





Disaster Resilience and Sustainable Development

Date: 7 - 8 March, 2019 || Asian Institute of Technology, Thailand

PROGRAM

Venue: AIT Conference Center, Thailand

	DAY 1: March 7, 2019 (Thursday)	
TIME	SESSION DETAILS	
08:00 - 09:00	REGISTRATION	
09:00 - 10:30	Opening session	
	Symposium Overview: Dr. Indrajit Pal, AIT	
(Venue:	Welcome Address: Dr. Eden Y. Woon, President, AIT	
Robert B. Bank	Keynote Address: Prof. Mario Tabucanon, UNU, Japan	
Auditorium, AITCC)	[Education for Sustainable Development: A tool for creating disaster-resilient societies]	
	Keynote Address: Dr. Sanjay Kumar Srivastava, UNESCAP, Bangkok	
	[Big Data Innovations for Disaster Resilience]	
	Keynote Address: Prof. Gretchen Kalonji, Sichuan University, China	
	[Challenges for the Design of Undergraduate Programs in Disaster Sciences]	
10: 30 – 11:00	Symposium Outcomes : Dr. Sangam Shrestha, AIT COFFEE BREAK AND GROUP PHOTOGRAPH	
11:00 -12:30		
Panel Discussion		
(PD-01)	Session Moderator: Prof. Rajib Shaw, Keio University, Japan	
(Venue:	Rapporteur: Nandanavanam Karthikeya, Gautam Dadhich	
Robert B. Bank	1. Takashi Oda, Miyagi University of Education, Japan	
Auditorium, AITCC)	2. Tabassam Raza, Philippines School of Business Administration, Philippines	
	3. Iftekhar Ahmed, University of Newcastle, Australia	
	4. Gretchen Kalonji, Sichuan University, China	
	5. Mukand Singh Babel, Asian Institute of Technology, Thailand	
	6. Tuhin Ghosh, Jadavpur University, India	
12:30 -14:00	LUNCH	
14:00 - 15:40	Session Theme: "Technical Session -1"	
Technical Session	Co-Chairs: Dr. Basanta Raj Adhikari, Dr. Raju Sarkar,	
(TS-01)	Rapporteurs: Salote Sarasau, Arlene Gonzales	
Parallel Session	1. Madhu Sudan Gautam - Role of Education in Climate Change Adaptation Strategies: An evidence	
Parallel Session	from Nepal	
	2. Subir Sen - Willingness to Pay for Insurance against Natural Disasters	
(Venue:	3. Ashish Sharma - Economic Impacts of Drought and Subsequent Relief in Madhya Pradesh- A district	
Room No. B-202,	level analysis	
AITCC)	4. Subhash Chandra Panja - Railway Accidents Scenarios Analysis: Human Factor Based Review	
	5. Amrit Prasad Sharma - Correlating school dropout rate of children with climate induced disaster	
	6. Sabuj Kumar Mandal - BASIEC: A Coastal Climate Service Awareness Framework for Community	
	Based Adaptation to rising sea-levels	
	7. Sylvan Odidi - Determinants of Flood Mitigation Choices and Decisions Patterns Among Households	
	in Low Income Community: Case Study of Budalangi, Kenya	
	8. Basanta Raj Adhikari - Application of low-cost community based Landslide Early Warning Systems in	
	the Nepal Himalaya	
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	Q&A
14:00 - 15:40	Session Theme: "Technical Session -2"
Technical Session (TS-02)	Co-Chairs: Prof. Nitin Kumar Tripathi, Dr. Menjadi Yonariza
Develled Constant	Rapporteurs: Afshana Parven , Savaira Sigawale
Parallel Session	1. Hansa Jayarathne - Factors influencing women to be more vulnerable in post-disaster situation
(Venue: Room No. B-206, AITCC)	2. EPN Udayakumara - Relationship Between Soil Erosion and Water Quality, Pesticide
	Residues of Uma Oya Watershed, Sri Lanka
	3. Glenn Fernandez - The Role of Universities in Helping Provide Bases for Urban Disaster Resilience Action Plans
	4. Damithri Jayasekara - Looking back and thinking ahead: lessons learnt by a garbage dump collapse in Colombo, Sri Lanka
	5. Vishal Narain - Mainstreaming Social capital and disaster risk reduction in education curricula: a peri urban perspective
	6. Roxana Leitold - Acting under the uncertainty of flooding: Firms' exposure and adaptation
	strategies in Ho Chi Minh City, Vietnam
	7. Menjadi Yonariza - Sustainability of Hydropower Plant Under Highly Competitive Land Uses in the
	Catchment Area
	8. Parvez Hayat - Sustainable Development, DRR and Disaster Resilience
	Q&A
14:00 - 15:40	Session Theme: "Technical Session -3"
Technical Session (TS-03)	Co-Chairs: Dr. Sangam Shrestha and Dr. Tailin Huang
	Rapporteurs: Sanju Thapa Shrestha, Ranadheer Reddy
Parallel Session	1. Shenlin Li - Tradeoffs for water resources allocation based on Bayes forecasting model
r araner Jession	2. Wenqing Shi - Effects of cascade dams on nitrous oxide emissions in the upper Mekong River
	3. Leizhen Liu- Solar-induced chlorophyll fluorescence shows much more related with atmospheric
(Venue:	aridity than soil moisture deficit
Room No. B-115,	4. Quan Han-Trend analysis and assessment of surface water quality in a typical shallow lake of North
AITCC)	China- Baiyangdian Lake
	5. Weifeng Yue - Evaluating climate and irrigation effect on spatiotemporal variabilities of regional
	groundwater in an arid area using EOFs
	6. Yuanzheng Zhai - Water yield and quality response of riverside well field to surface water-
	groundwater interaction: Evidence from field pumping tests
	7. Salvatore Virdis - Satellite-derived water surface temperature: integrating multi-source and multi-
	resolution imagery with a time series approach
	8. Mohana Sundaram - Physical basis for inter nodal hydraulic conductivity estimation in unsaturated zone fluid flow modelling
	Q&A













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14:00 - 15:40	Session Theme: "Technical Session -4"
Technical Session	Co-Chairs: Dr. Binaya Kumar Mishra, Dr. Khamarrul Azahari Razak
(TS-04)	Rapporteurs: Mahmoud Fadlallah, Uddhav Guragain
Parallel Session	 Satabdi Das - Disaster Resilient Development in South and South East Asia: The Politico-Diplomatic Equations of Regional Cooperation Mahesh Vishwakarma - Increasing importance of Disaster Management in the syllabus of craft
(Venue:	trainees at industrial training centres
Room No. B-225, AITCC)	 Tabassam Raza - Estimating Disaster Economic Losses: Impact Rapid Assessment and Disaster Scaling (IRADS) Calculator Wasantha Rathnayake - Exploring 'data gaps' in minimizing disaster impacts: A case study in Ratnapura District in Sri Lanka
	 Khan Ferdousour Rahman - Disaster, Vulnerability and Human Security: Bangladesh Perspective Renan Ma. Tanhueco - Developing Teaching and Learning Modules for a Disaster Readiness and Risk Reduction (dr&rr) Subject Shikha Vishwakarma - Airport Closures in Natural calamities and man-made disasters: Business Vulnerability and Planning Vikrant Panwar - Financing Disaster Losses: Possibilities of Introducing Ex-ante Risk Financing in India Q& A
15:40 - 16:00	Coffee BREAK
16:00 – 17:00 Plenary Session (PD-02)	Session Theme: "Hydro-met Disaster: Sharing Regional Experiences" Rapporteur: Nandanavanam Karthikeya, Gautam Dadhich
(Venue: Robert B. Bank Auditorium)	 Sangam Shrestha - Session Chair (10 min) Key Note Presentation – Dr. Seree Supratid: 'Global and regional precipitation extremes by CMIP5 models', (20 min) Key Note Presentation – Dr. Madan Lal Shrestha: 'Hydro-meteorological hazards - early warning and its challenges' – (20 min) Plenary discussion and Q&A – (10 min)













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	DAY 2: March 8, 2019 (Friday)
	Session Theme: "Technical Session -5"
09.00 -10.40	Co-Chairs: Dr. Mokbul Morshed Ahmad, Dr. Subir Sen
Technical Session (TS-05)	Rapporteurs: Salote Sarasau, Arlene Gonzales
	1. Joanna McMillan - Understanding the dynamics of climate-related risk and the role of spatial
	planning in Thailand
Parallel Session	2. Gulsan Ara Parvin - Disaster Resilience and Challenges in Sustainable Development- Approach and
	Assessment of Shyamnagar and Tala upazila of Bangladesh
	3. Omkar Parishwad - Building Climate Resilience for the flood prone city of Bhubaneshwar using
(Venue: Room No. B-202,	Spatial Planning measures
AITCC)	4. Md Anwarul Abedin - Citizen science for smart water solution in southwestern part of Bangladesh
1	5. Bhaskara Rao Mulam - Strengthening Disaster Resilience for Sustainable Development in the SAARC
	Region: Need for Better Regional Collaborative Strategies, Cooperation and
	Coordination Mechanisms in South Asia
	6. Céline Pierdet - Bangkok facing a challenge to stay resilient to climate change: more or less flood
	control?
	7. Nuttavikhom Phanthuwongpakdee - Expect the Unexpected: Planning for Urban Resilience to
	Future Crises
	Q&A
	Session Theme: "Technical Session -6"
09.00 -10.40 Technical Session	Co-Chairs: Dr. Vishal Narain , Dr. Tabassam Raza
(TS-06)	Rapporteurs: Afshana Parven, Savaira Sigawale
	1. Binaya Kumar Mishra - Water-related Disaster Risk Management in the context of Federal Nepal
Parallel Session	2. Hari Charan Behera - Culture of consumption and climate change: An anthropological inquiry
	3. Madhu Mohan Velapgy - Probabilistic Seismic Hazard Assessment Model for GIS based Seismic Risk
	Study in Thiruvananthapuram City
(Venue: Room No. B-206,	4. Tamara Faith Kamanga - Framing the Determinants of Vulnerability in Malawian Communities: A
AITCC)	Multi Hazard Perspective from Karonga District.
1	5. S Sarvanan - Assessment of Groundwater Vulnerability in Highly Industrialized Noyyal Basin Using
	AHP-Drastic and Geographic Information System
	6. Lawrence Materum - Sensor Node Positioning and Fractional Data Sampling for Risks Prevention,
	Recovery, and Adaptation of Wireless Sensor Networks to Different Disaster
	Scenarios
	7. Swarnali Mahmood - The role of Coastal Polder in Sustainable Agricultural Development and
	Prevention of Salinity Intrusion in Bangladesh – A Case Study
	Q&A













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	Session Theme: "Technical Session - 7"
09.00 -10.40	Co-Chairs: Dr. Md Anwarul Abedin, Dr. Tejaskumar Thaker
Technical Session	
(TS-07)	Rapporteurs: Sanju Thapa Shrestha, Ranadheer Reddy
. ,	1. Nakul Tarun - Sustainable means for evacuation in case natural Disaster
	2. Endah Tresnasari – Analysis of Landslides Factors at Rinjani Mountain, Lombok Island,
Parallel Session	East Nusa Tenggara
	3. Ramesh Veerappan - Landslide Susceptibility Zonation Mapping using Fuzzy Gamma Operator
Manual	Model in Part of Trans-Asian Highway (Mao – Kangpokpi), Manipur
(Venue: Room No. B-115,	4. Vikram Sharma - Landslide Inventory and Susceptibility Mapping in Rupin Watershed of
AITCC)	Tons Valley, Garhwal Himalaya, Uttarakhand
,	5. Nagla Ginawi - Assessing Flood-Induced Public Health Risks and Disaster Risk Reduction in Sudan
	6. Kartika Puspita Sari - Comparing the Availability and Features of Disaster-themed Web-Mapping
	Provided by Different Levels of Government: A Case Study of Indonesia
	7. Swetha Sinha - Technology as a catalyst for better governance and resilient communities: Case of
	Kerala floods, India
	8. Andres Winston Oreta - Identifying Research Interventions on Resilience Building using the Ten
	Essentials for "Making Cities Resilient" Global Campaign
	Q&A
10:40 - 11:00	COFFEE BREAK
11:00 – 12:40	Session Theme: "Technical Session -8"
Technical Session	Co-Chairs: Dr. Anurag Kandya, Dr. Vilas Nitivattananon
(TS-08)	Rapporteurs: Salote Sarasau, Arlene Gonzales
	Jose Edgar Mutuc - Data visualization and analytics: a System Dynamics approach
	2. Elsadig Eltigani Elhag – Pre-Hospital Trauma Care in developing countries
Parallel Session	3. Raju Sarkar - Determination of probabilities for landslide events- Case Study of Bhutan Himalayas
	4. Nikitha.R - Disaster Risk and Resilience: A case of Floods in Coorg district, India
	5. Pratyush Tripathy - Assessing Multi-temporal Surface Water Variability of Kodagu, India using
(Venue:	Geospatial Techniques
Room No. B-202,	6. Bhaswati Ray - Participatory web based interface to address water issues in parts of rural West
AITCC)	Bengal, India
	7. Rizky - Hydrodynamic Modeling and Socio-Economic Survey for Flood Disaster Risk Reduction and
	Preparation of Climate Resilience Guidelines (Case Study: Jakarta, Indonesia)
	8. Anurag Kandya - Quantifying the impact of Groundwater uptake rate and the subsequent salinity
	ingress on agricultural productivity in the western coastal region of India
	Q&A
11.00 12.40	Session Theme: "Technical Session -9"
11:00 – 12:40 Technical Session (TS-09)	Co-Chairs: Dr. Parvez Hayat, Dr. Iftekhar Ahmed
	Rapporteurs: Afshana Parven , Savaira Sigawale
	Abijith D - Assessment of Severity and Extent of Cyclone Damage Due To GAJA Cyclone in Tamil
	Nadu, India
Parallel Session	2. Leelambar Singh - Identification of Drought Intensity and Development of Drought Resilience in the
	Rayalaseema Region of Andhra Pradesh, India













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(Venue:	3. Parthasarathy KSS - Assessment of Socio-economic status in the flood-affected region — A case
Room No. B-206,	study for Kerala, India
AITCC)	4. Vishanthini Kanasan - Main Streaming Climate Resilience in Land Use Planning: Case Study in
Arrecy	Malaysia Cities
	5. Marla Redillas - Investigation on the Potential of LID in Urban Landuses in the Philippines
	6. Iftekhar Ahmed - Sustainable Development through Post-Disaster Reconstruction: Foundation of
	Goodness, Sri Lanka
	7. Edris Alam - Enhancing disaster risk governance in local level administration in Bangladesh
	8. Stephen Anthony Sutton - Who's telling the story? – The role of trusted stories in effective risk
	communication for disaster resilience and sustainable development?
	Q&A – (20 min)
11:00 – 12:40	Session Theme: "Technical Session - 10"
Technical Session	Co-Chairs: Dr. Sangam Shrestha, Prof. Wang Guoqiang
(TS-10)	Rapporteurs: Sanju Thapa Shrestha, Ranadheer Reddy
(10 20)	Yanguo Teng- Is the water demand for BECCS sustainable?
	Jiping Yao - Identification of Spatiotemporal Co-movement between Point Source Pollution and
Parallel Session	Water Quality Monitoring Pollutants Using Artificial Intelligence Technology
	3. Jianzhu Li - Effects of future climate and land use changes on droughts on basin scale
(Venue:	4. Kang Pingping - Use of multiple isotopes to evaluate the barrier effect of underground cut-off walls
Room No. B-115,	on variations of nitrate in groundwater
AITCC)	5. Zhanling Li - Assessing the Impact of Projected Climate Change on Runoff in Yingluoxia watershed of
,	China using multiple GCMs and Climate Elasticity Method
	6. Ruihui Chen - Groundwater Pollution and Risk Assessment based on Source Apportionment in the
	Lalin River Basin in North-eastern China
	7. Pragya Pradhan - Evaluation of AI and Physical-based Models to forecast hydrology in river basin of
	different climatic regions
	8. Chirayut Chirachawala - Evaluation of landuse/land cover and precipitation production for
	hydrologic prediction in data-scarce watersheds: an application in the Yom River Basin, Thailand
	Q&A – (20 min)
12:30 - 13:30	LUNCH
13.30 – 15:00	Discussion Theme: "Resilience and Sustainability: Regional Issues"
Plenary Session	(co- organized under Bangabandhu chair dialogue)
(PS-03)	Session Moderator: Prof. Joyashree Roy, Bangabandhu Chair Professor, AIT
	Rapporteur: Nandanavanam Karthikeya, Gautam Dadhich
(Venue:	1. Sheikh Tawhidul Islam, Jahangirnagar University, Bangladesh
Robert B. Bank	2. Sheikh Mohammad Mahbubur Rahman, Institute of Water Modelling, Bangladesh
Auditorium, AITCC)	3. Wang Guoqiang, Beijing Normal University, China
	4. Mandira Shrestha, HUC-ICIMOD, Nepal
	5. Sylvia Szabo, Asian Institute of Technology, Thailand
	6. Indrajit Pal, Asian Institute of Technology, Thailand
15:00 – 16:00	Valedictory Address: H.E. Mr. Md. Nazmul Quaunine (TBC),
Closing Session	Ambassador, Bangladesh Embassy in Bangkok, Thailand.
(Venue:	Symposium Synthesis Report and Way Forward: Dr. Indrajit Pal and Dr. Sangam Shrestha
Robert B. Bank	Vote of Thanks
Auditorium, AITCC)	

MC: Avashana Poudyal and Manzari Singh





