



# 3<sup>rd</sup> International Conference on Climate Change 2019

“Adaptation and Mitigation in Practice: Local and Global Innovations”

21<sup>st</sup> - 22<sup>nd</sup> February 2019 | Kuala Lumpur | Malaysia

## TECHNICAL PROGRAM

### DAY 01 – THURSDAY, 21<sup>ST</sup> FEBRUARY, 2019

<b>INAUGURATION SESSION</b>	<b>Thursday, 21<sup>st</sup> February 2019   08.00 to 10.20   Sky Room</b>	
	08.00 – 09.00	Conference Registration
	09.00 – 09.10	Welcome Address by the Conference Convener Mr. Isanka P. Gamage ( <i>Co-Founder &amp; Managing Director - The International Institute of Knowledge Management (TIKM), Sri Lanka</i> )
	09.10 – 09.30	Speech by the Conference Chair Dr. Erandathie (Erandi) Lokupitiya ( <i>Department of Zoology and Environment Sciences, University of Colombo, Sri Lanka</i> )
	09.30 – 09.50	Speech by the Hosting Partner - Universiti Putra Malaysia Prof. Dr. Ahmad Zaharin Aris ( <i>Dean, Faculty of Environmental Studies, Universiti Putra Malaysia, Malaysia</i> )
	09.50 – 10.00	Speech by The Honorable Chief Guest Ms. Yeo Bee Yin ( <i>Minister of Energy, Technology, Science, Environment and Climate Change, Malaysia</i> )
	10.00 – 10.10	Launch of Conference Trailer – ICCC 2020
	10.10 – 10.20	Conference Photograph
	10.20 – 10.40	Morning Refreshments

<b>KEYNOTE FORUM</b>	<b>Thursday, 21<sup>st</sup> February 2019   10.40 to 12.10   Sky Room</b>	
	10.40 – 11.20	"The Effects of Land Use Changes on Current Terrestrial Carbon Cycle" Asst. Prof. Masayuki Kondo ( <i>Center for Environmental Remote Sensing (CEReS), Chiba University, Japan</i> )
	11.20 – 12.10	"Insights on Sustainability for a Changing Future" Prof. Dan Binkley ( <i>Emeritus Professor, Department of Ecosystem Science and Sustainability, Colorado State University, USA</i> )
	12.10 – 13.00	Networking Lunch



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<b>TECHNICAL SESSION 01</b>	<b>CLIMATE CHANGE, VULNERABILITY, ADAPTATION, MITIGATION AND POLICY INTERVENTIONS</b>	
	Thursday, 21 <sup>st</sup> February 2019   13.00 to 15.20   Sky Room	
	Chaired by: Dr. Ley Juen ( <i>Universiti Putra Malaysia, Malaysia</i> )	
	13.00 – 13.20	A1 A Comparison of Flood Risk Management in Japan and Malaysia Nurul Ashikin Binti Mabahwi, Hitoshi Nakamura ( <i>Shibaura Institute of Technology, Japan</i> )
	13.20 – 13.40	A2 Towards an Integration of Water Resilience and Climate Adaptive Governance: A Case Study of Wuhan, PRC Jiajie YANG ( <i>China Academy of Building Research (CABR), China</i> )
	13.40 – 14.00	A3 Powering Atmosphere Decarbonization with Energy Cane Biomass P.F. Hernandez, L.C. Carvalho, D.S. Arantes ( <i>University of Campinas – Unicamp, Brazil</i> )
	14.00 – 14.20	A4 Estimation of Aboveground and Belowground Carbon Stocks in Urban Freshwater Wetlands of Sri Lanka D.D.T.L. Dayathilake, E. Lokupitiya ( <i>University of Colombo, Sri Lanka</i> )
	14.20 – 14.40	A5 Rethinking Climate Governance in Malaysia Ilham J. <sup>1,5</sup> , Tan C.M. <sup>2,5</sup> , Muralikanth V. <sup>3,5</sup> , Yamin L. <sup>4,5</sup> ( <sup>1</sup> <i>Sunway University, Malaysia</i> , <sup>2</sup> <i>Duke University, United States</i> , <sup>3</sup> <i>University of Bristol, United Kingdom</i> , <sup>4</sup> <i>University of Malaya, Malaysia</i> , <sup>5</sup> <i>Malaysian Youth Delegation, Malaysia</i> )
	14.40 – 15.00	A6 Integrated Approach to Manage Weeds on Performance of Castor under Changing Climate Kumar Naik A.H., Parashuram Chandravamshi, Sumana D.A., Chndrappa D. ( <i>UAHS, India</i> )
15.00 – 15.20	A7 Energy cooperation between China and ASEAN energy industry in the context of global climate change Xinran Yang, , Dong Huang ( <i>Huazhong University of Science and technology, China</i> )	



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<b>POSTER SESSION</b>	<b>Thursday, 21<sup>st</sup> February 2019   15.20 to 16.00   Sky Room</b>	
	P1	Settlements Responsive to Climate Change in Low Elevation Coastal Bangladesh Qazi Azizul Mowla, Qazi Ashique, E. Mowla ( <i>Bangladesh University of Engineering and Technology (BUET), Bangladesh</i> )
	P2	Malaysian REDD+ and the Possible Roles of Non-State Actors Stephanie Bacon <sup>1</sup> , Balu Perumal <sup>1</sup> , Shiro Chikamatsu <sup>2</sup> , Noorainie Awang Anak <sup>2</sup> ( <i><sup>1</sup>Malaysian Nature Society, Malaysia, <sup>2</sup>Ecological Economic Solutions Sdn. Bhd, Malaysia</i> )
	P3	Development and Evaluation of Tractor Operated Onion Seed Drill Sharanappa Jangandi, Rajashekhar D. Barker, Rajashekhar, Nageshkumar T., Parasuram Chandravamshi ( <i>Zonal Agricultural and Horticultural Research Station (ZAHRS), India</i> )
	P4	Temporal Variability of Trace Elements in Surface Water of Langat River, Malaysia Looi L.J., Lim W.Y., Aris A.Z., Isa N.M. ( <i>Universiti Putra, Malaysia, Malaysia</i> )
	P5	Impact of Climate Change and its Adaptation for Sustainable Food Production in Southern Region of Bangladesh Chaitanya Kumar Das, Dr. K. Maudood Elahi, Dr. Ahmad Kamruzzamna Majumder ( <i>Stamford University Bangladesh, Bangladesh</i> )
	P6	Determination of Groundwater Quality and Nutrients Concentration in Langat River Basin Yahya N.A., Isa N.M., Sefie A., Ghazilan A.L.A., Zainol N.F.M., Ghani H.A.C. ( <i>Universiti Putra Malaysia, Malaysia</i> )
	P7	The Climate Sooty Agent: Measurement of Black Carbon (BC) using Low-Cost Effective Methods Eliani Ezani <sup>1</sup> , Iain J. Beverland <sup>2</sup> ( <i><sup>1</sup>Universiti Putra Malaysia (UPM), Malaysia, <sup>2</sup>University of Strathclyde, United Kingdom</i> )
	P8	The Spatial Variation <i>Melaleuca Cajuputi</i> Powell Essential Oil in Peninsular Malaysia Azemin A. <sup>1</sup> , Juahir H. <sup>1</sup> , Isa N.M. <sup>2</sup> , Tengku Ismail T.H. <sup>2</sup> ( <i><sup>1</sup>Universiti Sultan Zainal Abidin, Malaysia, <sup>2</sup>Universiti Putra Malaysia, Malaysia</i> )
	P9	Effect of Changing Meteorological Drivers on Spring Wheat in India Sarita Kumari Baidya Roy S., Srivastava A., Sehgal V., Dhakar R. ( <i>Indian Institute of Technology, India</i> )
	16.00 – 16.20	Evening Refreshments



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<b>KEYNOTE SPEECH</b>	<b>Thursday, 21<sup>st</sup> February 2019   16.20 to 16.40   Sky Room</b>	
	16.20 – 16.40	Climate Change: Are the Small Islands ‘Drowning’? Prof. Dr. Ahmad Zaharin Aris ( <i>Dean, Faculty of Environmental Studies, Universiti Putra Malaysia, Malaysia</i> )

<b>TECHNICAL SESSION 02</b>	<b>CLIMATE CHANGE, HEALTH AND GENDER RELATED ISSUES</b>		
	Thursday, 21 <sup>st</sup> February 2019   16.40 to 18.00   Sky Room		
	Chaired by: Dr. Ley Juen ( <i>Universiti Putra Malaysia, Malaysia</i> )		
	16.40 – 17.00	B1	Impact of Climate Change on Human Health: A Study on Manikganj, Bangladesh Muhammad Abdur Rahaman <sup>1</sup> , Ahmad Kamruzzaman Majumder <sup>2</sup> , Abdullah Al Nayeem <sup>3</sup> ( <i><sup>1</sup>Bangladesh Research Initiatives of Environment-Society, Bangladesh, <sup>2,3</sup>Stamford University, Bangladesh</i> )
	17.00 – 17.20	B2	Adaptation Strategy of Indramayu Female Farmers in Dry Season Asma Irma Setianingsih, Muzani Jalaludin, Warnadi ( <i>Universitas Negeri Jakarta, Indonesia</i> )
	17.20 – 17.40	B3	Assessment of Worryness, Trust in Government, Preparedness and Intension to Relocation of Post Flood Victim Community in Kelantan Abdullah Ahmad Makmom, Tengku Ismail Tengku Hanidza ( <i>Universiti Putra Malaysia, Malaysia</i> )
17.40 – 18.00	B4	Socio-Legal Perspectives of Climate Displaced Persons in Bangladesh Moumita Dasgupta ( <i>Supreme Court of Bangladesh (High Court Division), Bangladesh</i> )	

<b>WORKSHOP ON SCHOLARLY PUBLICATIONS</b>	<b>Thursday, 21<sup>st</sup> February 2019   18.00 to 18.40   Sky Room</b>	
	18.00 – 18.40	Dr. Erandathie (Erandi) Lokupitiya ( <i>Senior Lecturer, Department of Zoology and Environment Sciences, University of Colombo, Sri Lanka</i> )



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## DAY 02 – FRIDAY 22<sup>ND</sup> FEBRUARY, 2019

<b>TECHNICAL SESSION 03</b>	<b>CLIMATE CHANGE AND AGRICULTURE</b>	
	Friday, 22 <sup>nd</sup> February 2019   09.00 to 10.40   Sky Room	
	Chaired by: Dr. Geeta Shivshanker Joshi ( <i>The Maharaja Sayajirao University of Baroda, India</i> )	
	09.00 – 09.20	C1 Mitigating Carbon Dioxide Emission from Paddy Soil with Sawdust Biochar Amendment  Mannan M.A, Khatun A., Haque M.M., Rahman M.M. ( <i>Bangabandhu Sheikh Mujibur Rahman Agricultural University, Bangladesh</i> )
	09.20 – 09.40	C2 Use of ICT-based Agro-Application “Rice Crop Manager” to Improve Soil Health, Farm Productivity and Profitability of Rice Crop  P. Bharti, S. Sharma ( <i>International Rice Research Institute, India</i> )
	09.40 – 10.00	C3 Enhancing Water Productivity, Yield and Quality of Sugarcane under Subsurface Drip Fertigation System with Paired Row Technique for Sustainable Production  Parashuram Chandravanshi, Nagaraju, Ananadakumar B.M, O. Kumar, Gururaj Kombli, Anusha S. ( <i>University of Agricultural and Horticultural Sciences, India</i> )
	10.00 – 10.20	C4 Soil Fertility Status of Selected Bt Cotton Growing Areas of Northern Transition Zone of Karnataka  Jyothi T.V. <sup>1</sup> , N.S. Hebsur <sup>2</sup> , Parashuram Chandravanshi <sup>1</sup> , S.K. Bansal <sup>3</sup> , Patricia Imas <sup>4</sup> ( <i><sup>1</sup>UAHS, India, <sup>2</sup>University of Agricultural Sciences, India, <sup>3</sup>Research Institute of India, India, <sup>4</sup>Chief Agronomist at ICL Fertilizers, Israel</i> )
	10.20 – 10.40	C5 Digital Soil Mapping for Alternate Land Use Planning in Aladahalli Watershed of Chikkamagaluru District, Karnataka, India  Gurumurthy K.T., Ravikumar D., Shivanna B., Anantakumar Patil ( <i>UAHS, India</i> )
10.40 – 11.00	Morning Refreshments	



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<b>PANEL DISCUSSION</b>	<b>Friday, 22<sup>nd</sup> February 2019   11.00 to 12.00   Sky Room</b>	
	11.00 – 12.00	"Good Practices in National Level Climate Change Mitigation" Moderated by Asst. Prof. Masayuki Kondo ( <i>Center for Environmental Remote Sensing (CEReS), Chiba University, Japan</i> )

<b>PLENARY SPEECH</b>	<b>Friday, 22<sup>nd</sup> February 2019   12.00 to 12.20   Sky Room</b>	
	12.00 – 12.20	"Emerg Nano Filter: A Benign Option for Emergency Water Filter" Prof. Sarva Mangala Praveena ( <i>Associate Professor &amp; Unit Head (Environmental Health), Department of Environmental and Occupational Health, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Malaysia</i> )
	12.20 – 13.20	Networking Lunch

<b>TECHNICAL SESSION 04</b>	<b>ASSESSING THE IMPACT TO CLIMATE CHANGE</b>	
	Friday, 22 <sup>nd</sup> February 2019   13.20 to 15.20   Sky Room	
	Chaired by: Prof. Ahmad Makmom ( <i>Universiti Putra Malaysia, Malaysia</i> )	
	13.20 – 13.40	D1 Assessing Household Carbon Emission and the Driving Factors: A Case Study in Balangoda Divisional Secretariat Division, Sri Lanka K.L.W.I. Gunathilake, C.M.K.N.K. Chandrasekara ( <i>University of Colombo, Sri Lanka</i> )
	13.40 – 14.00	D2 Assessment of Climate Change and Its Impact on Rainfall-Runoff Correlations in Mazam Riverwatershed, India Geeta S. Joshi, Payal Makhasana ( <i>The Maharaja Sayajirao University of Baroda, India</i> )
	14.00 – 14.20	D3 Impacts of Weather Pattern Changes and the Ratio between Potential Evapotranspiration and Precipitation as a Drought Index on Tea Productivity in Selected Locations of Sri Lanka J.K.M.C.D. Perera, E. Lokupitiya ( <i>University of Colombo, Sri Lanka</i> )
14.20 – 14.40	D4 Assessment of Climate Change in Orsang River Basin, India Geeta S. Joshi, Jainy Shah ( <i>The Maharaja Sayajirao University of Baroda, India</i> )	



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	14.40 – 15.00	D5	How does Climate Change affect Coral Reefs? Tengku T.F.K. <sup>1</sup> , Turner J.R. <sup>2</sup> ( <sup>1</sup> Universiti Malaysia Terengganu, Malaysia, <sup>2</sup> Bangor University, United Kingdom)
	15.00 – 15.20	D6	Climate Change Impact Assessment on Rainfall for Kim River Basin, India Geeta S. Joshi, Chandole Vishal, Shilpesh Rana ( <i>The Maharaja Sayajirao University of Baroda India</i> )

<b>TECHNICAL SESSION 05</b>	<b>CLIMATE CHANGE IN RURAL AND URBAN ENVIRONMENTS</b>		
	Friday, 22 <sup>nd</sup> February 2019   15.20 to 17.00   Sky Room		
	Chaired by: Dr. Elinie Zani ( <i>Universiti Putra Malaysia, Malaysia</i> )		
	15.20 – 15.40	E1	Managing Small Tanks in Sri Lanka in a Changing Climate Kekulandala L.D.C.B., Jacobs B., Cunningham R. ( <i>University of Technology Sydney, Australia</i> )
	15.40 – 16.00	E2	Urbanization as a driver of flood disaster events: A study based on Sri Lankan flood events Chathumani D. ( <i>University of Colombo, Sri Lanka</i> )
	16.00 – 16.20	E3	Water Resources Management System: A Way of Creating Climate Smart Village Ensuring Water Sufficiency throughout the Year Santosh Rasaily <sup>1</sup> , Laxmi Raj <sup>2</sup> , Shova Koiral <sup>2</sup> , Nagdev Yadav <sup>3</sup> ( <sup>1</sup> National Agriculture Research Council (NARC), Nepal, <sup>2</sup> CARITAS, Nepal, <sup>3</sup> Community Development & Advocacy Forum, Nepal)
	16.20 – 16.40	E4	Intensifying Climate Change Awareness Programmes through International Collaboration in Sabah, Malaysia M.Y. Abdullah, D. Aloysius, N. Nordin, A. Ganing ( <i>Environment Protection Department, Malaysia</i> )
	16.40 – 17.00	E5	Riding out the Tide: Labor Mobility and Climate Change Vulnerability in Kiribati John Marazita III ( <i>University of Zürich, Switzerland</i> )
17.00 – 17.20	Evening Refreshments		



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<b>TECHNICAL SESSION 06</b>	<b>CLIMATE CHANGE AND LOCAL ADAPTATION, KNOWLEDGE AND AWARENESS</b>		
	Friday, 22 <sup>nd</sup> February 2019   15.20 to 17.00   Pahang Suite		
	Chaired by: Dr. Geeta Shivshanker Joshi ( <i>The Maharaja Sayajirao University of Baroda, India</i> )		
	15.20 – 15.40	F1	Local Knowledge of Agro-Pastoralists in the Face of Climate Change: Case of the Region of Ras El Ma (Western Algeria) Zaza Bensmira, <sup>1</sup> Meriem Bensmira, <sup>1</sup> Hellal Benchaben, <sup>2</sup> Sophie Bouju <sup>3</sup> ( <sup>1</sup> University of Mascara, Algeria, <sup>2</sup> University of Tiarret, Algeria, <sup>3</sup> University of Bordeaux Montaigne, France)
	15.40 – 16.00	F2	Conceptualizing The Role of Traditional Ecological Knowledge (TEK) in Climate Change Adaptation Nadzirah Hosen, Hitoshi Nakamura ( <i>Shibaura Institute Of Technology, Japan</i> )
	16.00 – 16.20	F3	Improvement of Biodiversity through Green Infrastructure: A Case Study of Hazaribagh Tannery Area Md. A. Islam, Kazi N. Kowser, Md. M. Mamun ( <i>Rajdhani Unnayan Kartripakkha (RAJUK), Bangladesh</i> )
	16.20 – 16.40	F4	Movement of Educational Institutions in Environmental Preservation (Study about the Effort of Creating Eco-Pesantren in Pesantren Spmaa Lamongan Jawa Timur ) Rihlah Nur Aulia, Faisal M.Jasin, Dr. Izzatul Mardhiah, Sari Narulita ( <i>Universitas Negeri Jakarta, Indonesia</i> )
	16.40 – 17.00	F5	Technology Transfer towards Climate Change: A Case Study on the Effectiveness of Clean Technologies in Southern Africa Ephraim Daka ( <i>University of Turku, Finland</i> )
17.00 – 17.20	Evening Refreshments		





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<b>CONFERENCE CLOSURE</b>	<b>Friday, 22<sup>nd</sup> February 2019   17.20 to 18.00   Sky Room</b>	
	17.20 – 17.50	Conference Concluding and Awarding Ceremony
	17.50 – 18.00	Vote of Thanks Mr. Oshadee Withanawasam ( <i>CEO, Chairman and Co - Founder - The International Institute of Knowledge Management (TIKM), Sri Lanka</i> )

## ICCC 2019 Conference Chair

.....  
**Dr. Erandathie (Erandi) Lokupitiya**

(University of Colombo, Sri Lanka)

## Conference Convener

.....  
**Mr. Isanka P. Gamage**

(The International Institute of Knowledge Management, Sri Lanka)

## Conference Secretary

.....  
**Ms. Asha Ratnayake**

(The International Institute of Knowledge Management, Sri Lanka)

## Evaluation Panel

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- Asst. Prof. Masayuki Kondo (Banaras Hindu University, India)
- Prof. Sarva Mangala Praveena (Universiti Putra Malaysia, Malaysia)
- Dr. Erandathie Lokupitiya (University of Colombo, Sri Lanka)
- Prof. Ahmad Zaharin Aris (Universiti Putra Malaysia, Malaysia)