

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

**Organized by:**  
**Himachal Pradesh Council for Science, Technology & Environment (HIMCOSTE)**

Venue: Hotel Peterhoff, Shimla  
 Date: 20<sup>th</sup> -21<sup>st</sup> November, 2017

**PROGRAMME**

**DAY-1**

**November 20<sup>th</sup>, 2017 (Monday)**

**Inaugural session: Darbar Hall**

<b>9:15 -10:15 hrs</b>	Registration Venue: Outside Darbar Hall
<b>10:15 -10:30 hrs</b>	Arrival & Reception of the Chief Guest Visit of the Chief Guest to Exhibition Venue: Lawns, Peterhoff
<b>10:30 -10:40 hrs</b>	Lighting of lamp & Felicitation of the Guests
<b>10:40 - 10:50 hrs</b>	Welcome Address by <b>Sh. Kunal Satyarthi, IFS Convener-cum- Joint Member Secretary, HIMCOSTE, H.P.</b>
<b>10:50-11:00 hrs</b>	Address by Guest of Honour, <b>Dr. Rajinder Dobhal</b> , Director General, UCOST, Vigyan Dham, Uttarakhand
<b>11:00 - 11:10 hrs</b>	Address by Guest of Honour <b>Dr. G.S. Goraya</b> , IFS, Pr. Chief Conservator of Forests(HOFF), Himachal Pradesh
<b>11:10 -11:20 hrs</b>	Address by Guest of Honour <b>Sh. Somesh Goyal</b> , IPS, Director General of Police, Himachal Pradesh
<b>11:20- 11:40 hrs</b>	1. Plenary lecture by <b>Dr S.P.S. Khanuja</b> , Former Director, Central Institute of Medicinal and Aromatic Plants(CIMAP), Lucknow (U.P)
<b>11:40 – 12:00 hrs</b>	2. Plenary lecture by <b>Dr Krishan Lal</b> , Former Director, National Physical Laboratory, New Delhi
<b>12:00 - 12:20 hrs</b>	3. Plenary lecture by <b>Dr Rup Lal</b> , Professor, Department of Zoology, Delhi University, Delhi
<b>12:20 -12:45 hrs</b>	Address by Chief Guest <b>Dr V.K Saraswat</b> , (Padma Bhushan & Padma Shri awardee) Member NITI Ayog, Former DG,DRDO
<b>12:45 - 12:50 hrs</b>	Vote of Thanks by <b>Dr Aparna Sharma</b> , Co-Convener-cum-Senior Scientific Officer, HIMCOSTE, H.P.
<b>12:50-13:00 hrs</b>	Group Photograph Venue: Lawns, Peterhoff
<b>13:00 –14:00 hrs</b>	<b>Lunch</b> Venue: Dining Hall, Peterhoff

<b>Technical Sessions</b>	<b>Technical Session-I (Darbar Hall)</b>  (14:00-18:00 hrs)	<b>Technical Session-II (Golden Lobby)</b>  (14:00-18:00 hrs)	<b>Technical Session-III (Conference Hall)</b>  (14:00-18:00 hrs)	<b>Technical Session IV (Silver Lobby)</b>  (14:00-16:00 hrs)
	<b>Botany, Biochemistry, Microbiology &amp; Biotechnology</b>	<b>Agricultural &amp; Horticultural Sciences</b>	<b>Chemical Sciences, Earth Sciences and Renewable Energy</b>	<b>Innovations</b>
<b>Session Chair &amp; Lead Talk</b>	<b>Dr. Sanjay Kumar</b> Director, Institute of Himalayan Bioresource Technology (IHBT- CSIR) Palampur, H.P.	<b>Dr. Hari C. Sharma</b> Vice Chancellor , Y.S Parmar University of Horticulture and Forestry, Solan H.P	<b>Prof. Amalendu Pal,</b> Emeritus Scientist(CSIR), Kurukshetra University	<b>Dr. Tej Pratap</b> Vice Chancellor AP Goyal Shimla University
<b>Session Co-Chair</b>	<b>Dr S. Nautiyal</b> Scientist 'G' (Retd.) Plant physiology, Botany Division Forest Research Institute, Dehradun	<b>Dr. Kallol Kumar Pramanick</b> Head & Principal Scientist, Indian Agricultural Research Institute (IARI) Regional Station Shimla	<b>Dr. Sunil Dhar</b> Associate Professor Central University, Jammu	<b>Dr. Venkata Krishnan</b> Associate Dean (Research) IIT Mandi
<b>Session Co-Chair</b>	<b>Dr. A.K. Bhatt</b> Director, Institute of Integrated Himalayan Studies (IHS), Himachal Pradesh University, Shimla	<b>Dr. Mohar Singh</b> ICAR- National Bureau of Plant Genetic Resources (NBPGR), Shimla	<b>Dr. Amer Singh Singha</b> Professor, Chemistry Department, Dean Faculty Welfare, NIT Hamirpur	<b>Dr. Rahul Taneja</b> Scientist Patent Facilitation Centre Haryana
<b>Session Coordinator</b>	<b>Mrs. Shubhra Banerjee,</b> HIMCOSTE	<b>Sh. Kamraj Kaisth,</b> HIMCOSTE	<b>Dr. R.S. Thapa,</b> HIMCOSTE	<b>Dr. Brijesh Saklani,</b> HIMCOSTE
<b>14:00 hrs-14:20 hrs</b>	Lead Talk by chair	Lead Talk by chair	Lead Talk by chair	Lead Talk by chair
<b>14:20 hrs -15:30 hrs</b>	Oral presentations	Oral presentations	Oral presentations	Oral presentations
<b>15:30 hrs -16:00 hrs</b>	<b>Tea/Coffee at Foyer</b>			

Technical Sessions	Technical Session I (Darbar Hall)	Technical Session II (Golden Lobby)	Technical Session III (Conference Hall)	Technical Session V (Silver Lobby) (16:00-18:00 hrs)
				<b>Mathematical &amp; Computer Sciences</b>
<b>Session Chair &amp; Lead Talk</b>				<b>Dr. Subrahmanian Moosath</b> HOD Mathematics Indian Institute of Space Technology, Bengaluru
<b>Session Co-Chair</b>				<b>Dr Pawan Kumar Mahajan,</b> Prof. Statistics and Dean , College of Forestry, Y.S Parmar University of Horticulture and Forestry, Nauni, Solan (H.P)
<b>Session Co-Chair</b>				<b>Dr. Aman Sharma</b> Professor, Department of Computer Science, Himachal Pradesh University, Shimla
<b>Session Coordinator</b>				<b>Dr. Krishan, HIMCOSTE</b>
<b>16:00 hrs - 16:20 hrs</b>	Oral presentations	Oral presentations	Oral presentations	Lead Talk by Chair
<b>16:20 hrs- 18:00hrs</b>	Oral presentations	Oral presentations	Oral presentations	Oral presentations
<b>16:00 hrs- 17:00 hrs</b>	<b>Poster Evaluation</b> Venue: Lawn, Peterhoff Committee: <ol style="list-style-type: none"> <li>1. <b>Dr H.S. Dhaliwal</b>, Vice Chancellor, Eternal University, Baru Sahib, H.P</li> <li>2. <b>Dr Vinod Kumar</b> , Vice Chancellor, Jaypee University of Information Technology, H.P</li> <li>3. <b>Dr B.D. Sharma</b>, ex Head, National Bureau of Plant Genetic Resources , Phagli Shimla</li> <li>4. <b>Dr Arun K.Shukla</b>, Principal Scientist, Indian Agricultural Research Institute (IARI) , Regional Station., Shimla</li> <li>5. <b>Dr Ghan Shyam</b>, Retd Prof., Dept. Chemistry, Himachal Pradesh University, Shimla</li> <li>6. <b>Dr Veena Sharma</b> Professor, Department of Mathematics and Statistics Himachal Pradesh University, Shimla</li> <li>7. <b>Dr J.S. Dhiman</b>, Department of Mathematics and Statistics, Himachal Pradesh University, Shimla</li> </ol>			
<b>20:00 hrs - 20:30 hrs</b>	<b>Cultural Programme</b> Venue: Darbar Hall			
<b>20:30 hrs Onwards</b>	<b>Conference Dinner</b> Venue: Dining Hall, Peterhoff			

**DAY-2**  
**November 21<sup>st</sup>, 2017 (Tuesday)**

Technical Sessions	Technical Session I (Darbar Hall)	Technical Session VI (Golden Lobby)	Technical Session-VII (Conference Hall)	Technical Session VIII (Silver Lobby)
	<b>Botany, Biochemistry, Microbiology &amp; Biotechnology</b> (10:00-17:00 hrs)	<b>Engineering Sciences &amp; Technology</b>  (10:00-13:00 hrs)	<b>Environmental Sciences and Forestry</b>  (10:00-13:00 hrs)	<b>Climate Change: Impact &amp; Mitigation</b>  (10:00-13:00 hrs)
<b>Session Chair</b>	<b>Dr. T.N. Lakhanpal</b> , Ex Director, Institute of Integrated Himalayan Studies(IIHS), Shimla	<b>Dr. Timothy A. Gonsalves</b> Director, Indian Institute of Technology, Mandi H.P	<b>Dr. K.R. Dhiman</b> Retd. Vice Chancellor Y.S. Parmar University of Horticulture & Forestry Nauni, Solon (H.P.)	<b>Dr. Milap Chand Sharma</b> Professor, School of Social Sciences, Jawaharlal Nehru University, Delhi
<b>Session Co-Chair</b>	<b>Dr. S.V. Bhardwaj</b> Retd. Professor and Head, Biotechnology Y.S Parmar University of Horticulture & Forestry Nauni, Solan (H.P)	<b>Prof. Harsha Sinvhal</b> Former Deputy Director and Professor Earth Sciences, IIT Roorkee	<b>Dr. K.S. Kapoor</b> Scientist G and supervisor Himalayan Forest Research Institute (HFRI), Shimla	<b>Dr. K.S. Verma</b> Retd. Dean Y.S Parmar University of Horticulture & Forestry, Nauni, Solan (H.P)
<b>Session Co-Chair</b>	<b>Dr. R.K. Tuli</b> Prof. Senior Research Advisor, Punjab University, Chandigarh	<b>Dr. Pradeep Kumar</b> Associate Professor & Former Head of Civil Engineering Department, NIT Hamirpur	<b>Dr. S.K. Bhardwaj</b> Head , Department of Environmental Sciences, Y.S. Parmar University of Horticulture & Forestry Nauni, Solon (H.P)	<b>Dr. R.K. Sood</b> Retd. Chief Scientific Officer, Govt. of H.P
<b>Session Coordinator</b>	<b>Dr. Dinesh Gupta</b> , HIMCOSTE	<b>Dr. Pankaj Sharma</b> , HIMCOSTE	<b>Dr. Y.P. Sharma</b> , HIMCOSTE	<b>Dr. S.S. Randhawa</b> , HIMCOSTE
<b>10:00 hrs- 10:20 hrs</b>	Lead Talk by chair	Lead Talk by chair	Lead Talk by chair	Lead Talk by chair
<b>10:20 hrs -11:30 hrs</b>	Oral presentations	Oral presentations	Oral presentations	Oral presentations
<b>11:30 - 12:00 hrs</b>	<b>Tea/Coffee at Foyer</b>			
<b>12:00 hrs- 13:00 hrs</b>	Oral presentations	Oral presentations	Oral presentations	Oral presentations
<b>13:00 hrs- 14:00 hrs</b>	<b>Lunch</b> Venue: Dining Hall, Peterhoff			

Technical Sessions	Technical Session I (Darbar Hall) (14:00-17:00 hrs)		Technical Session IX (Conference Hall) (14:00-17:00 hrs)	Technical Session X (Silver Lobby) (14:00-17:00 hrs)
	<b>Botany, Biochemistry, Microbiology &amp; Biotechnology</b>		<b>Zoology, Veterinary Sciences and Animal Husbandry</b>	<b>Physical Sciences, Material Sciences &amp; Nano-Technology</b>
<b>Session Chair &amp; Lead Talk</b>	<b>Dr. Rupinder Tewari</b> Professor Department of Microbial Biotechnology Panjab University		<b>Dr. Wazir Singh Lakra</b> , Former Director, National Bureau of Fish Genetic Resources-ICAR, New Delhi	<b>Dr. Sreenivas Kondepudy</b> Professor, Dept. of Physics and Astrophysics (North Campus) University of Delhi
<b>Session Co-Chair</b>	<b>Dr. S.S Kanwar</b> Head, Deptt. of Biotechnology Himachal Pradesh University, Shimla		<b>Dr R.K. Negi</b> Associate Professor, Department of Zoology University OF Delhi, Delhi	<b>Dr. Jitendra Kumar Pandey</b> AVP-R& D University of Petroleum and Energy Studies-UPES Dehradun
<b>Session Co-Chair</b>	<b>Dr. Amarjeet K. Nath</b> Prof. & Head, Dept. Of Biotechnology Y.S. Parmar University of Horticulture & Forestry, Nauni, Solan (H.P)		<b>Dr. Sushma Sharma</b> Professor -cum- Chairman Himachal Pradesh University, Shimla	<b>Dr. Parthsarathi Associate Professor</b> Maharaja Agrasen College, University of Delhi, Delhi
<b>Session Coordinator</b>	<b>Dr. Dinesh Gupta,</b> HIMCOSTE		<b>Dr. Aparna Sharma,</b> HIMCOSTE	<b>Dr. Pankaj Sharma,</b> HIMCOSTE
<b>14:00hrs – 14:20 hrs</b>	Lead Talk		Lead Talk	Lead Talk
<b>14:20 hrs – 15:30 hrs</b>	Oral presentations		Oral presentations	Oral presentations
<b>15:30 hrs – 16:00 hrs</b>	<b>Tea/Coffee</b>			
<b>16:00 hrs- 17:00 hrs</b>	Oral Presentation		Oral presentations	Oral presentations
<b>14:00 hrs- 16:00 hrs</b>	<b>Poster Evaluation</b> Venue: Lawns, Peterhoff Committee: 1. <b>Dr Krishan Lal</b> , Former Director, National Physical Laboratory, New Delhi 1. <b>Dr Rup Lal</b> , Professor, Department of Zoology, Delhi University, Delhi 2. <b>Dr. H.S. Baniyal</b> , Former V.C. Abhilashi University 3. <b>Dr. Archana Suman</b> , Principal Scientist, Division of Microbiology, ICAR, New Delhi 4. <b>Dr. D.K Sharma</b> , Professor, Dept. Of Chemistry, Himachal Pradesh University, Shimla 5. <b>Dr. S.P. Bhardwaj</b> , Retd. Professor, Dept. Of Horticulture, University of Horticulture & Forestry, Nauni, Solan 6. <b>Dr. Pawan Sharma</b> , Assoc. Professor, Dept. of Physics, Govt. College Sanjauli, Shimla.			

17:30 hrs	<b>Valedictory Function &amp; Prize Distribution</b> Venue: Darbar Hall
17:30 hrs- 17:35 hrs	Arrival and reception of the Chief Guest
17:35 hrs- 17:40 hrs	Felicitation of Guests (Darbar Hall)
17:40hrs- 17:50 hrs	Welcome Address by <b>Sh. Kunal Satyarthi</b> , IFS Convener-cum-Joint Member Secretary, HIMCOSTE,H.P.
17:50hrs- 18:00 hrs	Address by Guest of Honour, <b>Dr. Timothy A. Gonsalves</b> , Director, Indian Institute of Technology , Mandi, H.P
18:00 hrs- 18:10 hrs	Address by Guest of Honour, <b>Dr. R.S. Chauhan</b> , Vice Chancellor, Himachal Pradesh University, Shimla
18:10 hrs- 18:25 hrs	Address by Chief Guest Hon'ble Chief Justice of H.P High Court <b>Justice Sanjay Karol</b>
18:25 hrs- 18:40 hrs	Prize Distribution by Guests
18:40 hrs- 18:45 hrs	Vote of thanks by <b>Dr. Aparna Sharma</b> , Co-Convener-cum-Sr. Scientific Officer, HIMCOSTE, H.P.
18:45 hrs- 19:30hrs	<b>High Tea</b> Venue: Lawn, Peterhoff