





2nd SCO-YSC

Shanghai Cooperation Organisation (SCO) - Young Scientist Conclave (YSC) 6 - 9 February 2023

Hosted By: JNCASR, Bengaluru, India

Theme: Shaping SCO- STI Partnership - Young Scientists Perspectives

Program Schedule

Day 1: 6 February 2023, Monday Time in I		Time in IST
09:00 – 10:20 Hrs	Arrival and Registration	
10:20	Online Portal Opens	
10:25 – 11:20	Inaugural Session	

Invocation

Welcome and Lighting of Lamp

Dr. Ravi Manjithaya, JNCASR (Convenor)

Opening Remarks

Prof. G. U. Kulkarni, FNA, President, JNCASR

Programme Outline

Dr. Pralay Santra, Centre for Nano and Soft Matter Sciences, Bengaluru (Co-Convenor)

Address

Secretary General, Shanghai Cooperation Organization

Address

SCO Country Coordinators

Moderator: Dr. Arvind Kumar, Scientist-F, International Cooperation Division, DST, Govt. of India (Co-Convenor)

Message

Shri Dammu Ravi, IFS

Secretary (ER), Ministry of External Affairs, Govt. of India

Inaugural Address

Dr. Jitendra Singh, Hon'ble Minister of State (Independent Charge) of Science & Technology and Earth Sciences, Govt. of India

Words of Thanks

Dr. S. K. Varshney

Head-International Division, Department of Science and

Technology, Govt. of India

Theme: Artificial Intelligence & Big Data Research and Application 11:45 – 13:00 Mitul Kumar Ahirwal Parameter Tuning of Human Decision Making Model with Consideration of Human Factors through Metaheuristic Algorithms **Maksimenko Vladimir Aleksandrovic** Extreme Value Theory Inspires Novel Machine Learning Approach for Epileptic Seizures Detection **Chunling Luo** Decision Making under Uncertainty: Data, Information, Decision, and Value **Pratik Kumar** Beyond Traditional Computing: Enabling Scalable and Energy-**Efficient AI Applications** Satyasai Jagannath Nanda Multi-Objective Optimization Algorithms for Seismicity De-clustering India Pitsik Elena Nikolaevna Graph Neural Network Performance Depends on Topological Properties of the Data

Technical Session - 2

Q&A

Theme: Artificial Intelligence & Big Data Research and Application	
14:00 – 15:00	Liuqing Chen Data-driven Design Creativity Engine
	Manjari Kiran Machine Learning-Based Models to Discover Prognostic Biomarkers and Genetic Interactions in Gliomas
	Sui Zhang Applications of AI and Big Bata in the Field of Renewable Energy
	Rybka Roman Borisovich Neural Network Methods for Extracting Pharmaceutically Significant Information from Drug Reviews of Internet Users
	Fedorchenko Elena Vladimirovna Intelligent Methods for Security Assessment and Response to the Cyber Security Incidents in the Critical Infrastructures
	Q&A
15:00 – 15:30	Thematic Discussion Chairs: Santosh Ansumali, EMU, JNCASR Sunil Sherlekar, SSL, Bengaluru

Technical Session - 3

Theme: Sustainable Energy and Energy Storage	
15:45 – 17:05	Nikhil Kumar Development of Efficient Triple-conducting Electrode for Protonic Ceramic Electrolysis/Fuel Cells



Day 2: 7 February 2023, Tuesday *Technical Session - 4*

Thomas Sustainable Energy and Energy Storage		
	Theme: Sustainable Energy and Energy Storage	
10:00 – 11:00	Pushkarev Artem Sergeevich Water Electrolyzers Based on Ion Exchange Membranes	
	Tinku Casper D'Silva Selection of Suitable Locally Available Biomass as an Alternative Feedstock for Localized Biogas Production in Rural India	
	Ruochen Xu Lithium-ion Battery Energy Storage Integration Technology	
	Yelaman Abezhanov TBD	
	Yussupov Kuanysh Green Energy	
	Q&A	
11:00 – 11:30	Thematic Discussion	
	Chairs: B.L.V. Prasad, CeNS, Bengaluru	
	Ramakrishna Matte, CeNS, Bengaluru	

Technical Session - 5

Theme: Disease Biology and Health Care	
12:00 – 13:00 Sourish Ghosh "Stomach Viruses" Hide in Salivary Glands and Transmit throu Saliva	
	Pashtaev Aleksei Nikolaevich Contemporary Technologies of Corneal Transplantation

Fayaz Malik



Exploring Key Biological Factors/Targets Associated with Poor Clinical Response to Available Therapies and the Discovery of New Target-Based Agents

Aastha Mishra



Expanding Insights into Genes and more than Just Genes at High Altitude Environment

Neha Khatri



Indigenous Development of Highly Ultra-precision Engineered Value-added Optical Components for Healthcare & Energy Sector

Xu Ligun



Tannic Acid-derived Antifouling and Antibacterial Surface Coating Strategies

Q&A

Technical Session - 6

Theme: Disease Biology and Health Care 14:00 - 15:10 **Ustyuzhanin Alexander Vladimirovich** Genetic Profile of Enterobacteria with Different Degree of Antibiotic Resistance and Virulence Isolated from Patients Perinatal Center **Xiaoyan Lium** Chronic HIV Infection Induces Aberrant Myeloid Lineage Differentiation and Susceptibility to Leukemogenesis Pinyaeva Anastasiya Nikolaevna Platforms for the Development of Vaccines and Therapeutic Drugs for the Treatment of Infectious Diseases **Zhou Yingyu** Intestinal Regulatory T Cell Induction by β-Elemene Alleviates the Formation of Fat Tissue-Related Inflammation Okulova Ekaterina Olegovna Molecular Biological Model For Predicting Postoperative Decrease in Ovarian Reserve in Patients Of Reproductive Age with Deep Infiltrative Endometriosis **Haoyue Gao** Discussing the Development of Sustainable Healthy Diets in China — From a Maternal and Infant Nutrition Perspective Q&A 15:10 - 15:40 **Thematic Discussion** Chairs: Hemalatha Balaram, MBGU, JNCASR Kushagra Bansal, MBGU, JNCASR

Day 3: 8 February 2023, Wednesday

Technical Session - 7

Theme: Agriculture and Food Processing	
10:00 – 11:15	Bakirov Sergey Mudarisovich Polygon of Advanced Development in Land Reclamation
	Linta Vincent

Biotic Stress Breeding in Grapes and Pomegranate Hasten through **Omics Approach Bappa Das** Synergy of Optical, Thermal and Microwave Remote Sensing for Surface Soil Moisture Kalutsky Evgeniy Sergeevich Restoration and Hardening of Agricultural Machinery Parts with Composite **Aimin Shi** Peanut Quality Evaluation and Processing & Utilization Technology and Equipment **Shamsiev Anvar Akbarovich TBD Doudou Yang** High-value Development and Mining of Utilization Potential of **Medicinal Plants** Q&A

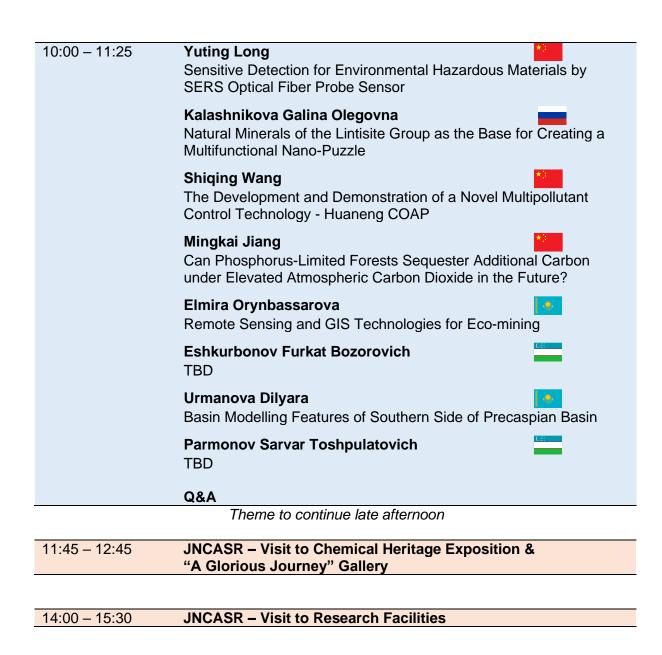
Technical Session - 8

Theme: Agriculture and Food Processing	
11:30 – 12:45	Menshchikov Ilya Evgenyevich Atmospheric Absorption Water Harvesting Hydropanel
	Chaomin Yin Isolation, Characterization and Bioactive Evaluation of Polysaccharides from Edible/medicinal Fungus
	Suldina Ekaterina Vladimirovna Bacteriophages for Agriculture and Food Industry
	Peixi Zhu Selective Extraction of Active Components from Nature Products
	Yengkhom Disco Singh Curcumin based Nanoformulation for Shelf Life Extension of Horticultural Crops
	Yakhshiboeva Gulbakhor Oybek Kizi TBD
	Tripti Singhal QTL Mapping for Grain Iron and Zinc Content in Pearl millet
	Q&A
12:45 – 13:15	Thematic Discussion Chairs: Kesavan Subaharan, ICAR – NBAIR, Bengaluru V. Sridhar, ICAR – IIHR, Bengaluru

Day 4: 9 February 2023, Thursday

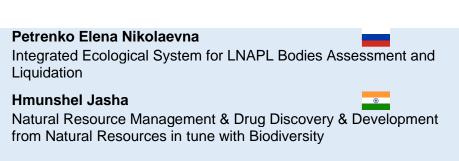
Technical Session - 9

Theme: Environmental Protection and Natural Resource Management



Technical Session - 10

Theme: Environmental Protection and Natural Resource Management 15:45 – 17:00 Manu Khajuria Effect of Δ⁹- tetrahydrocannabinol Content on the Photochemical Efficiency in Cannabis sativa L Vakarchuk Roman Nikolaevich Typification of the Earth's Crust in Seismic Hazard Assessment Bibek Chaw Pattnayak Multifunctional Bio-Based Photothermal Hydrogel For Highly Efficient Seawater Desalination and Contaminant Adsorption



Strelnikov Andrei Andreevich Seismoecological Analysis of the Northern Tien Shan Mountains and Adjacent Territories	
	Gulshan Kumar Sharma Evaluation of Manure Potential of Phycoremediated Algal Biomass on Baby Corn and Spinach
	Q&A
17:00 – 17:30	Thematic Discussion
	Chairs: M. Eswaramoorthy, CPMU/ICMS, JNCASR
	Peter Sebastian, NCU, JNCASR

18:00 – 19:00 Valedictory Ceremony

Opening Remarks

Dr. Arvind Kumar, Scientist-F, International Cooperation Division, DST, Govt. of India (Co-Convenor)

Presentation of Report

Dr. Ravi Manjithaya, JNCASR (Convenor)

Feedback

SCO Country Coordinators / Participants Moderator: Dr. Arvind Kumar, Scientist-F, International Cooperation Division, DST, Govt. of India (Co-Convenor)

Remarks

Prof. G. U. Kulkarni, FNA, President, JNCASR

Valedictory Address

Dr. S. Chandrasekhar, FNA, Secretary, Department of Science & Technology, Govt. of India

Words of Thanks

Dr. Pralay Santra, CeNS, Bengaluru (Co-Convenor)