, Chess, Carrom, Squash, Lawn Tennis Courts, Volley Ball, Basket Ball, Badminton courts** are also available within the residential complex.



Life@UETR



Life@UETR





VARDHMAN AUDITORIUM



VARDHMAN AUDITORIUM INSIDE



CLASS ROOM



BOARD ROOM

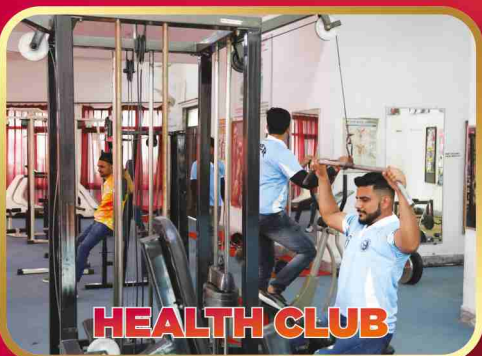
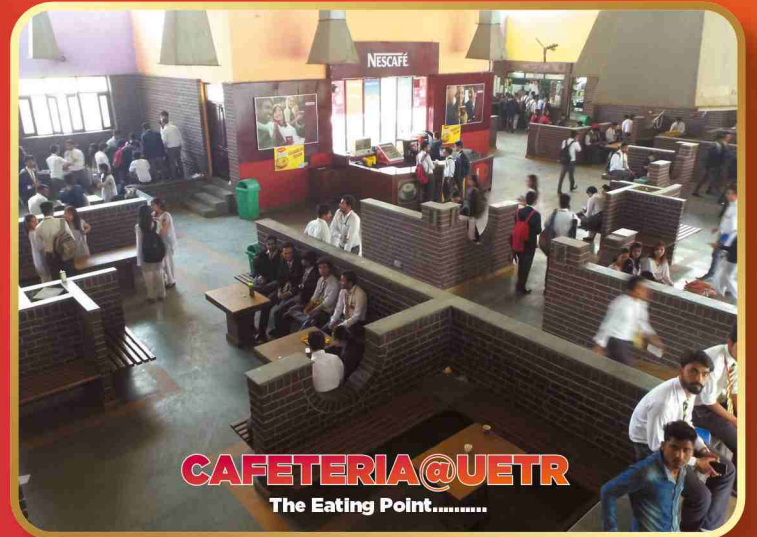


SEMINAR HALL





STUDENT CENTRE



HEALTH CLUB



DEPARTMENTAL STORE



ATM FACILITY



ADVANCED COMPUTING BLOCK



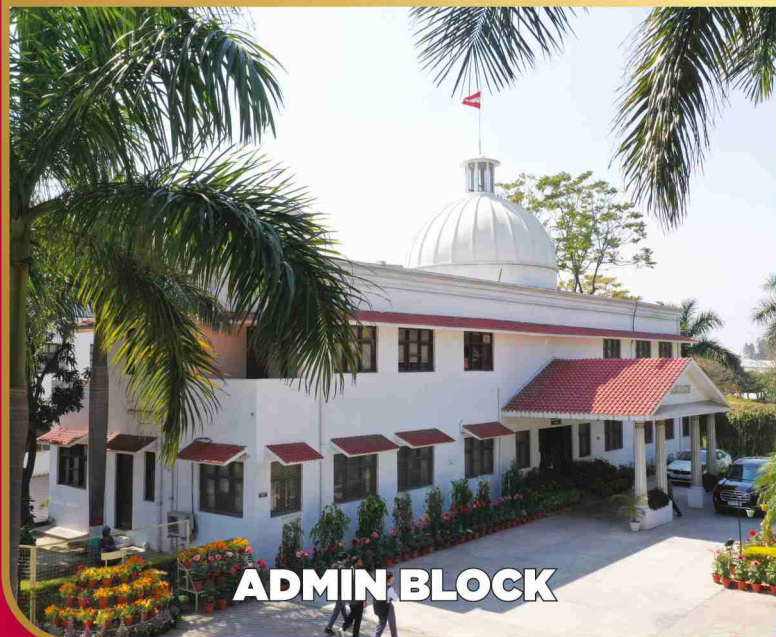
ADMISSION BLOCK



LABORATORY BLOCK



CENTRE OF EXCELLENCE BLOCK



ADMIN BLOCK



ACADEMIC BLOCK



MESS@UETR

UETR's dining hall with its modern kitchen is designed to cater to students and staff with hygienically cooked **PURELY VEGETARIAN** food to develop healthy minds. A dining hall is a place not just for meals but also where ideas get exchanged. Student's Mess Committee prepares the Menu for each meal – breakfast, lunch, evening tea and dinner. Mess also provides dining provisions for Day Scholars. Meals are regularly checked for their quality and taste by hostel administration and mess committee members.

SAFETY AND SECURITY

At UETR, we are committed to enhance the quality of student life by maintaining an open yet safe and secure environment. The gated campus is ringed by high walls, CCTV Cameras in place at strategic points and has 24-hour uniformed security patrol service. Vice Chancellor, Dean Student Welfare, Dean Academics, Chief Warden and all the Warden resides in the campus. Students can freely interact with them like their guardian. It develops a strong bond and a deep sense of belongingness. The administration of the hostel is under Chief Warden. Student's discipline and hostel administration are entirely look after by the Dean (Student Welfare).



MEDICAL FACILITY

24X7 medical facilities are available with 100 bedded hospital equipped with all type of modern facilities in the university premises.

LAUNDRY

At UETR, we take all steps to make students comfortable. The laundry unit is well equipped with machinery for washing all kinds of clothes and fabrics. With nominal charges, laundry offers dry-cleaning services also.

School of Computing (SOC)

Under Graduate (3 years)

- Bachelor in Computer Applications (BCA)

Under Graduate (4 years)

- B. Tech (Hons.) Computer Science and Engineering
- B. Tech (Hons.) CSE with Specialization in AI & ML
- B. Tech (Hons.) CSE with Specialization in Cybersecurity
- B. Tech (Hons.) CSE in AI & ML with UpGrad
- B. Tech (Hons.) CSE in Cybersecurity with UpGrad

Post Graduate (2 years)

- M. Tech Computer Science and Engineering
- Master of Computer Applications (MCA)

School of Business Studies (SOB)

Under Graduate (3 years)

- BBA
- BBA (Business Analytics, Digital Marketing) with UpGrad
- B.Com (CFA)
- B.Com (Hons.)

Post Graduate (2 years)

- MBA (HRM, Marketing, Finance, IB, IT, OM, Business Analytics, Agri Business Management)
- MBA (Business Analytics, Digital Marketing) with UpGrad
- M.Com

School of Smart Agricultural Science (SOA)

Under Graduate (4 years)

- B.Sc. (Hons.) Agriculture

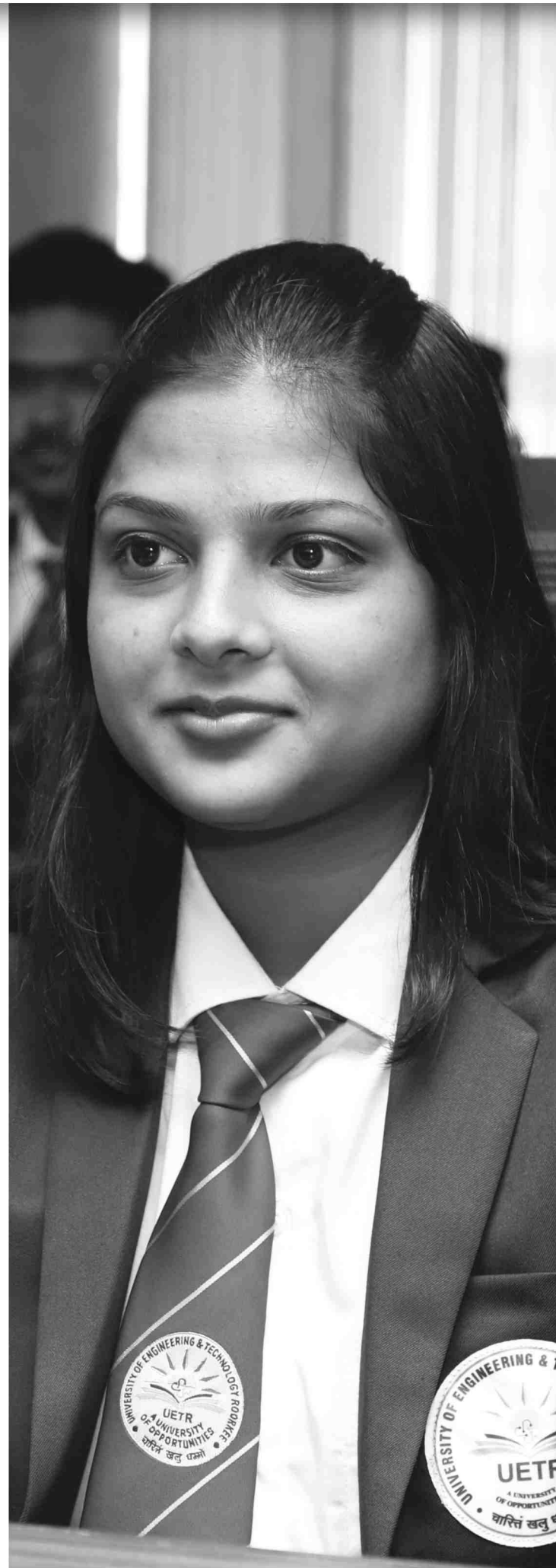
Post Graduate (2 years)

- M.Sc. (Hons.) Agriculture

School of Design (SOD)

Under Graduate (4 years)

- B.Des in Product Design with AR/VR
- B.Des in Visual Communications Design with 2D/3D animation
- B.Des in Interaction (UI/UX) Design With 2D animation



Process :

UETR offers admission to all eligible candidates. A wide variety of options are available to the students because of the diverse and innovative programs. Each course has different specifications and specializations. Hence, UETR follows the divergent admission criteria for each of them.

Applicants need to appear for the Combined Entrance Test conducted by UETR.

Eligibility Criteria

- B.Tech** Minimum 45% marks in 12th standard examination with Physics Chemistry and Mathematics (PCM). 40% marks for SC/ST categories.
- BCA** Minimum 45% marks in 12th standard or its equivalent examination with Mathematics. 40% marks for SC/ST categories.
- M.Tech** Candidates must have a valid GATE score or 50% aggregate marks in bachelor degree. Reserved category candidates have relaxation on marks of 5%.
- MCA** Passed Graduation degree in BCA/ B.Sc. (IT)/ B.Sc. (CS).OR Passed B.Sc. / B.Com. / BA with Mathematics at 10+2 level or Graduation level.
- BBA & B.Com (CFA)** 45% marks in 12th.
- MBA & M.Com** 50% marks in graduation for Gen and OBC Category, 45% marks in graduation for SC/ST Category, Valid Test Score of MAT/CAT/XMAT/UETR Entrance test, GD & PI.
- B.Sc. (H) Agriculture** Minimum 50% marks in 12th standard science streams. 45% marks for SC/ST categories.
- M.Sc. Agriculture** Bachelor's degree in Agriculture/Forestry/Horticulture from a recognized university. He/she should have qualified the degree with not less than 50% marks in aggregate.
- B.Design** The candidate should have secured a minimum of 45% in their class 12th. 40% marks for SC/ST Category.

Documents Required

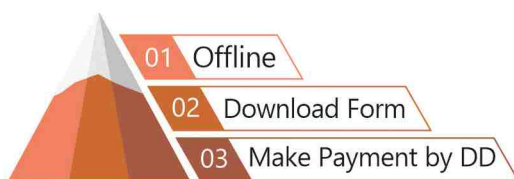
- Xerox copy of JEE (main) Score Card.
- Xerox copy of High School mark sheet and certificate duly attested by a Gazetted Officer.
- Xerox copy of Intermediate mark sheet duly attested by a Gazetted Officer.
- Original copy of Character Certificate from the principal of the school last attended.
- Three passport size photographs.
- Migration to be submitted at the time of admission.

SCHOLARSHIP ASSISTANCE

UETR provides scholarship assistance to the meritorious and need based students under the following category :

- Merit Scholarship
- Merit cum Means Scholarship
- Need based Scholarship
- SWANATH Scholarship

Registration Procedure



CHOOSE
A COURSE

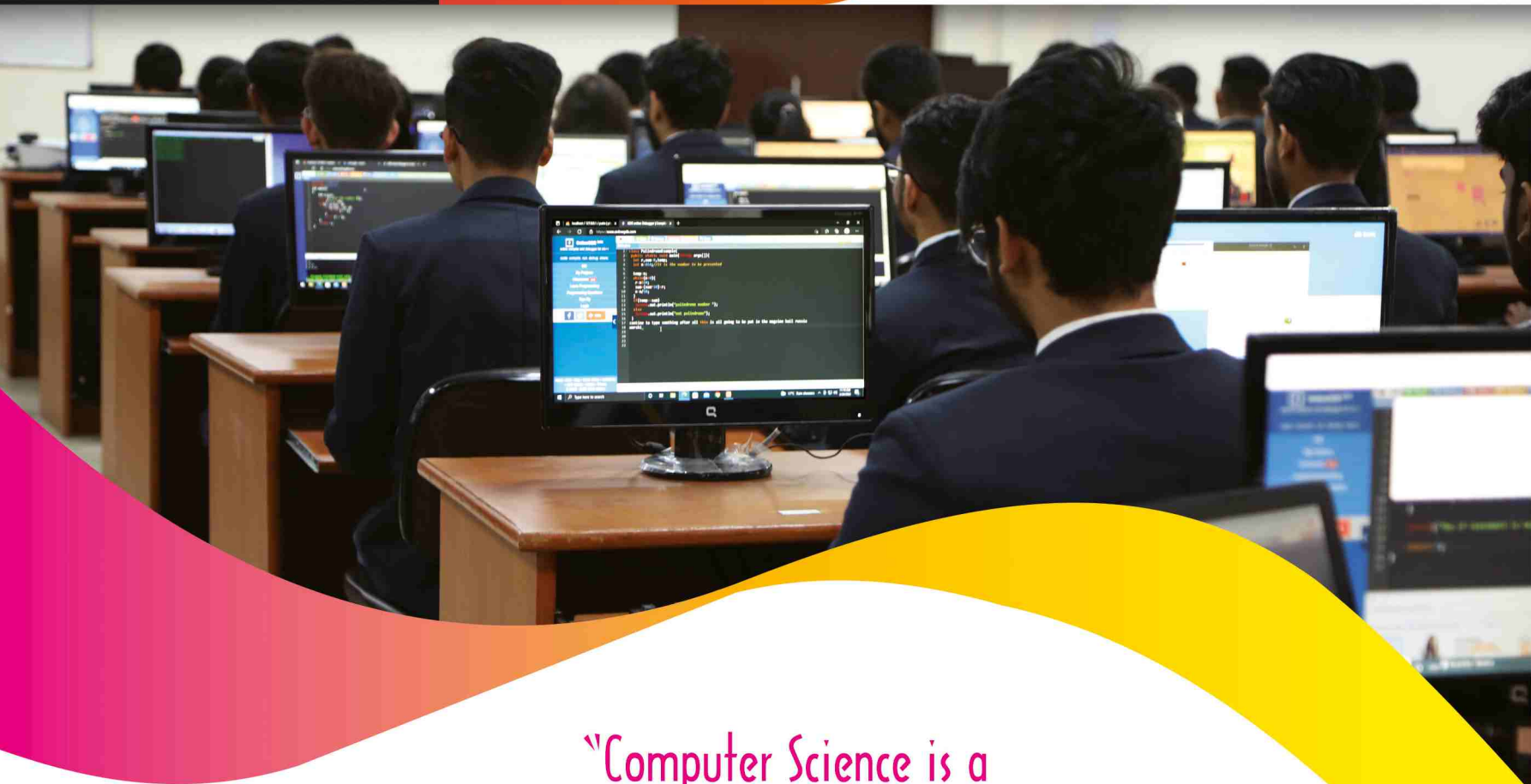
REGISTER
NOW

GET A
CONFIRMATION
CALL

Confused ???

Call for a **FREE COUNSELING** session

Contact us : 8070500600, 9027916050, 9027916051, 9027916052
+91- 8070500600 | Website : www.uetr.ac.in



“Computer Science is a Science of Abstraction”

Value Added Programs

1. Cloud Computing
2. Virtual and Augmented Reality
3. Web Designing Using PHP, Angular JS, Node JS
4. Cybersecurity and Forensics
5. Natural Language Processing
6. Deep Learning
7. Data Science
8. FullStack Web Development

Industrial Visits

1. Infosys Chandigarh
2. Newgen Software Tech. Noida
3. Smart Data Technology Mohali
4. IBM
5. Onida Electronics Roorkee
6. Franconnect
7. Rubico IT

The school of computing aims at making the students capable of initiating, developing and managing their own entrepreneurial venture in different fields such as Artificial Intelligence, Machine Learning, Cybersecurity and Data Science. The school emphasize on creating professionals having capacity of doing job at global workforce through Project Based Learning [PBL] and Value Added Programs [VAP] in emerging areas of computer science with industry oriented curriculum. The school of computing is an open platform for diverse voices where teaching runs parallel to the real world and students are grown to join the global workforce.



Guest Lectures & Webinars

S. No.	Name	Designation	Address	Topic
1.	Dr. Partha Pratim Roy	Associate Professor	IIT Roorkee	Sign Language Recognition
2.	Dr. Ankit Kumar Jain	Associate Professor	NIT Kurukshetra	Cyber Security Threats and Challenges
3.	Dr. Sudip Tanwar	Professor	NIRMA University	Cyber Security and Block Chain
4.	Dr. Balasubramanian Raman	Professor	IIT Roorkee	Image Processing
5.	Professor (Dr.) Gopal Gupta	Erik Jonsson Professor	University of Texas, Dallas	Excitement of Computer Science and Artificial Intelligence
6.	Dr. Harpreet Singh	Professor	Wayne State University, Detroit, USA	The exciting world of CS and AI - my personal journey

Computer Labs

1. General Programming Lab
2. Data Base Management Lab
3. AI & ML Lab
4. Cyber Security Lab
5. Computer Networks Lab
6. Cloud Computing Lab
7. Data Analytics Lab
8. Graphics & Animation Lab
9. Research & Innovation Lab

Industrial Training

To bridge the gap between industry and academia, UETR aims at collaborating with various industries to provide practical training sessions to the students. In these sessions, students learn the emerging technology subjects and get hands on experience of industry's demands. Some ongoing collaborations are :-

1. CISCO Training Programs in Collaboration with CISCO Networking Academy.
2. Intel Training workshop in Collaboration with Intel Corporation.



B. Tech (Hons.) CSE

The Computer Science & Engg. is one of the enthralling program which has developed one of the best and cutting edge curricula in the field of science and technology programs with the active involvement of the industry and faculty members who help to **focus on an experiment based learning with live projects, state-of-the art labs, blended learning through MOOCs**. Experienced faculty members having the biggest inclination towards research use inventive and **distinctive student-centric pedagogy** aimed at ensuring the application of concepts about technology-based learning at the workplace.

Projects for B.Tech CSE

1. Product Recommendation Systems
2. Plagiarism Analyzer
3. E-commerce Website
4. Online Auction System
5. E-Authentication System
6. Cursor Movement on Object Motion
7. Android Battery Saver System
8. Symbol Recognition
9. Next Word Prediction
10. Face Recognition
11. Mask Detection

B. Tech (Hons.) CSE in AI and ML

B. Tech in CSE with specialization in AI and ML is a 4 year full time undergraduate degree course which is uniquely designed by UETR with AI and ML industry leaders to make the students master according to the demands of job market related with these trending technologies and also to enable students to build intelligent machines, software applications with the cutting edge combination of AI and ML.

Core Modules

1. Advance Neural Networks
2. Evolutionary Computation
3. Computer Vision
4. Deep Learning
5. Natural Language Processing
6. Supervised and Unsupervised Learning
7. Machine Learning and Pattern Recognition
8. Neuro Fuzzy Technology

Projects

1. Movie Recommendations with Movie lens Dataset
2. Stock Price Predictions
3. Human Activity Recognition with Smart phones
4. Wine Quality Predictions
5. Breast Cancer Prediction
6. Iris Classification
7. Sorting of Specific Tweets on Twitter
8. Turning Handwritten Documents into Digitized Versions
9. Heart Disease Prediction
10. Prediction of Bird Species
11. Gender Classification using Deep Learning
12. Personality Prediction System via OpenCV Analysis

B. Tech (Hons.) CSE in Cybersecurity

B. Tech in Computer Science and Engineering with specialization in Cyber security is a four-year full-time undergraduate course that will prepare students for industry emerging and exponential technologies. Cybersecurity is the practice of defending computers, servers, mobile devices, electronic systems, networks, and data from malicious attacks. It's also known as information technology security or electronic information security.

Core Modules

1. Master with Cybersecurity
2. Web Technologies
3. Distributed Computing
4. Information Security
5. Cyber Law and IPR
6. Security and Privacy
7. Blockchain Technology
8. Network and Application Security

Projects

1. Packet Sniffing
2. Keylogging
3. Decrypting Caesar Cipher
4. Bug Bounties
5. RFID Blocking
6. Encrypting Images
7. Detections of cyber threats
8. Antivirus
9. Intrusion attack detection
10. Image Steganography

M.Tech in Computer Science and Engineering

An M.Tech degree with us will leverage students to fulfil their career goals and find exciting employment opportunities. The program aims at preparing the students to take up application, research and development activities in the core and emerging areas of Computer Science with special focus on Data Sciences, Cloud Computing, Image Processing etc. The purpose of this program is to generate the professionals capable of supporting R&D activities in critical areas related to computing.

Core Modules

1. Data Science
2. Cyber Security
3. Advanced Database Management System
4. Artificial Intelligence
5. Image Processing
6. Deep Learning
7. Neural Networks

Projects

1. Chatbot Application
2. Eye Ball Cursor Movement using OpenCV
3. Fake News Detection using Deep Learning
4. Credit card fraud detection using Random Forest Classification
5. E-assessment using Image Processing in Exams
6. Sentiment Analysis using English senti world net
7. Driver Drowsiness Monitoring System using Visual Behaviour and Machine Learning
8. Customer Relationship Management
9. Build a Clothes Recommendation System
10. Detect Net Banking phishing

Bachelors in Computer Applications

BCA course in UETR Roorkee is gearing up effectively to avail the opportunities offered by the globalization with a curriculum, syllabus and teaching methodology that is domain driven, area specific as well as skill and application oriented. The degree helps interested students in setting up a sound academic base for an advanced career in Computer Applications. Recruiting companies include both big established companies like HP, Accenture, Capgemini, Cognizant and new-age technology startups like Flipkart. The average salary package post BCA varies between INR 4 LPA to 10 LPA depending on company and the specific role/designation. A BCA graduate has scope in jobs such as Software Engineer, Web Designer and System Analyst.

Core Modules

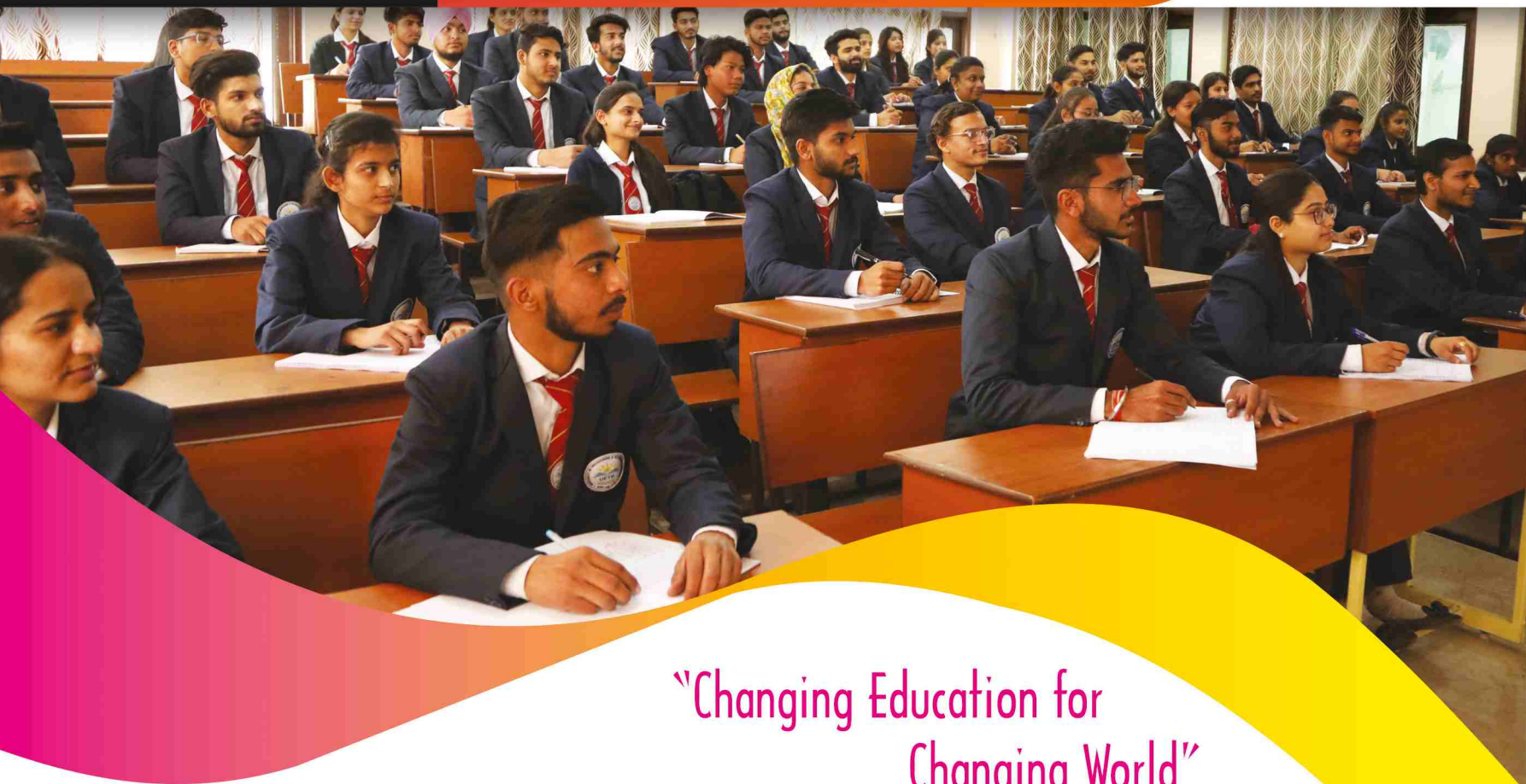
1. Software Project Management
2. Software Engineering
3. Artificial Intelligence
4. Multimedia System
5. Web-Based Applications
6. Theoretical Computer Science
7. Database Management System
8. Data Communication and Computer Networks
9. Digital Marketing
10. Mobile Application Development
11. Web Application Development

Masters in Computer Applications

Master of Computer Applications is a professional Master Degree Programme designed to provide a sound theoretical and good practical exposure to students in the field of computer applications. One can pursue MCA after the completion of bachelor's degree. The course emphasis on latest programming languages and tools to develop better and faster applications. BCA makes a base while MCA adds a specialized touch in the subjects studied in BCA. The MCA job sector is booming with 2,05,000 new job opportunities every year, and it has a steady growth of 7.7% every year. MCA candidates have unlimited job opportunities in a variety of industries / sectors.

Core Modules

1. Computer Architecture
2. Web Development
3. Data Structures
4. Java Programming
5. Python Programming
6. Software Project Management
7. Artificial Intelligence and Machine Learning
8. ERP Development
9. Mobile Application Development



"Changing Education for Changing World"

Workshops

1. Public Speaking Skills by Shri Atul Razdan
2. Workshop on Public Financial Management by Shri Surya Kant Sharma, AMF
3. Refine Your Data Analysis Skills by Dr. K R Ansari
4. Workshop on Tally by Mr. Amit Kumar

At UETR's School of Business Studies, the principles of responsible business, policy and practice are the central driving force. This vision enables us to equip our students with the skills to act as global citizens, capable of addressing the need of society.

Projects

S.No.	Topic	Organisation
1.	Implementation of motivation factors in children's life at Azim Premji Foundation in building the future of society	Azim Premji Foundation (Children welfare)
2.	Uses of techniques in providing education before and after New Education Policy-2020 at Building Dreams	Building dreams Foundation
3.	Matrix used by S.K. Saini Astha Help foundation in solving the social problem faced by society	S.K. Saini Astha Help foundation
4.	Uses of technique in managing challenges while providing social services during COVID-19 pandemic	Apna Ghar
5.	Uses of process and matrix in rehabilitating the addiction of drugs at Anmol Jeewan Samati	Anmol Jeewan Samati
6.	Analysis the tools and techniques used in educating the orphan children by Vatsalya Vatika	Vatsalya Vatika
7.	How to coordinate with socialistic problems in leading sustainable development ?	Rotary Club Roorkee
8.	Matrix applied in developing skills amongst the needy people	HDFC Bank and Ambuja Cement Foundation
9.	Challenges being faced in operating the campaign	Robin Hood Army

Recent Guest Lectures

S.No.	Topic	Speaker
1.	Market Economy	Prof Ivanitsky Dmitry
2.	Importance of IPR	Dr Rajat Agrawal
3.	Success through HR Skills	Mr Nishant Chaturvedi, Professor, GEU
4.	Financial Management and Investor Awareness	Ms Trupti Kapadia, Awake India Foundation, New Delhi
5.	Investment in Stock Market	Shri Harsha by Shine Projects, Hyderabad
6.	Yoga and Cosmic Healing during Covid time	Dr Urmila Pandey (Director, NYRM, Haridwar)
7.	Essentials of Time Management	Dr Narayan Swami
8.	Research in Marketing	Dr J K Naik, Professor, DOMS, IIT Roorkee

Value Added Programs (Discipline)

1. Tally
2. Computerised Financial Accounting I, II
3. Computerized Goods & Service Tax (GST)
4. Computerized Assessment of Income Tax
5. Computerized Management Accounting
6. Professional Communication Skills
7. Personality Development Skills
8. Entrepreneurship Development Skills
9. Banking Technology and Management
10. HR Skills

Value Added Program (Interdisciplinary)

1. Microsoft Office Tools
2. Digital Marketing
3. Business Analytics
4. Computer Applications using Spread Sheets
5. System Analysis and Design





BBA

(Bachelor of Business Administration)

This course is designed to craft graduates with well- developed business insights and decision making skills.

It is made up of general business subjects, specialized business subjects and liberal arts subjects. In addition to intensive academic learning, the program focuses on the development of key real world business skills like global intelligence and personal effectiveness, giving students the confidence, knowledge and expertise required to excel in global scenerio.

Modules

1. Financial Accounting
2. Principles and Practices of Management
3. Business Communication
4. Accounting for Managers
5. Financial Management
6. Organization Behavior
7. Computer Applications in Business
8. HRM
9. Research Methods
10. MIS
11. Quantitative Analysis
12. Digital Marketing

Projects

1. Technical Analysis of selected Pharma Companies
2. Impact of banking sector on Indian economy
3. A study on investors preference towards mutual funds
4. Comparative analysis of inventory management
5. Comparative study on E- Banking
6. Comparative analysis of Financial Statement
7. Effect of Employee Training and development in organisation.
8. An analysis on consumer behavior towards Banking sector

B.Com CFA

(Computerized Financial Accounting)

This course is designed to craft graduates with well- developed business insights and decision making skills.

It is made up of general business subjects, specialized business subjects and liberal arts subjects. In addition to intensive academic learning, the program focuses on the development of key real world business skills like global intelligence and personal effectiveness, giving students the confidence, knowledge and expertise required to excel in global scenario.

B.Com (Hons.)

This course is designed to provide specialized knowledge on commerce oriented subject that matches with the Industry demands.

Projects

1. An Economic analysis on inflation rate
2. Ratio analysis using Tally
3. Effect of interest rate on stock market investment
4. Comparative analysis of financial statements
5. An analysis on cost base variances
6. An evaluative study on wcm of manufacturing industry.
7. Impact of forex rate on BOP
8. Impact of margin of safety in determining shut down point

Modules

1. Computerized Financial Accounting
2. Cost Accounting
3. Management Accounting
4. Income tax theory and practice
5. Computer Applications in Income tax
6. Fundamentals of Insurance
7. Corporate Accounting
8. Business Law
9. Digital Marketing

MBA

SPECIALIZATIONS : Marketing, HRM, Finance, IB, IT,OM, Business Analytics, Agri Business Management

An MBA program prepares you to become business professionals for senior leadership roles globally. If you are looking for a step up the career ladder, want to move in a new direction or have plans to start your own business we provide you with the spring boards. You will gain the personal resilience to respond to continually developing circumstances, the skills to build and lead a team, and the theoretical and practical knowledge to successfully manage the challenges of the modern business environment. Our MBA places emphasis on responsible leadership, sustainable strategy and how to effectively manage limited resources with maximum impact.

Projects

1. Consumer behavior towards luxury car brand
2. An analysis on consumer behavior in mother dairy milk factory
3. An analysis towards relationship management
4. An analysis on advertising strategy during COVID 19
5. A Study on Online Marketing (digital marketing)
6. Consumer buying patterns towards Amul products
7. Study on investors investment pattern in various financial instruments
8. Study on investors perception on life insurance
9. Consumer perception regarding mutual funds

Modules

1. Economics Analysis for Business Decisions
2. Quantitative techniques for business decision
3. Human Resource Management
4. International Business
5. Operational Research
6. Corporate Finance
7. Business Research Methods
8. Production and Operations Management
9. Legal Aspects of Business
10. Strategic Management
11. Digital Marketing

M.Com

Two Years Masters Programme is designed to prepare industry ready professionals.



"Agriculture is our wisest pursuit, because it will in the end contribute most to real wealth, good morals and happiness."

One of the most important fields, the agricultural sector has always been regarded as the backbone of the Indian economy. The School Of Smart Agricultural Science at UETR strives for a flagship role in turning the rural unemployed youth to first rate agriculture entrepreneurs and agri-business managers of tomorrow. The school has been focusing on academic, research and extension activities in agriculture at the National and International level.

Modern Laboratories

1. Agricultural Economics
2. Extension Education
3. Biotechnology
4. Plant physiology
5. Farm Power and Machinery
6. Animal Husbandry & LPM
7. Plant Pathology
8. Agronomy

B.Sc Agriculture

Core Modules

1. Rural Development
2. Smart Agriculture
3. Precision Farming
4. Natural Farming
5. Protected Farming
6. Biology in Agriculture
7. Automation in Agriculture
8. Computer based numerical statistics
9. Agriculture and Management
10. EDP and Agriculture

M.Sc Agriculture

Core Modules

1. Soil Science
2. Agronomy
3. Microbiology
4. Entomology
5. Environment
6. Agri - Business
7. Agri - Automation

Innovation at SOA

1. Drip Irrigation
2. Hydroponic System
3. Low tunnel farming
4. Organic Mushroom production
- ... And many more

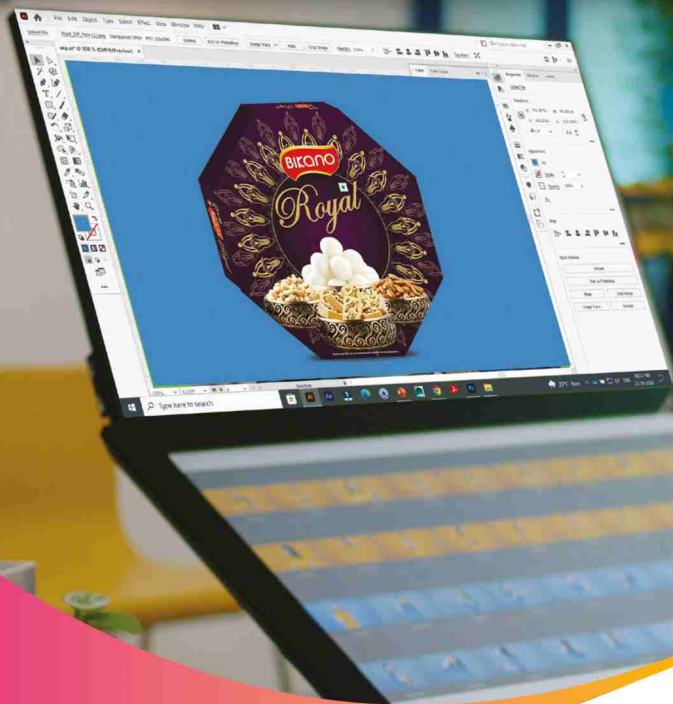
Some of the **Workshops & Webinars** at SOA

1. Integrated Weed Management
2. Organic Mushroom Production
3. Cow Based Bioenhancers : A Potential Tool for Organic Agriculture
3. Public Sector in Market Economy
4. Agriculture Education : A Potential Career Path for Agriculture Graduates
5. Green Technology as a Paradigm of Animal Husbandry Development

Value Added Programs

Semester	Computing Skills	Course Specific Skills	Technical Agricultural Skills
1.	Computer HW, SW and Network Troubleshooting	Communication Skills	
2.	MS Office	Modern Agriculture Tools	Basics of Precision Agriculture
3.	C programming	Rain Water Harvesting	Digital Aqua farming, Sensor based Hydroponics
4.	Management Information System (MIS)	Entrepreneurship Development Program	Agricultural Automations
5.	Accounting and Finance using Tally	Protected Cultivation (Polyhouse, glass house & low tunnel farming) Vertical Farming	Drone Applications in Agriculture
6.	Automation IOT	Agri Processing	
7.	Climate Forecasting using Artificial Intelligence	Medico/Herbal Farming	GIS based farming system
8.	Digital Marketing	Exotic Fruits Plantation	Agriculture Automations





“There are three responses to a piece of design : yes, no, and WOW !
WOW is the one to aim for.”

UETR School of Design is inspired by Progressive & Logical Thinking, Creativity and Technology Led Innovation for the Urban & Rural consumer environment and experiences. UETR School of Design is the ideal place for the design aspirants who would like to explore the world with the vision to make it a better place with human centered universal design.

Designers are supposed to work on real life scenarios with so many complex issues around, they are bound to put their cross-functional knowledge, creativity, world's best methodologies & practices, and techniques into reality for the desired market. Therefore, UETR has

developed the most demanding and job oriented industry specific courses, which will definitely open the doors of tremendous future career growth opportunities not only in India but at the global platform as the courses are developed keeping in view of skills and technology demanded by the MNC's across the globe.

At UETR, *we believe Design is a way of life, a point of view. It involves the whole complex of visual communications : talent, creative ability, manual skill and technical knowledge along with Aesthetics and Economics, Technology and Psychology are intrinsically related to the process.*

B.Design

Product Design with AR/VR

Visual Communications Design with 2D/3D animation

Interaction (UI/UX) Design with 2D animation

Interior Design

Fashion Design

Job Opportunities

1. Product Designer
2. Product Development
3. Packaging Designer
4. Retail Designer
5. Colour & Trim Designer
6. Humanitarian & Service Designer
7. Interaction Designer
8. Immersive Designer
9. UX Designer
10. Design Management
11. AR/VR Animations

B.Design | Product Design with AR/VR

"Learn the Art of Creating Innovative and Successful Products"

Program Overview

This industry ready innovative design program prepares future designers with in-depth design essence for the future based on research and Design Thinking best practices with latest technologies used by the global MNC's across the globe. It broadly focuses on the fundamental problems to create user experiences while considering factors such as economical/business viability, manufacturability, sustainability as environmental factor focussing human centric design in the globalized contexts.

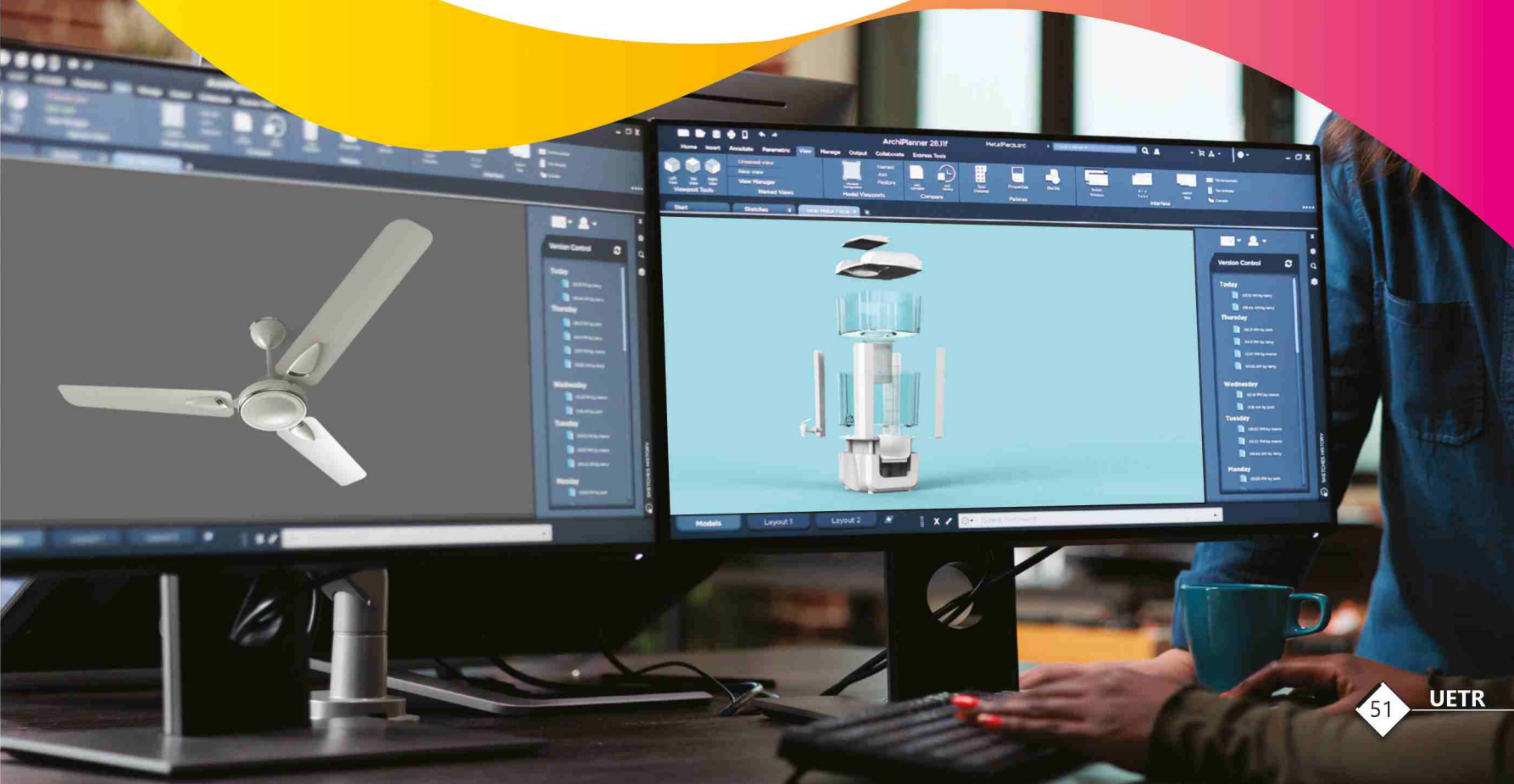
Students will be able to employ global design principles focussing on universal requirements in the industry. They will be trained on the live and real time Industry problems for the products to drive solutions by combining advanced problem

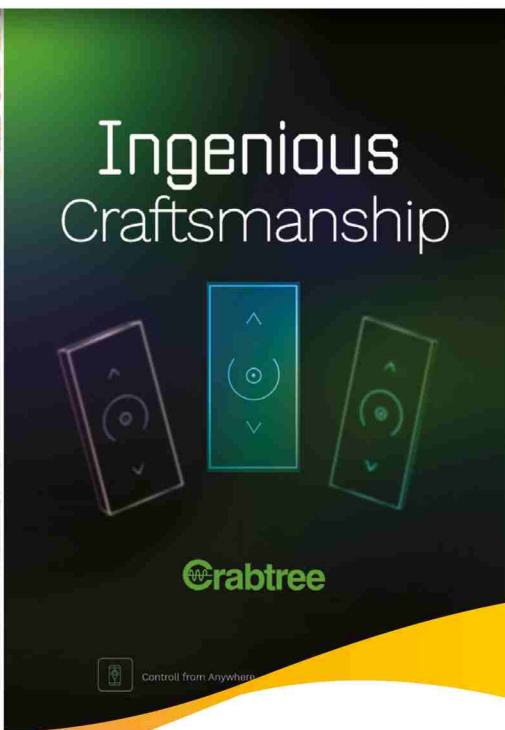
solving techniques using critical design thinking approach and hone your skills using our state-of-the-art Design Labs known as **Design Thinking and Innovation (DTI - Experience Lab) for product Mock-up equipped with CNC milling, 3D Prototyping and testing facilities with International industry standards.**

The programme is focussed to leverage students strength, at the same time working on the improvement areas to bring overall 360 degree holistic development. The program has been incorporated with Augmented and Virtual Reality courses along with the Product design to inculcate and equip them with latest tools & technologies to give them advantage in this competitive world of larger than life expectations.

TECHNOLOGIES TO BE LEARNT

- Rhino, Keyshot, Figma
- Adobe Suite (illustrator, After effects etc), Photoshop
- Augmented / Virtual Reality (AR/VR)
- Certifications on various technologies recognized by corporates





B.Design

Visual Communications Design with 2D/3D animation

Program Overview

The 21st century is dedicated to data and visualization to communicate globally. We have designed visual communication design programme based on global standards as per the industry requirements in order to bring Indian talents to the desired corporates.

Visual communication has emerged as best strategy for corporates to communicate with their audiences, hence this brings the opportunities for students willing to learn industry oriented visual communication along with the animation.

Visual Communication design program makes you combine various consumer oriented objects such as emotions, experiences, and information to create simple solutions to the complex human and modern day problems using design thinking process to create long lasting brand impressions. The designers will be able to create visual communication strategies for the Global MNC's to bring their brands to the targeted audiences by invoking emotions in an audience and create more impactful creatives to bring the WOW.



UI/UX Design With 2D animation

Program Overview

The UI/UX course by UETR prepares future designers to curate new consumer experience based interactive objects, spaces, and services offerings. The primary objective of the this course is to prepare students with the industry desired skills in UI/UX and set them off on a successful and creative career journey.

This UI/UX course from UETR enables design graduates to design & develop the most important objects which can make the world a human friendly for a faster, easier, and better place to live and grow. The primary objective of the program is to give students the live industry desired training, experience, and tools they need to design more meaningful and successful interactions between people and the technologically advanced products around them.



B.Design

Interior Design

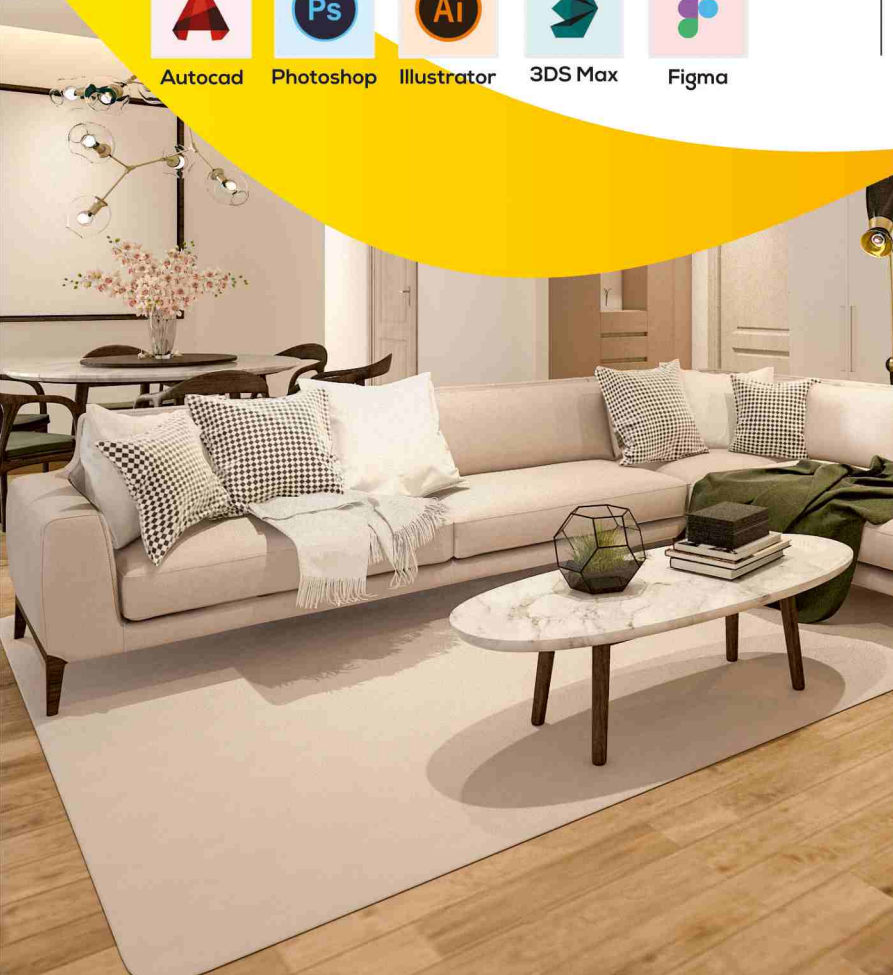
Program Overview

Interior Designing is the art of utilizing and optimizing the given space & constraints to bring the most creatively and beautifully possibilities.

Creating interiors with exceptional appeal with visuals and innovative design elements are the foundation of this course. It ensures the best in class industry desired skills to design & create fresh, energetic and inspiring spaces for future. Industry based curriculum help us to impart practical and applied training to students to implement various interior decorative techniques and strategies using latest technologies to create memorable and experiential spaces. It undertakes learning journey beginning with conceptualization, inspiration, understanding various patterns and textures, planning a beautiful layout, furnishings, and learning the secrets of designing wide range of residential and commercial spaces.

Interior Designers are more & more in demand than ever in the 21st century, not just to decorate homes but to create human centred office spaces, exhibitions, trains, events etc which can create everlasting experiences for the users.

In addition, prospective design aspirants will undergo rigorous training for number of computer associated courses, such as 3-D design and space management, CAD, graphic design and many other design software's.



Fashion Design

Program Overview

UETR Fashion Design course allows design students to acquire and to have a thorough understanding of all the aspects of the fashion industry. The curriculum is quite engaging and is as per the latest industry specific skills which focuses on fashion design at the same time on fashion management, which is the ever growing demand in this fast-changing modern world. This will encourage and inculcate the leadership skills amongst students taking them to the path of entrepreneurship and management.

This program also imparts modern day industry oriented skill sets such as styling, merchandising, marketing and management of fashion goods from high street to luxury categories, which is desired to preparing students for a wide range of future career opportunities with MNC's across the globe.

It's not only design but execution is equally important to bring ideas alive , hence UETR B.Des in Fashion Design helps students to learn the latest tools and techniques with Industries best practices and global perspective to help them to be prepare for the global market. The Make In India initiative brings lot more opportunities for the Fashion Design students to be become Entrepreneurs of the future in this domain. This course helps students to learn and get exposure from concept to production across the industry physics. Some of the learning opportunities are Elements & Principles of Design, Communication & Personality Development, Textile Concepts, Surface Ornamentation, Sewing Fundamentals & Pattern Making, Fashion Illustration, Garment Construction, Draping, Fashion Accessories, CAD, Trends and forecasts, E-Commerce in Fashion, Design Workshops, Field visits and many more.



ZERO TOLERANCE FOR RAGGING

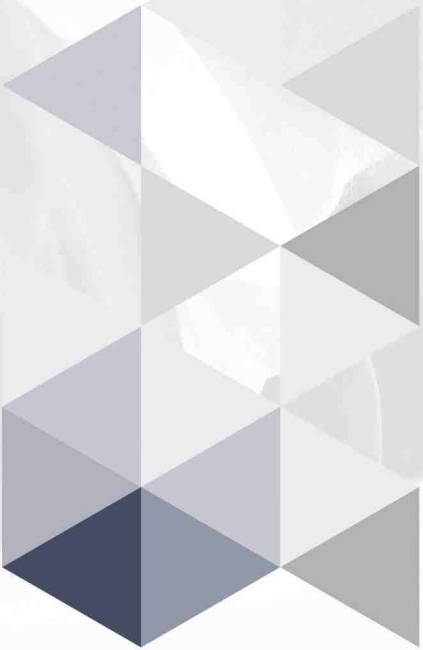


School of Computing

School of Business Studies

School of Smart Agricultural Science

School of Design



UETR

UNIVERSITY OF **ENGINEERING** AND **TECHNOLOGY** ROORKEE

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Virtual Tour

