In Joint Association with:

5th

S 2

2



















5th DEHRADUN INTERNATIONAL SCIENCE & TECHNOLOGY

FESTIVAL (5th DISTF-2024) 20th-23rd November, 2024

EXECUTIVE SUMMARY





5th DEHRADUN INTERNATIONAL SCIENCE & TECHNOLOGY

FESTIVAL (5th DISTF-2024)

20th-23rd November, 2024

VMSB Uttarakhand Technical University, Dehradun









PROPERTY RIGHTS (IPR)

UAV:

Unmanned Aerial Vehicle (DRONE) Technology







STEM WORKSHOP

Model ROCKETRY WORKSHOP









CYBER SECURITY





4th CONSTA- 24

SCIENCE & TECHNOLOGY EXPO

Executive Summary

http://dehradunsciencefest.org

In Joint Association with:



















SOCIETY FOR RESEARCH AND DEVELOPMENT IN SCIENCE, TECHNOLOGY & AGRICULTURE

Registered Office: 02, Raj Residency, Raja Ram Vihar, Sahastradhara Road, Dehradun-248001 (Uttarakhand)

Website: http://dehradunsciencefest.org I Email: sradstauk@gmail.com Contact: +91 9410353164, +91 8433456398



5th DEHRADUN INTERNATIONAL **SCIENCE & TECHNOLOGY**

FESTIVAL (5th DISTF-2024) 20th-23rd November, 2024

In Joint Association with

















CSR Partner





Supported by

































































Knowledge Partner

























Radio Partner

Media Partner

Hospitality Partner









VENUE: VMSB Uttarakhand Technical University, Sudhowala, Dehradun

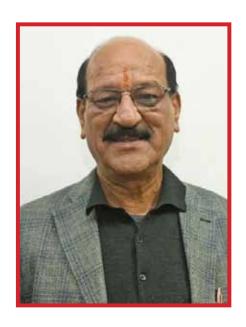
MENTORS



Lt Gen Gurmit Singh PVSM, UYSM, AVSM, VSM (Retd.) HON'BLE GOVERNOR OF UTTARAKHAND



Sh. Pushkar Singh Dhami
HON'BLE CHIEF MINISTER
UTTARAKHAND



Shri Subodh Uniyal

HON'BLE MINISTER OF
TECHNICAL EDUCATION
& FOREST

UTTARAKHAND GOVERNMENT



Prof. Dr. Durgesh Pant

Director General
Uttarakhand Council for Science &
Technology (UCoST) Dehradun
Chairman
5th DISTF-2024 Steering Committee



Vice Chancellor
VMSB Uttarakhand Technical
University Dehradun
Co-Chairman
5th DISTF-2024 Steering Committee

LT GEN GURMIT SINGH PVSM, UYSM, AVSM, VSM (Retd) GOVERNOR UTTARAKHAND



RAJ BHAWAN UTTARAKHAND

> Phone: 0135-2757400 2757403

22 January, 2025

Message

It is interesting to note about the four-day 5th Dehradun International Science & Technology Festival (DISTF) from 20th to 23rd November 2024 organised at Veer Madho Singh Bhandari Uttarakhand Technical University. This collaborative effort with the Uttarakhand Council of Science and Technology, Uttarakhand Science Education and Research Centre, Oil and Natural Gas Commission, and the Departments of Science and Technology and Biotechnology, Government of India, is truly commendable.

Such festivals serve as a vital platform for fostering innovation and promoting scientific temper. They bring together leading scientists, researchers, students, and industry experts to exchange ideas, showcase cutting-edge technologies, and discuss pressing global challenges like climate change, renewable energy, and advancements in artificial intelligence. Events like DISTF also provide opportunities for young minds to explore the wonders of science, spark curiosity, and inspire future innovations. The festival highlights the growing importance of Uttarakhand as a hub scientific research and technological advancements. showcasing how collaborative efforts can drive meaningful progress.

I extend my congratulations to the university and its partners for the successful organization of this prestigious event and for their commitment to advancing science and technology.

Gwimit

Lt Gen Gurmit Singh PVSM, UYSM, AVSM, VSM (Retd)

In Joint Association with:



















5th DEHRADUN INTERNATIONAL
SCIENCE & TECHNOLOGY
FESTIVAL (5th DISTF-2024)
20th-23rd November, 2024



DEHRADUN INTERNATIONAL SCIENCE & TECHNOLOGY FESTIVAL (5th DISTF-2024) 20th-23rd November, 2024 FOR HIMALAYAN STATES

at VMSB Uttarakhand Technical University, Sudhowala, Dehradun

ABOUT THE DISTF-2024

Presenting the 5th DISTF 2024 the Science and Technology mega festival with the extreme pleasure and enthusiasm. Dehradun International Science and Technology Festival DISTF is one of its kind a unique event that is continuously organized to provide a platform to everyone from the population of scientific and technological enthusiasts. The past four versions have witnessed the huge participation where the society has been benefitted with the plethora of events suited to cater the thirst and hunger for science and technology. Here we put the numbers of past year's participation and the number of events organized with whom and benefitting whom. As the betterment and growth is a natural phenomenon and so applies to the DISTF and hence this year 20,000+ visitors was participated the event from across the state physically and more than 1,00,000+ from across the Himalayan States virtually.

The plethora of events can benefit the science and technology community including the School going children, Science, Engineering, Medical students, Scientific Authors, Science & Technology Bloggers and Vloggers or News broadcast/podcasts. The Teachers, Technocrats, Communicators, Scientists, Researchers, Venture Capitalist, Artists, Writers, Journalists, Administrators, Policy Makers and many more Citizens amongst the others having temperament for Science and Technology all are welcome.

The fabric of the 5th DISTF-2024 was full four days during 20th-23rd November, 2024 assimilating 30+ vibrant events encompassing the every wavelength in the world of the Science and technology. There two main categories of the events, the Centralized Events spanning the full day activities and the Specialized Events for a specific interest group spanning through the particular duration.

PARTICIPATION

Students from Schools, Engineering/Medical/Science Institutions/Universities and Children, Science Communicators, Scientists, Technocrats, Teachers, Artists, Journalists, Young/ Budding Authors, Researchers, other Science Enthusiasts, Science Policy makers and Citizens-all was invited to participate 5th DISTF-2024.

Approximately 20,000 Students/Science lover has visited DISTF-2024 in Four days. 30+ events has organised in four days event.



5th DEHRADUN INTERNATIONAL SCIENCE & TECHNOLOGY

FESTIVAL (5th DISTF-2024)

20th-23rd November, 2024

A BRIEF REPORT

The fifth Dehradun International Science and Technology Festival-2024, held from November 20 to 23 in the third week of November, organized more than 30 different programs including conclaves, workshops, seminars, summits, conferences, hands-on training, quizzes, competitions, exhibitions, etc. Around 7000 students from more than 150 educational institutions enrolled themselves to participate in various programmes. In addition, more than 15,000 students visited the Science and Technology exhibition. 81 scientific, technological and start-ups including UCost, USERC, Indian Institute of Petroleum, Department of Biotechnology, National Research Development Corporation, Uttarakhand Biotechnology Council, Zoological Survey of India, Botanical Survey of India, Nehru Institute of Mountaineering, SDRF, UJVNL, UREDA, Forest Research Institute, Green Energy Pavilion, Science Models Pavilion and Himalayan Rural Technology Pavilion and startups participated in the exhibition.

More than 7000 children participated in Science Poster Competition, Science Quiz, Magic of Math and Quiz, Meet the Scientist, Young Scientist Conclave, Aeromodeling Workshop, Drone Workshop, Robotics Workshop, Green Energy Conclave, CONSTA, IPR Workshop, Rural Entrepreneurship & Startup Conclave, Model Rocketry Workshop, Electronic Circuit Board Design Workshop, Cyber Security Conclave, Students Innovation Exhibition, Medical-Technology Conclave etc. Apart from this, more than 15,000 students from schools, colleges, medical colleges, nursing colleges, universities of Dehradun, Haridwar, Roorkee and Tehri district visited the Science and Technology Exhibition and Students' Innovation Exhibition.

Four-days 5th Dehradun International Science & Technology Festival was organized in joint collaboration with UCOST, ONGC, Department of Science & Technology & Department of Biotechnology, Government of India, USERC, UJVNL and JSW Power. This year, the DISTF was hosted by Veer Madho Singh Bhandari Uttarakhand Technological University.

DISTF is a flagship programme of UCOST, Department of Science & Technology, Government of Uttarakhand, which has been designed and implemented by Society for Research & Development in Science, Technology & Agriculture. For the successful conduct of this event, all the scientific institutions including Technical Education Department, School Education Department, Health, Medical and Education Department, Industrial Development Department and Uttarakhand Startup Council, ITDA Space Application Center, Rural Business Incubator, Biotechnology Council, THDC etc. contribute to the successful conduct of this event.

This year, the poster of DISTF was launched by the Hon'ble Chief Minister Shri Pushkar Singh Dhami while the DISTF was inaugurated by His Excellency the Governor of Uttarakhand, Lt. Gen. Shri Gurmeet Singh. Cabinet minister for forest & technical education Shri Subodh Uniyal was also witness of the inaugural ceremony. More than 400 students served as volunteers. More than 150 teachers were present on the occasion. In addition, about 100 persons were assigned other responsibilities.

In the four-day event, more than 40 scientists from the scientific departments under the State Government and Government of India delivered their lectures and interacted with the students.

Secretaries and Additional Secretaries in the Government for Energy, Medical Education, School Education, Information and Technology Department, Technical Education, Higher Education, State NITI Aayog and many other departments, Directors of Departments and Managing Director level officers of corporations also participated in various programs of DISTF. The DISTF was concluded by the Director General of Police of Uttarakhand Shri Abhinav Kumar, IPS. The "7th State Level Teachers of the Year-2024" was also awarded at the concluding level.

The four-day fifth Dehradun Science and Technology Festival-2024 was significant in many ways. This year, one-day DISTF was organized at the Campus Engineering Colleges of the UTU located at and Pithoragarh, Gopeshwar (Chamoli), Uttarkashi, New Tehri, Tanakpur (Bageshwar) districts. More than 1000 students in each district participated in the 7 programmes of one day DISTF.

The increasing participation of students and science lovers in DISTF is a testimony to the fact that scientific aptitude is increasing among the students and youth of the state. DISTF is contributing to the development of the state as a platform for awakening scientific temper among students and developing and conductor of scientific temper. DISTF is a mega celebration of science, technology and innovation which has emerged as the biggest platform not only in Uttarakhand but also in the neighbouring states. Every year this event is awaited in the entire state and various institutions and universities are ready to host this event.

OUTCOME OF DISTF-2024

The plethora of events can benefit the science and technology community including the School going children, Science, Engineering, Medical students, Scientific Authors, Science & Technology Bloggers and Vloggers or News broadcast/podcasts. The Teachers, Technocrats, Communicators, Scientists, Researchers, Venture Capitalist, Artists, Writers, Journalists, Administrators, Policy Makers and many more Citizens amongst the others having temperament for Science and Technology all are welcome.

The fabric of the 5th DISTF-2024 was full three days during 20th-23rd November, 2024 assimilating 30+ vibrant events encompassing the every wavelength in the world of the Science and technology. There two main categories of the events, the Centralized Events spanning the full day activities and the Specialized Events for a specific interest group spanning through the particular duration. 24 students were awarded Rs.37,500/- in the science poster competition & 24 students were awarded Rs. 37,500/- in Science Quiz. 05 School team for their best innovative ideas for startups was awarded Rs. 50,000/-. 300 students were gifted free aeromodelling kit and given training to make the model planes, 100 students were gifted free electronic circuit unit and given training to make the 05 different projects. The complementary lunch/breakfast has been provided to more than 7000 students who have participated in workshops and conclave. Total 50 Teachers were conferred in different category by "7th Teacher of the Year Award-2024"

ABOUT THE ORGANISING INSTITUTIONS

Uttarakhand Council for Science & Technology | UCOST

Uttarakhand State Council for Science and Technology is an autonomous body of the Government of Uttarakhand, Department of Information & Science Technology. UCOST started its activities from last quarter of year 2005, However it was registered under the Registration of Societies Act, 1860 in November 2002. The Council plays a catalytic role for the promotion of S&T in the state and supplement /complement the developmental programmes of the state in different sectors. UCOST is nodal agency of Department of Science and Technology, Government of India.

Oil & Natural Gas Corporation | ONGC

The Oil and Natural Gas Corporation Limited (ONGC) is an Indian central public sector undertaking which is the largest government-owned oil and gas explorer and producer in the country. It accounts for around 70 percent of India's domestic production of crude oil and around 84 percent of natural gas. Headquartered in Delhi, ONGC is under the ownership of the Government of India and administration of Ministry of Petroleum and Natural Gas. It was founded on 14 August 1956 by the Government of India. In November 2010, the Government of India conferred the Maharatna status to ONGC. ONGC conducts its business as a responsible corporate and believes in holistically addressing all issues related to People, Planet and Profit for a sustainable business and better future for all living beings and is committed to achieve inclusive growth of the marginalized and deprived sections of the society through its CSR initiatives to be implemented within the geographical boundaries of India.

Science for Equity Empowerment and Development | SEED

Science for Equity Empowerment and Development (SEED) Division (earlier known as Science and Society Division) under the Department of Science and Technology, Government of India provides opportunities to motivated scientists & technologists from national Research and Development (R&D) labs, S&T-driven Non-Governmental Organizations (NGOs) and field-level workers to take up actionoriented and location-specific projects aiming at Socio-economic development of disadvantaged sections of the society through appropriate interventions of Science, Technology and Innovation (STI), leading to their improved quality of life and livelihood. Through its diverse schemes and programmes, efforts are being made to empower the community by adopting technologies to address locally defined needs and priorities that consider available resources and moral prosperity of society for sustainable development. The schemes and programmes of the division are also being converged with line function ministries/departments for the last-mile delivery and national development programmes to achieve Sustainable Development Goals (SDGs).

Department of Biotechnology | DBT

The Department of Biotechnology (DBT) is under the Ministry of Science and Technology, Government of India, responsible for administrating development and commercialisation in the field of modern biology and biotechnology in India. It was set up in 1986. Biotechnology is a frontline area of science with immense potential for the benefit of the human kind. The Department shall devote wholly to achieve excellence in the promotion of biotechnology in the country. The Department shall provide services in the areas of research, infrastructure, generation of human resource, popularization of biotechnology, promotion of industries, creation of centers of excellence, implementation of biosafety guidelines for genetically modified organisms and recombinant DNA products and biotechnologybased programs for societal benefits. Bioinformatics is a major mission to establish an information network for the scientific community, nationally and internationally.

Uttarakhand Science Education and Research Centre | USERC

Uttarakhand Science Education and Research Centre (USERC) was setup in 2005 by the Department of Science and Technology, Government of Uttarakhand as an autonomous organization. It was

created with the mandate to bolster scientific temperament in Uttarakhand. To this end, it has been making intensive, across-the-board efforts to support education and promote career prospects in the realms of Science and Technology. USERC is dedicated to motivating and developing academicians and students through its involvement in teaching and training students for research in science and technology, including computing. USERC works towards creating the necessary infrastructure and developing meaningful programmes for the state by extensively interacting and collaborating with national and international institutions and experts. The Centre is developing a synergetic network with many academic institutions located in the state and outside. It is also conducts various outreach programmes and co-curricular activities for reaching out to the community, all across the state.

Uttarakhand Jal Vidyut Nigam Limited | UJVNL

UJVN Ltd. is a wholly owned Corporation of the Government of Uttarakhand. Today, UJVN Ltd.operates hydropower plants ranging in capacity from 1.5 MW to 304 MW, totaling to 1420.60 MW. UJVN Ltd. is committed to develop new power stations in an early and efficient manner for economic well-being and growth of the State and its people. UJVN Limited has commissioned solar PV based power plants across its different offices/ Project areas totalling an installed capacity of 26.540 MW. UJVN Ltd. is currently exploring the feasibility of setting up additional solar PV based power plants in its offices/ Project areas across Uttarakhand.UJVN Ltd. is also exploring the promotion of Bagasse based cogeneration in sugar mills. In this connection, UIVN Ltd. is in the process of setting up co-generation plants at Nadehi (installed capacity - 16 MW) and Bazpur (installed capacity - 22 MW). UJVNL is committed for operating its core business in a socially responsible way, by taking into consideration the wider interests of the community and the environment, with a vision of promoting sustainable development. The Company is committed towards its social responsibilities and had been contributing to the society on a constant basis much before the compulsory allocation of CSR came in the force. The Company has its own CSR policy that has been framed in lines with provision/rules, as prescribed under The Companies Act, 2013. All the items that are permitted under the Companies Act, 2013 have been incorporated therein in the policy.

ISW Energy Limited | ISW

JSW Energy Limited is a top renewable energy company in India and a leading power generation company in India. Committed to the efficient utilization of all available resources, ISW Energy stands out in the private sector as a prime example of sustainable growth. The company expertly manages operations to enhance social and economic benefits while minimizing environmental impacts through cutting-edge innovation. Over the years, ISW Energy has grown steadily and strongly, becoming a prominent energy company in India. Today, ISW Energy not only has a significant presence across various Indian states but also holds stakes in natural resource companies in South Africa, showcasing its expansion in power generation and distribution on a global scale. JSW Foundation is the social development arm of the ISW Group. It has a long track record and a rich legacy of empowering rural communities to enrich their lives since the last three decades. ISW Foundation's focus areas are Education; Health and Nutrition; Skill Development; Livelihoods; Water, Environment and Sanitation; Waste Management; Sports Promotion; and Art, Culture and Heritage. Through a strong field presence, it operates across 17 states and 38 districts around JSW's plant & port locations. JSW Foundation also reaches out to communities beyond these locations to contribute towards India's social development in a meaningful way. ISW Foundation's holistic life-cycle based interventions have positively impacted more than 2 million individuals across India.

VMSB Uttarakhand Technical University | UTU

Veer Madho Singh Bhandari Uttarakhand Technical University, Dehradun was established on 27th January 2005 by Govt. of Uttarakhand through the Uttarakhand Technical University Act 2005. The Veer Madho Singh Bhandari Uttarakhand Technical University campus is situated at NH-72 Suddhowala, Dehradun. Dehradun is the capital of Uttarakhand State and is well connected through Rail, Road and Air transport.

The University has been established in an area of 8.372 hectare and it is the only affiliating University of the state for technical institutions. There are 81 affiliated private institutions and 12 government institutions in the University. University is running 08 UG, 6 PG and 18 Ph.D programmes with approximately twenty thousand students in various courses.

Society For Research and Development In Science, Technology & Agriculture | SRADSTA

Society For Research and Development In Science, Technology & Agriculture developed the idea of engaging youth and students by organising science and technology festivals to create a scientifically tempered society. Now the idea has become successful. Students, youth, entrepreneurs enjoy science and technology as a festival. They learn scientific principles and technology through practical training, interaction with scientists and technocrats.

SOCIETY FOR RESEARCH AND DEVELOPMENT IN SCIENCE TECHNOLOGY AND AGRICULTURE (SRADSTA) is registered under the Societies Registration Act in 2020, by a group of developmental professionals for undertaking creative and innovative developmental initiatives in the development science and technology sector. SRADSTA is a not for profit, non-political, non-governmental organization, and has been working for protection and enhancement for Science, Technology, Agriculture, Horticulture, Allied Agricultural Activities, Art, Literature, Media, Environment, culture and Heritage. The entire team at SRADSTA is constantly seeking ways to improve pre-existing services and processes, anticipate changes and respond to any such changes proactively. Immense value is laid on human dignity and teamwork is encouraged for better performance.

SRADSTA firmly believes that our country cannot be achieved the status of Vishwaguru till our society become a scientific tempered society. SRADSTA works to develop scientific temperament among the youth and school going students well over for last three years. We have to retrieve our ancient heritage of knowledge and take it forward through research and innovations. With this, SRADSTA which was initially conceptualized as an institution dedicated to the development of scientific consciousness broadened its scope of activity to Women Empowerment, Welfare, Information and Communication, Skill Development, Educational Leadership building, Agriculture & Technology, Green Energy, Education Excellence, faculty development, himalayan culture and heritage, conservation and promotion of heritage of traditional knowledge and other such areas. We believe in "walking the extra mile" in delivering quality to meet the Public expectations, both expressed and implied.



Different Programs at a Glance

Science Poster Competition

The DISTF-2024 Science Poster Competition, a much-anticipated event, was successfully conducted on 20thNovember, 2024 at the Open Space Exhibition Area of VMSBUTU (5th Dehradun International Science and Technology Festival). The event was part of the DISTF's efforts to foster enthusiasm for science among students and the general public. The 2024 Science Poster Competition aimed to encourage young students to showcase their innovative ideas and findings in a visual format. The competition provided participants with a platform to present their research, exchange ideas, and enhance their communication skills. This year's event focused on the theme "Health, Environment, Sustainable Food Habits, Conservation Efforts, and Climate Change".

Event Highlights

The competition featured three distinct groups of participants, categorized as:

- 1. Group A (Junior Category): School students from Grades 6–8.
- 2. Group B (Intermediate Category): High school students from Grades 9–12.
- 3. Group C (Senior Category): College and university students.

The poster competition attracted an overwhelming response, with over 480 participants registering for the event representing schools, colleges, and educational institutions from across the Dehradun and nearby regions.

The event timings were from 11:30 a.m. to 1:00 p.m.

Competition Format

Each category participated in the Science Poster Competition aims to promote awareness about the critical issues related to health, environment, sustainable food habits, conservation efforts, and climate change. Participants also expressed their creativity and knowledge by designing informative and visually compelling posters that highlight the importance of these issues and suggest possible solutions. It was judged by Dr. Hariom Shankar, Associate Professor in the Department of Drawing & Painting at DAV PG College.

Poster Evaluation Criteria

Posters were judged based on the following criteria:

- a) Scientific Quality: Clarity, relevance, and originality of the research.
- b) Visual Appeal: Design, layout, and overall aesthetics.
- c) Clarity of Communication: Ability to convey complex ideas in a clear and engaging manner.
- d) Impact: Potential real-world applications and contributions to sustainability and innovation.
- e) Presentation: Ability to explain the poster content to judges and audience members.

Conclusion

The DISTF-2024 Science Poster Competition was a resounding success, showcasing the impressive work being done by the students. We extend our congratulations to all the participants for their hard work and dedication. The event underscored the importance of science communication and its role in driving global change. We look forward to the continued growth of this competition in future years and encourage more participants to engage with the science community through similar events.

List of Award Winners of **Science Poster Making Competition**

Prize Money (In Every Group)					
1st Rs. 5000/-	2 nd Rs. 3,000/-	3 rd Rs. 2,000/-	Consolation Prize Rs. 500/- each		

Group A (6th to 8th)						
S.No.	Name	Class	School	Position		
1.	Shatakshi Vatsh	6th	Achryakulam, Haridwar	1st		
2.	Dolly Kumari	8th	Achryakulam, Haridwar	2nd		
3.	Arushi Koli	7th	Baluni Public School	3rd		
4.	Daksh Singh	8th	Mount Litera Zee	Consolation		
5.	Navya Mishra	8th	KVONGC	Consolation		
6.	Pihu Rani	6th	Achryakulam, Haridwar	Consolation		
7.	Komal Rani	7th	Achryakulam, Haridwar	Consolation		
8.	Diksha Yadav	7th	Achryakulam, Haridwar	Consolation		
9.	Abhinav Maurya	6th	Childern's Academy	Consolation		
Group	B (9th to 12th)					
S.No.	Name	Class	School	Position		
1.	Bhawna Singh	9th	Achryakulam, Haridwar	1st		
2.	Ramashish Vishwakarma	11th	Achryakulam, Haridwar	2nd		
3.	Umar Malik	9th	The Pestle Weed School	3rd		
4.	Ram Vishal	12th	SGRR	Consolation		
5.	Ayush Mishra	11th	Achryakulam, Haridwar	Consolation		
6.	Shubh Negi	11th	Army Public School, Clement Town	Consolation		
7.	Priya Anamika	11th	Army Public School, Clement Town	Consolation		
8.	Tanishka Bijalwan	9th	Achryakulam, Haridwar	Consolation		
9.	Rabin Nayak		Achryakulam, Haridwar	Consolation		
Group	C (College)					
S.No.	Name	Course	College	Position		
1.	Kartik Agarwal	MFA (1st sem)	Ras Bihari Bose Subharti University	1st		
2.	Abhishek Pal	B Tech (1st year)	BTKIT	2nd		
3.	Priyanka Aggarwal	MA (1st sem)	DAV PG College	3rd		
4.	Riya Shriti	B Tech (2nd year)	Shivalik College of Engineering	Consolation		
5.	Astha	B Tech (2nd year)	Faculty of Technology (FoT)	Consolation		
6.	Neha Joshi	MA (1st sem)	DAV PG College	Consolation		
7.	Amrita Yadav	B Tech (3rd year)	Women Institute of Technology	Consolation		
8.	Samridhi Matura B Tech (2nd Year)		Women Institute of Technology	Consolation		
9.	Vanshika Badola	MFA (1st sem)	Ras Bihari Bose Subharti University	Consolation		

Space Science Quiz

The Space Science Quiz, a much-anticipated event, was successfully conducted on 21st April,2024 at the Open Exhibition Area of DISTF(5th Dehradun International Science and Technology Festival). The event was part of the DISTF's efforts to foster enthusiasm for space science among students and the general public.

Event Highlights

The quiz featured three distinct groups of participants, categorized as:

- 1. Group A(Junior Category): School students from Grades 6-8.
- 2. Group B (Intermediate Category): High school students from Grades 9–12.
- 3. Group C (Senior Category): College and university students.

The quiz attracted an overwhelming response, with over 450 participants registering for the event representing schools, colleges, and educational institutions from across the Dehradun and Nearby regions. The event timings were from 11:30 a.m. to 12:15 p.m..

Competition Format

Each category participated to test their knowledge of space exploration, astronomy, and physics. The Question paper was designed by experts from Indian Space Research Organisation (ISRO).

Closing Remarks

The event was graced by eminent guests from the field of space science, who encouraged participants to explore careers in STEM and contribute to the field of astronomy and space exploration. The Space Science Quiz not only celebrated intellectual curiosity but also provided a platform for students to showcase their potential.

The overwhelming participation and enthusiasm have set the stage for making this quiz an annual feature at DISTF.

List of Award Winners of Space Science Quiz

Prize Money (In Every Group)						
1st Rs. 5000/- 2nd Rs. 3,00		00/- 3 rd Rs. 2,000/- Consolation P		Prize Rs. 500/- each		
Group.	Group A (6th to 8th)					
S.No.	Name		Class	School	School	
1.	Akshit Lek	hwar	7th	Social Baluni Pub	Social Baluni Public School	
2.	Shivay Cha	ımoli	6th	Seven Oaks Schoo	Seven Oaks School	
3.	Shalini Pur	rohit	8th	S.N.M. Public Scho	ool	3rd
4.	Yamini Neg	gi	8th	S.N.M. Public Scho	ool	Consolation
5.	Akshit Sati	İ	8th	S.N.M. Public Scho	ool	Consolation
Group I	B (9th to 12th	th)				
S.No.	S.No. Name		Class	Class School		Position
1.	Aryan Pan	war	10th	Lucent Internatio	Lucent International School	
2.	Vidhan		11th	S.N.M. Public Scho	S.N.M. Public School	
3.	3. Sarthak Sharma		10th	Lucent Internatio	Lucent International School	
4.	4. Tamanna Grover		9th	Sunrise Academy	Sunrise Academy	
5. Mudit Gupta		11th	Pestle Weed Scho	Pestle Weed School		
Group (Group C (College)					
S.No.	Name		Course	College		Position
1.	Simran Yao	dav	B.Tech	Women Institute	of Technology	1st
2.	Riya Joshi		B.Tech	Women Institute	of Technology	2nd
3.	Saumya Ba	ıdola	B.Tech	Women Institute	of Technology	3rd
4.	Ishu Rai		B.Tech	BTKIT, Dwarahat	BTKIT, Dwarahat	
5. Kanak Upreti		B.Tech	Women Institute	of Technology	Consolation	

Aeromodellng Workshop

The Aeromodelling Workshop took place on Wednesday, 20th November 2024, from 11:00 AM to 2:00 PM. The workshop was held at the Veer Madho Singh Bhandari Uttarakhand Technical University, Sudhowala Dehradun Campus, which provided an ideal setting for both theoretical and hands-on activities related to aeromodelling. The spacious campus allowed participants to engage in model aircraft construction and flight testing in an open, well-equipped environment.

The 5th Dehradun International Science and Technology Festival organized the event, in collaboration with experts and facilitators in the field of aeromodelling. The workshop was attended by a diverse group of participants, including students, hobbyists, and professionals with varying levels of experience. The expert for this workshop is Mr. Arvind Gupta from hi--fyh zone . Workshop coordinated by Mr. Dashrath Singh Kathait, Assistant Professor, Mechanical Engineering Department, WIT, VMSBUTU,

The Aeromodelling Workshop was designed to introduce participants to the fascinating world of aerodynamics and model aircraft construction. The workshop included the following key activities:

- Introduction to Aerodynamics: Participants were briefed on the basic principles of aerodynamics, including lift, thrust, drag, and gravity, and how these concepts apply to model aircraft.
- Building and Assembling Aeromodells: Attendees engaged in hands-on activities to build their own model aircraft using provided kits and materials. They learned about various materials such as balsa wood, foam, and lightweight plastics.
- Flight Testing: After constructing their models, participants had the opportunity to test their aircraft. Expert facilitators guided them through the process, helping to troubleshoot any issues that arose during the test flights.
- Open Space for Creativity: The workshop provided an open space for participants to explore and experiment with their own aeromodelling ideas, fostering innovation and collaboration.

The primary objectives of the Aeromodelling Workshop were:

- Educational Engagement: To provide hands-on learning experiences in the field of aerodynamics and aircraft design, allowing participants to apply theoretical knowledge practically.
- Skill Development: To enhance participants' skills in building, assembling, and flying model aircraft.
- Promote Scientific Curiosity: To inspire curiosity and interest in the fields of science, technology, and engineering, particularly aerodynamics and model aviation.
- Encourage Collaboration and Networking: To provide an opportunity for participants to connect with peers, experts, and professionals, fostering collaboration and future engagement in the field. Outcome

The workshop was highly successful, with several key outcomes:

- Enhanced Practical Knowledge: Participants gained valuable insights into aerodynamics and hands-on experience in building and flying model aircraft. They were able to connect theoretical knowledge with practical applications.
- Successful Flight Demonstrations: The models constructed during the workshop were successfully flown, and adjustments were made based on flight performance data, showcasing participants' growing understanding of aeromodelling principles.
- Innovation and Creativity: The open space session encouraged participants to experiment with new ideas and share innovative approaches to model aircraft design.
- Positive Participant Feedback: The workshop received enthusiastic feedback from participants, who expressed satisfaction with the hands-on approach, expert guidance, and collaborative environment.
- Continued Engagement: Several participants expressed interest in attending future workshops and continuing to explore the field of aeromodelling.

The Aeromodelling Workshop was a highlight of the 5th Dehradun International Science and Technology Festival, contributing to the festival's mission of promoting education, innovation, and scientific exploration.

Cyber Security Conclave

An engaging seminar on "Cyber Security" was organized successfully as part of the 5th Dehradun International Science & Technology Festival (5th DISTF) in collaboration with DBS Global University, Dehradun, on 23rd November 2024. More than 550 students registered for the event that took place in the Auditorium of the University's Main Building and witnessed an enthusiastic gathering of students and faculty members from institutions across the Dehradun district.

The seminar was graced by the esteemed presence of Director of ITDA,

Government of Uttarakhand, Mrs. Nikita Khandelwal, IAS, as the Chief Guest. Pro Vice-Chancellor of DBS Global University, Dr. Manish Prateek, served as the Guest of Honor. The event featured two distinguished experts from the CyberPeace Foundation, Major Vineet Kumar and Mr. Aditya Saini, who shared their deep insights and expertise in the field of cyber security.

The event served as a comprehensive platform to enhance students' understanding of cyber threats, digital safety, and emerging technological challenges. Throughout the event, participants engaged in intensive knowledge-sharing sessions led by experts from the CyberPeace Foundation. Major Vineet Kumar and Mr. Aditya Saini conducted in-depth discussions on cyber awareness, digital hygiene, and strategies to combat online security challenges.

The seminar's need arose from the increasing complexity of digital threats and the critical importance of equipping students with robust cybersecurity knowledge. By bringing together academic institutions and cyber security professionals, the event aimed to bridge the gap between theoretical understanding and practical application of digital safety strategies.

Key highlights of the seminar included:

- Expert-led sessions on emerging cyber threats
- Interactive discussions on digital security strategies
- Insights into the importance of cyber awareness and online safety
- Networking opportunities between students and cybersecurity professionals The distinguished guest Mrs. Nikita Khandelwal, Director of ITDA, Government of Uttarakhand, shared her real life experiences of combating cyber security threats and emphasized the significance of early response when facing a cyber-attack.

Outcomes of the event:

The event yielded significant outcomes, including enhanced awareness among students about digital security challenges and strategies. Participants gained valuable insights into protecting themselves and organizations from potential cyber threats, thereby contributing to a more secure digital ecosystem. The seminar not only expanded participants' knowledge but also set a strong foundation for understanding the critical role of cybersecurity in an increasingly digital world, inspiring students to become more proactive in digital safety and security.

Workshop on UAV (Unmanned Aerial Vehicle) Technology

An Interactive Workshop on UAV (Unmanned Aerial Vehicle) Technology was successfully organized on Wednesday, 20th November 2024, at the Seminar Hall, Women Institute of Technology (WIT), VMSB Uttarakhand Technical University. The event aimed to provide an in-depth understanding of UAV technology, its applications, and its potential impact on various sectors. The event brought together students, researchers, and industry professionals for a day of knowledge-sharing and interactive discussions.

The workshop featured three technical sessions by eminent speakers:

Session-01: The opening session was led by Group Captain NP Praveen (Retd), CEO of Unmanned Warriors, conducted the second session. Drawing from his extensive experience in the defense sector, he delved into the strategic and industrial applications of UAVs. As a knowledge partner with the AARTI Foundation and IIT Roorkee, he highlighted the growing importance of collaboration between academia and industry to foster innovation in drone technology.

Session-02: Mr. Kushagra Sharma, a Robotics and Drone Technology Expert from Ensino Research and Development Private Limited. He shared his expertise on the fundamental principles of UAVs, their

design, and emerging trends in drone technology. His session included demonstrations and practical insights, emphasizing the significance of drones in fields like agriculture, surveillance, and disaster management.

Session-03: The final session was delivered by Dr. S.K. Singh, Former Director of the Survey of India. He provided insights into the use of UAVs in geospatial mapping, urban planning, and infrastructure development. His extensive expertise enriched the participants' understanding of UAVs' potential in national development projects.

The workshop took place on 20th November 2024, from 3:00 PM to 6:00 PM, at the well equipped Seminar Hall of Women Institute of Technology, VMSB Uttarakhand Technical University, known for hosting significant academic and technological events. The event was attended by over 150 participants, including students, faculty members, and professionals from various engineering and technology disciplines. Renowned UAV experts and industry professionals conducted the sessions, sharing their expertise and practical insights into drone technology. The workshop featured informative lectures, live demonstrations, and interactive Q&A sessions on UAV technology. Topics included the fundamentals of drone design, components, and functioning, as well as applications in agriculture, disaster management, logistics, and surveillance. Participants also explored the latest advancements, regulations, and ethical considerations associated with UAV usage. The workshop was organized to familiarize attendees with emerging technologies in the field of UAVs, equipping them with the skills and knowledge required to explore this rapidly growing sector. The initiative aimed to inspire innovation and bridge the gap between theoretical learning and practical application.

The workshop concluded with an inspiring address by the Hon'ble Chief Guest, Sh. R.P. Gupta, Director of Technical Education, Government of Uttarakhand. He emphasized the importance of integrating UAV technology into academic curricula and research, fostering innovation for societal benefit. The event successfully provided a platform for participants to explore the transformative potential of UAV technology, setting a benchmark for future technical workshops

OUTCOME

The workshop proved to be highly beneficial for the attendees. Participants gained practical exposure to drone assembly and operations, enabling them to understand UAV systems better. Faculty members expressed their intention to incorporate UAV technology into research projects, while students were motivated to pursue careers and entrepreneurial opportunities in this domain. The event also strengthened collaborations between academia and industry, laying the groundwork for future technological advancements and workshops. The successful completion of this workshop marked a significant step towards fostering innovation and technological excellence among the attendees.

Hands on Workshop on Model Rocketry

The Model Rocketry workshop was successfully conducted on 22nd November, 2024 from 11:00 A.M. to 01:00 P.M. at the Seminar Hall and Basketball ground of Womens Institute of Technology, Veer Madho Singh Bhandari Uttarakhand Technical University area of DISTF 5th Dehradun International Science and Technology Festival. The event was part of the DISTF's efforts to foster enthusiasm for space technology among students and the general public.

Workshop purpose is to encourage children to learn and innovate through practical sessions. It will give them insights into rocketry and space technology and ignite passion for space exploration. We believe that empowering these young innovators today would lead them to contribute to make India a global leader in the space arena. This workshop aims to install a culture of innovation and critical thinking and inspire our youth to pursue a career in aerospace engineering, thereby contributing to our nation's growth in this domain. On completion of this workshop students will able to know

- What is rocket?
- How rocket works in space?
- Different types and parts of rockets.

- How rockets can launch into space?
- The Do It Yourself (DIY) model rocket, it's part and launching, ignition system.

Event Highlights

The workshop featured 6th to 12th class participants. The workshop attracted an overwhelming response, with over 120 participants registering and attended for the event representing schools and educational institutions from across the Dehradun and Nearby regions. The Expert for this event is Mr. Raghay sharma, Director, Smart circuit Innovation PVT. LTD., Yamuna Nagar. Event coordinated by Dr. Pritosh Tomar, Assistant Professor, Mechanical Engineer Department, WIT, VMSBUTU, Dehradun. Event is started with welcome and Introduction of expert and coordinator then Brief introduction to the workshop and objectives can be mentioned. Then expert told about overview of space exploration and the importance of rockets in modern science. The Event progressed in following 4 sessions.

Session 1: Basics of Space and Rocket Science

Introduction to space exploration: milestones and famous missions, Explained Fundamental concepts of rocketry: thrust, propulsion, and aerodynamics.

Session 2: Understanding Rocket Anatomy

Explanation of rocket parts: nose cone, body tube, fins, engine, and recovery system, Discussion on how each part contributes to the rocket's functionality.

Session 3: Building and Preparing a Model Rocket

Hands-on activity to design and assemble a model rocket, Explanation of safety protocols and prelaunch preparations, Checklist for ensuring the rocket is launch-ready.

Session 4: Rocket Launch Demonstration

Launch of the model rocket with active student participation, Discussion on observations and real-life applications of rocket launches.

Post-Workshop Activity:

Q&A session to address student queries & distribution of participation certificates

OUTCOME

The Model Rocketry Workshop successfully engaged participants in hands-on learning, providing an enriching experience for both beginners and seasoned rocketry enthusiasts. Over the course of the event, attendees built and launched model rockets, learning essential principles of aerodynamics, propulsion, and safety protocols. Expert Mr. Raghav Sharma instructors guided the participants through the process, emphasizing the importance of precise assembly and testing. The workshop also fostered teamwork, as participants collaborated to troubleshoot challenges and refine their rockets for optimal flight. The event culminated in an exciting series of rocket launches, with some reaching impressive altitudes, providing a thrilling sense of accomplishment for everyone involved. The workshop concluded with a reflection on the key takeaways and an emphasis on pursuing further exploration in rocketry, with many participants expressing interest in advancing their knowledge through additional training or involvement in rocketry clubs. Overall, the workshop inspired curiosity and innovation, leaving a lasting impact on all attendees.

Workshop on IPR (Intellectual Property Rights)

An Interactive Workshop on IPR (Intellectual Property Rights) was successfully organized on Wednesday, 21st November 2024, at the Seminar Hall, Women Institute of Technology (WIT), VMSB Uttarakhand Technical University. The event aimed to provide a comprehensive understanding of IPR, its applications, and its impact on fostering innovation and protecting creativity in various sectors. The event brought together students, educators, and professionals for a day of knowledge-sharing and interactive discussions about IPR.

The workshop featured two technical sessions by eminent speakers:

Session-01: The opening session was led by Dr. Usha Sharma, an IPR Chairperson at IIT-Roorkee, delved into the fundamentals of Intellectual Property Rights. Dr. Usha Sharma began by explaining the various forms of IPR, including patents, trademarks, copyrights, industrial designs, and geographical

indications, highlighting their significance in fostering innovation and protecting creative works. Using real-world examples, she demonstrated how the effective use of intellectual property rights can drive economic growth and encourage technological advancements.

Session-02: Dr. DP Unival, from UCOST (Uttarakhand State Council for Science and Technology), Dr. Uniyal provided a detailed explanation of the processes involved in patent filling and trademark registration. He outlined the common legal challenges faced by businesses and innovators, such a jurisdictional complexity, and provided practical solution to navigate these issues.

The session also highlighted the role of trademarks in building brands identity and the value of copyrights in protecting digital media and content.

The seminar on Intellectual Property Rights(IPR) successfully brought together students, faculty and professionals to explore the importance of IPR in safeguarding innovation.

The workshop took place on 21st November 2024, from 11:00AM to 2:00 PM, at the well-equipped Seminar Hall of Women Institute of Technology, VMSB Uttarakhand Technical University, known for hosting significant academic and technological events. The event was attended by over 150 participants, including students, faculty members, and professionals from various engineering and technology disciplines. Renowned IPR experts conducted the sessions, sharing their expertise and practical insights. The seminar featured detailed lectures, real-world case studies, and interactive Q&A sessions on IPR. Topics included: Fundamental of IPR, importance of patents, copyrights and trademarks, recent trends, advancements and global IPR regulations. The workshop aimed to familiarize attendees with the significance of IPR in today's world and equip them with the knowledge to protect their innovations and creations. This initiative also sought to inspire participants to contribute to research, entrepreneurship, and innovation while adhering to intellectual property laws.

The Workshop concluded with a motivational address by Dr. DP Uniyal, UCOST. He emphasized the role of Intellectual Property Rights in fostering innovation and strengthening the economy. His insights encouraged participants to apply the knowledge gained during the seminar in their academic and professional pursuits. The event successfully provided a platform for participants to understand the transformative potential of IPR, setting a benchmark for future seminars on similar themes.

OUTCOME:

The seminar proved highly beneficial for the attendees. Participants gained a clear understanding of (IPR) Intellectual Property Rights and their practical applications. Faculty members expressed their intention to integrate IPR education into curricula, while students showed enthusiasm for pursuing careers and research in this field. The event also fostered collaborations between academia and industry, paving the way for advancements in the domain of intellectual property rights.

The success of the event was made possible by the dedicated efforts of the organizing committee, whose meticulous planning ensured a seamless experience. Special Thanks, extended to the coordinator's and volunteers for their enthusiastic support.

Magic of Maths

The event "Magic of Maths" was successfully organized during the Dehradun International Science and Technology Festival (DISTF2024) from 20thto23rd November 2024 at Uttarakhand Technical University, Dehradun. The event was conducted in collaboration with the Mathematics Learning Centre (MLC), DIT University, Dehradun as the Knowledge Partner.

The event attracted 300 enthusiastic students from various schools in Dehradun, demonstrating their keen interest in mathematics. A quiz competition tailored for students of classes 6 to 8 was one of the highlights, with the winners receiving books and certificates as a token of recognition, fostering their passion for learning and academic excellence.

The Resource Person, Mr. Chandan Singh, a renowned mathematics educator from The Doon School, Dehradun, graced the eventand delivered an engaging session. Dr. Ashish Nautiyal, the Coordinator from the Women Institute of Technology (WIT), Dehradun, and Dr. Jogendra Kumar, the Coordinator of the Mathematics Learning Centre (MLC), DIT University, played pivotal roles in coordinating the event. The program commenced with a warm welcome to the Resource Person by Dr. Manoj Kumar Panda, Director, WIT, Dehradun, and Ms. Aakansha Chaudhary from IT Gopeshwar, Chamoli skilfully hosted the event. The "Magic of Maths" successfully ignited curiosity and interest in mathematics among young minds, marking a memorable chapter in the DISTF2024 festival.

The valedictory session of the "Magic of Maths" event was graced by the esteemed presence of Mr. Kunwar Asthana, President of SRADSTA, Uttarakhand, and Prof. Amit Agarwal, Director of IT Gopeshwar. Their encouraging words highlighted the importance of fostering mathematical curiosity among young learners and appreciated the collaborative efforts of the organizers. Their presence added great value to the event, leaving the participants inspired and motivated to explore the fascinating world of mathematics further. The session concluded with a formal Vote of Thanks delivered by Dr. Ashish Kumar Nautiyal, appreciating the efforts of all participants, organizers, and contributors.

Hands-on Workshop on STEM

On Friday, 22nd November 2024, the much-anticipated STEM (Science, Technology, Engineering, and Mathematics) Workshop was successfully conducted at Gen. Bipin Rawat Computer Lab, Veer Madho Singh Bhandari Uttarakhand Technical University, Sudhowala, Chakrata Road, Dehradun. The event was a key segment of the 5th Dehradun International Science & Technology Festival (DISTF-2024) and was led by renowned STEM expert Mr. Sourabh Kaushal.

Mr. Sourabh Kaushal, a distinguished Electronics and Communication Engineer and Space Explorer, was the chief speaker for the event. With accolades such as the "Dr. Kalpana Chawla Young Scientist Award" and recognition from institutions like NASA and ISRO, Mr. Kaushal brought a wealth of knowledge and experience to the workshop. His inspirational journey, spanning over a decade of research in space science and technology, set the tone for the day. Assistant Professor Vikash Bhatt from the Mathematics Department supervised the lab arrangements, ensuring the smooth execution of the event. The workshop primarily targeted students from Grades 8 to 12, providing them with hands-on learning experiences. Participants engaged in a variety of activities designed to foster problem-solving skills, creativity, and a passion for STEM fields. The workshop emphasized the importance of STEM in addressing real-world challenges, preparing students for future careers in these fields.

What Was Discussed:

The workshop featured:

- Interactive sessions on cutting-edge STEM technologies and their applications.
- Practical problem-solving exercises.
- Basics of electronics, including LEDs and sensors.
- Hands-on activities to understand sensor integration and their role in modern technologies.
- Distribution of DIY kits to each participant, enabling them to design and execute simple electronic projects.

The increasing demand for STEM professionals in addressing global challenges underscored the necessity of this workshop. It aimed to inspire the next generation of innovators and equip them with the skills required to excel in science and technology domains. The event was meticulously planned with the support of ISRO-certified STEM tutors. A structured two-hour session was enriched with hands-on activities, a takeaway kit for participants, and networking opportunities. Certificates of participation were awarded to all attendees, making the event both educational and rewarding.

OUTCOME:

The workshop successfully ignited curiosity and enthusiasm among young minds. Participants gained practical knowledge, developed critical thinking skills, and became more aware of the endless possibilities within STEM fields. It also laid a strong foundation for students to pursue innovative and impactful careers, ensuring they contribute meaningfully to the advancement of science and technology.

Student Innovation Exhibition:

The Student Innovation Exhibition 2024 was held from November 20 to 23, 2024, in the open space area of the Veer Madho Singh Bhandari Uttarakhand Technical University (VMSBUTU) campus. This four-day event brought together students, faculty, researchers, industry experts, and representatives from various companies. The exhibition was inaugurated by the Governor, the Chief Guest, with senior officials from the education department also in attendance. It served as a platform for students to showcase their innovative projects, ranging from smart solutions to cutting-edge technologies like artificial intelligence, machine learning, and the Internet of Things (IoT).

Throughout the event, various activities were organized to engage participants. Experts conducted evaluation sessions where students received constructive feedback on their projects. Motivational sessions by industry leaders highlighted the importance of innovation and the role of technology in shaping the future. Workshops and panel discussions provided practical insights into promoting startups and leveraging emerging technologies. Live demonstrations allowed visitors to interact with students and experience their creations firsthand, while networking sessions bridged the gap between academia and industry.

The need for such an event arose from the desire to nurture students' innovative abilities and align their academic projects with industry demands. The exhibition offered students a unique opportunity to gain exposure to real-world applications of their ideas and connect with professionals who could help them transform these ideas into viable business solutions. It also aimed to familiarize students with the latest trends in technology and research, enhancing their employability and entrepreneurial skills. The event was meticulously planned, with the organizing committee inviting project submissions from students weeks in advance. Spaces were allocated for displays, and technical support was provided for seamless live demonstrations.

The exhibition yielded significant outcomes, including collaboration opportunities for over 50+ student projects with industry partners. This experience boosted students' confidence and equipped them with insights into the commercialization of innovations, setting a strong foundation for their careers and contributing to a culture of innovation within the university.

CONSTA

The Conference on Science Technology & Allied took place on 20th November 2024 and 21st November 2024, from 3:00 PM to 6:00 PM, at the wellequipped "N D Tiwari Conference Hall", VMSBUTU Dehradun. CONSTA 2024 is a platform for researchers to present their research work in the field of Science, Technology and Agriculture.

This conference enables participants to present their research work, exchange ideas, compare their points of view and develop collaborations. Conference papers can be an effective way to try out new ideas. Presenting at a conference is a great opportunity for gaining valuable feedback from a community of scholars.

DAY 1-20th November 2024:

The chairpersons and keynote speakers of this session included Dr. Rajesh Singh, UIT Dehradun and Dr. Sumit Chaudhary, UIT Dehradun. The Prominent personalities delivered inspirational speeches on topics such as IT, AI, renewable energy, biotechnology and inter disciplinary topics of research. In this session 8 participants present their research work in offline mode. All the eight participants presented their research work in this session, showcasing diverse innovations across various fields:

1. Ms. Urmila Ghildival:

Presented a research paper on the Multifaceted Importance of Zanthoxylum armatum in the Garhwal Himalaya: Cultural Heritage and Economic Potential, exploring its traditional significance and economic applications.

2. Ms. Sapna:

Proposed an environment-sensing smart fan equipped with sensors to monitor temperature,

humidity, air quality, and speed. The fan adapts to real-time environmental conditions, optimizing comfort and energy consumption.

3. Ms. Tejaswini Verma:

Introduced the concept of a noise-muting FM receiver, aimed at enhancing signal clarity, reducing interference, and improving the user experience in modern communication systems.

4. Ms. Agrima Singh and Ms. Yashika Sharma:

Discussed Women Safety with GPS Tracking and Alerts, emphasizing the critical role of technology in ensuring safety through real-time tracking and alert mechanisms.

5. Ms. Aavushi Saiwan:

Presented an LPG leak detection and control system. The system uses advanced sensors to detect gas leaks, triggering automatic measures like shutting off the supply and alerting users via alarms and notifications.

6. Ms. Bhavika Bhatt:

Showcased Fire Scout: An Autonomous Firefighting Robot, built on the Arduino platform. The robot uses sensor-based technology to detect and extinguish fires while navigating complex environments autonomously.

7. Ms. Priyanshi Sharma and Ms. Unnati Raj:

Presented on a Smart Attendance System leveraging facial recognition, biometric sensors, and IoT solutions to streamline and automate attendance management processes efficiently.

8. Mr. Anirudh Negi and Mr. Sahil Raj:

Highlighted the Application of Science and Technology in Agriculture, focusing on using GPS, sensors, and data analytics to monitor soil conditions, crop health, and weather patterns, thereby improving agricultural productivity and sustainability

DAY 2-21st November 2024:

The chief guest of today's session was Professor Satyendra Singh, Registrar, VMSBUTU, Dehradun. The eminent personality appreciated the participation and encouraged the presenters. Prof. Satyendra bridged the gap between research and practical implementation of learning. Prof. Satyendra also stressed on the importance of collaboration and initiated the conference on topics of science and technology.

This session featured 9 research presentations (7 offline, 2 online), showcasing innovative solutions across various fields:

1. Ms. Seial Sharma and Mrs. Prachi Shankar:

Presented Shaping Sustainable Cities, emphasizing electric vehicle integration into urban planning for enhanced mobility and sustainability.

2. Shri Mahendra Singh Rana:

Explored hill-to-city migration in Uttarakhand and its effects on agriculture, the environment, and local communities, offering actionable solutions.

3. Ms. Chanda Chauhan:

- Presented Bridging Communication Barriers, a platform for real-time sign language interpretation and gesturebased digital interaction for differently-abled individuals.
- Additionally, showcased Emotion Aware Voice-Driven System, designed to recognize emotions from speech, enhance mental health, and recommend mood-appropriate music.

4. Ms. Kriti Joshi:

Proposed a Physics-Inspired Deep Learning Framework for SAR image colorization, aiding disaster management with enhanced imaging. 5. Ms. Aditi Thakur:

Presented Varuna: Beach Alert App, offering safety features, cultural insights, and sustainability-focused emergency responses using live user data.

6. Ms. Surbhi Semwal:

Discussed Pedestrian Safety Infrastructure, proposing sustainable solutions to reduce traffic-related incidents and create inclusive urban environments.

7. Ms. Kritika Raturi:

Introduced Alumni Tie, a software solution connecting alumni and students, fostering trust and providing career and financial development sup-

8. Ms. Ipsa Singh:

Presented Health Linker, a personalized healthcare software enhancing patient experiences with virtual waiting rooms, predictive analysis, and workflow optimization.

OUTCOME

The conference showcased innovative research projects addressing key challenges in sustainability, safety, and inclusivity. Highlights included smart fans, noise-muting FM receivers, autonomous firefighting robots, GPS-based women's safety systems, LPG leak detectors, and IoT-enabled attendance systems. Research emphasized the cultural and economic importance of Zanthoxylum armatum and technology's role in agriculture. Other contributions included integrating electric vehicles into urban planning, addressing hill-tocity migration, and developing real-time sign language platforms. Projects also featured SAR image colorization for disaster management, beach safety apps, pedestrian safety infrastructure, alumni management systems, health-linking software for personalized care, and emotion-aware voice systems for mental well-being.

SOCIAL MEDIA ADVERTISEMENT/POSTER































7th HIMALAYAN EDUCATOR'S SUMMIT & FELICITATION CEREMONY



AWARD

is conferred on

Date: Saturday, 23rd November, 2024

Venue: VMSB Uttarakhand Technical University, Dehradun

















7th HIMALAYAN EDUCATOR'S SUMMIT & FELICITATION CEREMONY



AWARD

is conferred on

Date: Saturday, 23rd November, 2024

Venue: VMSB Uttarakhand Technical University, Dehradun















5th DEHRADUN INTERNATIONAL **SCIENCE & TECHNOLOGY** FESTIVAL (5th DISTF-2024) 20^{th} - 23^{rd} November, 2024

7th HIMALAYAN EDUCATOR'S SUMMIT & FELICITATION CEREMONY



2024

AWARD

is conferred on

 $for\ outstanding\ contribution\ of\ Sanskrit\ language$

Date: Saturday, 23rd November, 2024 VMSB Uttarakhand Technical University, Dehradun



















7th HIMALAYAN EDUCATOR'S SUMMIT & FELICITATION CEREMONY



AWARD

is conferred on

Date: Saturday, 23^{rd} November, 2024

Venue: VMSB Uttarakhand Technical University, Dehradun

































S*DEFRADUN INTERNATIONAL SCIENCE & TECHNOLOGY PESTIVAL (5* DISTR-2024) Juvitation Inaugural Ceremony A Celebration of SCIENCE, TECHNOLOGY & INNOVATION 20th November, 2024, 11:39 AM Venue VMSB Uttarabhand Technical University, Deht Lt Gen Gurmit Singh Per 2024, 17:39 AM Venue VMSB Uttarabhand Technical University, Deht Lt Gen Gurmit Singh Per 2024, 17:39 AM Venue VMSB Uttarabhand Technical University, Deht Lt Gen Gurmit Singh Per 2024, 17:39 AM Venue VMSB Uttarabhand Technical University, Deht Manus M

HOARDINGS (OUTDOOR MEDIA)















WEBSITE 3-







PRESS CLIPPINGS/MEDIA COVERAGE



PRESS CLIPPINGS/MEDIA COVERAGE



PRESS CLIPPINGS/MEDIA COVERAGE



टीचर ऑफ द ईयर के साथ पाववें देहरादुन इंटरनेशनल साइंस एड टेक्नोलॉजी फेस्टिवत का



RECENT POSTS

रेकुक्टूब, सामाध्य संमान्त्रका की प्रभाव विश्व प्रशासन प्रीविभिन्नी विश्वीयक्षाम्य सं स्था के प्रशासन केल्यूब अलाकोत विश्वास एवं विश्वीयको म्योगस्य सर्व प्रशास देश्य और य द्वेश अनोई सम्बोध के

साथ संघा हुन्। स्थापन अवसर पर दान के कुरित्स समुख अर्थपात पूचा पेचल कि विस्तान और कुरितिकों के इस प्रतिवाद में आप तनने के बीच अकर क एक प्रत्याचा के जान ने के का प्राप्त पूर्व कहा परिवार प्रत्याना के उसे के फिक्स -के का प्रत्याचा के प्रत्याचा के के प्रत्याच्या के देखाँ कि प्रत्याच्या के प्रत्याच्या के देखाँ प्रत्याच्या के प्रत्याच के प्रत्याच्या के प्रत्याच्या के प्रत्याच्या के प्रत्याच्या के प्रत्याच के प्रत्याच्या के प्रत्याच्या के प्रत्याच के प्रत्याच के प्रत्याच्या के प्रत्याच्या के प्रत्याच के प्रत्याच के प्रत्याच के प्रत्याच्या के प्रत्याच महात्मा का वेद्याच्या उत्पर्धात संस्थानो ने सामान्य कार्यात केदेल्या का उठके किया गाउँ के पाया है और भार वर्ष के उत्पर्धात पाया के त्या मुख्यानको के हो। सामान्य के तथा मुख्यानको के हो। सामान्य के तथा मुख्यानको के हो।

suicine sale de fee la saré sire



विकार क्षेत्र कर यह और चीन के पान ही विकास अन्तरित विकास में विक्रेण की देख केंद्र इसके विकार करते हैं कि अनत बीट कर्युंगी जीवन से रे से सबसे के बेडरिक्ट दुरियोग निकरित जिल्ह जाक महिए। इस दिसा में देशादूर अस्तावीत विकार एवं क्रीसीमधी महिला कर मील का त सहर का पहरवार से संपत्त पूर्व हार्स का प्रकार का प्रकार का प्रकार का प्रकार के प्रकार के प्रकार का प्रक ति वैद्यानिक पुणिकोण से स्मृत्य है। देशदान न है विद्यानिक पुणिकोण से स्मृत्य है। देशदान न है व्यान्त प्रमृत्य निवास के स्मृत्य है। देश में विद्यालय क्षम है। यह 30 में अधिक स्मृत्य न्यान के वैद्यानिक प्रस्थान है। अब देशदान ज्ञान के का नहें केंद्र कर एक है। ऐसा हिरोत से प्राप्त अध्यक्त करते के दिना वर्त नहीं है। THAT को अने को ओ ते जान है। हाके

खाचार और शोध के साथ ही स्थितन अपधारित दिख्ता पर विशेष जोर देना होगार अधिनय कुमान, हमाना छात्र स्कूरणे जीवान से ही बेडानिक दक्षिकरण से समृद्ध हो, इसके लिए सभी को मिलकर काम काने की

जसतत हैं= अधिनय कुमान उन्होंने कहा कि इस अल्बेजन की बिराय यंत्र के का स्थापित करने में जाना गंगाइन देश को राजे प्राथमियों प्रमुखा देश पार्ट्टी और जीवा बजाब कि प्राप्टेस्ट के पार्ट्टी और जीवा बजाब कि प्राप्टेस्ट के प्रमुख से जीवा में जीवा पार्ट्टी के प्रमुख-पर की हम बीच को ऐसा बन है कि पह सीन, विकास और नवाजर का एक किए के पन में एक्टिंग की पह अस्तर मुझे स्वसूध हुआ कि वेसायूप अंतर्रोंका प्रदान एवं क्रेडीयको महीनात असने शक्य प्रस्तु अधिका है, से देवविक स्था निवर्त्वात्रका स्था अपूर्व अधिका है, से देवविक स्था निवर्त्वात्रका से इस संस्थित विकेश में इस पण प्रदान सभी से जिला विकार अवोदित किया का एत है। विक्रिया प्रदान किया

विद्यान होते देखींच्यों को पात की पूर्व कर पुत्र करियों में एक्ट प्रस्ता की क्षीता है कहा की कार्य कर है। पूत्र का कार्य की है पिका और देखींच्या स्मृत्य की मान मेंगा सकता है, दिसमें बहुता की माने मेंगा सकता है, इसी की की पिका के कुछ है किया कहा हा पात्र की कीडीयों क्या है। कहा हा पात्र कार्य कीडीयों कार्य है। पिका, किसी हैं, प्रस्ता, हैंगीया, र्शनकार्त, जान पुनिपति, वालकार, तेरकार, प्रकार, प्रशासक, तीत कियोव और विकार और प्रशासक के प्री गरिंग ताले जाने अन्य असीकों के लिए नद्र एक केइस यान है। स्थ प्रकार के प्रश्ने कर गये गुरुष के रेक्टीक प्रस्ते के एक अकर केरेक प्रकारित कर सकते हैं, अभी प्रश्ना को के उनकार में का प्रत्ने कर सकते हैं। कुट स्व ातकर दक्षात हो कि शतकार तानीकी विक्रीवर्धाना ने दन्त के ताने विक्रीकर स्थानी को इस महोताल में चल लेवे वा वृत्त सेवा

PRESS CLIPPINGS/MEDIA COVERAGE



PROGRAMME SCHEDULE 5th DISTF-2024

Day 01 (20 November, 2024)						
Time	Event 1	Parallel Event 2	Parallel Event 2	Centralized Event		
10:00 AM-11:00 AM 11:00 AM-12:00 NOON 12:00 NOON-1:00 PM 1:00 AM-2:00 PM	Inaugural Ceremony "Lightning Young Mind to Innovate" VENUE: Auditorium UTU Main Building 12:15 PM to 1:30 PM	Work shop on Aeromodelling 11:00 AM to 2:00 PM VENUE: (Open Space) Workshop on Robotics 12:00 Noon Onwards VENUE: WIT Seminar Hall, Ground floor	On Spot Registration for Science Poster Competition from 10:00 -11:00 AM Science Poster Competition at 11:30 AM to 1:00 PM VENUE: (Open Space at Exhibition Area)	Exhibition Full Day Centralized Event		
2:00-2:45 PM		LUNCH BREA	.K			
3.00 PM-4.00 PM 4.00 PM-5.00 PM 5.00 PM-6.00 PM	CONSTA VENUE: ND Tiwari Conference Hall, 1st Floor UTU Main Building		Workshop on UAV Technology 3.00 PM Onwards VENUE: WIT Seminar Hall, 1st Floor			

PROGRAMME SCHEDULE 5th DISTF-2024

Day 02 (21 November, 2024)					
Time	Event 1	Parallel Event 2	Parallel Event 2	Centralized Event	
10.00 AM-11.00 AM 11.00 AM-12.00 PM 12.00 PM-1.00 PM 1.00 PM-2.00 PM	Green Energy Conclave 10:00 A.M12:30 P.M. VENUE: Auditorium Main UTU Building	IPR Workshop 11:00 AM Onwards VENUE: WIT Seminar Hall, Ground Floor Magic of Math & Math Quiz 12:00 PM Onwards	On Spot Registration for Space Science QUIZ from 10:00 AM -11:00 AM Space Science QUIZ Starts at 11:30AM to 12:15 PM VENUE: (Open Space at Exhibition Area)	Exhibition Full Day Centralized Event	
2.00 PM 2.45 PM		VENUE: B C Rawat Computer lab 1st Floor UTU Main Building			
2.00 PM -2.45 PM 3.00 PM- 4.00 PM	Rural	Lunch Break CONSTA	BIO-TECHNOLOGY		
4.00 PM - 5.00 PM 5.00 PM - 6.00 PM	Entrepreneurship & Startup Conclave-2024 3:00 PM – 5:00 PM VENUE: Auditorium, Main UTU Building	VENUE: Meeting Hall No. 24, 1st Floor UTU Main Building	Conclave-2024 3:00 PM Onwards VENUE: WIT Seminar Hall, Ground Floor		

PROGRAMME SCHEDULE 5th DISTF-2024

Day 03 (22 November, 2024)								
Time	Event 1	Parallel Event 2		Parallel Event 2	Centralized			
10.00 AM-11.00 AM	Innaugration of Medi-tech Conclave 10:00 A.M 01:30 P.M. VENUE: Auditorium Main UTU Building	Model Rocketry Workshop 11:00 AM Onwards VENUE: WIT Seminar Hall, Ground Floor		Meet the Scientist 10:00 AM-11:00 AM VENUE: WIT Seminar Hall, 1st Floor	Exhibition Full Day Centralized Event			
11.00 AM-12.00 PM 12.00 PM-1.00 PM 1.00 PM-2.00 PM		STEM Work Shop 12:00 PM onwards VENUE: BC Tiwari, Computer Lab, 1st		Meet the Scientist 11:00 AM-12:00 NOON VENUE: WIT Seminar Hall, 1st Floor				
1:30 PM -2.00 PM		Floor UTU Main Building Lunch Break		1* 11001				
3:00 PM- 4:00 PM				di-Techcon Technical				
4:00 PM- 5:00 PM	Session 01		Session 02					
5:00 PM- 6:00 PM	On Artificial Int	On Artificial Intelligence		elemedicine & Digital Health				
	2:30 PM On Venue	2		2:30 PM Onwards				
	WIT Seminar Ha			Venue:				
	Floor		WIT S	Seminar Hall 1st Floor				



PROGRAMME SCHEDULE 5th DISTF-2024

Day 04 (23 November, 2024)								
Time	Event 1	Parallel Event 2	Parallel Event 2	Centralized				
				Event				
10.00 AM-11.00	Medi-tech	3 rd Yound Scientist	Seminar on Cyber	Exhibition				
AM	Technical	& StartUp Conclave	Security	Full Day				
	Session 4 on	10:00 AM Onwards		Centralized				
	Green Health		10:00 AM Onwards	Event				
	technology &	VENUE:						
	Holistic	WIT Seminar Hall,	VENUE:					
	Health Care 11:00 AM -	Ground Floor	N D Tiwari Conference					
	01:00 AM -		Hall No. 30, 1st Floor					
	Onwards		UTU Main Building					
	Venue:		010 Main Bunuing					
	Auditorium,							
11.00 AM-12.00	UTU Main	Medi-tech Technical						
PM	Building	Session 3 on						
12.00 PM-1.00 PM		Robotics						
1.00 PM-2.00 PM	_	11:00 AM Onwards						
		Venue: WIT Seminar						
		Hall, 1st Floor						
1:30 PM -2.00 PM	Lunch Break							
3:00 PM- 4:00 PM	Valedictory							
4:00 PM- 5:00 PM								
5:00 PM- 6:00 PM								
	VENUE:							
LEW III AND A								



Inaugural





























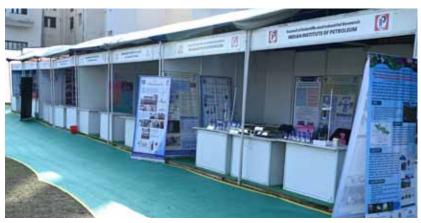




Exhibition













































































































































































































































































(5th DISTF-2024)

2nd Biotech Conclave

INTRODUCTION:

2nd BIO TECHNOLOGY CONCLAVE-2024 (BIOCON-2024) organized at VMSB UTTARAKHAND TECH-NICAL UNIVERSITY, DEHRADUN from 22nd-23rd November, 2024, in joint collaboration with Department of Biotechnology, Government of India, Uttarakhand Biotechnology Council and Uttarakhand Council of Science & technology (UCOST), Government of Uttarakhand under the aegis of 5th Dehradun International Science and Technology Festival. The main objective of this conclave was to attract investors and invite them to invest in the Biotechnology sector. Various biotech entrepreneurs, academicians, industry professionals and biotechnology policy makers can be brought together on one platform. This conclave is being organized to provide a platform to entrepreneurial ideas in key biotechnology sectors like bio-pharma, bio-agriculture, bio-industrial, bio-services, bio-engineering etc. Apart from representatives of biotechnology, agriculture department, industry department and other departments, representatives of biotechnology and pharma industry, students & researchers from various universities were invited to be a part of this conclave.

2nd Biotechnology Conclave was beneficial for the educational institutions, students, researchers, industries and startups. This conclave helped to fill the gap between Industry-Academia. Biotechnology exhibition provided a platform to the startups to exhibit its ideas and success story. This platform provided a connectivity platform. This conclave was relevant to the thrust areas of Biotechnology and its development. 2nd Biotechnology Conclave helped to promote research in biotechnology and establishment of incubation centers.

TARGET GROUP:

School students, engineering students, science & medical students, children, science communicators, scientists, technocrats, teachers, artists, journalists, young and budding authors, researchers, other faculty members, industries, government departments, startups, science enthusiasts, science policy makers and citizens-all are welcome.

The 2nd Biotech Conclave was held on November 21, 2024, at the WIT Seminar Hall, attracting a total of 190 students from various institutions. The event aimed to provide a platform for students and professionals to engage in insightful discussions and gain knowledge about the latest developments in the biotechnology sector.

Inaugural Session

The conclave was graced by distinguished speakers, starting with the Chief Guest, Dr. Ganesh Kandwal,

the Deputy Commissioner of Food & Drug Administration, Government of Uttarakhand. Dr. Kandwal addressed the gathering on the critical topic of "Antimicrobial Resistance (AMR)".

Keynote Speeches

The first Keynote Speaker, Dr. Piyush Goel, a Senior Scientist from the Department of Biotechnology, Government of India, New Delhi, delivered an insightful talk on the emerging trends and innovations in biotechnology.

The second Keynote Speaker, Dr. Anita Sharma, Manager at the DBT-CTEP Management Cell, Biotech Consortium India Limited, New Delhi, spoke about the ongoing efforts to foster innovation in biotechnology.

BioTech Exhibition:

Department of Biotechnology, Govt. of India and Uttarakhand Council for Biotechnology has display an exhibition in science and technology exhibition area at VMSB Uttarakhand Technological University. The biotech exhibition was displayed for 04 days from 20th-23rd November. More than 21,000 students from various pharmacy colleges, medical colleges and nursing colleges, schools, higher education institutions, engineering colleges and universities visited the exhibition. Mr. Bhavya Shanker from Department of Biotechnology has deputed for DBT pavilion and Ms. Sakshi Panyuli has deputed for UCB pavilion.

OUTCOME

The 2nd Biotech Conclave proved to be a resounding success, offering an enriching experience for students and professionals alike. The event served as a valuable opportunity for the participants to expand their knowledge and network with experts in the field. It also helped raise awareness on pressing issues like antimicrobial resistance and the future potential of biotechnology in solving global challenges. The 2nd Biotech Conclave helped to build and strengthen a strong biotechnology education, research and translation ecosystem across the country. It helped to create and nurture a vibrant biotechnology related start-ups, entrepreneurial and industrial base in Uttarakhand, connecting the academia and industry. It helped to strengthen the link between research and commercialisation. It also helped to encourage participants for indigenous bio-resource based biotechnological activities for the promotion of village level industries in the state.

The event was well-received and provided a platform for discussions on the significant contributions that biotechnology can make in the world today.











































5th DEHRADUN INTERNATIONAL **SCIENCE & TECHNOLOGY** FESTIVAL (5th DISTF-2024) 20th-23rd November, 2024

(5th DISTF-2024)

Rural Entrepreneurship & Startup Conclave

Name of Project:

Rural Entrepreneurship & Startup Conclave (Rural Livelihood Ecosystem through Innovation, Start-Up & Traditional Technologies)

With Theme

"Himalayan Rural Technologies: Strengthen Livelihood Ecosystem in Himalayan Rural Area" Under "5th Dehradun International Science & Technology Festival (DISTF-2024)" Organised by Society For Research and Development In Science, Technology & Agriculture in joint collaboration with Science for Equity Empowerment and Development Devision SEED, DST, Govt. of India

Dates: 21th, 22th, 23th of November, 2024

Venue: VMSB Uttarakhand Technical University (Public University) Dehradun

Objectives:

Dehradun International Science & Technology Festival DISTF is a first of its kind event organized to provide a platform to everyone from the population of scientific and Technological enthusiasts. the motivation behind the event is to have a centre stage to promote, learn and nourish the brilliance of youngsters and achievers.

Project background Note:

Uttarakhand hilly state of India, located in the northwestern part of the country. It is bordered to the northwest by the Indian state of Himachal Pradesh, to the northeast by the Tibet, to the southeast by Nepal, and to the south and southwest by the Indian state of Uttar Pradesh. Its capital is the northwestern city of Dehradun.

Total area of Uttarakhand is 19,739 square miles (51,125 square km) and according to 2011 Census total population of uttarakhand is 10,116,752. Although roughly three-fifths of the working population of Uttarakhand is engaged in agriculture, less than one-fifth of the total area of Uttarakhand is cultivable. Steep slopes require careful terracing and irrigation, with water drained from the upper levels used to irrigate the lower ones. This method of terrace cultivation allows fields to be sown more than once per year. Wheat is the most widely cultivated crop, followed by rice and various types of millets, which are planted on the drier leeward slopes. Sugarcane is grown extensively in the gently rolling foothills of the southern region. Other important crops include pulses (legumes) such as peas and chickpeas, oilseeds such as soybeans, peanuts, and mustard seeds, and assorted fruits and vegetables. Many farmers of Uttarakhand practice animal husbandry. The largest concentration of cattle to support dairy farming is found in the southern foothills. Goats and sheep are more common in the mountainous areas, although some cattle are kept in every village. The search for flourishing grassland has resulted in a tradition of transhumance, whereby livestock are led to graze in the mountain pastures

during the warmer months but are transferred to the lower elevations for the winter. Some communities in the Siwalik Range historically have specialized in such seasonal herding.

Forests in Uttarakhand provide timber for construction, fuel wood, and various manufacturing activities, including handicrafts. Reforestation programs sponsored by the state government have moderately increased production, which, in turn, has facilitated development of additional forest-based industries.

Uttarakhand lacks mineral and energy resources sufficient for rapid industrialization. Perennial rivers fed by the perpetual snowfields of the Great Himalaya and the Zaskar ranges carry tremendous potential for the generation of hydroelectric power.

Manufacturing activities have continued to expand in Uttarakhand; within just a few years of attaining statehood, the contribution of the sector to the state's gross product, at about 25 percent, had exceeded that of agriculture. The government assists agriculture-based and food-processing industries such as sugar milling, as well as the manufacture of wood and paper products, woolen garments, and leather goods. Among Uttarakhand's other notable manufactures are cement, pharmaceuticals, automobiles and other transportation equipment, and electrical products.

The government of Uttarakhand has invested heavily in the services sector, particularly in the development of the information-technology and tourism industries. In the first decade of the 21st century, the sector already accounted for more than half of the state's gross product. The tourism industry has shown significant growth, as the state's snow-capped peaks, glaciers, lush green river valleys, waterfalls, lakes, flora and fauna, wildlife sanctuaries, and pilgrimage sites attract a large number of domestic and international visitors.

Through the protection of Himalayan traditional knowledge & heritage of rural technologies and use them to create a ecosystem of livelihood in neighbourhood, We have plan 2nd Rural Entrepreneurship & Startup Conclave (Rural Livelihood Ecosystem through Innovation, Start-Up & Traditional Technologies) With Theme "Himalayan Rural Technologies: Strengthen Livelihood Ecosystem in Himalayan Rural Area". Where we shall organize dialogue session on relevant topics and provide an exhibition area for showcase of heritage of Himalayan science, technology and knowledge.

Participation:

S&T capable NGOs and Knowledge Institutions for collaborative S&T research and interventions involving other Community based organizations viz. Self-Help Groups (SHGs), Farmer Producer Organizations (FPOs), Social entrepreneurs, Incubators, Start-ups, Policy making Institutions, Educational Institutions, Students and community are welcomed.

Exhibition:

A separate exhibition along with science and technology exhibition has installed. This exhibition fully dedicated to start-ups based on Himalayan Rural Technologies. More than 20 start-ups exhibit their innovative products, technologies and activities. The Hon'ble Governor of Uttarakhand Lt. Gen. Gumeet Singh (retd.) was inaugurate the exhibition. More than 20,000 students visited the exhibition in 04 days DISTF. Hon'ble Governor of Uttarakhand Lt. Gen. Gumeet Singh has awarded Rs. 5000/- to one of the rural entrepreneur Bhukripa Farms by his pocket after visiting all the exhibition.

The conclave provided a platform to promote entrepreneurial initiatives and startup ventures focusing on rural development. It inspired discussions on harnessing local resources, technology integration, and sustainable practices to drive economic growth in rural areas.

Dignitaries Present: • Chief Guest: Vice Chairman (Cabinet Minister Level, SETU-State Institution for Empowering and Transforming Uttarakhand/State Planning Commission, Govt. of Uttarakhand, Dr. Raj Shekar Joshi

Guest of Honour:

- Joint Director, Industries, Govt. of Uttarakhand, Dr. Deepak Murari
- Director, Planning, Govt. of Uttarakhand, Dr. Manoj Pant

Panel Discussion: The panel discussion focused on the topic "Building Resilient Rural Enterprises: Challenges and Solutions" and featured the following panellists:

- 1. Mr. Mukesh Kestwal, Chief Information Officer, IIT Ropar: Shared insights on how technology and digital infrastructure can empower rural entrepreneurs by improving access to markets and enhancing operational efficiency.
- **2. Ms. Shraddha Negi,** Founder, IKGAI Design: Highlighted the role of creative and sustainable design in promoting unique rural enterprises and integrating traditional craftsmanship with modern business models.
- 3. Ms. Swarleen Kaur, Founder, Talk Room: Discussed innovative communication strategies and platforms to connect rural businesses with urban markets and foster collaboration across geographies.
- 4. Mr. Mohit Nagpal, Senior Manager Incubation, UPES: Addressed the importance of incubation centers in nurturing rural startups, providing mentorship, funding, and access to resources to overcome challenges.

TEAM

Coordinator(s): 1. Dr Swati Singh Rajput

Co-Coordinators: 1. Mrs. Seema Rani, 2. Mr. Amit Pal

Student Volunteer(s): 1. Mishthi Dobhal (Mechanical Engineering) **2.** Divya (Civil Engineering)

- 3. Isha Tiwari (Mechanical Engineering) 4. Manisha Bhatt (Civil Engineering) 5. Suman Panwar (Mechanical Engineering) 6. Akanksha Maurya (Civil Engineering) 7. Akshita Bhatt (Civil Engineering)
- 8. Astha (Civil Engineering), 9. Shreya Garg (Civil Engineering), 10. Aanchal (Civil Engineering),
- 11. Jaya Joshi (Civil Engineering), 12. Pragya Saini (Civil Engineering), 13. Nikita Rawat (Civil Engineering), 14. Priyansi (Civil Engineering)

Main recommendation of this conclave was

- 1. Regulatory reforms, tax incentives, and enhancing the startup ecosystem in terms of compliance should be consider to provide a more flexible and conducive environment for startups.
- 2. Rural Livelihood Ecosystem through Innovation, Start-Up & Traditional Technologies and Himalayan Rural Technologies for Strengthen Livelihood Ecosystem in Himalayan Rural Area should be encouraged.
- 3. The RPL, Recognitions of Prior Learning & Recognitions of Himalayan Indigenous Knowledge System should be implemented for Strengthen Livelihood Ecosystem in Himalayan Rural Areas.
- **4.** Incubators should be contact with the scientific agencies to give scientific inputs to startups in terms of up gradation and maintain the standard values fixed by government of india.
- 5. Incubators should also be organise the Intellectual Property Rights workshop so that startups could be aware about trademark, copyright, patient, geo-tagging and other.

OUTCOME

The conclave aimed to inspire participants to develop sustainable and innovative entrepreneurial practices in rural areas. It encouraged collaboration among stakeholders, including policymakers, industry leaders, and academicians, to address key challenges and unlock the untapped potential of rural resources. The Rural Entrepreneurship & Startup Conclave emphasized the importance of innovation and collaboration in solving rural challenges. The event underlined the role of startups in empowering rural communities, fostering economic independence, and enhancing the quality of life. Key takeaways included the integration of local knowledge with modern technology, government support through policy frameworks, and the need for sustainable solutions.

The event successfully showcased innovative ideas, policy frameworks, and technological solutions, creating a roadmap for sustainable rural development. It fostered collaboration between participants, offering them opportunities to transform their ideas into impactful ventures.

Glimpsis of 5th DISTF-2024

Day-02 Rural Entrepreneurship & Startup Conclave



















Glimpsis of 5th DISTF-2024

Day-02 Rural Entrepreneurship & Startup Conclave



































Day-3 1st MediTech Conclave



































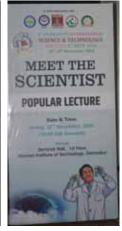
































































TOTY-2024















Valedictory



























































Dr. Raj Shekhar Joshi

Vice Chairman (Cabinet Minister Level) SETU-State Institution for Empowering and Transforming Uttarakhand



Mr. R Rajesh Kumar, IAS

Secretary, Health Govt. of Uttarakhand Commissioner, Food & Drug Administration



Mr. Abhinav Kumar, IPS

Director General of Police Uttarakhand



Dr. R Meenakshi Sundaram, IAS

Secretary, Planning, Energy & Housing
Govt. of Uttarakhand
CEO, Center for Public Policy
& Good Governance



Mrs. Ranjana, IAS

Additional Secretary, Energy Govt. of Uttarakhand Director Uttarakhand Renewable Energy Development Authority



Mrs. Nitika Khandelwal, IAS

Additional Secretary, Rural
Development
Director, ITDA and USAC,
Govt. of Uttarakhand Dehradun



Dr. Ashutosh Sayana

Director Medical Education Uttarakhand



Dr. Harendra Singh

Director CSIR- Indian Institute of Petroleum IIP-Dehradun



Prof. Dr. Anita Rawat

Director Uttarakhand Science Education & Research Center Govt. of Uttarakhand



Dr. Sandeep Singhal

Managing Director Uttarakhand Jal Vidyut Nigam Ltd. (UJVNL) Dehradun



Prof. Manish Prateek

Pro Vice Chancellor **DBS** University Dehradun



Er. R.P. Gupta

Director Technical Education Uttarakhand



Mr. Chandan Singh Ghughtiyal

Head of Department Department of Mathematics The Doon School Dehradun



Dr. Anita Sharma

Dr. Anita Sharma Manager DBT-CTEP Management Cell Biotech Consortium India Ltd. Govt. of India, New Delhi



Dr. Peyush Goel

Senior Scientist
Department of Bio-Technology,
Govt. of India
New Delhi,



Dr. R.P. Singh

Director Indian Institute of Remote Sensing Dehradun



Dr. D. P. Uniyal

Joint Director
Uttarakhand Council for Science
and Technology
Govt. of Uttarakhand

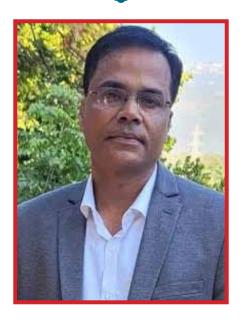


Dr. Ankita Mishra

Editor, Aavishkar & Invention Intelligence (National Research Development Corporation, NRDC, Govt. of India) New Delhi



Dr. Anupama Bahadur Professor All India Institute of Medical Science (AIIMS Rishikesh)



Dr. Rajeev Kurele Professor Uttarakhand Ayurved University, Harrawala, Dehradun



Dr. Santosh Kumar Additional Professor Community & Family Medicine AIIMS Rishikesh



Dr. D.S. Negi Neuro Linguistic Programming

Expert Former Professor & Head of Department (Mathematics) HNB Garhwal Central University, Srinagar, Uttarakhand



Dr. Amit Shukla

Director State Blood Transfusion Council Government of Uttarakhand



Dr. Himanshu Aeron

Pro Vice Chancellor Ras Bihari Bose Subharti University Dehradun



Dr. R.S. Bisht

Additional Director
Medical Education
Chief Medical Superintendent,
Government Doon Medical
College Hospital Uttarakhand



Mr. Manish Kumar Additional Director Software Technology Parks of India, Govt. of Uttarakhand



Major Vineet Kumar
Founder & Global President
CYBER PEACE Foundation
New Delhi



Joint Director, Industries, Govt. of Uttarakhand,



Expert, Cyber Security CyberPeace Foundation New Delhi

Mr. Aditya Saini



Certified ISRO Tutor Smartcircuits Innovation Pvt. Ltd. Jagadhari, Yamuna Nagar Haryana

Mr. Saurabh Kaushal



Mr. Mukesh Kestwal

Chief Information Officer, Indian Institute of Technoilogy IIT Ropar



Mr. Mohit Nagpal

Senior Manager Runway Incubator University of Petroleum & Energy Studies (UPES), Dehradun



Ms. Swarleen Kaur

Founder, Talk Room Dehradun



Ms. Shraddha Negi

Founder, IKGAI Design Dehradun



Dr. Ganesh Kandwal

Deputy Commissioner Food & Drug Administration Uttarakhand



Dr. Usha Sharma

Chairperson IPR cell at IIT-Roorkee



Dr. Hariom Shankar

Associate Professor in the Department of Drawing & Painting at DAV PG College.



Group Captain NP Praveen (Retd)

CEO of Unmanned Warriors knowledge Partner of AARTI Foundation and IIT Roorkee,



Mr. Kushagra Sharma

Robotics and Drone Technology
Expert
Ensino Research and
Development Private Limited



Dr. S.K. Singh

Former Director the Survey of India Dehradun



Dr. Rajesh Singh

Director- Research & Innovation Uttaranchal University Dehradun



Dr. Sumit Chaudhary

Dean/ Professor Uttaranchal University Dehradun

STEERING COMMITTEE

Chief Patron Shri Pushkar Singh Dhami

Hon'ble, Chief Minister, Uttarakhand

Patron Shri Subodh Uniyal

Hon'ble, Minister, Forest & Technical Education, Uttarakhand

Mentor(s)

Dr. Yogendra Narayan IAS (Retd.)

Former Defence Secretary, Govt. of India Hon'ble Chancellor. HNB Garhwal Central University, Srinagar

Mr. Subhash Kumar IAS (Retd.)

Ex. Chief Secretary, Uttarakhand

Mr. N. Ravishankar, IAS (Retd.)

Former Chief Secretary, Uttarakhand Principal Advisor, DIT University, Dehradun

Prof. Sunil Rai

President, University of Petroleum & Energy Studies (UPES), Dehradun

Prof. P.P. Dhyani

Former Vice-Chancellor Sridev Suman Uttarakhand University

Prof. (Dr.) Hemchandra Pandey

Former Vice-Chancellor HNB Medical Education University, Dehradun

Dr. Arun Tripathi

Hon'ble Vice-Chancellor Uttarakhand Ayurveda University

Prof. (Dr.) G. Raghurama

Hon'ble Vice Chancellor DIT University, Dehradun

Prof. (Dr.) U. S. Rawat

Former Vice Chancellor, SGRRU, Dehradun

Board of Advisor (s) Chairman

Dr. R. Meenakshi Sundaram, IAS

Secretary, Energy, Planning and Housing, Govt. of Uttarakhand

Member (s) Shri Nitesh Jha

Secretary, Science, Technology and Information, Govt. of Uttarakhand

Dr. BVRC Purshottam, IAS

Secretary, Fisheries and Animal Husbandry, Cooperative Govt. of Uttarakhand

Shri Ravinath Raman, IAS

Secretary, School Education Govt. of Uttarakhand

Dr. Pankaj Kumar Pandey, IAS

Secretary, P.W.D.

Govt. of Uttarakhand

Dr. Ranjeet Kumar Sinha, IAS

Secretary, Technical Education Govt. of Uttarakhand

Shri Deepak Kumar, ITS

Secretary, Programe Implementation & Sanskrit Education Govt. of Uttarakhand

Dr. R. Rajesh Kumar, IAS

Secretary, Medical, Health and Food Safety, Govt. of Uttarakhand

Shri Vinay Shankar Pandey, IAS

Secretary, Industrial Development Govt. of Uttarakhand

Shri Deependra Chaudhary, IAS

Secretary, Secretariat Administration Govt. of Uttarakhand

Shri Vinod Kumar Suman, IAS

Secretary, Disaster Management Govt. of Uttarakhand

Shri C. Ravishankar, IAS

CEO, UCADA & ACEO, UTDB Govt. of Uttarakhand

Mrs. Ranjana, IAS

Aldn. Secretary, Energy Director, UREDA. Govt. of Uttarakhand

Mrs. Nitika Khandelwal, IAS

Aldn. Secretary, Rural Development Director, ITDA & USAC, Govt. of Uttarakhand

STEERING COMMITTEE

Shri Banshidhar Tiwari, IAS

D.G. Information Vice-Chairman, MDDA, Govt. of Uttarakhand

Smt. R. S. Narayani

Executive Director, ONGC Ltd.

Dr. Meenu Singh

Executive Director & CEO, AIIMS Rishikesh

Shri Chandan Sajan

Chief General Manager (Human Resource), ONGC Ltd., Dehradun

Dr. Nripendra Chauhan

Director, Center For Aromatic Plants (CAP), Govt. of Uttarakhand

Dr. Kalachand Sain

Outstanding Scientist

Former Director, WHGI, Dehradun

Dr. Anjan Ray

Outstanding Scientist

Ex. Director, CSIR-IIP, Dehradun

Shri Anil Kumar Yadav

Managing Director, UPCL, Dehradun

Dr. Sandeep Singhal

Managing Director, UJVNL, Dehradun

Shri P.C. Dhyani

Managing Director, PITCUL, Dehradun

Dr. K. C. Pathak

Director, Agriculture, Govt. of Uttarakhand

Prof. (Dr.) Sanjay Kumar

Director, Uttarakhand Council for Bio-Technology, Govt. of Uttarakhand

Screening Committee for Awards

Chairman

Dr. Harendra Singh Bisht

Director, CSIR-IIP, Dehradun

Convenor (s)

Dr. A.S. Unival

Joint Director, Directorate of Higher Education, Govt. of Uttarakhand

Member Secretary

Prof. (Dr.) Amit Agrawal, FIE

Director, Institute of Technology, Gopeshwar

Member (s)

Dr. Ashutosh Sayana

Director, Medical Education Govt. of Uttarakhand

Er. R.P. Gupta

Director, Directorate of Technical Education, Govt. of Uttarakhand

Shri Ranbeer Singh

Joint Secretary, CBSE, New Delhi

Dr. Prem Kashyap

President, Principals Progressive Schools' Association, Uttarakhand

Dr. Ajay Kumar Saxena

Ex. Principal, DAV (PG) College, Dehradun Vice-President, International Goodwill Society of India, Dehradun Chapter

Ms. Sukriti Raiwani

Deputy Commissioner KV Organisation, Dehradun

Ex. Officio Member (s)

Chairman, Steering Committee, DISTF Convenor (s)/Co-Convenor (s) & Organizing Secretary Steering Committee, DISTF Steering Committee

Chairman Prof. (Dr.) Durgesh Pant

Director General
Uttarakhand Council for Science &
Technology (UCoST),
Govt. of Uttarakhand

Co-Chairman Prof. (Dr.) Onkar Singh

Hon'ble Vice Chancellor, VMSB Uttarakhand Technical University

Organising Secretary Dr. Kunwar Raj Asthana

President, SRADSTA Editor, Divya Himgiri & Vigyan Sampreshan

STEERING COMMITTEE

Convenor (s) Prof. (Dr.) Anita Rawat

Director, Uttarakhand Science Education & Research Centre (USERC), Govt. of Uttarakhand

Dr. D.P Uniyal

Joint Director, UCoST, Govt. of Uttarakhand

Prof. (Dr.) Satyendra Singh

Registrar, VMSB Uttarakhand Technical University

Dr. Manoj Pandya

Director, Women Institute of Technology, Dehradun

Dr. Amit Agarwal

Director, Institute of Technology, Gopeshwar

Dr. Sharad Pradhan

Director, THDC Institute of Hydropower Engineering & Technology, New Tehri

Dr. Sanjay Agarwal

Convener

Medical Technology Conclave-2024

Prof. H. L. Mandoriya

Director, Dr. APJAK Institute of Technology, Tanakpur

Dr. Ajit Singh

Director, Nanhi Pari Seemant Institute of Technology, Pithoragarh

Dr. Harvendra Bhadauria

Director, Institute of Technology, Baun, Uttarkashi

> Co-Convenor (s) Dr. Manish Prateek

Pro Vice Chancellor, DBS University, Dehradun

Prof. (Dr.) Naveen Singhal

Professor & Dean, DIT University, Dehradun

Dr. Sanjay Agarwal

Convenor, Medi-TechCon 2024

Dr. MS Rawat

Scientific Officer & Incharge R&D Division UCoST, Govt. Of Uttarakhand

Dr. O.P. Nautiyal,

Scientist, USERC, Govt. of Uttarakhand

Dr. Vishal Kaushik

Sub-Editor, Vigyan Sampreshan

Member (s) Shri Manish Kumar

Additional Director, Software Technology Parks of India, Govt. of India

Shri Ganesh Kandwal

Deputy Commisioner, Food Safety and Drug Administration, Govt. of Uttarakhand

Mr. Vinay Kumar

Managing Director, Uttarakhand Organic Commodity Board, Govt. of Uttarakhand

Dr. Gaurav Sharma

Incharge Officer, Zological survey of India Govt. of India

Er. Jitendra Singh

Scientific Officer, UCoST, Govt. of Uttarakhand

Dr. Narendra Panwar

Programmer, Government Girls Polytechnic, Suddhowala, Dehradun

Mr. Amit pokhriyal

Manager PR, UCoST, Govt. of Uttarakhand

Dr. Jagbeer Aswal

Scientific Assistant, UCoST, Govt. Of Uttarakhand

Dr. Brijmohan Sharma

President, SPECS, Dehradun

Shri Anil Satti

IEC Officer Directorate of Medical & Health, Govt. of Uttarakhand

Dr. Sandeep Chaudhary

Incharge Director IQAC

JB Institute of Technology, Dehradun

Dr. Prahlad Singh

Director

Shivalik College of Engineering, Dehradun

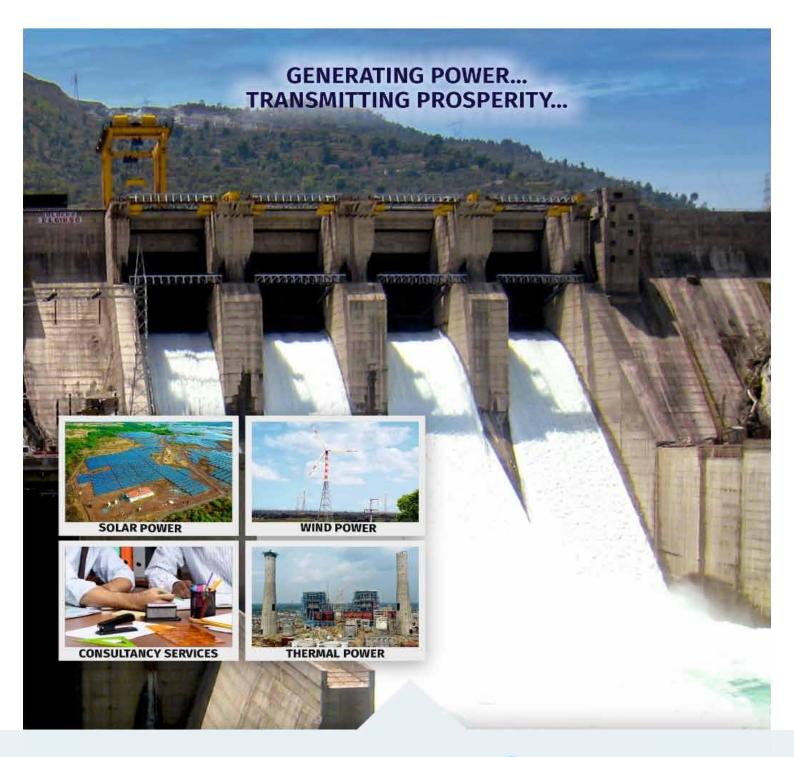
Dr. Prag Jain

Director

Rorkee Institute of Technology, Dehradun

NOTES

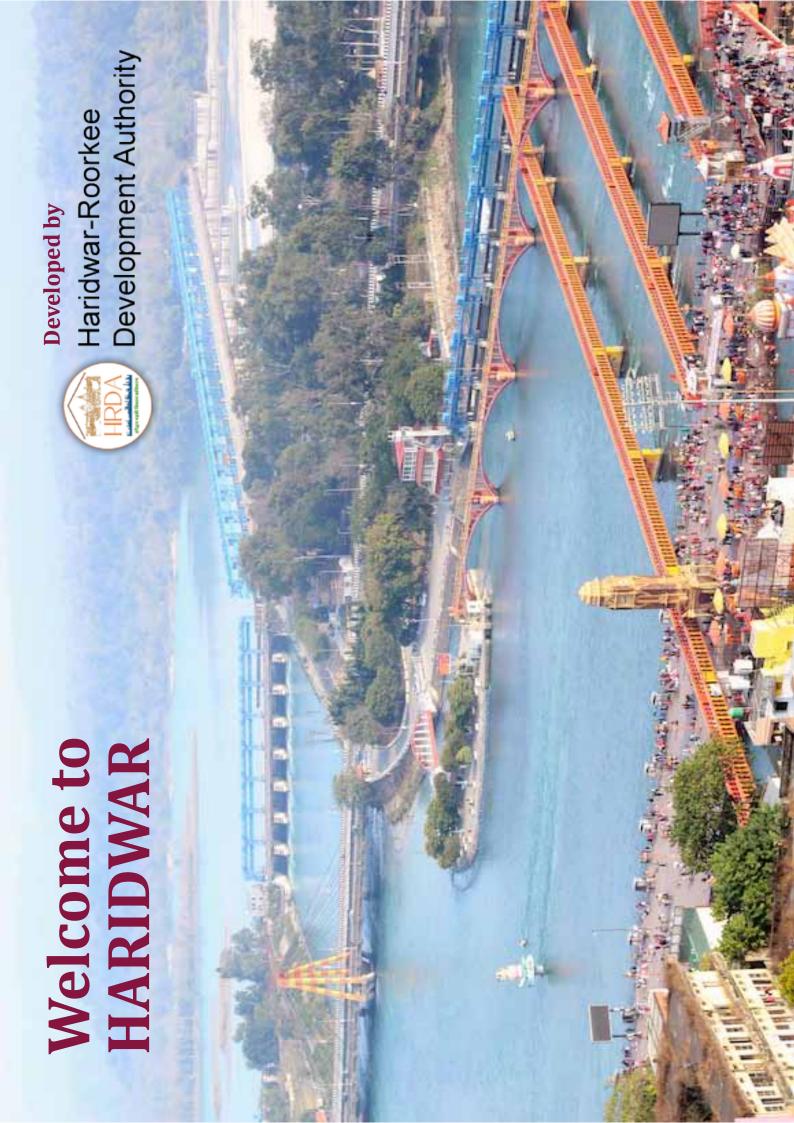
_	



Hydropower and Beyond...



Embracing the energy Transition through diversification





















5th DEHRADUN INTERNATIONAL SCIENCE & TECHNOLOGY

__ FESTIVAL (5th DISTF-2024) 20th-23rd November, 2024



SOCIETY FOR RESEARCH AND DEVELOPMENT IN SCIENCE, TECHNOLOGY & AGRICULTURE

02, Raj Residency, Raja Ram Vihar, Sahastradhara Road,
Dehradun-248001 (Uttarakhand)
Website: http://dehradunsciencefest.org | Email: sradstauk@gmail.com
Contact: +91 9410353164, +91 8433456398