



SCO-YSC 2020

1st Shanghai Cooperation Organization (SCO) - Young Scientist Conclave (YSC)

Under the aegis of Shanghai Cooperation Organization (SCO) - Young Scientist Forum (YSF)

24-28 November 2020 | Virtual Event | Hyderabad, India

Theme: Shaping SCO-STI Partnership - Young Scientists Perspectives



Shanghai Cooperation Organization- 1st Young Scientists Conclave (SCO-YSC 2020)

A virtual event organised by India at CSIR-IICT, Hyderabad

Theme: Shaping SCO-STI Partnership: Young Scientists Perspectives

24-28 November 2020

PROGRAMME

24 November 2020- Tuesday	
Time	
China: 16:30-18:30	India: 14:00-16:00
Kazakhstan: 14:30-16:30	Kyrgyzstan: 14:30-16:30
Tajikistan: 13:30-15:30	Uzbekistan: 13:30-15:30
Pakistan: 13:30-15:30	Russia: 11:30-13:30
14:00 – 16:00 (IST)	Inaugural Session
14:00 – 14:05	Welcome Dr. S Chandrasekhar Director CSIR-Indian Institute of Chemical Technology Hyderabad, India
14:05 – 14:10	Address Mr. Vladimir Norov Secretary General Shanghai Cooperation Organization
14:10 – 14:15	Address Mr. Vikas Swarup Secretary (WEST), Ministry of External Affairs Government of India
14:15 – 14:20	Address Prof. Ashutosh Sharma Secretary, Dept. of Science and Technology Government of India
14:20 – 14:30	Inaugural Address Dr. Harsh Vardhan Minister for Health and Family Welfare; Science & Technology and Earth Sciences Government of India
14:30 - 14:32	Vote of Thanks Dr. Sanjeev Kumar Varshney Head, International Cooperation Division Department of Science and Technology
End of Inaugural session	
14:32 - 14:45	Break
14:45 – 16:00	Cultural Program (Live Webcasting)



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Day 2: 25th November 2020, 10:30 – 18:30 (IST)

China: 13:00-21:00		India: 10:30-18:30	Kazakhstan: 11:00-19:00
Kyrgyzstan: 11:00-19:00		Pakistan: 10:00-18:00	Russia: 07:30-15:30
Tajikistan: 10:00-18:00		Uzbekistan: 10:00-18:00	
10:30 – 10:35	Statement by SCO Member States, China Ms. Yu Qianwen China Center for International Science and Technology Exchange		
10:35 – 10:40	Statement by SCO Member States, Russia Ms. Elena Gorozhankina Deputy Director of the Department for International Cooperation		
Thematic Session 1 Agriculture and Food Processing Chair: Dr. V. B. Patel and Dr. Renu Agrawal			
10:40-10:55	Agriculture in India: Status, challenges and the way forward Dr. V. B. Patel, Indian Agricultural Research Institute, New Delhi, India		
10:55-11:10	The Way ahead for Food Processing Dr. Renu Agrawal, CSIR- Central Food Technological Research Institute, Mysore, India		
Young Scientist Presentations			
11:10 – 11:20	Non-Targeted Strategies in Assuring Food Safety Boyan Gao, Shanghai Jiao Tong University, China		
11:20 – 11:30	Efficient and low-cost extraction of oligosaccharides and peptides from fruits, vegetables and crops Kangming Tian, Tianjin University of Science and Technology, China		
11:30 – 11:40	Novel nanocomposites for remediation of geogenic arsenic hazard in rice in relation to human health Debasis Golui, ICAR -Indian Agricultural Research Institute, New Delhi, India		
11:40 – 11:50	Application of integrative genomics and trait discovery strategies for crop improvement Alice Kujur, International Crops Research Institute for the Semi - Arid Tropics (ICRISAT), Hyderabad, India		
11:50 – 12:00	Major Plant Viral Pathogens of North East Region of India: Development of Simplified Diagnostics, Host-Virus Interactions and Management Susheel Kumar Sharma, ICAR Research Complex for NEH Region, Imphal, India		
12:00 – 12:15	Break		
12:15 – 12:25	Trends in Agriculture and Food processing Karabaev Nursultan Nurudinovich, Kyrgyz National Agrarian University, Kyrgyzstan		
12:25 – 12:35	Development of novel high-quality eco-products with functional ingredients from secondary raw materials of grain crops for the prevention of nutritional diseases Bannikova Anna, Saratov State Agrarian University named after N.I. Vavilov, Russia		
12:35 – 12:45	Development of a prototype of an information management system by a group of heterogeneous robotic tools for the purpose of comprehensive monitoring of agricultural land Kulikov Andrew, Agency for Strategic Initiatives, Russia		
12:45 – 12:55	Organic Farming by Aqua Vega		



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	Radkevich Elena , Russian State Agrarian University/Moscow. Timiryazev Agricultural Academy, Russia
12:55 -13.05	Advanced Bioinformatics Analyses using R/Bioconductor Muhammad Aqeel , Assistant scientific officer, Pakistan Agricultural Research Council-Islamabad
13:05 – 16:00	Thematic Networking and Group Discussion on Future Perceptions with a Lunch break from 13:30 – 14:15 Chair: Dr. V. B. Patel and Dr. Renu Agrawal Moderator: Mr. Ranaprathap Katakojwala and Dr. Althuri Avanthi , CSIR-Indian Institute of Chemical Technology, Hyderabad
Thematic Session 2 Sustainable Energy and Energy Storage	
Chair: Prof B.K. Panigrahi and Dr. Anil Kumar	
16:00-16:15	Smart, Sustainable, Secure, Self-healing Grid Prof B.K. Panigrahi , Indian Institute of Technology Delhi, India
16:15-16:30	Break
Young Scientist Presentations	
16:30 – 16:40	Exploration on mechanism for developing sustainable energy in SCO countries Weiwei Luo , Yunnan Academy of Scientific and Technical Information, China
16:40 -16:50	Design of nanostructured materials for photocatalytic CO ₂ hydrogenation Le He , Soochow University, China
16:50 - 17:00	Novel methods for the realization of a new generation of Internet of Things (IoT) with high spectral efficiency, low energy consumption and low-maintenance Haipeng Li , College of Information and Communication, National University of Defense Technology, China
17:00 -17:10	Perovskites based Solar Ink for CO ₂ Reduction to Gaseous Fuels Shravanti Sudhendra Joshi , G S Mandal's Marathwada Institute of Technology, Aurangabad, India
17:10 – 17:20	Catalysis for Agricultural Waste Valorisation Saurabh Chandrakant Patankar , Institute of Chemical Technology, Mumbai, India
17:20 – 17:30	Synthesis and characterization of rare earth and transition metal doped perovskites for multiferroic applications Jada Shanker , Osmania University, Hyderabad, India
17:30 - 17:40	Sustainable synthesis of azoimidazolium dyes for natural and synthetic fibre Tskhovrebov Alexander , Federal Research Centre for Chemical Physics named after N.N. Semenov RAS, Russia
17:40 - 17:50	Solid-state adsorption storage systems of methane and hydrogen based on nanoporous composite materials for energy applications Menshchikov Ilya , Institute of Physical Chemistry and Electrochemistry named after A.N. Frumkin RAS, Russia
17:50 – 18:00	Universal frequency converters and starter devices for electric drives Eremochkin Sergei , Altai State Technical University named after I.I. Polzunov, Russia
18:00 - 18:10	Development and implementation of high efficiency solar photoelectric energy device 3D format for wide purpose nozi Navruzbek Mirzaalimov , Andijan State University, Uzbekistan
18:10 – 18:30	Thematic Networking and Group Discussion on Future Perceptions



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	<p>Will be continued on 26th November from 10:30 to 12:00</p> <p>Chair: Prof B.K. Panigrahi and Dr. Anil Kumar</p> <p>Moderator: Dr. Dipak Pinjari, University of Mumbai, Mumbai</p>
Day 3: 26th November 2020, 10:30 – 18:30 (IST)	
10:30 - 12:00	Thematic Networking and Group Discussion on Future Perception (Cont..)
12:00 – 12:15	Break
Thematic Session 3	
Biotechnology and Bio-Engineering	
Chair: Dr. Dmitry Kulikov, Dr. S.Venkata Mohan and Dr.Prem Kumar Arumugam	
12:15-12:30	<p>Thematic lead Talk</p> <p>Dr. Dmitry Kulikov, Vice-Rector for Science of the Moscow State Regional University, Russia</p>
12:30-12:45	<p>Circular (Bio)economy and Low carbon Considerations in SCO Framework</p> <p>Dr S Venkata Mohan, CSIR-Indian Institute of Chemical Technology, Hyderabad, India</p>
12:45-13:00	<p>Biotechnology and Bioengineering in India</p> <p>Dr Prem Kumar Arumugam, Associate Vice President-Biology, GVK Biosciences Private Limited, Hyderabad, India</p>
Young Scientist Presentations	
13:00-13:10	<p>Biomaterials-based drug delivery platform for immunotherapy for cancer, infectious diseases, autoimmune disorders and age-related disease.</p> <p>Chao Wang, Soochow University, China</p>
13:10-13:20	<p>Development of Low-Cost Passive Microdevices for Platelet Rich/Poor Plasma Separation from Human Blood</p> <p>Vijai Laxmi, Indian Institute of Technology, Mumbai, India</p>
13:20-13:30	<p>Polymer-coated Nanoparticles for Antibody Purification</p> <p>Snehasis Bhakta, Cooch Behar College, West Bengal, India</p>
13:30 – 14:15	Lunch Break
14:15-14:25	<p>Chemistry and genomics of luciferins, fluorescent proteins, and pigments from deep-sea resources for toxicological and anticancer applications</p> <p>Ramesh Chatragadda, CSIR-National Institute of Oceanography, Goa, India</p>
14:25-14:35	<p>Targeting Genetically Encoded Extracellular Vesicles for Protein Delivery into Macrophages and Dendritic Cells</p> <p>Ovchinnikova Leyla, Institute of Bioorganic Chemistry RAS, Russia</p>
14:35-14:45	<p>Development of accelerated technology for growing planting material of blue honeysuckle</p> <p>Natalia Semyonova, Federal Scientific Agroengineering Centre VIM, Russia</p>
14:45-14:55	<p>The complete cycle of ethylene production from biomass</p> <p>Banzaraktsaeva Sardana, Boreskov Institute of Catalysis, Russia</p>
14:55 - 15:05	<p>Breast Cancer Detection Using Artificial Intelligence</p> <p>Muslimbek Pirnazarov, Turin Polytechnic University, Uzbekistan</p>
15.05 – 15.15	<p>Banana Bunchy Top Virus (BBTV) Control in Pakistan through Tissue Culture Technology</p> <p>Muhammad Zeshan, NIGAB-National Agriculture Research Centre (NARC), Islamabad, Pakistan</p>
15:05 – 17:15	Thematic Networking and Group Discussion on Future Perceptions



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	Chair: Dr. Dmitry Kulikov, Dr. S.Venkata Mohan and Dr.Prem Kumar Arumugam Moderator: Mr. Aman Aggarwal, NCBS Bengaluru, India
17:15-17:30	Break
Thematic Session 4 Combating COVID 19 and Emerging Pandemics through Research and Innovation	
Chair: Prof. Dr. Man Mohan Mehndiratta and Dr. Anant Mohan	
17:30-17:45	Combating Pandemics: So far, Current Status and Way Forward Prof. Dr. Man Mohan Mehndiratta, Janakpuri Super specialty Hospital, New Delhi, India
Young Scientist Presentations	
17:45-17:55	Lung Distribution of Antivirals Matters in COVID-19 Treatment Yan Wang, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China
17:55-18:05	Commercialization of the new ideas for the medical management of CBRN emergencies Navneet Sharma, Indian Institute of Technology, India
18:05-18:15	Graphene in the fight against pandemics Anamika Singh, DeenDayal Upadhyaya, Gorakhpur University, Gorakhpur, India
18:15-18:25	Design and development of a low-cost powered air-purifying respirator (PAPR) for frontline medical workers for COVID-19 response Vishnu Jayan, Jr Embedded Systems Engineer. AMMACHI Labs, Amrita Vishwa Vidyapeetham, Amritapuri, India
Day 4: 27th November 2020, 10:30 – 19:00 (IST) Thematic Session 4 (cont..)	
10:30-10:40	Method for predicting the spread of viral diseases using Big Data Dr.Pljonkin Anton, Southern Federal University, Russia
10:40-10:50	Multimodal communication for monitoring the health status of a person Dr.Pakulova Ekaterina, Southern Federal University, Russia
10:50-11:00	Web-based platform aimed to help building the infrastructure capable of uninterrupted power supply for COVID-19 hospitals Kryltsov Sergey, Saint-Petersburg Mining University, Russia
11:00-11:10	The importance of telemedicine during COVID-19 pandemic Nozimjon Tuygunov, Ministry of The Innovative Development of The Republic of Uzbekistan, Uzbekistan
11:10 – 13:00	Thematic Networking and Group Discussion on Future Perceptions With a break from 11:55 Noon to 12:10 PM Chair: Prof. Dr. Man Mohan Mehndiratta and Dr. Anant Mohan Moderator: Dr. Sonu Gandhi, NIAB, Hyderabad
Thematic Session 5 Environmental Protection and Natural Resource Management	
Chair: Dr.Aladin Danila , Prof. P. Rajendra Prasad, Prof. N C Gupta and Dr. Arvind Kumar	
13.00-13.15	Thematic Talk Dr. Aladin Danila, Institute of Basic Biological Problems RAS (IBBP RAS), Russia
13.15-13.30	Environmental Health, Climate Change and Sustainable Development goals: Issues and Challenges



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	Prof. N. C. Gupta, IPU New Delhi, India
13:30-14:15	Lunch Break
Young Scientist Presentations	
14.15-14.25	Reconstructing annual ground water storage changes by integrating the remote data and simple water balance mode: Case study in crop land, Pakistan Yin Tang, Institute of Geographic Sciences and Natural Resources Research, China
14.25-14.35	Problem of bacterial antibiotic resistance in drinking water treatment Kun Wan, College of the environment and ecology, Xiamen University, China
14.35-14.45	Biodegradable products from agro waste Anjineyulu Kothakota, CSIR- National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram, India
14:45-14:55	Materials Engineering for Water Pollutants Monitoring: Lab to Land Pooja Devi, CSIR-Central Scientific Instrument Organisation, Chandigarh, India
14:55-15:05	Water-Free Natural Fiber Processing Techniques: Strategies for Development of "Solvent-cum-Reagent" Model Sathish Murali, CSIR – Central Leather Research Institute, Regional Centre for Extension and development, Kolkata, India
15:05-15:15	Obtaining humic premixes based on complex processing of natural materials Mambetjanova Nurila, Scientific adviser: Doctor of Chemical Sciences, Kyrgyz National University. J.Balasagyn
15:15-15:25	RESEARCH AND DEVELOPMENT OF SMART FACTORY FOR BIOTECH PRODUCTS IN THE KYRGYZ REPUBLIC Oman A. Abyshev, Kyrgyz National University. J.Balasagyn
15.35-15.45	Saline lakes for nature conservation and sustainable development Anufrieva Elena, Institute of Biology of the Southern Seas named after A.O. Kovalevsky RAS, Russia
15.45-16.00	Break
16.00-16.10	Reconstruction of waste water treatment plants to conserve water resources Makisha Nikolay, Moscow State University of Civil Engineering, Russia
16.10-16.20	Innovative biotechnological products for cleaning oil-contaminated lands in various natural and climatic conditions Sivtsev Semyon, Institute of Oil and Gas Problems of the Siberian Branch (SB) RAS, Russia
16.20-16.30	Humic Composites Containing Iron And Neodymium Oxide And Hydroxide Nanoparticles: Synthesis And Characteristics Samarkulov Almir Turdalyevich, Kyrgyz National Agrarian University, Kyrgyzstan
16.30-16.40	Curbing the Smog and Air Pollution in Pakistan Khalid Mehmood Chadhar, Pakistan Environmental Protection Agency, Ministry of Climate Change Quetta
16.40-16.50	Water Resources of Pakistan in context of Climate Change Amjad Masood, Water Resources and Glaciology Section, Global Change Impact Studies Centre (GCISC), Ministry of Climate Change, Islamabad
16.50-17.00	Genetic Transformation Of <i>Dreb1a</i> Gene In Wheat (<i>Triticum Aestivum</i> L.) For Drought And Salt Tolerance Sabahat Noor, National Agricultural Research Center, Ministry of National Food Security and Research



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17.00-17.10	Development and Evaluation of Food Grade Coatings (Nano-composite Film) to Extend the Shelf Life of Fruit and Vegetables Saqib Jabbar , Food Science Research Institute (FSRI), National Agricultural Research Centre (NARC), Islamabad
17.10-17.20	Olive Fruit Harvesting And Oil Extraction Abdul Latif , PARC, Balochistan Agricultural Research and Developmental Centre, Quetta
17.20-17.30	Dry land research and improvement of Khushkaba Farming System Muhammad Iqbal , PARC, Balochistan Agricultural Research and Developmental Centre, Quetta
17.30-17.40	Allocation of water resources over the Amu Darya river basin for sustainable development Wenbin Zhu , Associate Professor, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
17.40 – 19:00	Thematic Networking and Group Discussion on Future Perceptions Chair: Dr. Aladin Danila, Prof. P. Rajendra Prasad and Prof. N C Gupta Moderator: Ms. Anchal Garg , Guru Gobind Singh Indraprastha University, Delhi
Day 5: 28th November 2020, 10:30 – 13:30 (IST)	
Shaping SCO-STI Partnership & Road Map: Young Scientists Perspectives Joint Presentations by SCO Young Scientists	
Young Scientists' joint presentations on synergic thematic perceptions	
10:30-11:10	Agriculture and Food Processing <ul style="list-style-type: none"> • Presentation of Report by Dr. Renu Agarwal • Presentation by Young Scientist, Debasis Golui & Susheel Kumar Sharma
11:10-11:50	Sustainable Energy and Energy Storage <ul style="list-style-type: none"> • Presentation of Report by Dr. B. K. Panigrahi • Presentation by Young Scientist, Saurabh Chandrakant Patankar & Le He
11:50-12:30	Biotechnology and Bio-Engineering <ul style="list-style-type: none"> • Presentation of Report by Dr. Dmitry Kulikov • Presentation by Young Scientist, Snehasis Bhakta
12:30-13:10	Combating COVID 19 and Emerging Pandemics <ul style="list-style-type: none"> • Presentation of Report by Prof. Dr. Man Mohan Mehndiratta • Presentation by Young Scientist, Navneet Sharma
13:10-13:50	Environmental Protection and Natural Resource <ul style="list-style-type: none"> • Presentation of Report by Prof. P. Rajendra Prasad • Presentation by Young Scientist, Satish Murali & Anjineyulu Kothakota
13:50-14:45	Lunch Break

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Valedictory Session

28th November 2020 – Saturday		
Time		
China: 17:15-18:30	India: 14:45-16:00	Pakistan: 14:15-15:30
Kazakhstan: 15:15-16:30	Kyrgyzstan: 15:15-16:30	Russia: 12:15-13:30
Tajikistan: 14:15-15:	Uzbekistan: 14:15-15:30	
14:45 – 14:50	Conclave Report by Convener	Dr. S Venkata Mohan , Senior Principal Scientist, CSIR-Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad
14:50 – 15:05	Feedback	From Young Scientists
15:05 – 15:15	Expert Impressions and Remarks	Prof. Dr. P Rajendra Prasad , Andhra University, Visakapatnam Prof. Dr. Man Mohan Mehndiratta , Janakpuri Super Specialty Hospital, New Delhi
15:15 – 15:25	Way Forward	Dr. Sanjeev Kumar Varshney , Head, International Cooperation Division, Department of Science and Technology Dr. Arvind Kumar, Scientist , Department of Science and Technology, New Delhi
15:25 – 15:35	Announcement	Best Presentation(s) Awards
15:35 - 15:45	Guest of Honor remarks	Dr. N.V. Satyanarayana , Chief Scientist and Deputy Director, Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad
15:45 - 15:55	SCO Member States Remarks	Irina R. Kuklina , Executive Director, International Centre for Innovation in Science, Technology and Innovation, Russia
15:55 – 16:00	Vote of Thanks	Dr. S Venkata Mohan , Senior Principal Scientist, CSIR-Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad