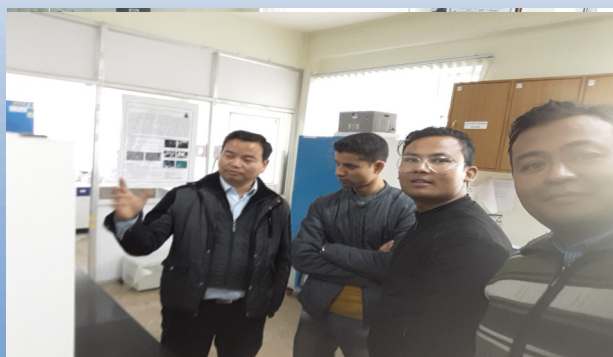


## Advance level State Biotech Hub Sikkim State Council of Science and Technology

### Sikkim Advance Level State Biotech Hub celebrated National Science Day by laboratory demonstration to school students

National Science day is one of the main science festival celebrated in India every year on 28<sup>th</sup> February. Students of the schools and colleges are being demonstrated with various science projects as well as national and state science institutions demonstrates their latest researches. The theme of this year is **"Science and Technology for Sustainable Future"**. On this occasion students from all over Sikkim were brought to Biotechnology Laboratory, Advance Level State Biotech Hub, escorted by science teachers, for various laboratory equipment demonstration along with the researches being carried out by PhD scholars. Dr. B.C. Basistha, Additional Director, Biotechnology Division, addressed the gathering followed by equipment demonstration by other officials. The working principle and Handling of all the instruments (Molecular, Microbiology and Biochemistry) were explained in detail.

The students were also demonstrated with different research work (objective, relevance, output) that has been carried out in the laboratory. Students were also given briefing about Bioinformatics and its application. They are been told how bioinformatics is related to Biology and usefulness of bioinformatics tools in experimental molecular Biology. Further, the students were taken to Remote Sensing Laboratory, where the officials explained basic and fundamentals of remote sensing. Also, there were short demonstration on how to use Google earth application. The participation of the students were incredible, events full of interactions. All the school teachers escorting the students extended their sincere thanks to the Advance Level State Biotech Hub and were hoping to get more of such programme in the future which they found very beneficial for the students.



*Laboratory visit by School children to celebrate National Science Day: Official interacting with students at Biotechnology, Bioinformatics and Remote Sensing Laboratory.*

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## RECENT ACTIVITIES

### Two day International Conference on “State of the Cryosphere in the Himalaya: with a focus on Sikkim & Eastern Himalayas”

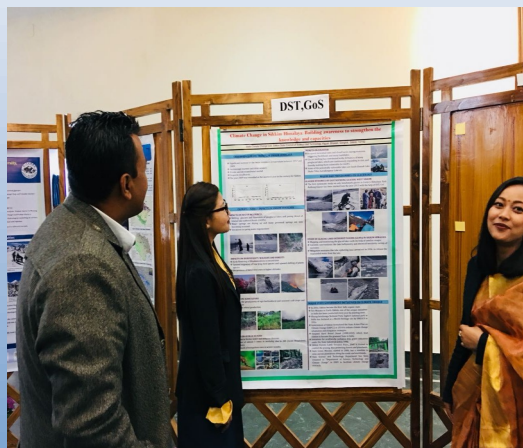
The two day international conferences to discuss on the state of cryosphere in the Himalayas held at Chintan Bhawan for two days from 19<sup>th</sup> to 20<sup>th</sup> February. State forest Minister T.W. Lepcha was present as the chief guest of the Inaugural function of the conference organised in the collaboration of State Science and technology De-partment (DST), Integrated Mountain Initiative and Sikkim University. The conference had the presence of eminent personalities working in the field of cryosphere from across the globe, along with Scientist and researchers from within the country.

The conference was organised with the objective of bringing together scientists, researchers, students and policy makers to understand latest scientific developments in glaciology and to develop future road map for the research needs. The inaugural session was address by J. Srinivasan and Anil kulkarni from the Indian institute of Science, Akhilesh Gupta Advisor DST, GOI and Mustafa Ali Khan from Swiss Agency and development cooperation. The chairperson of the organising committee Lok Sabha MP P.D Rai addressed the gathering via Video message. Addressing the function Minister Lepcha lauded the efforts of the organiser of the conference and appreciated the work undertaking by the DST and land



*Group photograph with all delegates and participants at the conference*

Revenue and Disaster management Department for mitigation measure for south Lohnak Lake and further suggested that the mentioning of the intervention needed to continue. Principal Secretary Dr. K Jayakumar, DST&CC, GOS, mentioned that the conference was made possible by cooperation of various agencies and the vision of MP P.D Rai. He also presented on the activities of the department with special focus on the work undertaken by the Glacier and Climate change Commission.



*Poster Session at International Conference from Advance level State Biotech Hub*



The second day included mix of more than 30 paper and poster presentations by researchers from various institutes and agencies. Issues such as glacier mapping, monitoring and modeling, cryosphere and climate, disaster monitoring and mitigation strategies were discussed. The conference provided an ideal platform for sharing of research methodologies among scientist and researchers and also facilitates discussion on the findings of the research work. The discussion points from the deliberations were summed up with concrete action points for follow up presented by the chairs of the various technical sessions. Inclusion of curriculum on glaciology at the school and college level for raising the awareness on the issue and a chapter on South Lonark glacier were suggested in the panel discussion.

## Institutional Biosafety Committee Constituted

As per the directives of the Department of Biotechnology, Government of India, Institutional Biosafety Committee was constituted on 21.09.2017. The members of IBC are as follows. The committee shall advise and guide the ethical issues involved in research related issues in Biotechnology & microbiology or any other life science related research being/ will be carried out in Advance Level State Biotech Hub.

1. Dr. K. Jayakumar, IAS, Principal Secretary, Sikkim State Council of Science and Technology
2. Dr. B.C. Basistha, Additional Director, Sikkim State Council of Science and Technology
3. Dr. Laxuman Sharma, Associate Proffesor, Sikkim University.
4. Dr. Buddhiman Tamang, Associate Proffesor, Sikkim University.
5. Dr. Sushen Pradhan, Research Associate, Sikkim State Council of Science and Technology
6. Dr. Robin Chettri Proffesor, Sikkim University
7. Dr. Bharat Pradhan, Consultant Sikkim Biodiversity Board.
8. Mr. K.B. Subba, Assistant Scientific Officer, Sikkim State Council of Science and Technology

## 1<sup>st</sup> Scientific Advisory Committee meeting held at Vigyan Bhawan

The first Scientific Advisory Committee meeting was held on 14.02.2018 at Sikkim State Council of Science and Technology. The main agenda of meeting was the finalization of specification of instruments which are required to be procured under the different projects. The instruments along with the specifications has been finalized with recommendation and consent of all the members. The meeting was conducted in the office of Dr. B.C. Basistha, Additional Director, DST&CC.

The purpose of Scientific Advisory Committee (SAC) is to increase the quality of research which is undertaken in Biotechnology Division. It comprises of domain experts relevant to the various scientific disciplines of interest to Biotechnology. The SAC oversees the research programs of the laboratory through its annual reviews of the accomplishment, offers constructive comments and suggestions toward the future, identifies the thrust areas and problems to be focused, recommends major new initiatives for the laboratory, giving suggestion on purchasing new instruments require for laboratory and its budget. The SAC will also recommend and advice on the activities of the Biotechnology division, research work/ guide policies and operations including formulation of new initiatives, management, maintenance of facilities and services and suggest procurement of scientific instruments.

## UPCOMING EVENTS

1. Continuation of Outreach Programmes on Biotechnology and its application at district level.
2. 5 days hands on training to graduate and post graduate students.
3. Poster Session on various activities and ongoing research work carried out at SSCS&T.
4. Workshop on Role of Biotechnology in construction of biodiversity and its sustainable utilization in the occasion of International Biodiversity Day.
5. Photography competition to be organized on theme "Go Organic".

### State Biotech Hub Team

Dr. Jayakumar, IAS, Member Secretary  
(Chief Editor)

Dr. B.C. Basistha, Additional Director and  
Coordinator (Editor)

Shri. K.B. Subba, Assistant Scientific Officer  
and Co-coordinator

Dr. Sushen Pradhan,  
Research Associate

Miss Neelam Gurung  
SRF

Miss Purna Pradhan  
SRF

Miss Pratima Ghimiray  
SRF

Mr. Inchung Lepcha  
Laboratory Attendant

Mr. Tika Pd. Sharma  
Laboratory Attendant

## State Level Essay Competition for Young minds

### THEME

### *Biotechnology: "Biggest Tool of 21<sup>st</sup> Century"*

This state level essay contest will be organized in an effort of the **Advance Level State Biotech Hub** in promoting a Biotechnology in Sikkim State. It also aims to inspire upcoming youth to learn Biotechnology and its Application on various fields. Furthermore, government is also providing lot of facility, support and encouragement for upcoming youths regarding promotion of science in state level for future endeavour.

**"Essay Contributions are invited on various themes and ideas in reference to the broader theme."**

#### Important Dates

- Release of Essay Writing Competition- 15<sup>th</sup> March, 2018
- 1. Deadline to Submit the Essays- 15<sup>th</sup> April, 2018 by 11:59 pm.
- Announcement of Winners- 21<sup>st</sup> May 2018, International Biodiversity Day

**Eligibility:** Open for all students of Class XI and XII enrolled in Science stream. There is no registration fee.

#### Benefits

1. Top three best essays will be published in reputed Journal after editing
2. Uploaded in website /published in news letter.
3. The participants will also receive a "**Certificate of Merit**".
4. The winners will also receive cash prizes-

• **1st Prize- 5, 000 INR.**

• **2nd Prize- 2, 500 INR.**

• **3rd Prize- 1, 500 INR.**

It is anticipated that this essay competition provide opportunity to show one's writing skills. In turn, award will surely motivate students to perform, excel and encourages them to adopt innovative techniques to boost ideas and skills.

### Recent Publications

- Talambedu Usha, **Sushen Pradhan**, Arvind Kumar Goyal, Shanmugarajan Dhivya, H. P. Prashanth Kumar, Manoj Kumar Singh, Neelu Joshi, **Bharat Chandra Basistha**, K. R. Siddalinga Murthy, Saravanakumar Selvaraj, and Sushil Kumar Middha (2017). Molecular Simulation-based Combinatorial Modeling and Antioxidant Activities of Zingiberaceae Family Rhizomes, *Pharmacogn Mag.* 13(3), 715-722.
- **Swastika Gurung**, Veena Pande, Faristha Yasmi, **B.C. Basistha** (2017). Algal diversity in the scared lake of Tung Kyong, Dzongu, Northern Sikkim, *Phykos.* 47 (2), 95-99.
- **Pratima Ghimiray**, **B.C Basistha** , K. K. Biswas, Veena Pande (2018). Incidence And Molecular Diagnosis Of Citrus Tristeza Virus In Mandarin (Citrus Reticulata) Orchards Of Sikkim, *CIBTech Journal of Biotechnology*, 7(1), 1-7.
- Amrit Kumar Panda, Satpal Sigh Bisht, Bodh Raj Kaushal, Surajit De Mandal, Nachimuthu Senthil Kumar and **Bharat C. Basistha** (2017). Bacterial diversity analysis of Yumthang hot spring, North Sikkim, India by Illumina sequencing, *Big Data Analytics*, 2,7.

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