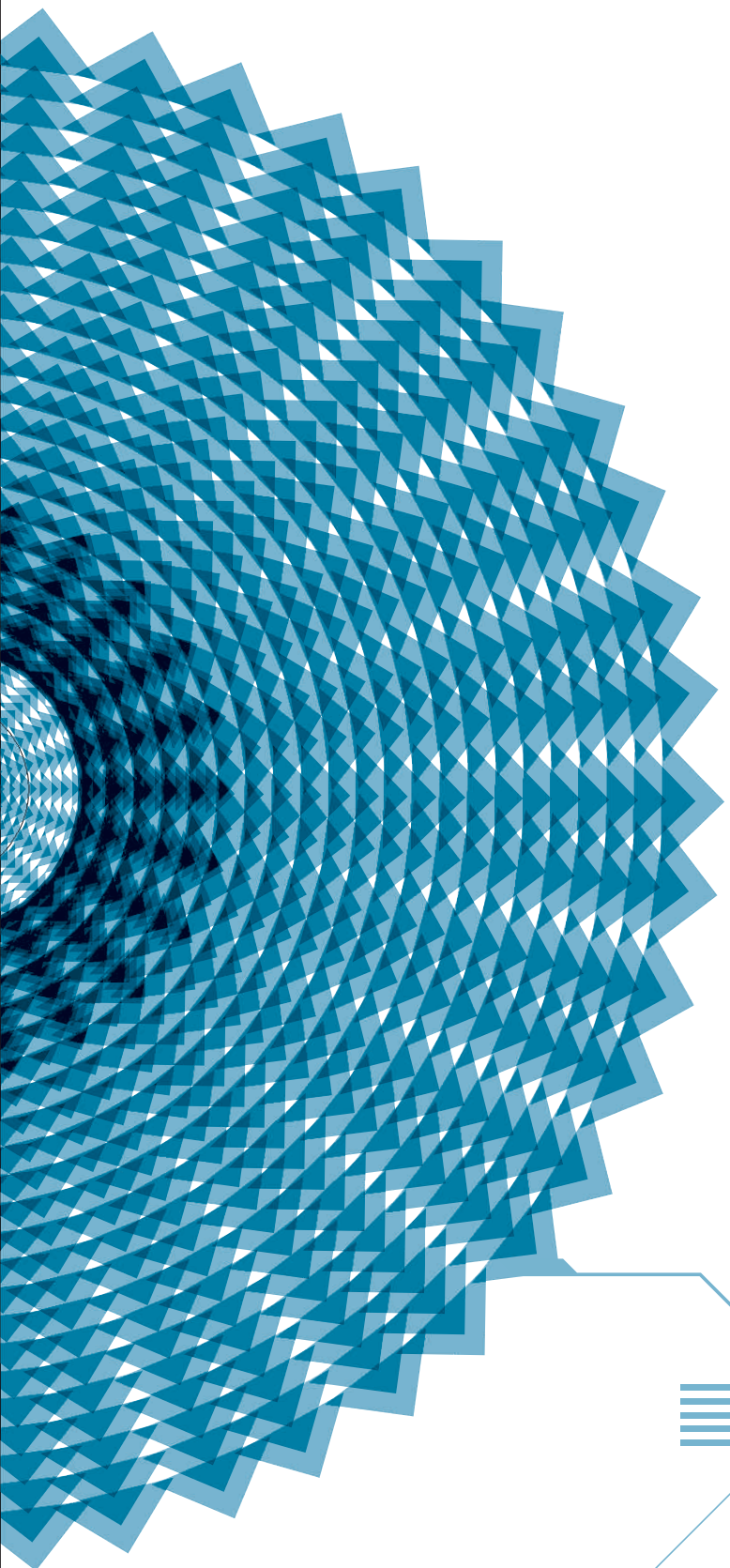


UCOST Centrally Sponsored Projects

Preface

Department of Science & Technology (DST), Govt. of India is the organisation dedicated for the development of scientific research and promotion of scientific temper in the country. Over the years, DST and the other organisations under its flag have taken commendable initiatives and achieved phenomenal success. In the process to extend their reach across the country the state councils were established as DST's extended arm. Presently, there are 18 State Councils for Science & Technology functioning; one of them is Uttarakhand State Council for Science & Technology, Dehradun.

Since inception (in 2005), Uttarakhand State Council for Science & Technology has always promoted the programmes and schemes of DST to every corner of the state. Moreover Council comprises all major schemes of DST in its Activity Profile e.g. Research & Development, Science Popularisation, Intellectual Property Rights, Inspire Awards, Entrprenuership Development, Technology Development and Transfer, Science and Society Programme for Weaker Section. Council has a mandate to make Uttarkhand a modern science state wherein diffusion of scientific approach in planning and application of technology at grassroot level must be the two main components of governing.

Therefore, to transform ideas into action the council take up the developmental projects by application of modern technologies and executes them in association and co-ordination of the state Universities, Academic Institutions, Government line Agencies, Industries and Community participation. In the last six years, every step of council is dedicated for the development and growth of the state and it shall sprint in the same direction, in future.

Dr. Rajendra Dobhal

Data Generation and Analysis of Emission from plasma system for safe & eco-friendly disposal of bio-medical and plastic waste at different locations across India (Plasma Pyrolyser System)

Introduction

To deal with the growing bio-medical waste and hazards related to it Uttartakhnd State council for Science & Technology with the financial support of Department of Science & Technology, New Delhi installed the Plasma Pyrolyser machine in the Doon Hospital to dispose off the biomedical waste generated at the hospital. The Pyrolyser was designed by Facilitation Centre for Industrial Plasma Technologies, Gujrat and it works on thermal plasma application i.e it integrates the thermo-chemical properties of plasma with the pyrolysis processs to dispose the biomedical waste safely, in which, extreme high temperature of plasma arc in oxygen starved environment to completely decompose waste material into simple molecules.

Project Details

Duration of Project : 12 months
Total Cost : Rs. 2, 58,000/-
Manpower : 02 (01 Technical Assistant, 01 ITI Tradesman)

Significance of the Project

1. The generation of biomedical waste is a serious issue in the regime of waste management especially in the urban areas. Dehradun being the capital is the primate centre for the medical facilities in Uttarakhand. Hence, management of Biomedical waste was an alarming concern
2. Out of the total waste produce by the Hospitals approximately 40-50% waste is Bio-Medical waste which needs to be disposed safely and in an eco-friendly manner.

Accomplishments

Successful installation of the plasma Pyrolyser in the Doon Hospital, Dehradun and manpower were trained for proper handling and operationalizing of the machines of the Plasma Pyrolysis System. The training was conducted by the Facilitation Centre for Plasma Research, Dept. of Atomic Energy, Govt. of India.

-The data is collected regularly and maintained in the proper format (Log Sheets).

-The commissioning of the machine is done by the council and the machine is in function and successfully disposing the solid waste of the hospital.

Conclusion

Presently, the Plasma Pyrolyser installed in the Doon Hospital is commissioned by the council and is working successfully and shall continue to be the same in future. After the success of this project the more pyrolyser machines shall be installed in other hospitals where the quantity of generated bio-medical waste is found to be substantial.

Physical and Chemical Analysis, Testing, Training and Awareness of Potable Water and Water Sources of Uttarakhand State

Introduction

Uttarkhand state council for science and Technology in association with Uttarakhand Jal Sansthan (UJS) and DAV PG College, Dehradun took the initiative to test and analyse the quality of potable water in Uttarakhand. The project aims at facilitation for the water quality testing and the proliferation of awareness among the common masses regarding the issue. Under this project, broadly three objectives were identified i.e. (i) Establishment of State Level Water Quality Analyses Laboratory in Dehradun (ii) Facilitation of physico-chemical and bacteriological testing and analyses of major water sources and (iii) Preparation of Water Quality Map of Uttarakhnd.

Project Details

Duration of Project : Three Years
Total Cost : Rs. 74.61/-
Manpower : 03 (02 Research Fellows, 01 Technical Assistant)

Significance of the Project

1. In last few years, the water quality of the potable has been an urgent issue to address in the state and thus the project figures out the real status of the quality of the various sources being utilised to meet out water requirements in the state.
2. The project also involves in spreading the awareness among the educated mass of the state to increase the collaborative effort of government and the people to address the issue effectively.
3. Also, the preparation of water quality map will explore the thrust areas of state where S&T intervention is needed in a big way and urgently.

Accomplishments

- More than 300 water samples of various sources are tested on 26 water Quality parameters as per Bureau of Indian Standards (BIS) and water testing is done upto ppm and ppb level by Atomic Absorption Spectrophotometer under the project
- Establishment of State Level Water Quality Analyses Laboratory in UJS Campus, Dehradun
- Water quality (as per BIS) monitoring of the sources in all 13 districts of the state by UJS in every two years.
- Preparation of Water Quality Map of Uttarakhand is under progress, hitherto being the first of its kind in any state of India.
- Organising training programmes regarding same within the state.
- Publication of four research papers in International Journals

Conclusion

The project is still in the running phase and by the time of completion will portray the exact condition of the quality of water in the state. Also, many more students and people will be trained under this project so as to understand the sensitivity of the issue.

Development of River Bank Filtration in Hill Region for Sustainable Solution for Quality and Quantity Problems of Drinking Water in Uttarakhand

Introduction

This project was incepted under the Water Technology Initiative (WTI) of Department of Science & Technology, New Delhi in which, Uttarakhand Sate Council for Science and Technology and state line agency for water distribution, Uttarakhand Jal Sansthan jointly diffused the River Bank Filtration(RBF) technology of germany in Uttarkhand. The University of Applied Sciences, Dresden, Germany provided the technical aid for the application of RBF technology in the Indian rivers. RBF technology is all about obtaining the naturally purified water stored in the natural aquifers placed alongside the river, beneath the ground surface. This purified water is obtained by drilling well along the river banks or at some distance to the bank.

Project Details

Duration of Project : Three Years
Total Cost : Rs. 3,34,74,000/-
Manpower : 03 (01 Project Scientist, 01 Project Engineer, 01 Research Fellows)

Significance of the Project

1. According to a report of Confederation of Indian Industries (CII), only 52% of state populations have full access and 36% partial access to safe drinking water supply. Thus, the project ensures the availability of good quality potable water in the state.
2. Moreover, the project addresses the water supply problem in the hilly region of the state where the scarcity of water is a major problem.

Accomplishments

- In first phase of the project site selection(5 sites were selected namely, Rudraprayag, Karnaprayag, Agustmuni, Satpuli and Srinagar) plane tabling, preparation of map with cross section, strata chart, sieve analysis, pumping, recovery test and test of water quality for bacteriological and chemical analysis have been completed.
- Out of these five, RBF technology has been successfully implemented at the Satpuli site and the obtained water is being provided to the nearby population.
- A data bank has been prepared after the chemical and bacteriological analysis of water obtained from RBF technique during summer, rainy and winter season for all the selected five sites.
- Organisation of International Indo-German Workshop on Bank Filtration where experts from 4 countries presented their work.

Conclusion

The project is still in the running phase, with the successful implementation of RBF technology at Satpulli, emulation of the same will be done on other sites. After the completion of the project, it is estimated that 64,846 people will be benefited i.e. they will have the access to the pure and safe potable water.

Agribusiness Promotion through Technology Demonstration in Ranawai Region, Uttarkashi

Introduction

Uttarakhand is on of the leading state in the area of Horticulture and related economic activities. Therefore it was felt to work upon the various plant species to get more yields and increase the production. As a result this project came up to provide impetus to the horticulture economy in the hilly region of the state. The project aims at improving the quality of fruits & other products, diffusion of advanced technologies among the local farmers to minimise post and pre harvest losses, along with generating a better atmosphere for the marketing of the products.

Project Details

Duration of Project : Three Years
Total Cost : Rs. 40,45, 400/-
Manpower : Implementing agency is Himalayan Action Research Centre (HARC)

Significance of the Project

1. Horticulture is an emerging and profitable occupation in hills and has a large scope with respect to the state, thus enhancement in the technology will result in alleviation of the inherent potential and production capacity.
2. The project shall have an impact in the area as the expected beneficiaries from the technology (developed in the lab) transfer are 4000 families (approx.).
3. Development of improved and healthy variety for the commercial growers.

Accomplishments

- Establishment of full fledged tissue culture lab.
- Developed protocols of all 4 apple rootstocks, carnation cultivar and Lilium
- Hardening of the in vitro raised plants of carnation and Lilium
- In spite of severe losses during rainy season (year 2010), collectively establishment of more than 15, 000 Cultures
- Establishment of healthy and disease free germplasm of carnation, Lilium and strawberry

Conclusion

The project is still in the running phase and in the coming time there will be introduction of low chilling cultivars of Apple by introduction of dwarfing. Propagation of ornamental plants like carnation and Lilium in laboratory.There shall be special efforts to maintain the healthy germplasm of quality planting material for future use. Also, there shall be research on strawberry under mass multiplication with introduction of mass multiplication of Potato mini tubers and micro tubers.

Rong Kong Micro Hydro Power Project(2x50 KW) Civil works and (1x50 KW) electro mechanical works at district Pithoragarh

Introduction

The Rongkong Hydro power project is a hydel power generation station of the capacity of 1x50 KW placed in the Rongkong village of Pithoragarh district. The project is supposed to provide the electricity to the habitation of 100 households situated in the Rongkong and Navi village of Dharachula Block. The project is collaborative persuasion of Uttarakhand State Council for Science & Technology (UCOST) and Uttarakhand Renewable Energy Development Authority (UREDA) with the financial support of Department of Science & Technology, New Delhi.

Project Details

Duration of Project : Three Years
Total Cost : Rs. 2,02,65,000/-
Manpower : Implementing agency is UREDA

Significance of the Project

4. The plant will work on renewable energy and thus the generation of power will be free from any pollution.
5. The project will provide power to 100 households in the nearby villages and thus contribute in the betterment of the living conditions in the hill.
6. The project will be operated and maintained by the locals, thus setting up the precedence of decentralised model with community participation.
7. Availability of power shall result in the growth of economic conditions of the people living in hills.

Accomplishments

- All the matters regarding the procurements and arrangements are successfully over and with the completion of procurement of machinery and technical equipment the Construction work is under progress. The construction of the 270m base line has already been done and the left work shall be completed at the scheduled time and the plant will start functioning on the pre-decided date.

Conclusion

The project is a perfect model to demonstrate low cost decentralised power generation technology in the snowbound areas for providing electricity to the local households. The successful completion of this project will promote community participation in the government schemes in the hills, as the maintenance of the plant will be carried out by User Energy Committee comprised of locals, registered under Society Registration Act 1860. Also, the success of this project will result in proliferation of this technology in the hills and more projects could upraise on self-sustain basis.

Location of Project

Civil Works at Site

Kedarnath II Mini Hydro Power Project (2x100KW) at District Rudraprayag

Introduction

The Kedarnath II mini hydro power project is first of the two hydel power generation stations having the capacity of 2x100 KW placed at the Kedarnath in Rudrapyag district. The project is supposed to provide the electricity to the habitation of huses and shops in the Kedarnath shrine and surrounding areas situated in Kedarnath of Ukhimath Block. The project is a collaborative persuasion of Uttarakhand State Council for Science & Technology (UCOST) and Uttarakhand Renewable Energy Development Authority (UREDA) with the financial support of Department of Science & Technology, New Delhi.

Project Details

Duration of Project : Three Years
Total Cost : Rs. 1,33,00,000/-
Manpower : Implementing agency is UREDA

Significance of the Project

1. The plant will work on renewable energy and thus the generation of power will be free from any pollution.
2. The project will provide power to house holds and shops in Kedarnath shrine and surrounding areas and thus contribute in the betterment of the living conditions in the hill.
3. The project will be operated and maintained by the locals, thus setting up the precedence of decentralised model with community participation.
4. Availability of power shall result in the growth of economic conditions of the people living in hills.

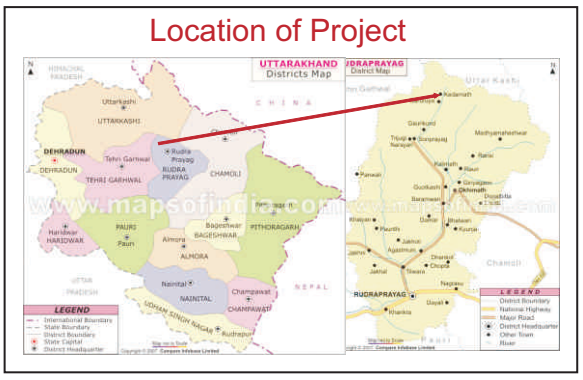
Accomplishments

- All the matters regarding the procurements and approvals for the infrastructure designs are successfully over and with the completion of procurement of machinery and technical equipment the Construction work is under progress. The construction of the site development work is done and the left work shall be completed at the scheduled time and the plant will start functioning on the pre-decided date.

Conclusion

The project is a perfect model to demonstrate low cost decentralised power generation technology in the snowbound areas for providing electricity to the local households, shops and the Kedarnath Shrine. The successful completion of this project will promote community participation in the government schemes in the hills, as the maintenance of the plant will be carried out by Shri Kedarnath Mandir Samiti. The project has the revenue generating potential and the rate for the power will be same as the Uttarakhand Power Corporation Ltd. Tariff. Also, the success of this project will result in proliferation of this technology in the hills and more projects could upraise on self-sustain basis.

Location of Project



Scientific Evaluation of Water Purification System in State of Uttarakhand

Introduction

In order to ensure the potability of water in Schools, State Council of Education, Research & Training (SCERT) and Uttarakhand Council of Science & Technology, Dehradun has taken up work for Scientific Evaluation of Water Purification System (Water Quality) of 20 Schools in the State of Uttarakhand. This project has been prepared for Scientific Evaluation of Water Purification System (Water Quality) of 20 Schools in the State of Uttarakhand spread in 13 distracts and suggests the management plan for safe drinking water supply to schools. Therefore the present study was conducted to study & assess Drinking Water Quality at source & supply point of schools and to make an action plan for supply of potable water to different school.

Project Details

Duration of Project : Three Years
Total Cost : Rs. 47, 54,000/-
Manpower : 01 (Project Assistant)

Significance of the Project

1. The project ensures the quality of drinking water in the government schools within Uttarakhand
2. Regular monitoring and maintenance of water storages in the schools.
3. Creating awareness among the school staff regarding the provision of safe drinking water.

Accomplishments

- Generation of Primary Data by monitoring of Water Quality Issues: Each school was visited by PCRI, BHEL, Haridwar Team (in two Teams). One team visited Schools in Kumaun Region and another team schools in Garhwal region. The water samples were collected for

A. Water Quality Assessment: This is done as per Standard Method, APHA for Drinking Water, (Raw & Water Supply Point in each school),

B. Total 40 numbers of samples were collected and analyzed for relevant parameters once in a study period. The following Government Inter colleges will be covered :

SN	Region	District	Schools
1	Garhwal	Dehradun	Govt Girls Inter College, Dehradun
2			Govt Inter College Herburtpur, Dehradun
3		Tehri	Govt Girls Inter College Narendra Nagar
4			Govt Inter College New Tehri, Tehri Garwal
5		Haridwar	Govt Inter College Imlikheda, Haridwar
6			Govt Girls Inter College Jwalapur, Haridwar
7		Pauri	Govt Girls Inter College Pauri Nagar, Pauri
8			Govt Inter CollegeDhumakoat Pauri
9		Chamoli	Govt Inter College, Chamoli
10		Uttarakashi	Govt Inter College Uttarkashi
11		Rudra Prayag	Govt Inter College Augustmuni, Rudra Prayag

SN	Region	District	Schools
12	Kumaun	Udhamsingh Nagar	Govt Inter College Shantipuri, US Nagar
13			A.N.JHA Govt inter College,Rudrapur, US Nagar
14		Champawat	Govt Inter College Lohaghat, Champawat
15		Nainital	Govt Girls Inter College, Nainital, Nainital
16			Govt Girls Inter College, Haldwani, Nainital
17		Almora	Govt Inter College, Alomora
18			Govt Inter College, Shitilakhet,Almora
19		Bageshwer	Govt Inter College, Bageshwer
20		Pithoragarh	Govt Girls Inter College, Pithoragarh

- All the results were compared with the Drinking Water Quality Standard IS 10500. Based on Primary & Secondary information on different environmental issues of water supply system, the assessment of water supply system of existing system done and prepare action plan for their remedial measures.
- A Technical report is prepared for Evaluation of Drinking Water Quality of school.

Conclusion

The results of tested samples are as follows:

SN	Parameters (IS:10500)	Unit	Standard IS:10500		Obtained Value			Evaluation		
			Desirable	Permissible	Hp1	Hp2	Hp3	Hp1	Hp2	Hp3
A	Essential									
1	pH	-	6.5 - 8.5	NR	7.8	7.7	7.8	OK	OK	OK
2	Total Hardness (as CaCO3)	mg/L	300	600	380	192	180	OK	OK	OK
3	Iron (as Fe)	mg/L	0.3	1.0	2.06	0.30	0.37	NOT OK	OK	OK
4	Chloride (as Cl)	mg/L	250	1000	16	5	5	OK	OK	OK
5	Fluoride (as F)	mg/L	1.0	1.5	0.85	1.26	0.68	OK	OK	OK
B	Desirable									
6	Dissolved Solids (TDS)	mg/L	500	2000	480	296	290	OK	OK	OK
7	Sulphate (as SO4)	mg/L	200	400	28.4	14.7	17.0	OK	OK	OK

SN	Parameters (IS:10500)	Unit	Standard IS:10500		Obtained Value			Evaluation		
			Desirable	Permissible	Hp1	Hp2	Hp3	Hp1	Hp2	Hp3
8	Nitrate (as NO3)	mg/L	45	NR	1.0	1.0	1.0	OK	OK	OK
9	Cadmium (as Cd)	mg/L	0.01	NR	ND	ND	ND	OK	OK	OK
10	Arsenic (as As)	mg/L	0.01	NR	ND	ND	ND	OK	OK	OK
11	Lead (as Pb)	mg/L	0.05	NR	0.01	0.01	0.01	OK	OK	OK
12	Copper (as Cu)	mg/L	0.05	1.5	0.01	ND	0.02	OK	OK	OK
13	Total Coliform	MPN/ 100 mL	10	NR	2	8	9	NOT OK	NOT OK	NOT OK
14	Total Residual Chlorine	mg/L	0.2	-	ND	ND	ND	NOT OK	NOT OK	NOT OK

HP = Hand Pump, ND= Not Detected, NR= No Relaxation

The recommendations are as:-

1. Renovation of water supply system & storage tanks should be done in all these schools.
2. Water disinfection system (Simple Chlorinator or Liquid Chlorination) should be installed on Water Storage tanks of each school.
3. For regular monitoring & surveillance skill should be developed among staff.
4. As part of NSS/NCC program in schools Water Quality awareness program should be included.
5. Provision for water Test Kit may be made at each place for regular monitoring and surveillance of important water quality parameters.

Inspire Scheme Awards

Introduction

Uttarakhand State Council for Science & Technology is dedicated in promoting science education and human resource development in science within the state of Uttarakhand. On the same line Council is promoting Innovation in Science Pursuit for Inspired Research (INSPIRE), one of the innovative programs developed by the Department of Science & Technology, New Delhi. The programme aims to attract talented students of science stream at an early stage and help to build the required critical human resource pool for strengthening and expanding the Science & Technology system and R&D base. The Uttarakhand State Council for Science & Technology (UCOST) as a nodal agency has been involved for imparting the information to students for attracting them to participate in the scheme. The council is executing the SEAT (Scheme for Early attraction for Students of Science) scheme under Inspire Programme by rewarding the students upto Class Xth with the scholarship of Rs. 5,000/-.

Project Details

Duration of Project : Three Years
Total Cost : Rs. 55, 75,000/-
Manpower : Uttarakhand Department of Education

Significance of the Project

The programme aims to encourage the budding talent especially in the government schools in the field of science and to promote them in pursuing science in their higher studies. The scholarship not only provides them with the fiscal advantage but also motivates them to perform better in their endeavours. The programme ensures identification and nurturing of talent at a very young age and thus, ensures human resource development at quite an early stage.

Accomplishments

- During the year 2010-11 Three hundred seventy three students from different district of Uttarakhand had been selected for the INSPIRE scholarship and 743 students have been selected in the year 2011-12.
- A total of Rs. 18.56 lakh has been distributed by UCOST as scholarship in the year 2010-11 while in the year 2011-12 it is Rs. 37.15 lakh.
- In association with School Education Department, Uttarakhand a state level exhibition was organised in Navodaya Vidyalaya, Raipur, Dehradun on 20.07.2011 where students presented their working models.
- In continuation, a similar exhibition on National level was organised by DST, New Delhi in Pragati Maidan on 11.08.2011 where the top 5 selected models from the state exhibition were sent.

The students details is as follows:-

S. No.	Name of Student	Class	School	District	Title of the Model
1	Ayush Garg	11	SGRR Inter College, Mathurawala	Dehradun	Eyes of Blind
2	Asmita Uniyal	10	Govt. Inter College, Genwla	Uttarkashi	Upgradation of Water- Mill
3	Devendra	12	Govt. Inter College, Kurchola	Rudraprayag	Sunami Information Equipment
4	Pajjwal Dimri	10	Govt. Inter College, Gopeshwar	Chamoli	Hydrolic Crane
5	Shivani Negi	9	Subodh Prem Vidya Mandir, Gopeshwar	Chamoli	Research Mapping sails related Panchayat development

Networking for Wash" (Eco-Water Literacy Campaign)

Introduction

This program is mainly aimed to aware the people on water quality, health and hygiene. lecture and demonstration of latest techniques of sanitation, waste water disposal and treatments. As a follow-up to the composite training workshop, the participant organizations will start functioning as grassroots S&T nodes.

Considering the importance of pure drinking water as a healthy life sustaining resource, there is a definite need to launch intensive awareness campaigns for safe potable water. Sensitization at institutional level is much needed action for health and hygiene awareness throughout the state.

WASH programme in Uttarakhand is initiated with the help and support of Department of Science and Technology (DST) Govt. of India, New Delhi with the joint efforts of Uttarakhand Council of Science and Technology (UCOST) and Peoples Association of Hill Area Launchers (PAHAL). Objective of the programme are Spreading awareness through District Coordinators of UCOST by utilizing their institutional network in different districts and also through different universities, Govt. and non Govt. organizations, Demonstration, testing, training and expert lectures for qualitative and quantitative knowledge about pollutants and various parameters of potable water to Teachers/ UG/ PG Students different districts of state.

Main Target is to trained about 200 participants on different water related issues.

I. Participants are selected through respective District Coordinator UCOST, who has identified and nominated students from selected educational institutions of their respective district or other block as per requirement.

II. Under the programme of training of drinking water parameters, following issues were addressed

(A). Lecture-cum-demonstration-cum-Training on (i) Water quality testing through specially developed kit, (ii) onsite testing through advanced equipments, (iii) water conservation issues based on various technological options and geographical requirements and suitability,

(B). Film/ movie show to aware the participants about on low cost water conservation, recharge, purification, recycling, safe drinking water and water borne diseases.

(C). Vad-Vivad/ Quiz session at on importance of water conservation, purification and prevention of water borne diseases.

(D). Special Lecture on watershed management for behavioral change of participants for water conservation practices.

III. Participants have given state of art in house training about drinking water parameters of one day at a convenient venue.

IV. The respective District Coordinator UCOST and trained youths/ teachers of each district were advised to organize similar type of training programmes in their educational institutions for a group of 100 students/ local people in order to keep on practicing the technique learnt by the testing kit provided to them and to aware mass population directly or through press/ media.

Project Details:

Total Cost- 7.5 lakh
Duration - 1 year (2009-2010)

Achievements

The outcome of the state level training programme under Networking for Wash is as under:

1. Mass awareness and knowledge was made among different students in maintaining water quality and its environment.

2. Provided a forum/ opportunity to students to improve their knowledge about water pollutants/ contaminants.

3. The total number of beneficiaries were 13 districts x 200 Participants = 2600
4. Under the WASH programme Eco-Water Literacy Campaign was organized in Kumaon district of Uttarakhand by different Vigyan Prasar Kendra with the support of different NGO's, Schools and Colleges.

S. No.	Name of Vigyan Prasar Kendra	Activities
1	Vigyan Prasar Kendra Gurna (Lok Sanchar Avam Vikash Samiti) Pithoragarh	Lecture on "Modern Technique of Water Conservation and Management"
2	Vigyan Prasar Kendra Totanaula (Muskan) Pithoragarh	Organized conference, essay and poster competitions
3	Vigyan Prasar Kendra, Bhatura (Swati Gramodyog Sansthan) Pithoragarh	Lecture and cleaning mission of catchment
4	Vigyan Prasar Kendra Kanda, Bageshwar (Arnya Sewa Sansthan) Pithoragarh	Lecture series
5	Vigyan Prasar Kendra Almora (Rise Sanstha), Almora	Organized Lecture series
6	Vigyan Prasar Kendra Koyati, Lohaghat (Asha Sanstha) Champawat	Organized Lectures and competitions
7	Vigyan Prasar Kendra, Bageshwar (Himalayan Sewa Samiti)	Organized Lecture series
8	Vigyan Prasar Kendra Panda] Pithoragarh (Gramodyog Sewa Kalyan Samiti)	Organized Lecture series
9	Vigyan Prasar Kendra Vinayak (Gramin Krishi avam Paryaran Samiti) Pitoragarh	Organized Lecture series
10	Vigyan Prasar Kendra] Talli, Madli Champawat (Nidhi)	Organized Lecture series

6. A science popularization programme under the Eco-Water Literacy Campaign held at Dehradun by the Uttarakhand State Council for Science and Technology (UCOST). A total of 130 students got hands on training on testing water quality and purification during WASH. The training was provided by society of Pollution and Environmental Conservation Scientists (SPECS).

The purpose of the programme was to educate students about water quality testing and purification methods, as well as inculcate and cultivate them in the hygienic use of water. In this Dr Brij Mohan Sharma delivered the lecture on Importance of water, purification and sanitation.

Conclusion

Water is a elixir of life and pure water represents healthy environment. This programme will provide scientific knowledge as well as demonstration followed by training of testing about pollutants and other contaminants present in drinking water being supplied. The overall exposure will be useful in creating awareness about safe drinking water to local population through trained cadre of teachers and youth/ students.

Rajat Jayanti Vigyan Sancharak Fellowships

Introduction

Rajat Jayanti Vigyan Sancharak Fellowships" instituted by Rashtriya Vigyan Evam Pradyogiki Sanchar Parishad, Department of Science & Technology. The fellowship recognizes Science Communicators with uniformly brilliant academic record and supports innovative work in selected scientific institutions/universities/S&T based

voluntary organizations under the guidance of a senior science communicator.

These are full time fellowships and outstanding candidates are selected from all over states.

Mr. Manoj Kumar Sundriyal from Uttarakhand in 2009 was awarded this prestigious fellowship through Uttarakhand State Council for Science and Technology (UCOST) on his project entitled "Role of Print Media in Science Popularization in Uttarakhand" under the guidance of Dr. D. P. Uniyal, Sr. Scientific Officer, Uttarakhand State Council for Science and Technology (UCOST). Mr. Manoj Kumar Sundriyal is attached with the Doon University to carry out his project. The broad ares of his research covers:-

- Study of the present status of Science Popularization through Print media
- Study of the Presentation Patterns as space, placing, scientific terminology, nature and follow-up of Science news coverage in Print Media
- Analysis of the Public and Experts Opinion about popular science coverage in Print Media
- Analyzing the impact and future prospects of science popularization on society

Conclusion

This study will be helpful in identifying the role of print media in science popularization in Uttarakhand state and will also promote science journalism in the state. Scarcity of good science reporters have always emerged as the major obstacle in the way of science popularization and thus to encourage quality science journalism such schemes are required so that the benevolent work and researches done in the labs get good exposure to the society.

Introduction

PIC has been established at UCOST Dehradun by DST for supporting innovators and researchers of the state in protecting their discoveries by means of patent rights. PIC facility would act as a single window system helping and guiding the applicant researchers with all the necessary information for patent filing as well as conducting patent searches. The applicants can be from universities, government departments and R&D Institutions in Uttarakhand.

Project Details

Duration of Project : Three Years
Total Cost : Rs. 28, 43,000/-
Manpower : 01 Project Scientist

Significance of the Project

The Center is established with the vision to spread awareness among the masses and to cater the needs of the people regarding Intellectual Property Rights. Uttarakhand being the land of traditional knowledge and skills has a lot of unprotected knowledge which needs to be protected by law; therefore centre has a huge significance. Also the state patronise sound academic infrastructure due to which generation of novel technology and knowledge becomes inevitable, therefore for providing them with IPR protection facilities centre posses prime importance.

Accomplishments

- The centre provides facilitation for IPR protection including patent search, writing of patent applications and guidance in filling the patents.
- The PIC is establishing IPR Cells in the universities, colleges and academic institutions so as to provide the academicians and students with the facility to protect their Intellectual property. The following institutions have consented for the establishment of IPR Cells in their institutions:-

SN	Instituion	Incharge
1 `	Kumaun University DSB Campus, Nanital	Dr. Lalit Tiwari Asst. Professor, Dept. of Botany
2	University of Petroleum & Energy Studies Bidholi, Prem Nagar, Dehradun	Dr. V.L. Mony Dr. Kanadai Syamala College of Legal Studies
3	G.B. Pant Institute of Agriculture & Technology JRO, Dept. of Genetic & Plants Breeding	Dr. Mukesh Karnwal
4	Gurukul Kangri Vishvavidyalaya, Haridwar	Dr. V.K. Singh Associate prof. Dept. of Management
5	Dwarahat Enginnering College Dwarahat	Prof. Jyoti Saxena
6	Uttarakhand Technical University	Name Awaited
7	Doon University Mothrawala, Dehradun	Dr. Vijay Sridhar Assistant Professor School of Environment & Natural Resources
8	H.N.B Garhwal University	Prof N.S. Panwar Dept. of UNIC

Intellectual Property facilitation Centre (IPFC)

Introduction

After two decades of new economic policy, signing of agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) by India and other member Countries of world Trade Organization (WTO) marks the beginning of a new era. With the advent of new economic policy we required new laws to protect our knowledge as a result India recognizes product Patent in every field of technology & we have done three amendments in patent acts through legislation. India now has new Industrial design legislation; New Trademark laws, Amended Copyright act and Performers Right have been increased from 25 to 50 years. In view of the above, industries, academician, individuals etc should be aware about IPRs- Its basic, various forms, concerns & advantage after TRIPS agreement. Thus, with the financial support of Ministry for Micro, Small and Medium Enterprises the Intellectual Property facilitation Centre (IPFC) has been established at UCOST Dehradun

Project Details

Duration of Project : Three Years
Total Cost : Rs. 53, 10,000/-
Manpower : 02 (01 Project Officer, 01 Project Assistant)

Significance of the Project

Uttarakhand has 37780 Micro, Small, and Medium Enterprises and knowledge of use of IPRs as a tool to protect IP for empowerment especially for MSMEs is a need of the hour in the fast growing economy & very competitive market. Any businesses need the Intellectual Property system to protect manufacturing secrets or other useful information and remain ahead in the competition. Businesses need to fully exploit their Intellectual Property assets to maintain consistent quality and market products and services to consumers so as to develop long-term customer loyalty. Setting up of IPFC at UCOST is a step to strengthen the MSMEs of the state towards creating their own IPRs.

Accomplishments

- The centre provides facilitation for IPR protection including patent search, writing of patent applications and guidance in filling the patents to the MSMEs of Uttarakhand
- IPFC also provides protection for trademarks, as the major number of enquiries falls under this category. By now two applications have been filled under the registration of trademark
- The protection of traditional knowledge in done under the Geographical Indicator category
- Workshops are being organised in association with Industries Association of Uttarakhand (IAU) to create awareness about the IPR among the MSME Entrepreneurs.

8 Garhwal Post Dehradun, June 25, 2011

Meeting held of IPFC Steering Committee

By OUR STAFF REPORTER

DEHRADUN, 24 Jan: The first Steering Committee meeting of the MSMEs Ministry approved Intellectual Property Facilitation Centre was held at the Uttarakhand Council of Science & Technology (UCOST) Headquarters, here, today.

Present at the meeting were Dr Rajendra Dobhal, UCOST Director General, Dr Ashok Kumar, Dy Director, MSMEs Ministry, Dr S Farooq, CII Chairman, Uttarakhand, Pankaj Gupta, IAU President, Yashwant Dev Panwar, Scientist, and Dr SC Nautiyal, Additional Director, Industries. Discussions were held on extending the activities of the Centre.

Pankaj Gupta said that the IAU and UCOST would together hold workshops on patents and intellectual property rights in every part of the state.

It was decided at the meeting that there was considerable potential in Geographical Indication and integrated efforts were needed in this direction. The Industries Department, CII and IAU offered all possible assistance in the effort. Publications of the CII and IAU would also carry information about the IPFC.

The first workshop on Intellectual Property Rights has be planned for 23 July in Srinagar. The government departments also offered financial assistance in patent filing, GI, Trademark, Design Registration, etc.

Senior Scientist of UCOST Dr DP Uniyal said that further information on all these aspects could be obtained from the council. A Patent Information Centre had also been established for the purpose of patent search in collaboration with the Union Department of Science and Technology.

Technopreneur Promotion Programme (TePP)

Technopreneur Promotion Programme (TePP) is a programme of Department of Scientific and Industrial Research (DSIR), MS&T, GoI to tap the innovative potential of the Indian citizens. TePP provides grants, technical guidance and mentoring to independent innovators to emerge as entrepreneurs by incubating their ideas and enterprise in two phases. The available programmes of TePP are

Micro Technopreneurship Support (TS) : (Max support Rs 0.75 lakhs)

Any independent innovator testing new ides with computer generated, physical models. Student innovators and others who have not worked on their idea can avail this support to develop their novel concept further and understand challenges in implementation. They can apply to phase I grants thereafter.

TePP phase 1(Innovation incubation) : (Max support Rs 15 lakhs)

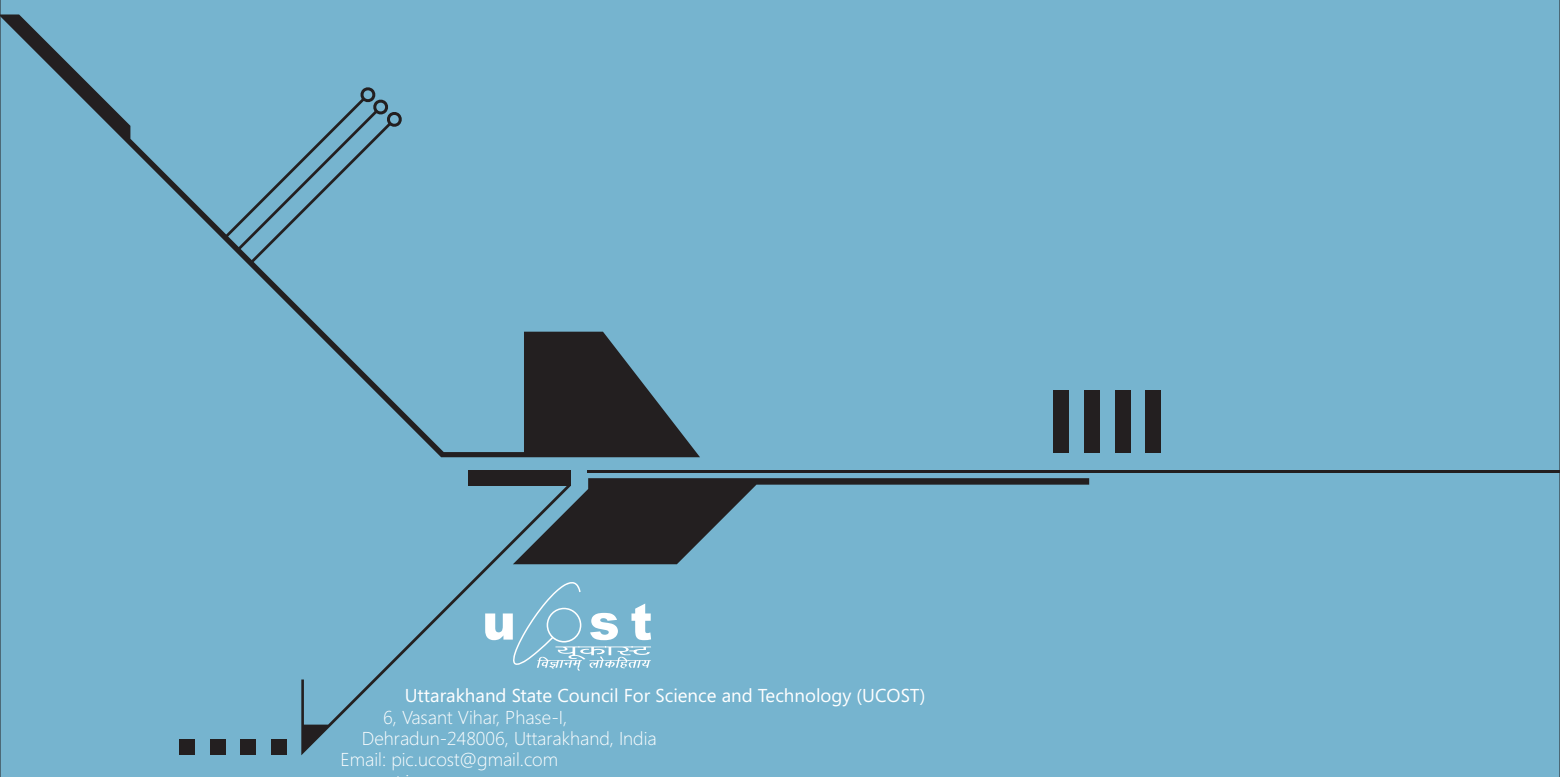
Any independent innovator/ start-up firm for developing function proving prototypes. Innovators can apply direct for TPF support without applying for TS if they have worked on their idea to the extent they understand challenges in implementation.

TePP Phase II (Enterprise incubation):

1. Supplementary TePP Fund (Max support Rs 7.50 lakhs)
   Successful TePP innovators of TePP Phase-I for licensing technology to a third party.
2. Seamless scale-up support (S3T) (Max support Rs 45 lakhs)
   Successful TePP innovators of TePP phase-I for starting own enterprise

To cater to the state, DSIR has established its Technology Outreach Center (TUC) under the aegis of UCOST. The council has been sanctioned an annual grant of Rs. 8.00 lakhs for financial year 2010-2011. As first instalment to TUC, UCOST Rs. 6.40 lakhs has been released.

It is fathomed that through this programme the state will be able to scout and spawn a pool of innovators. These entrepreneurs will be fully supported for foundational start-up companies based on their innovations. Creating a critical mass of such innovative entrepreneurs will definitely help in the growth and development of the state.



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