

2nd HIMACHAL PRADESH SCIENCE CONGRESS (HPSC) 2017-18
Science and Technology for Sustainable Livelihood in Indian Himalayan Region

Himachal Pradesh Council for Science, Technology & Environment(HIMCOSTE)

Venue: Hotel Peterhoff, Shimla
Date: 20th -21st November, 2017

Himachal Pradesh Council for Science, Technology and Environment (HIMCOSTE), organized “**2nd Himachal Pradesh Science Congress**” on **November 20-21,2017** at Hotel Peterhoff, Shimla. The theme of the Congress was “*Science and Technology for Sustainable Livelihood in Indian Himalayan Region*”. Around 500 academicians, scientists, researchers and Ph.D. scholars and session chairs/co-chairs actively engaged in the field of science & technology in various Universities, Colleges and Research & Development Institutions within and neighbouring North Indian States participated in the two days event. Scientific and Technical sessions were held for ten thematic areas viz. 1. Agricultural and Horticultural Sciences 2. Botany, Biochemistry, microbiology and Biotechnology 3. Chemical Sciences, Earth Sciences and Renewable Energy 4. Climate Change: Impact & Mitigation 5. Engineering Science and Technology 6. Environmental Sciences and Forestry 7. Innovations 8. Mathematical and Computer Sciences 9. Physical Sciences, Material Sciences and Nano-Technology 10. Zoology, Veterinary Sciences and Animal Husbandry. Total 406 abstracts from 105 institutions were received.

The Chief Guest for the inaugural function was Dr. V.K. Saraswat, Padma Bhushan & Padma Shri, member NITI Ayog. Dr. G.S.Goraya, IFS, Pr. Chief Conservator of Forests (HOFF) and Dr. Rajinder Dobhal, Director General, Uttarakhand Council for Science & Technology, Dehradun were the Guest of Honour in the Inaugural session. Plenary lectures were delivered by Dr. Manoj Pateiriya, Director, NISCAIR-CSIR, New Delhi, Dr. Krishan Lal, Former Director, National Physical Laboratory, New Delhi and Prof. Rup Lal, Department of Zoology, Delhi University. Welcome address and briefing about the Congress was given by Sh. Kunal Satyarthi, IFS, Joint Member Secretary (HIMCOSTE) Shimla.

The session for Botany, Biochemistry, Microbiology and Biotechnology was chaired by Dr. Sanjay Kumar Director, Institute of Himalayan Bioresource Technology (IHBT- CSIR) Palampur, H.P and co-chaired by Dr. S. Nautiyal Scientist G (Retd.) Plant physiology, Botany Division Forest Research Institute, Dehradun and Dr. R.K. Tuli Prof. and Senior Research Advisor, Punjab University, Chandigarh. 18 oral and 41 poster presentations were made by the participants in the session . The session for Agricultural and Horticultural Sciences was chaired by Dr. Kallol Kumar Pramanick, Head & Principal Scientist, Indian Agricultural Research Institute (IARI) Regional Station, Shimla and co-chaired

by Dr. Mohar Singh Prof., ICAR-National Bureau of Plant Genetic Resources (NBPGR), Shimla wherein 14 oral and 15 poster were presented by the participants. The session for Chemical Sciences, Earth Sciences and Renewable Energy was chaired by Prof. Amalendu Pal, Emeritus Scientist (CSIR), Kurukshetra University and co-chaired by Dr. Sunil Dhar, Associate professor, Central University, Jammu and Dr. D.D. Sharma, Prof. & Head Dept. Of Geography, Himachal Pradesh University, Shimla wherein 10 oral and 11 poster were presented by the participants. The session for Innovations was chaired by Dr. Tej pratap, Vice Chancellor AP Goyal University, Shimla and co-chaired by Dr. Venkata Krishnan, Associate Dean, IIT Mandi and Dr. Rahul Taneja, Scientist, Patent Facilitation Centre, Haryana wherein 3 oral and 2 posters were presented by the participants. The session for Mathematics & Computer Sciences was chaired by Dr. Subrahmanian Moosath, HOD Mathematics, Indian Institute of Space Technology, Bengaluru and co-chaired by Dr. Pawan Kumar Mahajan Prof. Statistics & Dean, College of forestry, Y.S. Parmar University of Horticulture and Forestry, Nauni, Solan and Dr. Aman Sharma, Prof., Dept. Of Computer Science, Himachal Pradesh University, Shimla wherein 2 oral and 3 posters were presented by the participants. Poster Evaluation Committee for the above mentioned themes on day one comprised of Dr. H.S Dhaliwal, Vice Chancellor, Eternal University, Baru Sahib, Dr. Satish Kumar, Vice Chancellor, Bahra University, Solan, Dr. B.D. Sharma, ex Head, National bureau of Plant Genetic Resources, Phagli Shimla, Dr. Arun K. Shukla, Principal Scientist, Indian Agriculture Research Institute (IARI), Regional Station, Shimla, Dr. Ghan Shyam, Retd. Prof., Dept. of Chemistry, Himachal Pradesh University, Shimla, Dr. Veena Sharma, Prof. Department of Mathematics and Statistics Himachal Pradesh University, Shimla, Dr. J.S. Dhiman, Prof. Dept. of Mathematics and Statistics, Himachal Pradesh University, Shimla

On 21st November, 2017 plenary lecture was delivered by Dr. Wazir Singh Lakra, Former Director, National Bureau of Fish Genetic Resources- ICAR, New Delhi and Dr. Milap Chand Sharma, Professor, School of Social Sciences, Jawaharlal Nehru University, Delhi. The Botany, Biochemistry, Microbiology & Biotechnology session continued from previous day was chaired by Dr. T.N. Lakhanpal, Ex Director, Institute of Integrated Himalayan Studies (IIHS), Shimla and co-chaired by Dr. S.V Bhardwaj, Retd. Proff & Head, Biotechnology Y.S. Parmar University of Horticulture & Forestry, Nauni, Solan and Dr. A.K Bhatt, Director, Institute of Integrated Himalayan Studies(IIHS), Himachal Pradesh University, Shimla. The session for Engineering Science & Technology was chaired by Dr. Timothy A. Gonsalves, Director, Indian Institute of Technology, Mandi H.P and co-chaired by Prof. Harsha Sinhal, Former Deputy Director and Professor Earth Sciences, IIT Roorkee **and** Dr. Vinod Kumar, Vice Chancellor, Jaypee University of Information Technology, Solan (H.P). 8 oral and 6 posters were presented by the participants. The session for Environmental Sciences and Forestry was chaired by Dr. K.R. Dhiman, Retd. Vice Chancellor, Y.S. Parmar University of Horticulture & Forestry Nauni, Solan (H.P.) and co-chaired

by Dr. K.S Kapoor, Scientist G and supervisor Himalayan Forest Research Institute (HFRI), Shimla and Dr. S.K. Bhardwaj, Head, Department of Environmental Sciences, Y.S. Parmar University of Horticulture & Forestry Nauni, Solan (H.P). 12 oral and 18 posters were presented by the participants. The session for Climate Change: Impact & Mitigation was chaired by Dr.Milap Chand Sharma, Professor, School of Social Sciences, Jawaharlal Nehru University, Delhi and co- chaired by Dr. K.S. Verma, Retd. Dean Y.S Parmar University of Horticulture & Forestry, Nauni, Solan (H.P) and Dr. (Mrs) Parminder Kaur Baweja, Agro meteorologist /Senior Scientific Department of Environmental Science, Y.S Parmar University of Horticulture and Forestry, Nauni, Solan, H.P. 9 oral and 8 poster were presented by the participants. The session for Zoology, veterinary Sciences and Animal Husbandry was chaired by Dr. Wazir Singh Lakra, Former Director, National Bureau of Fish Genetic Resources- ICAR, New Delhi and co- chaired by Dr. R.K. Negi, Associate Professor, Department of Zoology University of Delhi, Delhi and Dr. Sushma Sharma, Professor-cum-Chairman, Himachal Pradesh University, Shimla. 3 oral and 6 posters were presented by the participants. The session for Physical Sciences, Material Sciences & Nano-Technology was chaired by Dr. Sreenivas Kondepudy, Professor, Dept. of Physics and Astrophysics (North Campus) University of Delhi and co- chaired by Dr. Pradeep Kumar, Associate Professor & Former Head of Civil Engineering Department, NIT Hamirpur and Dr. Pawan Sharma, Assoc. Professor, Dept. of Physics, Govt. College Sanjauli, Shimla.(H.P). 4 oral and 8 posters were presented by the participants. Poster Evaluation Committee for the above mentioned technical themes consisted of Dr. P.L. Gautam, Vice Chancellor, Career Point University, Hamirpur, H.P., Dr. Krishan Lal , Former Director, National Physical Laboratory, New Delhi, Dr. Rup Lal, Professor, Department of Zoology, Delhi University, Delhi, Dr. D.K Sharma, Professor, Dept. Of Chemistry, Himachal Pradesh University, Shimla, Dr. S.P. Bhardwaj, Retd. Professor, Dept. Of Horticulture, University of Horticulture & Forestry, Nauni, Solan, Dr. Pawan Sharma, Assoc. Professor, Dept. of Physics, Govt. College Sanjauli, Shimla, Dr. S.S Kanwar, Head, Dept. Of Biotechnology, Himachal Pradesh University, Shimla, Dr. Amarjeet K. Nath, Prof & Head Deptt. of Biotechnology, Y.S Parmar University of Horticulture & Forestry, Nauni, Solan (H.P.)

The main attraction of this Congress was exhibition in the form of Science Fair. Around 31 stalls were allotted to various agencies of Himachal Pradesh and across the Country. Following Core Groups sponsored by Ministry of Science & Technology (GoI) New Delhi participated in the exhibition: Center of Science for villages, Wardha, Maharashtra; Madhya Pradesh Vigyan Sabha, Bhopal; Uttarakhand State Council for Science , Technology Dehradun; M/s Bishen Singh Mahender Pal Singh, Dehradun; NB Institute for Rural Technology (NBIRT),Tripura; Development Alternatives Group, Delhi. Indian Institute of Technology (IIT Mandi), National Institute of Technology (NIT Hamirpur), Jaypee University of Information Technology, Eternal University, Chitkara University, Arni University , Shoolini University,

Maharaja Agarsen University, Solan ,CSK HP Krishi Vishvavidyalaya and IHBT Palampur, Appropriate Technology Center Sundernagar, World Wide Fund (WWF), ECEKAL Technologies, Shimla, Himalayan Forest Research Institute, Panthaghatti, Shimla ,Eco-task force Shimla, Central Potato Research Institute, Shimla ,Y.S Parmar University of Horticulture and Forestry, Nauni Solan, Chinmaya Mission, Dharmashala, Indian Metrological Department also displayed Scientific Research Work or activities in these exhibition stalls.

The Chief Guest for valedictory function was Hon'ble Chief Justice of H.P High Court Justice Sanjay Karol. Welcome address was delivered by Sh. Kunal Satyarthi, IFS Convener-cum-Joint Member Secretary, HIMCOSTE, H.P. The Guest of Honor were Dr. Timothy A. Gonsalves, Director, Indian Institute of Technology , Mandi, H.P, Dr. R.S. Chauhan, Vice Chancellor, Himachal Pradesh University, Shimla, Dr. P.L. Gautam, Vice Chancellor, Career Point University, Hamirpur, Sh. Somesh Goyal, IPS, Director General of Police, Himachal Pradesh. Dr. Aparna Sharma, Co-Convenor-cum-Sr. Scientific Officer, HIMOSTE, H.P delivered the vote of thanks. Best oral and paper presentation from each theme was awarded.

Around 500 participants were present during the two day Congress including students, research scholars, faculty, session chairs/co- chairs and other delegates.



Inaugural Function: Sh. Kunal Satyarthi, Dr Tej Pratap, Dr. Rajinder Dobhal, Dr. G.S. Goraya, Dr. V.K. Saraswat, Dr. Manoj Kumar Patairiya, Dr. Krishan Lal, Dr. Rup Lal



Prize Distribution



Participants at Darbar Hall



Participants at Darbar Hall



Exhibition Display



Poster Evaluation at
Lawns, Paterhoff



Poster and Exhibition display at Lawns, The
Peterhoff



Zoology, Veterinary Sciences and Animal
Husbandry Paper Presentation at
Conference Hall, Peterhoff



Engineering Science and Technology
paper presentation at Golden Lobby,
Peterhoff