25th SCAC
SCIENCE COUNCIL OF ASIA CONFERENCE

Agenda For The 25th Annual Conference
Theme: Sustainable Technologies and Digital Transformation for a Resilient Future
Venue: Angkor Paradise Hotel
Siem Reap, Kingdom of Cambodia
19 - 20 November 2026

Day 1: Thursday, 19th November, 2026

Time	Activities	Speakers/Presenters	Affiliation
	Welcoming Remarks and Opening Ceremony **MC: Mr.Ngoun Pengsreng and Ms. Sambath Saksoleakhena** **Venue: Bayon Room**		
08:00-08:30	Registration and Networking	All Participants	
08:30-08:40	Introduction to the event	MC	
08:40-09:30	Welcome by ITC	H.E Prof. Dr. Po Kimtho	Director General, Institute of Technology of Cambodia Vice President, Science Council of Asia
	Remarks by President of SCJ	Prof. Dr. KATO Kazuto	President, Science Council of Japan
	Remarks by President of SCA (Online)	Prof. Dr. Xue Qikun	President, Science Council of Asia
	Opening remarks by MoEYS	H.E Dr. Om Romny	Secretary of State, Ministry of Education, Youth and Sport
09:30-10:00	Break for Official Group Photo and Refreshments	All Participants	
	Plenary Session (4 Keynote Speakers) **Moderator: Dr. Bun Long** **Duputy Director General of ITC** **Venue: Bayon Room**		
10:00-10:30	Keynote Address 1 – ASEAN Ahead: ASEAN STI Ecosystem Foresight 2035 and Beyond	Prof. Datuk Dr. Looi Lai Meng	SCA Management Board Member Academy of Sciences Malaysia
10:30-11:00	Keynote Address 2 – Ethical Issues related to Artificial Intelligence	Prof. Dr. Liaquat Ali	Fellow, Bangladesh Academy of Sciences, Fellow, Islamic World Academy of Sciences, Fellow, The World Academy of Sciences, Bangladesh
11:00-11:30	Keynote Address 3 – The Blueprint for Tomorrow: Gender Perspectives as a Catalyst for Future Sustainability	Prof. Dr. KUBOTA Sachiko	Chairperson, Ashiya Gakuen, & President, Ashiya University, Professor Emeritus, Kobe University, Japan
11:30-12:00	Keynote Address 4: Cambodian AI and digital policy	HE. Dr. Khov Makara	Secretary of States, Ministry of Post and Telecommunications of Cambodia
12:00-12:10	Morning Session Wrap-up and Introduction to Parallel Sessions	Dr. Bun Long	Duputy Director General of ITC
12:10 - 13:30	Lunch break		
	Parallel Session 1: Sustainable Technologies, Smart Systems, and Environmental Resilience **Chair: Asst. Prof. Dr. Chan Sarin, Co-Chair: Prof. HIROHATA Nobuo** **Venue: Bayon Room**		
13:30 -14:00	Biodegradable Jute Cellulose Sanitary Napkin (Ashari®): A Sustainable Alternative for Menstrual Hygiene Applications	Dr. Khan Mubarak Ahmad	Research Lab, EchoTex
14:00 - 14:30	Design and Performance Analysis of Modified Duo-Binary (MODB) Modulation Technique for Optical WDM Network: A Comparative Study	Asst. Prof. Dutta Manoj Kumar	Birla Institute of Technology, Mesra
14:30 - 15:00	Progress in the Fundamental Conditions for the Digital Transformation in Cambodia	Prof. HIROHATA Nobuo	Yamaguchi University
15:00 - 15:20	Break		
15:20 - 15:50	Decomposition analysis of the drivers of energy use and CO2 emissions in Cambodia	Dr. Luukkanen Jyrki	University of Turku
15:50 -16:20	Engineering Indigenous Microbial Consortia and Sequential Biofilm Reactors for Sustainable Circular Water Reuse and Zero-Liquid-Discharge in the Pulp and Paper Industry	Dr. Ghelani Anjana	Shree Ramkrishna Institute of Computer Education and Applied Sciences, Sarvajanik University, Surat
16:20 - 16:50	Development of Indigenous Paenthrobacter Based Bacterial Consortia for Sustainable Bioremediation of Heavy Metal Contaminated Soil	Ms. Fatima Tuz Zahra	Cholistan University of Veterinary and Animal Sciences Bahawalpur Pakistan

Parallel Session 2: Resilient Futures, Inclusive Societies, and Climate Action-01 Chair: Asst. Prof. Dr. Tan Reasmey , Co-Chair: Dr. Kinnaleth Vongchanh Venue: Paradise lounge room			
13:30 -14:00	Value-Added Green Mussel Processing: Enhancing Local Economic Resilience Through Sustainable Innovation and Shelf-Life Extension	Assist. Dr. Tan Reasmey	Institute of Technology of Cambodia
14:00 - 14:30	Current Status and Future Perspectives of Digital Transformation in Crop Production and Breeding	Prof. Koh Hee-Jong	National Academy of Sciences, Republic of Korea
14:30 - 15:00	Drone, Satellite, or Combined? Crop Health Monitoring Trends, Market, and Opportunities for Cambodia	Mr. Hel Chanthan	Institute of Technology of Cambodia
15:00 - 15:20	Break		
15:20 - 15:50	Responsible Research and Innovation for Emerging Technologies: Bridging ELSI, Policy, and Governance	Dr. SHINEHA Ryuma	Graduate School of Media Design, Keio University
15:50 -16:20	From Agricultural Waste to Sustainable Building Materials: A Case Study on Rice Straw	Dr. Sam Sopheap	Institute of Technology of Cambodia
16:20 - 16:50	A Systematic Review of Deaf Education Policy Implementation in Southeast Asia	Ms. Fitri Arrumaisha	Universitas Islam Negeri Kiai Haji Achmad Siddiq Jember
Parallel Session 3: Resilient Futures, Inclusive Societies, and Climate Action-02 Chair: Asst. Prof. Dr. Valy Dona, Co-Chair: Asst. Prof. Nurani Gita Aulia Venue: Kravan Room			
13:30 -14:00	Valorization From Waste Calamansi and Pomelo Peels Into a Sustainable Polymeric Mosquito Repellent Patch Containing Essential Oils Against Adult Female Aedes aegypti	Ms. Jacinto Anna Muriel	Industrial Technology Development Institute - Department of Science and Technology
14:00 - 14:30	Effects of UV Weathering on the Physicochemical Properties and Ecotoxicity of Polylactic Acid Microplastics in Daphnia magna	Ms. Keang Kimleng	Institute of Technology of Cambodia
14:30 - 15:00	The Uneven Distribution of Water Supply Facilities under Development Assistance and the Response of Local Residents along the Southwest Coast of Bangladesh	Dr. YAMADA Shota	Graduate School of Humanities and Social Sciences, Nagoya City University
15:00 - 15:20	Break		
15:20 - 15:50	Learning Across Generations: Strengthening Human-Centered Workplaces for a Sustainable Future	Asst. Prof. Nurani Gita Aulia	Universitas Muhammadiyah Surakarta
15:50 -16:20	Optimization of HS-SPME Extraction and Characterization of Volatile Compounds in Fermented Cucumber Inoculated with Eight Different Lactic Acid Bacterial Strains	Dr. Ly Luka	Institute of Technology of Cambodia
16:20 - 16:50	Multilevel Governance for Just Energy Transitions in Vulnerable Territories: The MiGPGIEm Model as a Pathway for Cambodia's Energy Future	Ms. Saunders-Vázquez Anaely	Finland Futures Research Centre
Parallel Session 4: Platform for Air Quality Research in Cambodia Chair: Prof. HATA Mitsuhiko, Co-Chair: Assoc. Prof. Dr. Chanmoly OR Venue: Kulen Room			
13:30 -14:00	Establishment of Risk Management Platform for Air Pollution in Cambodia: An Overview of the AIR-SATREPS Project	Prof. HATA Mitsuhiko	Faculty of Geosciences and Civil Engineering, Institute of Science and Engineering, Kanazawa University
14:00 - 14:30	Characteristics and Sources of PM2.5 Pollution in Phnom Penh, Cambodia	Assoc. Prof. IKEMORI Fumikazu	Graduate School of Integrated Science and Technology, Nagasaki University
14:30 - 15:00	Spatial and Temporal Variations in PM2.5 Concentrations across Cambodia Using Low-Cost Sensors	Mr. Huor Sotheara	Institute of Technology of Cambodia
15:00 - 15:20	Break		
Parallel Session 5: Airborne Chemical Components and Health Risk Chair: Assoc. Prof. IKEMORI Fumikazu, Co-Chair: Asst. Prof. Dr. Chanvorleak PHAT Venue: Kulen Room			
15:20 - 15:50	Seasonal and Diurnal Characteristics of Carbonaceous Components and Organic Tracers in PM0.1 in Phnom Penh, Cambodia	Dr. Sieng Sreyvich	Kanazawa University/Institute of Technology of Cambodia
15:50 -16:20	Indoor Air Quality and Student Exposure to PAHs in Naturally Ventilated University Classrooms	Assoc. Prof. Phat Chanvorleak	Research and Innovation Center, Institute of Technology of Cambodia
16:20 - 16:50	Impact of Household Cooking Fuels on Indoor PM2.5 and PAH Concentrations, and Associated Cancer Risk in Cambodian Homes	Dr. Yoeun Sereyvath	Research and Innovation Center, Institute of Technology of Cambodia
17:00-18:00	**SCA Management Board Meeting (by invitation only) Venue: Bakheng Room**		
18:30-20:00	Networking Dinner - participation policy to be confirmed Venue: Tonle Sap Restaurant		

Day 2: Friday, 20th November, 2026			
Parallel Session 6: Sustainable Technologies, Smart Systems, and Environmental Resilience Chair: Asst. Prof. Dr. Mith Hasika, Co-Chair: Dr. Aung Than Htwe Venue: Bayon Room			
08:30 -09:00	Engineering Indigenous Microbial Consortia and Sequential Biofilm Reactors for Sustainable Circular Water Reuse and Zero-Liquid-Discharge in the Pulp and Paper Industry	Dr. Ghelani Anjana	Shree Ramkrishna Institute of Computer Education and Applied Sciences, Sarvajanik University, Surat-395007, India
09:00 - 09:30	Climate-Driven Zoonotic Spillover Risk at the Livestock-Human Interface A One Health Early-Warning Framework for South Punjab, Pakistan	Mr. Rehman Abdul	Cholistan University of Veterinary and Animal Sciences
09:30 - 10:00	Assessment of Water Quality and Major Ion Chemistry in the Bassac River and Its Tributaries in Cambodia	Dr. Phal Sivchheng	Institute of Technology of Cambodia
10:00 - 10:20	Break		
10:20 - 10:50	Characteristics and Antimicrobial Properties of Silver Oxide Loaded Chitosan-Sodium Ligno Sulphonate Nanocomposites from Waste of Terminalia cattappa Leaves	Dr. Aung Than Htwe	Lecturer,Department of Chemistry, University of Yangon,Myanmar
10:50 -11:20	A Stackelberg Game of Demand Response from the Aggregator's Perspective	Mr. Khe Seangleng	King Mongkut's University of Technology Thonburi
11:20 - 11:50	Sustainable Solution for Reinforced Concrete Structures in Earthquake and Corrosion Sensitive Areas	Dr. Md. Aminul Islam	Department of Materials and Metallurgical Engineering (MME), Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh.
Parallel Session 7: Resilient Futures, Inclusive Societies, and Climate Action Chair: Asst. Prof. Dr. Peng Chanthol, Co-Chair: Prof. SUGAI Yuichi Venue: Kravan Room			
08:30 -09:00	Breaking Sectoral Boundaries: One Health Platform for Genomic Surveillance, Environmental Risk Assessment, and Policy Action Against Antimicrobial Resistance	Dr. Dudhagara Pravinkumar	Department of Biosciences, Veer Narmad South Gujarat University, Surat-395007, India
09:00 - 09:30	Climate Change and Antimicrobial Resistance: A One Health Framework for Cross-Sectoral Surveillance and Mitigation in a Warming World	Ms. Malik Zarnisha	Cholistan University of Veterinary and Animal Science, BWP.
09:30 - 10:00	Nutritional Enhancement and Sensory Acceptance of Three Plant-Based Beverages: A Comparative Proximate Composition Analysis of Soy Milk, Moringa-Enriched Soy Milk, and Black Sesame Soy Milk	Mr. Tan Borivath	Institute of Technology of Cambodia
10:00 - 10:20	Break		
10:20 - 10:50	Impacts of Air Pollutants on Human Health and Environment in Mandalay Urban City	Ms. Khin Myat San	University of Mandalay, Mandalay,Myanmar
10:50 -11:20	Evaluation of UAV Flight Altitude Effects on RGB and NDVI Mapping for Crop Monitoring Using WebODM	Mr. Nhim Chanreng Sey	Institute of Technology of Cambodia
11:20 - 11:50	A Novel Enhanced Oil Recovery Method Using Sequential Chemical Injection for In-Situ Calcium Hydroxide Precipitation	Prof. SUGAI Yuichi	Earth Resources Engineering Department, Kyushu University
Parallel Session 8: New Observation Targets for Air Quality and Climate Chair: Prof. TORIBA Akira, Co-Chair: Asst. Prof. Dr. Chanvorleak PHAT Venue: Kulen Room			
08:30 -09:00	Air Quality in Siem Reap, Cambodia: Rainy–Dry Season Contrasts in VOCs, Organic Aerosols, and Airborne Microplastics	Prof. OKOCHI Hiroshi	Waseda University
09:00 - 09:30	SOOT-SEA: Building a Regional Black Carbon Observatory to Support Clean Air and Climate Action in Southeast Asia	Dr. Mari Xavier	Institut de Recherche pour le Développement
09:30 - 10:00	Potential Aquatic Sources of Bioaerosols in Phnom Penh: Bacterial Communities Across Urban Waters and Floodwaters	Ms. Sambath Saksoleakhena	Institute of Technology of Cambodia
10:00 - 10:20	Break		
Parallel Session 9: Air Quality Assessment: Emissions, Modelling and Exposure Chair: Prof. HATA Mitsuhiko, Co-Chair: Assoc. Prof. Dr. Chanmoly OR Venue: Kulen Room			
10:20 - 10:50	Impact of Mineral Dust and Biomass Burning Emissions on Atmospheric Pollution in South-East Asia using the WRF-CHIMERE Online Coupled Model	Dr. Menut Laurent	Laboratoire de Météorologie Dynamique, Ecole Polytechnique, IPSL Research University, Ecole Normale Supérieure, Université Paris-Saclay, Sorbonne Universités, Palaiseau, France
10:50 -11:20	A Roadmap for High-Resolution Emissions and Modelling in Cambodia: CHIMERE and AI-Driven Metamodelling	Dr. Bessagnet Bertrand	Laboratoire de Météorologie Dynamique / Institut Pierre Simon Laplace / CNRS
11:20 - 11:50	Evaluating Paired $PM_{2.5}$ Exposure Measurement Approaches in Cambodia: Pilot Results from the AIR-C3 Study	Dr. Slater Kellin	Emory University
11:50 - 13:00	Lunch break		

13:00 - 15:00	**Future Earth Symposium** **Chair: Prof. KANAYA Yugo** **Venue: Bayon Room**		
13:00 - 13:15	Future Earth as an Innovator, Integrator and Enabler: Achievements and challenges	KANAYA Yugo (Future Earth Global Secretariat Japan Hub/JAMSTEC)	Opening, FE introduction
13:15 - 13:35	Rethinking Progress Beyond 2030: The Opportunity for Mission-Driven Science in Asia	Anik Bhaduri (Future Earth Asia Science Mission)	Sustainability Challenges in Asia: Opportunities of Asia Science Missions (15 + 5 min)
13:35 - 13:55	Establishment of Environmental Conservation Platform of Tonle Sap Lake	Chanthol Peng (ITC, Cambodia)	Water Quality of Tonle Sap Lake (15 + 5 min)
13:55 - 14:10	Evaluating the Effectiveness of Measures under Thailand's National Agenda on Particulate Matter Pollution	Pakpong Pochanart (NIDA, Thailand)	PM2.5 management (12 + 3 min)
14:10 - 14:25	Sustaining Asian Coastal Regions and Marginal Seas: A Land-to-Ocean Continuum Approach through Future Earth Coast	ZHANG Jing (University of Toyama, Japan)	FE coasts (12 + 3 min)
14:25 - 14:40	SOLAS in Its Third Decade: Advancing Ocean-Atmosphere Science, Solutions and Collaboration Across Asia	Yuanxu Dong (IPSL, France, online)	SOLAS. Ocean and Atmosphere (12 + 3 min)
14:40 - 15:00	Open floor Q&A and discussion (ca. 20 min) Closing Remarks	Moderator (KANAYA Yugo)	
15:00 - 15:30	Break		
15:30 - 16:50	**Integrated Cross-Session** **Chair: Prof. TAKAYAMA Kotaro ; Co-Chair: Assoc. Prof. OR Chanmoly** **Summary discussion from each parrallel session by each Chair/Co-Chair (Exclude FE) (5-7 minutes briefly explain about topic, each presentation and possible remarkable questions)** **Venue: Bayon Room**		
SCA Concluding Session			
16:50 - 17:15	Conference declaration	Prof. TAKAYAMA Kotaro	Secretary-General, Science Council of Asia Professor, Graduate School of Engineering Department of Mechanical Engineering, Toyohashi University of Technology
17:15 - 17:30	Closing remark	Dr. Bun Long	Deputy Director General of ITC