



UTTARANCHAL
UNIVERSITY
NAAC GRADE **A+**



SDG REPORT 2022

“Efforts to Promote Sustainability”



“ Dear Members,

We are honored to present this message on behalf of Uttaranchal University's Internal Quality Assurance Cell (IQAC) in the **University's SDG Report** for the United Nations Academic Impact- 2022.

At Uttaranchal University, we believe that education is the key to transforming societies and building a better future for all. Our institution has always been committed to providing high-quality education to our students while striving to achieve excellence in all aspects of academic and administrative operations.

The **IQAC of our University is responsible for ensuring that our institution meets the highest standards of academic excellence and quality.** We have implemented a range of quality assurance measures to monitor and enhance the quality of education and research at our University. These measures include regular reviews of academic programs, assessment of student learning outcomes, and monitoring of faculty and staff performance.

We have been incorporating a culture of continuous improvement at our University. We regularly collect feedback from our students, faculty, parents and staff to identify areas for improvement and take necessary actions to address them. Our goal is to create a learning environment that fosters creativity, innovation, and critical thinking.

We take pride to be a part of the United Nations Academic Impact, which provides a platform for universities to work together to promote higher education's role in advancing sustainable development goals. At Uttaranchal University, we are committed to contributing to the UN's sustainable development goals by providing quality education to our students and preparing them to become responsible global citizens.

We would like to express our commitment to continue working towards achieving academic excellence and promoting sustainable development through education. We are grateful for the opportunity to be a part of the United Nations Academic Impact, and we look forward to contributing to its mission in the years to come.”

Team IQAC, Uttaranchal University

The 17 SDG's

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



17 PARTNERSHIPS FOR THE GOALS



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



15 LIFE ON LAND



14 LIFE BELOW WATER



13 CLIMATE ACTION



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



The Cluster Strategy for SDG Implementation at UU

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United Nations Academic Impact

Sharing a culture of intellectual social responsibility



Sharing
a Culture
of Intellectual
Social
Responsibility

United Nations Academic Impact

welcomes

Uttaranchal University

*as a member of the United Nations Academic Impact
and values its commitment to the following ten principles:*

- Commitment to the United Nations Charter
- Human Rights
- Educational opportunity for all
- Higher Education opportunity for every interested individual
- Capacity-building in higher education systems
- Global citizenship
- Peace and conflict resolution
- Addressing poverty
- Sustainability
- The "unlearning" of intolerance

Robert Skinner

Robert Skinner

Chief, United Nations Academic Impact
Department of Global Communications
United Nations

16 May 2022

*"Our Students, Faculty Members, and Staff are the
Ultimate Asset."*



NO POVERTY

End poverty in all its forms everywhere.

Offering Free Education

The 'Globe Club' of the university conducts 'Shiksha Daan' activity at 'Akhil Bhartiya Mahila Ashram.' Besides adopting a school, the students of Uttaranchal University volunteer themselves to educate and provide equal opportunity to the economically backward and needy children residing in the slum areas in and around the city of Dehradun.

Blanket Distribution

Shri Jitender Joshi, Chancellor, UU distributed the blankets to the needy people of the society to keep them warm in harsh winters.



An Inherited Culture

Sustainable Development into Curriculum

As an integral component of our curriculum, our students are provided with education pertaining to sustainable development. Furthermore, our university has made a dedicated commitment to integrate the United Nations Sustainable Development Goals into our curriculum over the next five years by now. We have already commenced our efforts in this transformative endeavor.

Poverty initiative- New Scholarships

As a part of its poverty alleviation initiative, Uttaranchal University is introducing new scholarships. Scholarships play a vital role in advancing education and enabling individuals confronting financial hardships. **Through offering financial support, these scholarships have the potential to unlock opportunities for deserving students.**

A few to mention are inclusive of:

- Covid -19 Crisis scholarship
- Full fee waiver scholarship
- Scholarship to the ward of Defence Personnel

UU FACILITATES BASIC AMENITIES

In an attempt to reach out to the poor and needy people residing in the slum areas of Dehradun city, the management proffers basic needs like food and clothing regularly. In collaboration with Shugan Hospitality Pvt. Ltd., the management distributed food to a local orphanage and, especially during the COVID-19 pandemic, extended support to 500 underprivileged individuals in Dehradun on a daily basis, providing them with food. This initiative continued until the lockdown restrictions were lifted.

DONATED LAND FOR ESTABLISHMENT OF A SCHOOL CATERING TO THOSE IN FINANCIAL NEED

Uttaranchal University donated land to run a High school in Banjarawala Basti, Selaqui, in the name of Pandit Sureshanand Joshi Saraswati Vidya Mandir, which is a pioneering initiative. In addition to the land donation, the school receives ongoing support from the university, including the necessary infrastructure and educational resources. **This support aims to enhance the opportunities for children who are less privileged, ensuring they have the same chance to thrive as their peers.**



"SUMMER CLOTH DONATION DRIVE"

Occasion: Guru Purnima

Aegis : Rotaract Club of Law College Dehradun



सेवा परमो धर्मः



ZERO HUNGER

End hunger, achieve food security and improved nutrition and promote sustainable agriculture.



Dr. Priyanka Tangariya
Department of Food Technology
SALS, UU

The primary aim of Zero hunger is to “End hunger, achieve food security and improve nutrition and promote sustainable agriculture” around the world by 2030. In 2020, between 720 million and 811 million people worldwide were suffering from hunger. Also in 2020, a staggering 2.4 billion people, or above 30% of the world’s population, were moderately food-insecure, lacking regular access to adequate food. The number of people going hungry and suffering from food insecurity had been gradually rising between 2014 and the onset of the COVID-19 pandemic has pushed those rising rates even higher and has also exacerbated all forms of malnutrition, particularly in children. As per the 2021 Global Hunger Index, India is ranked 101 out of 116 countries and falls into the serious category of hunger. To attain the zero hunger status in India, various International and National, Government based programmes and schemes have been implemented for decades including Integrated Child Development Services programme (1975), Mid-Day Meal (MDM) scheme (1995) Targeted Public Distribution System (1997) and the more recent National Food Security Act (2013) and POSHAN Abhiyaan (2018). However, a holistic approach and an inter-sectoral strategy with intensive monitoring and implementation of programmes is still needed to address the problem of hunger and malnutrition. Besides, promoting sustainable agriculture, supporting small-scale farmers and equal access to land, technology and markets to improve agricultural productivity may also play a significant role in improving the current status of hunger and malnutrition in India.

Role of Nanotechnology in Iron deficiency

Micronutrients are one of the major groups of nutrients required by the body. Vitamins and minerals are considered micronutrients that are vital for growth, immune function, brain development, and many other important functions. They also play a role in preventing and fighting diseases. Malnutrition (undernutrition) is caused by a lack of nutrients and is the leading cause of death in the world. Biofortification of staple crops with micronutrients has been proposed as a potential technique for combating malnutrition by enriching target food crops. Iron deficiency is one of the most frequent dietary problems worldwide, affecting both industrialized and developing nations.

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Dr. Kanika Dulta
Assistant Professor
SALS, UU

Engage with local organizations to reduce food waste

In tackling this, we keep examining what infrastructure or processes we need to put in place to eliminate unnecessary food waste in the premises. Our staff and students have led the way in reusing and redistributing food for a socially useful purpose.

End Hunger, achieve food security & improved nutrition and promote sustainable agriculture

During the unprecedented challenges of the COVID-19 pandemic, the university ensured that its employees and their families received their regular meals. Furthermore, the university has undertaken initiatives to promote campus-wide access to nutritious, cost-effective, and environmentally sustainable food choices. This includes supporting local food production and implementing policies to reduce food wastage on campus.





Uttaranchal College of Nursing organized a Blood Health check-up camp

A Blood Health check-up Camp was organized for the **impoverished, providing free, high-quality medical treatments and full-body medical check-ups on April 09, 2022, at the healthcare center of Uttaranchal University.**

The Camp was held in collaboration with the Path Kind Lab of Dehradun and the Student Council of Uttaranchal College of Nursing under the aegis of the Student Welfare Office of Uttaranchal University. The College welcomed new members of the Laboratory staff, which included two Consultant Pathologists and one Assistant. The laboratory provided a free blood examination along with blood sugar, cholesterol, and TSA testing. The Health Check-up attracted over 200 academicians, staff, and students from all branches, as well as members of the Student Council.

Health Check-up Camp on Occasion of World Health Day by Uttaranchal University

By OUR STAFF REPORTER
DEHRADUN, 9 Apr: Uttaranchal Institute of Pharmaceutical Sciences, under the banner of Pharmacology Club, Uttaranchal University organized a free Blood Group and Health Checkup camp on the occasion of World Health Day, 07 April in Junior High School, Kotla Santoor. The team of students of Uttaranchal Institute of Pharmaceutical Sciences attended the camp. The team checked the blood group of students present in the school. Besides this health checkup, patient counseling and awareness related to blood and blood disorder were also done by the Pharmacy Students of Uttaranchal Institute of Pharmaceutical Sciences. In the camp 80 patients registered for blood group checkup.



(Dr.) Vikash Jakhmola, Dean, UIPS, Dr. Anil Semsal, HOD, UIPS According to the Dean of UIPS Dr. Vikash Jakhmola one of the best practices of Uttaranchal Institute of

organizing the Blood Group and Health Check-up Camp on occasion of World Health Day observed by WHO with the theme "Our Planet, Our Health".

UIPS, Nidhi Gansla, Assistant Professor, UIPS and Dr. Anil Sharma, Assistant Professor, UIPS with the student members of the Pharmacology Club.

The voice of thanks was

Dehradun. She expressed her gratitude toward Chancellor Jitender Joshi, Honorable Vice-Chancellor Prof. (Dr.) Dharm Bhatti, Pro-Vice-Chancellor Prof. (Dr.) Ramesh Babbar

Dry powder inhalers of Antitubercular Drugs

Despite advancements in the medical and pharmaceutical fields, tuberculosis remains a major health problem globally. The conventional approach for treating tuberculosis (TB) is not widely accepted by patients due to prolong treatment periods with multiple high doses of drugs and associated side effects. A pulmonary route is a noninvasive approach to deliver the drugs, hormones, nucleic acid, steroids, proteins, and peptides directly to the lungs, improving the efficacy of the treatment and consequently decreasing the adverse effect of the treatment. This route has been successfully developed for the treatment of various respiratory diseases such as asthma, chronic obstructive pulmonary disease (COPD), tuberculosis (TB), lung cancer, and other pulmonary infections. The major approaches of inhalation delivery systems include nebulizers, metered dose inhalers (MDIs), and dry powder inhalers (DPIs).

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Dr. Nidhi Nainwal
Associate Professor
UIPS, UU

Drug Abuse & Cancer Awareness Programs

The University organises workshops and panel discussions in collaboration with Uttarakhand Police. In addition to this, a student volunteer from the university has created a short film that is being shown in schools and colleges across the state of Uttarakhand by the police authorities. The purpose of this initiative is to raise awareness among young people about the dangers of drug use.



Pallavi Upadhyay
B.Sc
SALS, UU

Diabetes Mellitus A Silent Killer: Role of DPP4 Inhibitors in Treatment

Diabetes mellitus is rapidly becoming the world's largest silent killer. World Health Organization says that in 2000, approx 2.8% of the world population was suffering from diabetes (~180 million people), and estimate will be almost double, by the year 2030. Treatment should aim to normalizing the basic defects in the disease, which are islet dysfunction in combination with insulin resistance and should also, directly or indirectly target the diabetes induced complications. Conventional treatments have been the use of Antidiabetic drugs like sulphonylureas and Biguanides., a new class of antidiabetic drug DPP4 inhibitors (vildagliptin, sitagliptin & saxagliptin etc.) targeted to extrapancreatic cells. DPP-IV inactivates incretin hormone.

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Dr. Vikash Jakhmola
Dean
UIPS, UU





GOOD HEALTH AND WELL BEING

Uttaranchal Institute of Pharmaceutical Sciences organized a Health Awareness and Check-up Camp on the Occasion of "World TB Day"

Pharmacology Club, under the banner of Uttaranchal Institute of Pharmaceutical Sciences, Uttaranchal University, organized a free health awareness and check-up camp on World TB Day, 24 March 2022, at Junior High School, Kotra Santaur, Dehradun. **Dr. Rishabh Joshi (MBBS), the University Doctor, along with his exceptional team, served as the experts during the camp.** Following their examinations, the doctor prescribed required medications, actions, and, if necessary, precautions. Alongside health check-ups, pharmacy students from the Uttaranchal Institute of Pharmaceutical Sciences provided patient counseling and distributed medicines. Additionally, the university's pharmacy students conducted screenings for the school staff, assessing their BMI, blood sugar, and blood pressure levels. They also offered basic counseling and awareness on conditions such as tuberculosis and usage of proper medication.



Staff Health Benefits at Uttaranchal University

Uttaranchal University is dedicated to ensuring the well-being of its staff. As part of this dedication, all **permanent staff members receive several healthcare benefits.** These include a **low-cost employee assistance program, ESIC benefits that enable staff to seek guidance from licensed healthcare professionals for personal or work-related issues,** in addition to **discounted health insurance and affordable medical check-ups.**

A review of synthetic strategy, SAR, docking, simulation studies, and mechanism of action of isoxazole derivatives as anticancer agents

Breast cancer (BC) is a global health concern and the leading cause of cancerous death among women across the world, BC has been characterized by fresh lump in the breast or underarm (armpit), thickened or swollen. Numerous drugs have been approved by FDA for BC treatment but showed numerous adverse effects like bioavailability issues, selectivity issues, and toxicity issues. Therefore, there is an immediate need to develop new molecules that are non-toxic and more efficient for treating cancer. Isoxazole derivatives have gained popularity over the few years due to their effective antitumor potential. These derivatives work against cancer by inhibiting the thymidylate enzyme, inducing apoptosis, inhibiting tubulin polymerization, protein kinase inhibition, and aromatase inhibition. In this study, we have concentrated on the isoxazole derivative with structure-activity relationship study, various synthesis techniques, mechanism of action, docking, and simulation studies pertaining to BC receptors. Hence the development of isoxazole derivatives with improved therapeutic efficacy will inspire further progress in improving human health.



Dr. Vikash Jakhmola
Dean
UIPS, UU

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<https://www.tandfonline.com/doi/full/10.1080/07391102.2023.2220819>



MS. PALLAVI GHILDIYAL
ASSISTANT PROFESSOR
UIPS, UU

As a prestigious university, Uttaranchal University is committed to fostering the health and wellbeing of its faculty, students, and the general public. Uttaranchal University has established itself as a force for good change in the area of health and well-being. Thanks to its extensive programmes, cutting-edge facilities, and dedication to holistic development. It offers state-of-the-art sporting facilities, including well-equipped gyms, sport courts, and fields, motivating students and staff to exercise frequently. Researchers in the fields of medicine, healthcare technology, and public health are especially encouraged, as are academic staff and students. To encourage an active lifestyle among its community members, the institution also hosts a variety of sporting activities, competitions, and fitness clinics. The entire community ultimately benefits from this dedication to research by fostering a culture of ongoing learning and discovery. In order to meet the psychological requirements of both its employees and students, the institution offers counselling and support services. With the goal of assisting people in overcoming the difficulties of university life and fostering good mental health, trained specialists are ready to provide advice, support, and a secure environment. Uttaranchal University lays the groundwork for other institutions to follow in their pursuit of a healthier and happier society by encouraging holistic development and cultivating a culture of well-being.



GOOD HEALTH AND WELL BEING



Eye and Health Check-up Camp

The aim of conducting the camp was to serve the society for a noble cause. **Dr. Rishabh Joshi, the Doctor at the medical Centre, UU and his team conducted the health checkups.** The overall health conditions of the villagers were checked up by the team of doctors.

After checking, the doctors prescribed necessary medication, actions and precautions if needed to be taken. In addition to conducting health check-ups, the Pharmacy Students of Uttaranchal Institute of Pharmaceutical Sciences also provided patient counseling and distributed medicines. At the camp, a total of 68 individuals enrolled for medical evaluation due to various primary concerns such as Hypertension, Diabetes, and Common Flu. They received the necessary medications as per the doctor's recommendations. Additionally, skilled optometrists from renowned hospitals in Dehradun offered eye examinations and shared valuable eye care advice.



Women Health and Hygiene

Women Cell, Uttaranchal School of Computing Sciences (USCS), Uttaranchal University, organized a workshop on "**Women Health and Hygiene**" in collaboration with **Shivakhya Foundation** for girl students of UG and PG programs (MCA, BCA, and B.Sc.-IT). Dr. Sonal Sharma, Dean, USCS, welcomed the guest speakers and made students aware of good health and hygiene in day-to-day life.

An MoU got signed to foster the promotion of well-being.

An MoU was signed by the President of Himalaya Wellness Company, Dr. S. Farooq and Hon'ble Chancellor of the Uttaranchal University Mr. Jitender Joshi. On this occasion, Vice President Dr. S. S. Sehgal, Vice-Chancellor, Dr. Dharam Buddhi, Dean of Applied Sciences, Dr. Ajay Singh from Uttaranchal University and Dr. Zafar Mahmood and Dr. Arunesh Dixit from Himalaya Wellness Company were present. The objectives of the MOU are to enhance the employability skills of students through training & research. This tie-up will provide hands-on experience to students through industrial exposure, and joint research activities along with projects.



Dr. Amit Bhatt
Campus Director
UU

The prevalence of mental illness among people has significantly increased during the past few decades. The foundation of the problem is that the majority of the people believe that mental illness is something that only affects other people. People are considering the symptoms as normal. Research showed that from childhood to adulthood and to ageing, mental health is crucial at every stage of life. When a person is mentally healthy, then only he/she is able to handle life's challenges, recognise skills, learn and function well in every step. Our overall health is made up of both physical and mental well-being. In recent times, it is evident that students, employees, and homemakers often encounter mental health challenges. Mental illness does not stem from a single cause; instead, it can result from various factors, including feelings of isolation, biological or chemical imbalances in the brain, early-life adversity, mood fluctuations, and more. While some individuals may rely on prescribed medications, these treatments may primarily alleviate symptoms. Many researchers have suggested that individuals grappling with mental health issues may need to make lifestyle adjustments and strive for self-actualization to foster their overall well-being



QUALITY EDUCATION

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

Representation of the Marginalised Section

The course on 'Dalit Literature' by the School of Liberal Arts at UU familiarizes the students with the political and cultural context in which Dalit literature, as a distinct domain of knowledge production emerged in modern India. Dalit literature serves as a platform for Dalit articulation in addressing political concerns and achieving Dalit emancipatory goals. Legendary texts such as *Omprakash Valmiki's Joothan*, *Baby Kamble's The Prisons We Broke*, *Namdeo Dhasal's Hunger*, *K.A. Gunasekaran's Touch* makes the content of this course.

The students are able to examine how the varied forms of Dalit cultural expressions contribute to the project of Dalit emancipation. Dalit literature challenges the mainstream literary conventions and lays emphasis on the social relevance and politics of art and literature. The students are also introduced to some of the important debates in Dalit literary criticism.

Through a nuanced understanding of these Dalit writings from different regional spaces, the students develop an enhanced understanding of the perspectives and concerns expressed in Dalit literature. They become sensitized regarding the discrimination made on the basis of caste by foregrounding the reality of caste system. They are also able to infer and explore the interrelatedness of issues such as gender, caste and class through a study of its representation in Dalit Literature.

Sustainable Working of Teachers in Higher Education (SWOTHE-2022)

The Faculty Development Programme (FDP) was a 14 days event which witnessed a series of lecture sessions on topics of Sustainable Working of Teachers in Higher Education. It aimed at providing a forum for academicians as well as scholars of law discipline. This Faculty Development Programme was specially designed to discuss, deliberate and look into the 'Sustainable Working of Teachers in Higher Education (SWOTHE-2022)'. The early-career researchers, academicians, legal experts, and other participants got an opportunity to learn from the esteemed panel of experts who shall be delivering refined talks on various topical issues related to 'Sustainable Working of Teachers in Higher Education (SWOTHE-2022).'

Give students a voice in Sustainable decision making

We are committed to having a positive dialogue with campaigns and want our students to be involved in major decisions relating to sustainability on campus. This includes being part of our governance structure for sustainability and ensuring that students have access to key professional staff in the University to discuss ideas and challenges.

Artificial Intelligence in MOOCs

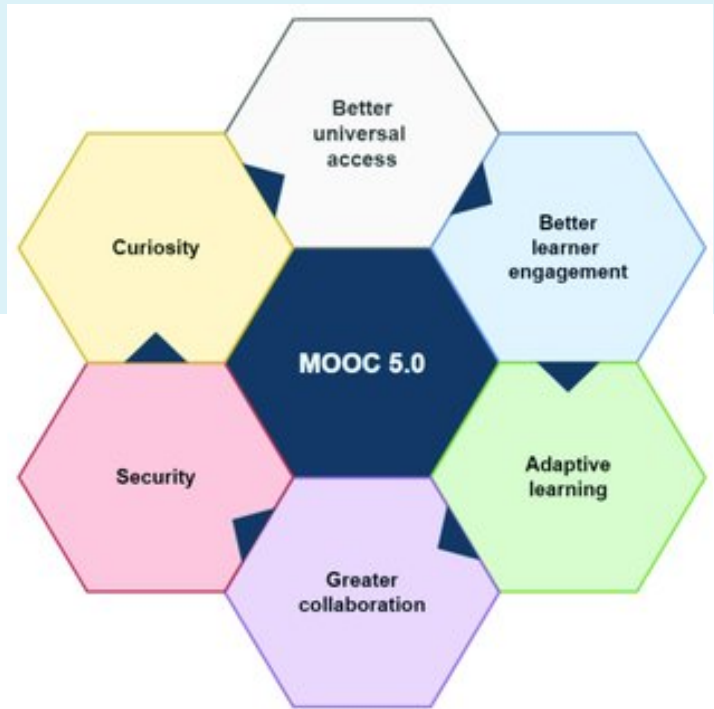
Artificial intelligence has come a long way in recent years, and it currently represents an emerging technology that will change the way people live. Despite the fact that many instructors are unaware of its scope and, more significantly, what it implies, the use of AI in education is growing rapidly, with the aim of improving the quality of teaching and learning. There are many different approaches to this, but they all involve the use of data analytics and machine learning to make improvements in education. The purpose of this research was to look at the scientific output on artificial intelligence in MOOCs that were indexed in Scopus databases between 2012 and 2021. For this a customised approach for bibliometric investigations was applied on the SCOPUS databases. A total of 476 articles were included in the sample. The findings revealed that the issue has a lot of interest, but that the literature on it is still in its early stages.

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https://scholar.google.co.in/citations?view_op=view_citation&hl=en&user=HloyB8wAAAJ&citation_for_view=HloyB8wAAAJ:Se3iqn_houfwC



Dr. Ishteyaaq Ahmad
Assistant Professor
USCS, UU



Technology Enabled Learning in Higher Education

This paper examines the use of educational technology in higher education with the idea of supplementing traditional classroom teaching with open educational resources, such as mobile apps and social messaging groups for collaborative learning. The course "Critical Thinking and Social Media Technology" is being taught using Open Educational Resources. This paper analyzes the data collected from a sample of 218 students who completed the course through OERs. The data was collected from six different disciplines over a period of three academic years both at undergraduate and post graduate level.

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https://www.researchgate.net/publication/363817519_Technology_Enabled_Learning_in_Higher_Education_A_Case_Study



Dr. Ishteyaaq Ahmad
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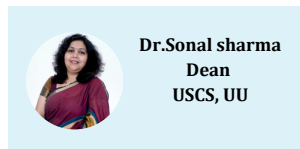
QUALITY EDUCATION

MOOC 5.0: A Roadmap to the Future of Learning

Industry 4.0 has created a whole new world for us to explore, and its effects can be seen in every facet of our lives, especially in the workplace where it calls for technology-driven employment. There is a growing need to teach individuals and assist them in transitioning to longer-term employment prospects to execute Industry 4.0 effectively. Although MOOCs revolutionized the way learners study, it is critical to investigate teaching techniques using Education 4.0 at this time. This article explores how the technologies of Industry 4.0 can be incorporated into MOOCs. This paper proposes MOOCs 5.0, whose features include better universal access, better learner engagement, adaptive learning, greater collaboration, security, and curiosity, which is being developed using Industry 4.0 technologies of the Internet of Things, Cloud Computing, Big Data, Artificial Intelligence/Machine Learning, Blockchain, Gamification Technologies, and the Metaverse and would incorporate the zones of ethics and humanism, while at the same time providing learners with a richer and more individualized experience.

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DR. SONAL SHARMA
DEAN
USCS, UU

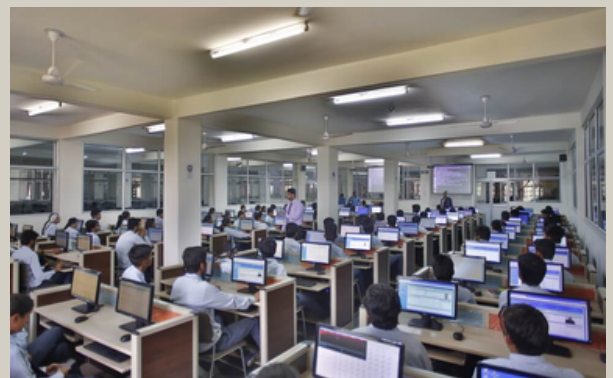
"The Uttaranchal School of Computing Sciences focuses on experiential learning by inculcating real-time project development as a part of the curriculum which ensures quality education. This helps to strengthen the computer science concepts of the students. It also supports acquiring analytical, technical, and problem-solving skills as required for a successful career in industry, government sector, academia, research, entrepreneurial pursuit, and consulting firms".

MAKING DIGITAL & PHYSICAL INFRASTRUCTURE AT UTTARANCHAL UNIVERSITY

On the digital front, Uttaranchal University has invested in state-of-the-art technology infrastructure to provide students with access to the latest digital tools and resources. The university has a robust IT infrastructure that includes high-speed internet connectivity, advanced computing facilities, and cutting-edge software applications.

The university has also developed a comprehensive Learning Management System (LMS) that enables students to access course materials, online lectures, and other digital resources from anywhere and at any time. The LMS has features such as discussion forums, online quizzes, and assignment submissions, which facilitate student engagement and collaborative learning.

In terms of physical infrastructure, the university has a sprawling campus spread over 100 acres of land, with modern classrooms, laboratories, and research facilities. The campus also has a library that houses a vast collection of books, e-books, journals, and digital resources to support the academic pursuits of its students.



Uttaranchal University has made significant efforts to create a digital and physical infrastructure that caters to the evolving needs of its students and support their academic pursuits, making it a highly desirable institution for higher education in the region.

QUALITY EDUCATION

QUALITY ENHANCEMENT AND SUSTENANCE IN HIGHER EDUCATION

The Uttaranchal University organized a one-day NAAC Sponsored State level Seminar on "Quality Enhancement and Sustenance in Higher Education" under the guidance of its Chairperson and Vice Chancellor, Prof. (Dr.) Dharam Buddhi and Director IQAC, Er. Rajesh Deorari on the 18th of November, 2022.

The Seminar has been a good opportunity for participants coming from different states and diverse domains to present and discuss topics in their respective area of expertise. The one-day Seminar was presented by Dr. Shyam Singh Inda, Assistant Adviser: NAAC, Bengaluru who delivered his talk on the "Revised Accreditation Framework in synchrony with the National Education Policy 2020", emphasized on NAAC accreditation which is essential for quality enhancement. Dr. Vinita Sahu, Assistant Adviser: NAAC, Bengaluru explained on "Data Validation, Verification process and significance of the Student Satisfaction Survey" for HEIs followed by an insightful session on the "Green Initiatives for Institutional Ranking" by Dr. Ashwani Luthra, Director IQAC, Guru Nanak Dev University, Amritsar. The concluding session was delivered by Prof. (Dr.) Dharam Buddhi, Chairperson IQAC & Vice Chancellor, Uttaranchal University on the "Expectations from the HEIs for Quality Enhancement and Sustenance".



Click to Read More: <https://iqacuu.s3.ap-south-1.amazonaws.com/2023/03/NAAC-Funded-Seminar-Proceedings.pdf>

Objectives of the Seminar:

- To disseminate the revised NAAC Accreditation and Assessment framework among the decision makers of the Universities thus incorporating the core objectives of NEP 2020.
- Implementation of Quality Management System (QMS) at various departmental levels.
- Recommend measures for capacity building of faculty and supporting staff for improving the quality of higher education to sustenance.

QUALITY INSPECTION WITH THE SUPPORT OF COMPUTER VISION TECHNIQUES

The goal of this project is to develop an image classification system that uses computer vision techniques to quickly categorize a huge number of pictures produced in factories (in this example, stickers) as faulty or non-defective. The product is secure since it can only be used by a firm that manufactures items and cannot be accessed by any other users. The manufacturing company employs a camera to take pictures of the goods as they pass by on a conveyor belt. To obtain the photos that are correctly categorized, these images are merged to create a testing dataset that is provided to the system. The business applies the programme to the many products produced. The accuracy of the picture classification is used to judge the effectiveness of the findings.

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Dr. Rajesh Singh
Director
DRI, UU



Achieve gender equality and empower all women and girls.



DR. ANUBHUTI DHYANI
Assistant Professor
SLA, UU

It is the discord between an unawakened inner sensibility and the external world of an individual that is responsible for the crisis faced by the humanity. Acknowledging the significance of every life form and their symbiotic relationship with the environment would lead to the harmonious growth of an individual, the environment and eventually the entire society.

Empowering Women Through Digital Innovation: A Pathway to Gender Equality

Under the aegis of Women Cell of the School of Liberal Arts, a faculty of UU organized a poster-making competition for International Women Day on the theme "**DigitALL: Innovation and technology for Gender Equality.**" UN women and the United Nations celebrated the day on a similar theme. As this theme aligns with the upcoming 67th Session of the Commission on the Status of Women which is "Innovation, technology, and education for gender equality and empowerment of women and girls."

Naari Astitva Awards-2022 by G-SIL Educational Society on the occasion of International Women Day

We are pleased to announce that Dr. Pinki Chugh, Associate Professor, School of Liberal Arts has been honoured with Naari Astitva Awards-2022 by G-SIL Educational Society on the occasion of International Women Day, for her contribution towards the betterment of the society. This award is based on a comprehensive analysis of previous results, students' feedback, recommendations and activities conducted along with a rich experience in the field of education.



"This exclusive honour of being listed among the Top 100 influential Women of India is being proudly presented to you for manifesting prodigious skills in your respective profession. Your influential personality has been showcasing the reflection of an empowered woman who carries an aura of energy and positivity around her and setting out examples for others to do more and achieve more in all endeavours."

DOMESTIC VIOLENCE LAWS GENDERED OR GENDER-NEUTRAL IN NATURE?

When we talk about domestic violence, a victim is often more associated with being a female person. This feminization of the word "violence" has caused serious implications for males' legal recognition as victims of domestic violence. In India, domestic violence is more of a gendered offense rather than an offense to humanity as a whole. From the survey done in the various districts of Uttarakhand, it has been found that men do not have the legal provision available to file the first information report or go to court against domestic violence.

Click to Read More -
https://scholar.google.com/citations?view_op=view_citation&hl=en&user=HloyB8wAAAAJ&citation_for_view=HloyB8wAAAAJ:OEyYjriUFMC



Devyani Pokhriyal
Research Scholar
LCD, UU

GENDER EQUALITY



Right of the third gender: The incessant struggle

In today's era and age, the identity of the individual is described by society's opinion and accordingly that plays a very important role in today's world, but few individuals don't bother about society's opinions and live their life according to their own choices. We may think that third-gender people are getting equal rights by our Constitution but in the end, we all know that they are not treated equally by our society. Many problems have been solved and many are yet to be solved. Different courts have given judgements concerning protecting the rights and dignity of the third gender persons, but there are some loopholes in the society i.e., they are not able to avail themselves of their rights even after they have been granted. The case played an important role in the context of preserving or attaining the rights of the third gender persons. The Fundamental Rights of the Constitution guarantees protection to all persons, with some rights reserved for citizens exclusively. The Constitution of India (COI) does not create any more distinctions between the right holders after this classification. Justice- communal and governmental equality of position is mandated in the Preamble of the Indian Constitution.

[Click to Read More - sciencescholar.us/journal/index.php/ijhs/article/view/8862/4734](https://sciencescholar.us/journal/index.php/ijhs/article/view/8862/4734)



The commitment of Uttarakhand University to advancing gender equality is evident in its inclusive policies, empowerment initiatives, academic programmes, and research endeavours. By providing equal access to education, implementing gender-sensitive policies, empowering women, promoting gender studies and research, and involving males as allies, the university serves as a model for other institutions. Through its efforts, Uttarakhand University contributes to the development of a more equitable and just society in which every person, regardless of gender, can flourish and realise their maximum potential. Uttarakhand University recognises that attaining gender equality requires the participation and assistance of all individuals, including men. The institution organises workshops, seminars, and awareness campaigns to promote gender equality, women health and hygiene where male students also participate with enthusiasm.

Prof. (Dr.) Bharti Ramola
Chairperson,
Women Cell
& ICC, UU



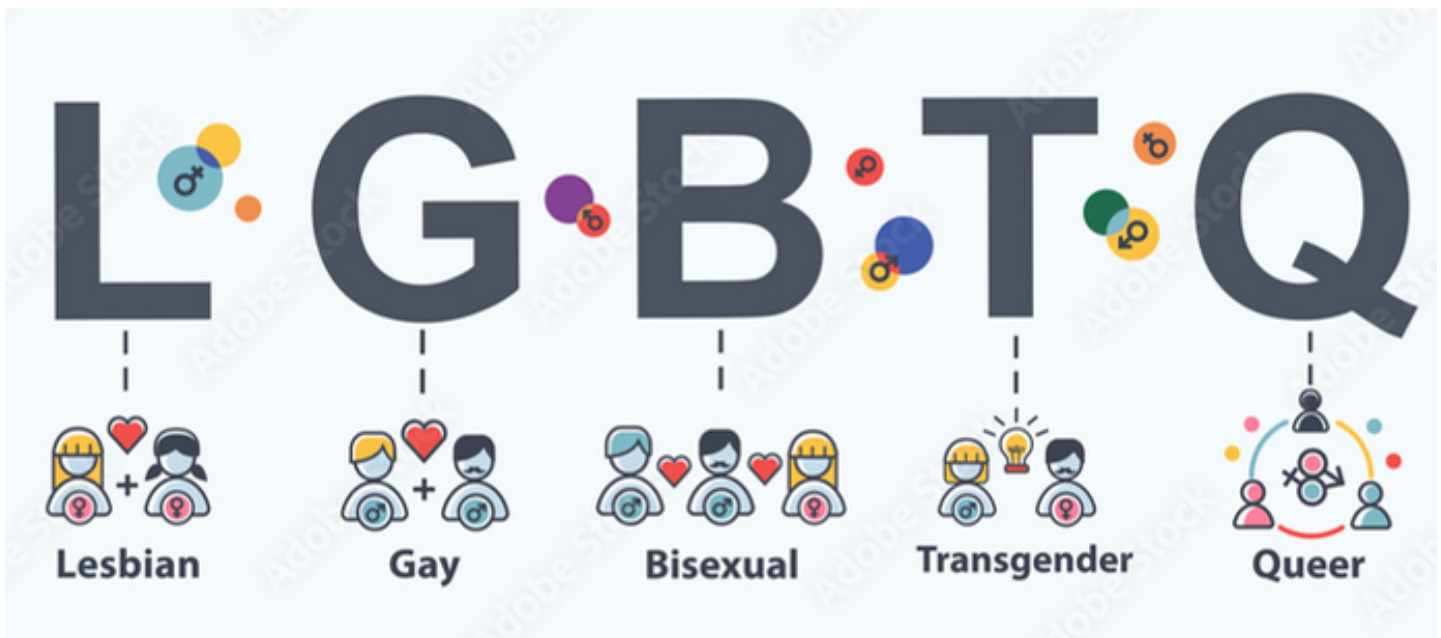
Women are Faculty



Students are Women

Annual Gender Sensitization Plan

The university prepares an **annual plan for gender sensitization** well in advance, which ensures that gender-related issues are addressed through various events, activities, workshops, seminars, conferences, and other initiatives. Recognizing the significance of gender equality, various cells within the university have been organizing a range of cultural and social events aimed at empowering women. These initiatives are supported and facilitated by students who are associated with the Women Cell, National Service Scheme (NSS), National Cadet Corps (NCC), and the Students Welfare Committee.



Achieve gender equality and give every woman and girl the power

In order to promote female education and empowerment through employment, the institution maintains ongoing relationships with the women in the surrounding community. Based on merit and achievement, the university supports the advancement of women in the organisation. This makes it possible for the university to guarantee the use of gender equity measures, such as those for enhancing the representation of women in university leadership roles and senior academic roles in the university's working environment. The university also supports job flexibility and offers child care services on campus.

Work life balance at UU

In a rapidly changing as well as a challenging world, what each individual strives for is the development of the necessary skillset that would aid in our survival and yet to be able to keep our individuality intact. A world that still relies dominantly on women to shoulder the responsibility of the household, makes the maintenance of the work-life balance a constant struggle. Uttaranchal University acknowledges this challenge and extends its cooperation to lessen the burden felt by the women employees of the organization. Approving maternity leaves, academic leaves, providing a healthy environment at workplace, flexibility in the rules at the time of family emergencies, insurance and gratuity, assignment of work strictly being limited to office hours are a few of the measures adopted by the university to ensure a comfortable workspace for the women. The university has a considerable number of female employees, their retention rates, participation in research, equal contribution in the academic sphere, and dedication to the overall growth of the organization reflect positively on their ability to maintain a healthy work-life balance. This indicates that they enjoy mental peace, which can be seen as a result of effectively managing their professional and personal lives.

Digital technology is opening new doors for the global empowerment of women, girls and other marginalized groups. From gender-responsive digital learning to tech-facilitated sexual and reproductive healthcare, the digital age represents an unprecedented opportunity to eliminate all forms of disparity and inequality. The event was centered around the role of innovation and technology in advancing gender equality, particularly in the context of today's rapidly evolving world. This competition sought to create greater awareness and understanding among the younger generation- college students, and young adults- who often encounter gender inequality in their immediate environments. By providing increased access to education, employment, and entrepreneurship, innovation and technology can facilitate the creation of new opportunities for women. This objective aligns with the United Nations' Development Goal 5, which aims to promote Gender Equality and Empowerment of Women and Girls.



Clean Water and Sanitation

Ensure availability and sustainable management of water and sanitation for all.



Prof. (Dr.) Ajay Singh
Dean

SALS & Research & Studies

The focus on innovative solutions aimed at reducing costs, promoting clean energy, ensuring clean water, improving healthcare, enhancing food production, and developing better infrastructure is crucial for environmental protection and sustainability. In the coming decade, water scarcity will pose a significant challenge, considering the limited availability of potable or drinkable water, which accounts for only 1% of the abundant water on Earth. The main issue lies in obtaining safe water, as our activities continue to pollute groundwater, yet there are inadequate efforts being made to address water purification. Emphasizing the cleaning of water and promoting clean energy through innovative approaches should be a priority. This will enable people to live peaceful lives with good health and foster cooperation among communities.

CAMPUS SEWAGE TREATMENT INFRASTRUCTURE

Solid waste management

A Sewage Treatment Plant (STP) within university works well according to the specifications. The University has provision for potable water from the Municipal Corporation. An additional purification system is a Reverse osmosis plant. Maintenance of the water purification system is maintained through AMC with approved suppliers. The University falls within the Municipal Corporation of Dehradun.



Liquid waste management

The above-mentioned waste circulates through an STP and the recycled water is used to sprinkle the lawns and gardens in the Campus. A drainage system is in place to avoid stagnation of water and the tanks are periodically cleaned.

Low-density polyethylene containers are used for storage of bulk solvent and aqueous liquid waste streams. Use of old, dented, damaged, leaking or cracked containers are avoided.

Rainwater Harvesting

The university campus is equipped with an efficient rainwater harvesting system, which involves the construction of multiple catch pits to collect rainwater. The collected water is then directed to underground water tanks. This harvested water is utilized for irrigation purposes with the assistance of water tankers. Additionally, the campus has open borewells and ample green lawns that facilitate the recharge of the groundwater level.

Removal of micropollutants, and bacteria from urban wastewater and its real-time reuse for aquaculture

Freshwater consumption by humans has reached its peak, magnifying a dearth to freshwater availability across the world. The rising demand for freshwater has led to an interest in using purified wastewater for reuse. In this study, a novel microalgal strain *Pseudochlorella pringsheimii* - Ind-Jiht-1 was assessed in a pilot-scale for phyco-mitigation of various pollutants in the raw urban wastewater, including heavy metals as well as antibiotics resistant bacteria.

Click to Read More-
https://scholar.google.co.in/citations?view_op=view_citation&hl=en&user=iK9CfwoAAA&sortby=pubdate&citation_for_view=iK9CfwoAAAAJ:0x5QG6s0Q0-cC



Prof. (Dr.) Ajay Singh
Dean
SALS, UU



Ensure access to affordable, reliable, sustainable and modern energy for all.

Renewable Energy in University

With the aim of decreasing reliance on energy generated from fossil fuels, the university administration has undertaken initiatives to maximize the utilization of renewable energy sources. To achieve this objective, the university has implemented photovoltaic (PVC) solar cells to generate electricity and installed solar water heaters to provide hot water for bathing and other needs of the students.



Solar Power Plant

An intricately placed solar photovoltaic plant with a capacity of 210 KW has been installed in an area devoid of any obstructions to amplify its effectiveness. Additionally, diligent upkeep is carried out on these systems to guarantee their peak performance.

A role of back contact and temperature on the parameters of CdTe solar cell

The present work covers the solar cell simulation of cadmium telluride (CdTe) by means of the SCAPS-1D simulation software. The impact of back contact type and operation temperature on operation parameters of solar cell was studied. For the present study, three different types of metals with different work functions have been used in simulation, i.e. Silver (Ag), Gold (Au) and Platinum (Pt). The range of working temperature was 300–400 K. Simulation results confirmed that the back contact type functions, and temperature strongly influence the parameters of solar cells, especially the PCE, wherein it has been found that the Pt gave a conversion efficiency of 5.7% and Au gave 2.01% efficiency and Ag with 0.04% and best temperature to work is 350 K. The influence of inserting Cadmium Sulphide (CdS) buffer coat had been studied, and the presence of CdS enhanced the solar cell work.

Click to Read More -
https://scholar.google.co.in/citations?hl=en&user=TyWVULoAAAJ&view_op=list_works&sortby=pubdate



Prof. Dharam Buddhi
Vice Chancellor
UU

Solar Water Heaters

On the rooftops of the hostels, a congregation of 12 solar water heaters, each with a capacity of 2000 liters per day, are strategically positioned to fulfill the hot water needs of the students. This arrangement amounts to a total capacity of 24000 liters per day. To ensure a continuous supply of hot water, especially on overcast days or when sufficient solar heat is unavailable, a hybrid system has been implemented. This innovative system allows the administrators to activate electric heaters as a backup to produce hot water. The water heated by the solar heaters is stored in well-insulated tanks, with each tank having a capacity of 2000 liters. The students then utilize this water primarily during the morning and evening hours.



Bio-gas Plant

In order to minimize greenhouse gas emissions and prevent waterway pollution, the extraction of organic waste and its utilization for biogas production has been employed as a renewable energy source. Biogas consists of approximately 50-70% methane, 30-40% carbon dioxide, and small quantities of other gases. The university presently operates biogas systems, totaling 3 cubic meters in capacity, distributed throughout the campus to handle kitchen waste.



ar, Dehradun, Uttarakhand 248007, India



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Circular Economy

An International Conference on Advances in Materials for Health, Environment and Circular Economy was organized at Uttarakhand University on 25th November 2022. The Chief Guest for the event was Prof. Vineet Kumar, Scientist-G, F.R.I, Former Dean, IIT Roorkee.

Economy & Ecology should go together: Dr Anil Joshi

By OUR STAFF REPORTER
DEHRADUN, 3 June: Uttarakhand University organised a workshop on "Imparting awareness on Climate Change and identifying priority areas in Uttarakhand", here, today. The workshop was conducted on the campus of HESCO, Dehradun, in the presence of Padma Bhushan awardee Dr Anil Joshi. He focused on the economy and ecology for the sustainable development goals. He also emphasized on smart growth and industrial revolution with sustainability and asked Uttarakhand University to develop sustainability skills.



Investigating the effects of workplace diversity on employee performance in higher education institutions

Globalisation demands institutions to grow in heterogeneous workplace where each and every employee will perform with their fullest potential. Nowadays, if workplace diversity is managed properly it may lead to higher organisational performance in terms of values, perspectives, creativity, innovative, and if not managed properly, then it may lead to greater conflicts between groups which result into higher turnover. Workplace diversity is about acknowledging differences and adapting work practices to create an inclusive environment and it has been expected to be an important part of occupational life in the corporate world.

Click To Read More-

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Dr. Deepti Sharma
Associate Professor
UIM, UU

U'chal University holds seminar on 'Circular Economy'

By OUR STAFF REPORTER
DEHRADUN, 7 June: The Eco Club of Uttarakhand University organised a Seminar on "Circular Economy for Environmental Sustainability" on 6 June to celebrate World Environment Day on 5 June. The event began with lighting of the inaugural lamp. Everyone was given a warm welcome by the Coordinator, Eco-Cops, and Coordinator U'chal, Uttarakhand University, Prof. Dr. Bharti Ramola. She stressed the need of judicious utilisation of resources for a sustainable future. In his address, Dean, SALS, Prof. Dr. Ajay Singh stressed upon the need to keep the "Only Earth" green and clean, as it is the only planet.



The seminar was joined virtually by the guest speaker, Dr. RK Jain, Technical Expert, United Nations Industrial Development Organisation. The Vice-Chancellor could be helpful in tackling the global challenges of pollution, climate change, waste management etc.

Eco Cops- "The Home of Eco Warriors"

The primary goal of the Green Cop Nature Club is to arrange awareness programs for students, teachers, farmers, and other interested groups. Its focus lies in engaging the younger generation through the utilization of information technology. Additionally, the club carries out activities centered around nature conservation, particularly at the grassroots level, while also serving as a local network to coordinate eco-care programs within the community.

Modelling time-varying volatility using GARCH models: Evidence from the Indian stock market

In this study, we examined the volatility of the Indian stock market from 2008 to 2021. Owing to the financial crisis, volatility forecasting of the Indian stock market has become crucial for economic and financial analysts. An empirical study of the returns of the NSE indices revealed an autoregressive conditional heteroskedastic trend in the Indian stock market.

Methods: Using GARCH 1, 1 (generalized autoregressive conditional heteroskedasticity) and FIGARCH (fractionally integrated GARCH), we examine investor behaviour and the persistence of long-term volatility.

Results: The empirical findings of the estimated models suggest that shocks persist for a long time in NSE returns. Furthermore, bad news has a greater impact on stock volatility than good news.

Speaker
Dr. Rakesh Kumar Jain
Technical Expert
United Nations Industrial Development Organisation

Seminar on
Circular Economy for Environmental Sustainability
on the occasion of
WORLD ENVIRONMENT DAY
5th June 2022

organised by
Eco Cops
"The Home of Eco Warriors"
The Environmental Club,
Uttarakhand University

6th June 2022
12:30 PM onwards
Venue Seminar Hall, SALS

Chief Patron
Mr. Jitender Joshi
Chancellor, Uttarakhand University

Patron
Prof. (Dr.) Dharam Buddhi
Vice-Chancellor, Uttarakhand University

Prof. (Dr.) Rajesh Bahuguna
Pro Vice-Chancellor, Uttarakhand University

Prof. (Dr.) Abhishek Joshi
Director - Students Affairs & IT Services

Convener
Prof. (Dr.) Ajay Singh
Dean SALS, Uttarakhand University

Organizing Secretary
Prof. (Dr.) Bharti Ramola
Coordinator Eco Cops, Uttarakhand University
Coordinator U'chal, Uttarakhand University

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https://scholar.google.co.in/citations?view_op=view_citation&hl=en&user=wzQYX5UAAAAJ&citation_for_view=wzQYX5UAAAAJ:uJ-U7cs_P.0C



Mr. Farman Ali
Assistant Professor
UIM, UU



Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Cutting Edge Research & Innovation for Contribution towards SDGs



Prof. (Dr.) Rajesh Singh
Director
Research & Innovation, UU

The Uttarakhand University has mapped the research areas as per local, national, and international emerging area of Agriculture, Biotechnology, Security Information and Communication Technology, Environment and Climate Change, Industry 4.0, Sustainable Energy and Green Buildings, Public Healthcare, Nanotechnology and Advanced Materials. The research is focused on providing solutions to societal problems aligning with the United Nation's agenda for Sustainable Development Goals (SDGs).

We work on the philosophy of creative thinking and learning. We encourage faculty & students for transdisciplinary research and cultivate a depth of understanding in the students to make a positive difference in the society for a global impact.

We are looking forward to the solutions to the societal problems aligning the Industry 4.0 vision by adopting the United Nations agenda for Sustainable Development Goals. Industry 4.0 has been defined by the implementation of cyber physical systems for the automation in manufacturing, cloud computing and data exchange over Internet of Things. Our motto is to implement Industry 4.0 in different domains of studies including Law, Liberal Arts, Sciences, Agriculture, Pharmacy and Management.

Research Publications: 2000+
Research Collaborations: 200+
Intellectual Property Rights: 200+
Companies visited for Placements: 400+
Research Projects: 180+

The University is receiving recognition for its innovation.



WORLD'S
UNIVERSITIES
WITH REAL IMPACT

Construction at Uttarakhand University

The university is currently undertaking multiple sophisticated construction initiatives. These activities aim to enhance sustainability, energy efficiency, and overall environmental impact. Some of the notable practices include **Green Building Design, Renewable Energy Integration, Waste Management, Water Conservation, Smart Building Technology, Sustainable Materials and Green Roofing and Landscaping**. The green roofing systems and landscape designs are incorporated to enhance energy efficiency, reduce urban heat island effect, and promote biodiversity.

By implementing these advanced construction activities, Uttarakhand University aims to create a sustainable and environmentally conscious campus while providing a conducive learning environment for the entire academic community.



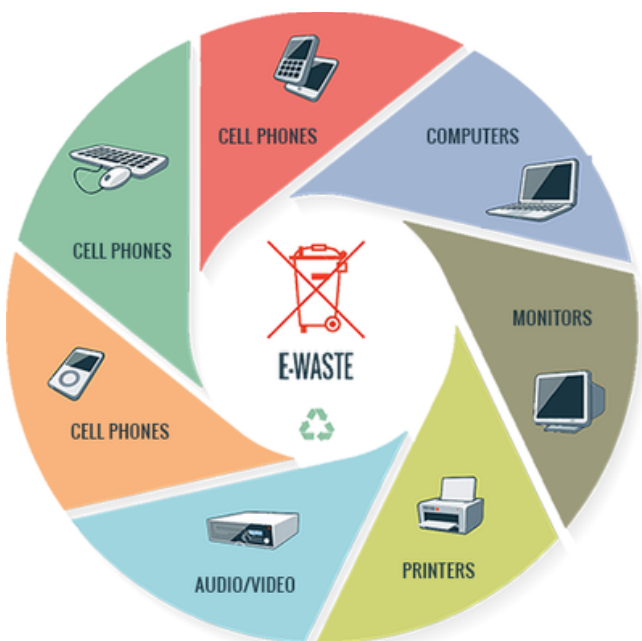
Campus Wastewater: Treatment Infrastructure

Our sewage treatment plant (STP) effectively gathers and processes all wastewater generated by various sources such as buildings and the dining hall, adhering to the guidelines set by the Central Pollution Control Board. Employing the latest technology known as the Moving Bed Biofilm Reactor (MBBR) system, the STP facilities efficiently treat the wastewater. Subsequently, the treated water undergoes rigorous testing to ensure compliance with predetermined limits for factors such as pH levels, suspended particles, chemical oxygen demand, biochemical oxygen demand, and oil & grease, as stipulated by the EP Act of 1986.



Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

The university is committed to creating a robust and environmentally-friendly infrastructure to address the needs of the campus community and foster well-being. Additionally, the university has established a **Division of Research & Innovation** and various interdisciplinary research departments with the purpose of conducting impactful research that resonates within society.



E-Waste Management

Uttaranchal University has entered into a partnership and signed an MoU with **EWRI** (E-Waste Recycle India), an officially authorized agency, for the collection and recycling of electronic waste (e-waste).

Hackathon for Students of the trans-disciplinary domain

Uttaranchal University inaugurated a 24-hour International Hackathon, as a cutting-edge trans-disciplinary global event aimed at encouraging and empowering young minds to use cutting-edge technologies like the Internet of Things (IoT), Industrial IoT, artificial intelligence (AI), robotics, drones, blockchain, digital twin, and edge/fog computing to solve pressing problems with their creative minds. During this event, students and startups from a variety of sectors collaborate to find an innovative solution to the challenge at hand, regardless of their abilities or time constraints. This event encourages students and companies to develop solutions that will help the environment in the long run. a thorough examination of the situation, clarity of thought, and innovative and effective answers. The team's ability to communicate and collaborate is assessed. The innovative solutions generated by youthful minds have the potential to serve as a worldwide remedy for the issue. Over 200 students are actively engaged in the event, where they will address problem statements spanning various interdisciplinary fields, with cash prizes exceeding Rs 2 lakh available for various categories.



Research Centres

Our research centres are dedicated to addressing specific challenges within the broad domains that we operate in, promoting a collaborative approach among our staff members. We actively encourage the involvement of students in research as part of their studies and ensure that our research outcomes contribute to shaping our curriculum. This enables us to effectively disseminate the knowledge we acquire through our work.

Innovation

The Research and Innovation team offers extensive assistance throughout the entire research and innovation process. Starting from initial concepts to the commercialization phase and establishing partnerships with industries, our team provides guidance and expert advice to facilitate the implementation of the university's research and knowledge exchange strategies.



REDUCED INEQUALITIES

Reduce inequality within and among countries.

PROTECTION OF RIGHTS: ACT-2019 AND RULES 2020



Uttaranchal University, in partnership with the **Ministry of Social Justice and Environmental Government of India**, organized an awareness program focused on transgender rights. **USJMC (Uttaranchal School of Journalism and Mass Communication)** hosted a sensitization program on the provisions of the Transgender Persons (Protection of Rights) Act, 2019, and the corresponding Rules of 2020. The event was sponsored by the National Institute of Social Defense under the Ministry of Social Justice and Empowerment, Government of India. Ms. Aditi Sharma and Mr. Sanjay Panwar (Consultant, NISD) graced the occasion as the chief guests, with Ms. Sharma serving as the resource person for the program.

TAKE A BALANCED APPROACH TO CAREER ADVICE WHICH PROMOTES SUSTAINABLE CAREER OPTION

In the forthcoming years, we will further cultivate our partnerships with organizations providing employment opportunities in sustainability-related fields, ensuring that our students possess a strong understanding of career paths centered on environmental and social impact.



PURAN SINGH
(HOUSEKEEPING STAFF)
UU- ADMIN.

I have been a part of Uttaranchal University for over fifteen years, and throughout this time, I have experienced a sense of belonging and family treatment from my seniors, colleagues, and students. Whenever I faced challenges or required assistance, they have always supported me, both personally and institutionally. Whether it was in my personal life or within the university, their unwavering support has been invaluable. Given these experiences, I am enthusiastic about continuing my tenure at Uttaranchal University.

UTTARANCHAL'S NAARI SHAKTI SAMMAAN

A mega event, 'Uttaranchal Naari Shakti Sammaan,' was organised by Uttaranchal University at **Swami Vivekananda Auditorium**. The Chairperson of the Selection Committee read the citation and conferred the award in the presence of a distinguished gathering. **Basanti Devi is known in the context of Kosi River at Pithoragarh**. Her work towards generating women consciousness, halting of blind cutting of trees in the forests and preserving the existence of Kosi River were commended by **former President, Sh. Pranab Mukherjee and Prime Minister, Sh. Narendra Modi**.

Click to Read More- <https://garhwalpost.in/uttaranchal-nari-shakti-samaan-presented-to-basanti-devi/>.





Engaging with staff and students through our public engagement programmes

The University is committed to its civic values, and partners with many cities and regional bodies as part of its commitment to being a civic university. We will clarify responsibilities to make it easy for the university's staff and students to engage with organisations across the region in a clear and strategic way to ensure maximum impact, while simultaneously helping local organisations to engage in a better manner with us.

Awareness Programs

The NSS Wing of the Uttaranchal University started 7 days special camp in Kanswali Kandoli village on 20-03-2021. Honourable Chancellor and Vice-Chancellor of the University, Sri Jitender Joshi and Prof. (Dr.) Devendra Pathak flagged the bus from the University to the camp site. The camp was inaugurated in the primary school of Gram Sabha in the presence of Gram Pradhan, Mr. Mukesh Kumar, former Gram Pradhan and former Jila Panchayat member Sri Megh Singh. At the inauguration ceremony, Professor V. K. Srivastava, the University's NSS coordinator, elucidated the goals and purposes of NSS to the students, considering the prevailing circumstances.

Nyaya Bandhu:- Pro Bono Club

Under the supervision of Prof. (Dr.) Rajesh Bahuguna, Law College Dehradun at Uttaranchal University organized a legal camp in the slum areas of Sunderban, Bhauwala in Dehradun. The objective of the camp was to comprehensively assess the actual challenges faced by these slum areas through on-ground work and investigation of the real-life conditions. The camp involved reaching out to residents door-to-door to gather crucial insights.



The NSS Wing of the Uttaranchal University and Law College Dehradun conducts a 'Legal Awareness Campaign'

The maiden event of the program was attended by the students of class 6th to 10th along with the faculty members of **Government Higher Secondary School, Baniyawala, Sahaspur, Dehradun**. NSS volunteers discussed the laws concerning issues like prohibition of child trafficking, sexual harassment, child labor and also informed them about the fundamental rights and duties as guaranteed by the Indian Constitution. The session was an interactive one wherein the students inquired about various provisions of law and especially about Article 370 of the Indian Constitution. A set of law books was also provided to the students in order to create legal awareness amidst the young minds. The Principal of the School addressed the gathering and applauded the NSS volunteers for their community service.





Uttaranchal School of
**HOTEL & HOSPITALITY
MANAGEMENT**
is organizing a
workshop on
**SUSTAINABLE
CONSUMPTION
AND PRODUCTION:**
Promotion of SDG 12 through Responsible
Beverage Choices.

by

Mr. Manish Bhatt
(Beverage Innovation Manager North India,
Mathieu Teisseire).

COMMITMENT TO THE WASTE HIERARCHY: AVOID, REDUCE, REUSE, RECYCLE

Annually, we generate a diverse and substantial volume of waste. The environmental consequences of waste can be profound, as it can contribute to the emission of greenhouse gases and contaminate local ecosystems during its processing. Improper handling of waste can also lead to pollution in natural environments beyond its immediate vicinity. **Our organization places great importance on the commitment to minimize waste generation, employ reduction and reuse practices, and promote recycling of materials. We approach these principles of the circular economy with utmost seriousness, striving to incorporate them whenever feasible.**

"Future perspectives of Nanotechnology in Sustainable agriculture and Food production"

The past few decades have witnessed a remarkable contribution by the nanotechnological applications in agriculture and food production. Sustaining such potentials, nanotechnology has been proven to create and unfurl the opportunities in the sectors of molecular and cell biology, along with technology such as biosensing and micro or nano-based technology for the proper detection and identification of several cellular signals and others. The review aims to provide a brief overview of nanotechnological approaches with the highlights on the nanofertilizers, nanosensors, nanopesticides, and nanoparticles for food and plant disease, nanolaminates.

[Click to Read More-](#)

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[view_op=view_citation&hl=en&user=OZbGaUMAAAAJ&citation_for_view=OZbGaUMAAAAJ:aqIVkmm33-oC](https://scholar.google.co.in/citations?view_op=view_citation&hl=en&user=OZbGaUMAAAAJ&citation_for_view=OZbGaUMAAAAJ:aqIVkmm33-oC)



Dr. Indra Rautela
Assistant Professor
SALS, UU



MR. SHIVAM PANDEY
JRF, SALS
UU

I am currently working on a topic which is mainly focused on degradation of harmful pharma compounds found in wastewater. The study is concerned about synthesis of many single digit metal oxides and various nanocomposites by using modified sol-gel and hydrothermal methods. Moreover, synthesis of several nanocomposite materials and its structural modifications are also being studied. Further, the employability of these single digit metal oxides nanoparticles and synthesized nanocomposites for photocatalytic wastewater treatment and degradation of industrial dye and pharmaceutical compounds is also being studied so that they can help in cleaning of wastewater and lead to a sustainable environment.

UU's Commitment to Sustainable Agriculture

The establishment of the **Agriculture Department** at Uttaranchal University is driven by the objective of offering sustainable and cutting-edge technologies for food processing and enhancing the value of agricultural products. The department is dedicated to achieving excellence in research, development, and teaching activities while making optimal use of the available infrastructure. Research endeavors within the department place special emphasis on both the fundamental and practical aspects of processing cereals and horticultural produce.



Eco Cops- "The Home of Eco Warriors"

Continuing with the tradition of preserving the environment and having ecofriendly activities, the "Tree Plantation Drive" was conducted by Uttarakhand University in collaboration with the NGO- JAI-Youth Wing, Shri Nityanand Swami Jan Sewa Samiti.

The plantation drive was carried out in different areas of Dehradun. The objective of the event was to sensitize students toward the need to preserve our environment and ecology.



Develop a meaningful, achievable and scientifically-robust roadmap to progress towards our aim of being a net-zero carbon University

Developing a meaningful, achievable and scientifically-robust roadmap to progress towards our aim of being a net-zero carbon University by 2038, and net-zero for Scope 1 and 2 emissions by 2030.

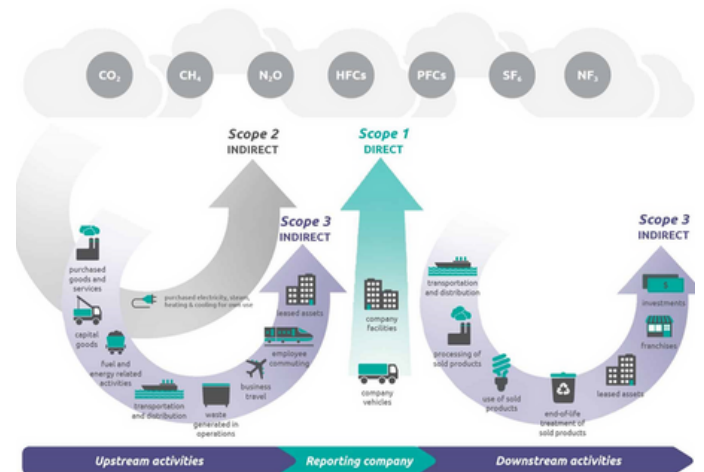
Make significant cuts to absolute carbon emissions

Make significant cuts to absolute carbon emissions: Reduce Scope 1 and 2 emissions by 60 percent by 2025 and Scope 3 emissions by 30 percent by 2025 and 75 percent by 2030.



Dr. Madhu Kirola
Assistant Professor
UIT, UU

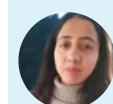
To protect our environment, climate action is essential. We can lessen the effects of climate change by cutting greenhouse gas emissions, supporting renewable energy, and encouraging sustainable practices. The productivity of agriculture is substantially impacted by a changing climate, endangering food security. Climate change encourages resilient agricultural practices like agroforestry, climate-smart farming, and sustainable water management. Through harsh weather, vector-borne diseases, and increasing air pollution, climate change puts human health at risk. By lowering communities' susceptibility to these dangers, climate change mitigation contributes to the protection of public health. Combating climate change offers chances for sustainable economic growth and the eradication of poverty. Investing in clean technologies, sustainable infrastructure, and renewable energy not only reduces climate threats but also boosts employment and economic growth. We at Uttarakhand University encourage our students to participate in environment related activities which helps in making them environmentally conscious. This is done through eco club and various activities like seminars, quizzes, poster presentations, power point presentations, speech competitions and nukkad natak etc.



Multifunctional CuO Nanoparticles

Rhizome extract of *Bergenia ciliata* was used as a bio-functional reducing material for the green synthesis of copper oxide nanoparticles (CuO NPs). CuO NPs were characterized using ultraviolet-visible spectroscopy, Fourier transforms infrared spectroscopy, X-ray diffraction (XRD), dynamic light scattering, scanning electron microscopy (SEM) and energy-dispersive X-ray analysis (EDX). XRD analysis revealed the monoclinic phase of synthesized CuO NPs with an average particle size of 20 nm. Spherical shaped nanoscale CuO particles were observed by EDX and SEM confirming the Cu and O presence in the synthesized NPs. CuO NPs showed antibacterial effects against *Bacillus subtilis*, *Staphylococcus aureus*, *Escherichia coli*, *Salmonella typhi*. The antioxidant effect was measured and IC₅₀ values for 2,2'-azino-bis(3-ethylbenzothiazoline-6-sulfonic acid (ABTS), 2,2-diphenyl-1-picrylhydrazyl and Ferric reducing antioxidant power assays were found to be 91.2, 72.4 and 109 µg mL⁻¹ respectively. Under sunlight, the CuO NPs reported extraordinary photocatalytic activity against Methylene Blue and Methyl Red degradation with efficiencies of 92–85%. CuO NPs have excellent potential application for the photocatalytic degradation of organic pollutants and in the development of antibacterial materials.

[Click to Read More-
https://sustainvironres.biomedcentral.com/articles/10.1186/s42834-021-00111-w](https://sustainvironres.biomedcentral.com/articles/10.1186/s42834-021-00111-w)



Dr. Kanika Dulta
Assistant Professor
SALS, UU

LIFE BELOW WATER

Conserve and sustainably use the oceans, seas and marine resources for sustainable development.



LIFE BELOW WATER POLICY IN UTTARAKHAND

The state government has established institutional mechanisms for policy implementation, including the Uttarakhand State Biodiversity Board (USBB), the State Pollution Control Board (SPCB), and the State Forest Department. The USBB is responsible for promoting the conservation and sustainable use of biodiversity in the state, while the SPCB is responsible for preventing and controlling pollution. The State Forest Department is responsible for the management and conservation of forests, including mangroves.

WORKSHOP ON NAMAMI GANGE PROJECT

A workshop was organised for the benefit of researchers and faculty members at Uttaranchal University. The theme was Innovative Practices and Research, Rajiv Ranjan Mishra, former Director General of National Mission for Clean Ganga, **Namami Gange Project** (Ganga Rejuvenation Project) was present on the occasion as the chief guest and keynote speaker, while Dr. P. R. Hariharan, official of the Department of Scientific and Industrial Research, **Government of India** was present as the special guest and subject expert. More than 200 faculty members and researchers of the university participated in this workshop. The Chancellor of the University, Jitender Joshi honored the guests by giving mementos. He said that innovation and high-quality research is the priority of Uttaranchal University. He appreciated the achievements of the Division of Research and Innovation of the University.

Awareness Guidance

The institution takes deliberate measures to ensure that its processes are environmentally sustainable and do not adversely impact subterranean water resources or aquatic systems. In an effort to prevent any potential impact on water bodies intended for human consumption, the institution has implemented a rainwater harvesting system on its campus. These initiatives clearly demonstrate the institution's unwavering commitment to preserving subterranean ecosystems.



उत्तरांचल विवि में आयोजित कार्यशाला का दीप जलाकर उद्घाटन करते नमामि गंगे के पूर्व महानिदेशक राजीव रंजन, विवि के कुलाधिपति जितेंद्र जोशी, उपकुलपति प्रो. राजेश बहुगुणा एवं फैकल्टी • सामार- विवि



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Noise pollution control in UU



Green Transportation

Since 2018, the campus has been utilizing **battery-operated e-rickshaws as a means of transportation**. These e-rickshaws serve as a convenient mode of travel, connecting various significant buildings, departments, and hostels for both students and faculty members. With an impressive mileage of approximately 100 km per e-rickshaw, the university actively promotes the use of these eco-friendly vehicles. By doing so, the university aims to counteract the negative environmental impact caused by conventional fuel vehicles that emit carbon emissions. This initiative contributes to the enhancement of air quality & noise pollution at a micro-level within the campus environment.



Following a two-to-one replacement policy, we will replace any trees that are removed and aim to enhance the canopy cover across our entire estate by a minimum of 2 percent.

To accomplish our goal of augmenting canopy cover by a minimum of 2 percent by 2030, we will persist in implementing our two-to-one replacement strategy for trees across the campus. Additionally, we will enhance the genetic diversity of our tree population to foster resilience in the face of climate change. Furthermore, we will identify and safeguard our most valuable trees to ensure their preservation for future generations.



Cleanliness Drive by the Prakriti club

On 17th March, 2023, the Shram Daan cleanliness drive was arranged by the Prakriti Club, Uttaranchal School of Computing Sciences (USCS), Uttaranchal University, in partnership with Shri Nityanand Swami Jan Seva Samiti-Jai Youth Wing. The event took place at Tapkeshwar Mandir, Dehradun, as part of the Swachh Bharat Abhiyaan Programme. The primary objective of this initiative was to educate students about the importance of cleanliness and its advantages in their everyday lives.





AEGIS: **YOUTH PARLIAMENT SOCIETY, LAW COLLEGE DEHRADUN**

Niti shastra 2.0 National Policymaking Competition

Under the supervision of its Youth Parliament Society, Law College Dehradun, a faculty of Uttaranchal University, successfully organized the second edition of the National Policy Making Competition in an online format. The competition welcomed participants from recognized universities at both the Undergraduate and Postgraduate levels. The primary objective of the event was to provide a platform for the youth across educational institutions in India to collaborate and propose policy recommendations, as well as discuss the desired reforms to be implemented in the legal system of the country.



NATIONAL AMENDMENT WRITING COMPETITION

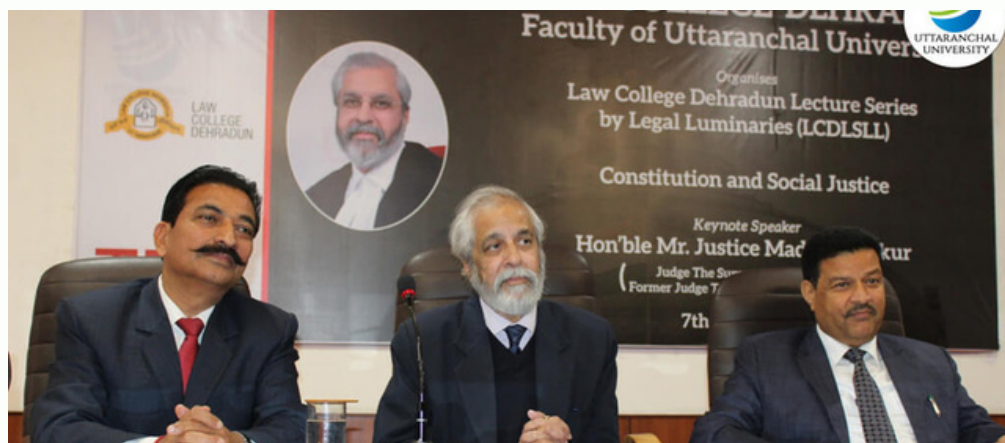
“Provisions of EPA 1986 and prosecution against environmental crimes”

The second edition of the National Policy Making Competition was successfully organized by the Law College Dehradun, a faculty of Uttaranchal University, under the guidance of its Youth Parliament Society. The event took place online, and participants from recognized universities at the Undergraduate and Postgraduate levels were invited to take part. The main objective of the competition was to create a platform for students across educational institutions in India to collaborate and propose policy recommendations, as well as engage in discussions about necessary reforms in the country's legal system.



PROF. (DR.) RAJESH BAHUGUNA
Pro VC & Dean LCD

Justice is emblematic of constitutional justice, which aims at efficaciously addressing the observable biases and divisions in society. COVID upended the societal apperception by plunging the institutions into a never seen chaos and turbulence. The social setting met a gargantuan force of COVID, thus skewing the existing social norms, India's commitment to a welfare state was severely tested. The courts' position as the premier institutions for serving legal justice took a beating. The social exclusion earlier earmarked on various factors had the Internet as a new facet attached to it. Internet access created a new feature to entrench pervasive social divisions. Incorporating the Internet as a critical component of the governance model amplified the social divisions. Justice became a far cry as the Internet became a sine qua non for approaching the courts. Internet Rich and Internet Poor became the order of the day. The governance model in COVID times became a justice conundrum favoring a few and leaving the significant others in unsettling disquiet. The study's objective would be to assess the multitudinous challenges encountered on the justice front and how the Internet-savvy Judiciary during COVID times caused a civil rights conundrum. The findings would help evaluate the insidious practices of the justice system during testing times and how the constitutional system, unfortunately, finds itself unavailable to assuage the frayed tensions.



Lecture Series By Legal Luminaries

Social Justice is the part of Preamble and a Constitutional responsibility of Judiciary – Justice Madan B. Lokur

Hon'ble Justice Lokur began his discourse by thanking the management for organising such lecture sessions, as this would be the best way to educate the young minds. Quoting Dr. Rajendra Prasad he stated '**Constitution to be a lifeless document and that one needs to breathe life into it by way of interpretation**'. Justice Lokur focused his lecture on two aspects. First, where the law is present but executive is not implementing the same and the second is absence of law. His Lordship, threw light upon the Preamble of the Indian Constitution, and the intermingling of the principle of Separation of Power in Indian Scenario. He mentioned the three aspects of Social Inequalities concentrating on (1) Failure of Parliament to make laws; (2) Failure of the Executive to enforce the laws and (3) Social Problems having no Legislation. Beginning with the topic, Justice Lokur explained the rationale of judicial intervention in the method of governance for the sake of social justice which is the part of preamble and a basic feature of the constitution. He stated that, a citizen can't be left without remedy, in case, the legislature and executive fail to deliver their constitutional responsibilities. "Social justice is the part of preamble, and primary responsibility of the judiciary is to ensure its proper implementation", he further remarked. Hon'ble Justice cited many cases related to plight of widows at Vrindavan, treatment of prisoners, forced sterilization, child rights, human trafficking, rights of transgenders etc. and showed his concern on various aspects of social justice. **Quoting Article 21 of the Constitution**, he stated that every individual has not only right to life but right to live with dignity. He concluded his speech emphasizing on the constructive interpretation of the Constitution and judiciary's proactive role in handling the issues of Social Justice.



Enabling Future Lawyers on Lawyers and Management

"**LAWYERED**" is pleased to announce its new series #EnablingFutureLawyers. This series is brought with a perspective to know the present scenario of legal education and how the students are preparing themselves for the betterment of the nation. This series of events is to bring out the importance of legal knowledge and how it is equipped in the students. The second episode brings together Adv. Ujwal Phasate, Advocate and Dr. Rajesh Bahuguna, Dean & Principal Law College Dehradun, Uttaranchal University to discuss the current scenario of legal education and why law students have time management skills.

LINK (Details Below) - <https://www.youtube.com/watch?v=IFTtLJeZqlw>



Naina Bhatt (Alumni)
Placement Executive

With the goal of fostering justice and peace on its campus and beyond, Uttaranchal University has the capacity to act as a change agent. The institution may encourage its students to become compassionate leaders who work to build a more just and peaceful society by embracing diversity, educating for social justice, launching campus-wide programmes, partnering with neighbourhood organisations, and offering strong support systems. The teachers and students at Uttaranchal University can be motivated to have a long-lasting impact on the world by actively cultivating an atmosphere of peace, equality, and social justice. Let's work together for a more promising future where justice and peace reign.

United Nations

Academic Impact



THE STUDENT BODY OF UNAI AT UU

Session 2022-2023:

1. Akshay Kumar- UIT
2. Ashish Chauhan- UIT
3. Animesh Raturi- UIT
4. Vansh Taneja- UIT
5. Kartikey- USJMC
6. Akshat Bhatt- LCD
7. Himani Upadhayay- LCD
8. Prerna Yadav- UIM
9. Aum Garg- SALS
10. Himanko Gogogi- UIPS
11. Bandana Rawat- SOA
12. Priya Juyal- SLA
13. Ojaswani Mahendru- USCS
14. Yogita Pal- UCN





UTTARANCHAL
UNIVERSITY
NAAC GRADE / **A+**

IQAC

पदं हि सर्वत्र गुणैर्निधीयते

