

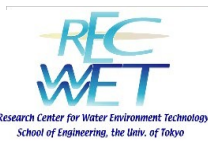
ISSUE 2017



# INTERNATIONAL SYMPOSIUM ON Sustainable Urban Environment



Program Outline



23<sup>rd</sup> - 24<sup>th</sup> June 2017  
Tezpur University, Assam, INDIA

**International Symposium on  
Sustainable Urban Environment, Tezpur University  
(ISSUE 2017)  
23<sup>rd</sup>-24<sup>th</sup> June 2017**

**Program Outline**

|               | June 23, 2017 (Friday) | June 24, 2017 (Saturday) | June25, 2017 (Sunday) |
|---------------|------------------------|--------------------------|-----------------------|
| 08:30 - 09:30 | Registration           |                          | Excursion             |
| 09:30 - 09:35 | Opening Ceremony       | Parallel Session 4       |                       |
| 09:35 - 09:45 |                        |                          |                       |
| 09:45 - 09:55 |                        |                          |                       |
| 09:55 -10:25  |                        | High Tea                 |                       |
| 10:25 -10:30  |                        |                          |                       |
| 10:30 -11:00  | High Tea               | Parallel Session 5       |                       |
| 11:15 - 11:35 | Parallel Session 1     |                          |                       |
| 11:35 -11:55  |                        |                          |                       |
| 11:55 - 12:15 |                        |                          |                       |
| 12:15 - 12:35 |                        |                          |                       |
| 12:35 - 13:00 |                        | Valedictory Function     |                       |
| 13:00 - 14:00 | Lunch                  | Farewell Lunch           |                       |
| 14:00 - 14:20 | Parallel Session 2     |                          |                       |
| 14:20 - 14:40 |                        |                          |                       |
| 14:40 - 15:00 |                        |                          |                       |
| 15:00 - 15:20 |                        |                          |                       |
| 15:20 - 15:30 | Tea break              |                          |                       |
| 15:30 - 15:50 | Parallel Session 3     |                          |                       |
| 15:50 - 16:10 |                        |                          |                       |
| 16:10 - 16:30 |                        |                          |                       |
| 16:30 - 16:50 |                        |                          |                       |
| 17:00 – 18:00 | Poster Session         |                          |                       |
| 19:00 – 20:00 | Cultural Program       |                          |                       |

|               |                                            |
|---------------|--------------------------------------------|
| 8:30 - 09:30  | <b>Registration</b><br>Venue: Council Hall |
| 09:30 - 09:35 | <b>Welcome Remarks</b>                     |
| 09:35 - 09:40 | <b>About Symposium</b>                     |
| 09:35-09:45   | <b>Inaugural Speech</b>                    |
| 09:45-09:55   | <b>APN Project Introduction</b>            |
| 09:55 -10:25  | <b>Keynote Speech</b>                      |
| 10:25 -10:30  | <b>Vote of Thanks</b>                      |
| 10:30 -11:00  | <b>High Tea</b>                            |

| Session                       | APN Session<br>(Venue: Conference Hall, Guest House)                                                                                                                                                                    |                |                                                                                                                                               |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
|                               | APN Session I                                                                                                                                                                                                           | 14:30 to 16:00 | APN Session II                                                                                                                                |
| 11:15 to 13:00<br>11:00-11:30 | Development of New Water Supply Strategies in Two Watersheds of India and Sri Lanka in the context of Climate Change, Rapid Urbanization and Population Growth: A Vulnerability Assessment Approach by Dr. Manish Kumar | 14:30 - 15:00  | Toward a Food-Energy-Water-Ecosystem Services Nexus for Rapid Growing Cities in a Changing Climate<br>Dr. Francisco Munoz-Arriola             |
| 11:30 - 12:00                 | Water and Wastewater Management in Urban Cities: Challenges and Solution Pathways<br>Prof. Ashok K. Keshari                                                                                                             | 15:00 – 15:30  | Managing land and water under changing population and climatic conditions in India<br>Dr. SudipMitra                                          |
| 12:00 – 12:30                 | Challenges in the geomorphic management of a river system in response to urbanisation expansion around a mega city: Case study from Yamuna River around Delhi NCR<br>Dr. Vikrant Jain                                   | 15:30 – 16:00  | Deterioration of river water quality due to excessive use of chemical fertilizer – A case study at Gin River, Sri Lanka<br>Dr. G.H.A.C. Silva |
| 12:30 – 13:00                 | Relating characteristics of Regional Climate and Droughts in India<br>Dr. Rajendra Prasad Pandey                                                                                                                        |                |                                                                                                                                               |

| Session        | A-1<br>(Venue: Council Hall)              |                                                                                                                                                     | B-1<br>(Venue: MCJ, Screening Room)          |                                                                                                                                         |
|----------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 11:15 to 12:55 | [A1] Removal Technology                   |                                                                                                                                                     | [B1] Urban Solid Waste Management            |                                                                                                                                         |
| Chairpersons   | Dr. Rupam Katak and Dr. Ritusmita Goswami |                                                                                                                                                     | Prof. K. P. Sarma and Dr. S. S. Bhattacharya |                                                                                                                                         |
| 11:15 -11:30   | A1-1                                      | Assessing the effect of arbuscular mycorrhizal fungi on the phytoremediation potential of <i>Eichhorniacrassipes</i> (Mart.) Solmson cadmium uptake | B1-1<br>11:15 – 11:35                        | Evaluation of biogas generation from different wastes by using single inoculum: A batch study                                           |
| 11:30 -11:45   | A1-2                                      | Removal of Fluoride and Hardness from Groundwater using Carbon Electrolysis and Chicken Bone Char Filtration                                        | B1-2<br>11:35- 11:55                         | Urbanization and municipal solid waste: Evaluation of metal solubility and eco-toxicity potential                                       |
| 11:45 -12:00   | A1-3                                      | Sandalwood ( <i>Santalum album</i> ) Leaf Powder as an Effective Biosorbent for removal of Dyes from water                                          | B1-3<br>11:55-12:15                          | C-H bond activation in methane over Pd <sub>n</sub> Pt <sub>4-n</sub> (n=0-4) subnanoclusters: A comprehensive density functional study |
| 12:00 -12:15   | A1-4                                      | Starch immobilized TiO <sub>2</sub> nanoparticles in As (V) remediation from aqueous solution                                                       | B1-4<br>12:15 – 12:35                        | Assessment of plant growth promoting rhizobacteria (PGPR) on potential biodegradation of glyphosate in contaminated soil and aquifers.  |
| 12:15 -12:30   | A1-5                                      | Arsenic removal from drinking water by Carbon based material                                                                                        | B1-5<br>12:35 – 12:55                        | pH dependent leaching behaviours of Cd, Cu, Ni, Pb, and Zn from lead smelting slag                                                      |
| 12:30 – 12:45  | A1-6                                      | Comparative LCA Study of Biological Nutrient Removal Plants                                                                                         |                                              |                                                                                                                                         |
| 12:45 – 13:00  | A1-7                                      | Decentralized and low-cost system for nutrient removal from primary treated sewage by aquatic weeds                                                 |                                              |                                                                                                                                         |
| 13:00 - 14:00  |                                           |                                                                                                                                                     | Lunch break                                  |                                                                                                                                         |

| Session       | A-2<br>(Venue: Council Hall)                                                                                                               | B-2<br>(Venue: MCJ, Screening Room)                                                                                                                |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 14:00 - 15:20 | [A2] Surface water Issues                                                                                                                  | [B2] Water /wastewater treatment and reuse technologies                                                                                            |
| Chairpersons  | Prof. A. K. Keshari and Dr. R. P. Pandey                                                                                                   | Dr. S. Brahma and Dr. Santanu Das                                                                                                                  |
| 14:00-14:20   | A2-1<br>Evaluation of Water Quality in Down-stream of Kelani River, Sri Lanka                                                              | B2-1<br>14:00-14:15<br>Conflict Resolution of Enhanced Biological Phosphate Removal and Sludge Reduction in Oxidizing-Settling-Anaerobic (OSA) SBR |
| 14:20 - 14:40 | A2-2<br>Assessment of the impact of population density and land use pattern on the replenishment of the stream nutrient of the Brahmaputra | B2-2<br>14:15 - 14:30<br>Phase Distribution and Chemical Partitioning of Metals in Waste water systems                                             |
| 14:40 – 15:00 | A2-3<br>Assessment of the river water quality parameters and pollution: An insight from Dhaka city                                         | B2-3<br>14:30 - 14:45<br>Operation and maintenance issues with full scale UASB reactors treating sewage in India.                                  |
| 15:00 - 15:20 | A2-4<br>Estimation of groundwater inflow to Dal Lake using isotopic mass balance approach                                                  | B2-4<br>14:45 - 15:00<br>Treatment options for grey water reuse in residential buildings                                                           |
|               |                                                                                                                                            | B2-5<br>15:00 – 15:15<br>Upgradation of CETP Effluent for Non-Potable Reuse                                                                        |
| 15:20- 15:30  |                                                                                                                                            | Tea break                                                                                                                                          |

| Session        | A-3<br>(Venue: Council Hall)           |                                                                                                                                                                                                 | B-3<br>(Venue: MCJ, Screening Room)    |                                                                                                                 |
|----------------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| 15:30 to 16:50 | [A3] Groundwater Issues                |                                                                                                                                                                                                 | [B3] Recharge and Contamination        |                                                                                                                 |
| Chairpersons   | Dr. Abhay Kumar and Dr. Amlanjyoti Kar |                                                                                                                                                                                                 | Dr. Nityanand Singh and Dr. Aparna Das |                                                                                                                 |
| 15:30 - 15:50  | A3-1                                   | Environs of Arsenic & Heavy Metal Contamination in Aquifers of Eastern Part of Bardhaman District, West Bengal                                                                                  | B3-1                                   | Assessment of the impact of leach ate percolation on ground water quality: A case study of Varanasi city, India |
| 15:50 - 16:10  | A3-2                                   | An attempt to understand the mechanism of recharge in the mountain front and the riparian zone aquifers using integrated techniques                                                             | B3-2                                   | Co-occurrence Perspective of Arsenic, Fluoride and Metals in The Aquifer of Lakhimpur District, Assam, India    |
| 16:10 - 16:30  | A3-3                                   | Isotopes ( $\delta^{18}\text{O}$ and $\delta\text{D}$ ) in precipitation and groundwater in the alluvial basin of Kashmir western Himalayas                                                     | B3-3                                   | Conservation of Urban Lakes in Coimbatore                                                                       |
| 16:30 - 16:50  | A3-4                                   | Vulnerability of karst aquifer to contamination                                                                                                                                                 | B4-4                                   | Groundwater Resilience & Response in South west Neyveli basin, Cuddalore District, Tamil Nadu, India            |
| 17:00 – 18:00  | Poster Session                         |                                                                                                                                                                                                 |                                        |                                                                                                                 |
|                | P1                                     | Simultaneous removal of Cong red and Cr (VI) in aqueous solution using Manganese powder from battery waste solution<br>Deepa Kumari, Payal Mazumder, Jeong-Muk Lim and Jaehong Shim             |                                        |                                                                                                                 |
|                | P2                                     | Phytoremediation of zinc by <i>Lemna minor</i> from aqueous solution<br>Monashree Sarma Bora, Priyanka Gogoi, Kali Prasad Sarma                                                                 |                                        |                                                                                                                 |
|                | P3                                     | An Attempt To Enhance Potassium Content In Vermicompost By Adding Mica Waste -A High Potassium Containing Mineral<br>Chayanika Kalita, Prabhat Pramanik                                         |                                        |                                                                                                                 |
|                | P4                                     | Distribution of Heavy metals in road deposited sediments of NH37 in the stretches of Kaziranga National Park of Eastern Himalayan Region<br>Upasona Devi, Raza Rafiqul Hoque, Kali Prasad Sarma |                                        |                                                                                                                 |

|               |                                                                                                                                                                                                                                                        |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P4            | <b>Distribution of Heavy metals in road deposited sediments of NH37 in the stretches of Kaziranga National Park of Eastern Himalayan Region</b><br>Upasona Devi, Raza Rafiqul Hoque' Kali Prasad Sarma                                                 |
| P5            | <b>Consequences of climate changes on watershed and its effect on Urban Environment, a case study of Guwahati watershed</b><br>Jyoti Prakash Deka, Sudipta Biswas, Arbind Kumar Patel, Manish Kumar                                                    |
| P6            | <b>Effects of unhygienic practices on water quality and health risk to population of Chincholi industrial area of Solapur, Maharashtra, India</b><br>Shrikant Mukate, Dipak Panaskar, Vasant Wagh, Aniket Muleyand Chandrakant Jangam                  |
| P7            | <b>Groundwater quality assessment on Arsenic and Fluoride contamination in the Guwahati city, Assam Northeast India</b><br>Arbind Kumar Patel, Manish Kumar                                                                                            |
| P8            | <b>Assessment of pH dependent leaching behaviours of As, Mo, and Se from lead smelting slag</b><br>Rashmi Rekha Bora, Monikonkana Saikia, Mumee Gogoi, Kaberijyoti Konwar, Nabajyoti Saikia                                                            |
| P9            | <b>Arbuscular mycorrhizal fungi alleviates drought stress on growth and yield of soybean (<i>Glycine max</i>L.)</b><br>A.G.D. Pavithra, P.N. Yapa, T.C. Bamunuarachchige and P.T. Jayasooriya                                                          |
| P10           | <b>Assessment of physicochemical properties of drinking water used in Departments and Centers in Central University of Allahabad, Allahabad</b><br>Nirdesh Kumar Ravi, Dr. Pawan Kumar Jha, Yaduvendra, Sutikchan                                      |
| P11           | <b>Development of new policy making strategies for sustainable water management for City (Assam)</b><br>Payal Mazumder                                                                                                                                 |
| P12           | <b>Development of flower garden through waste supply water</b><br>Dhrubajyoti Nath, Nandita Medhi, and Bidisha Kashyap                                                                                                                                 |
| P13           | <b>Green Nanochemistry for safe environment :Exploring Murrayakoengii Spreng. Leaf Extract An Efficient Green Multifunction Agent for the degradation of organic dyes from aqueous medium</b><br>Deepa Kumari, Pratap Kumar Padhy and Nanzin Ara Begum |
| P14           | <b>The kinetics of sorption of Cr(III) from aqueous solution onto powdered leaf biomass of <i>Celosia argentea</i></b><br>Rajat Shubro Bose, Pronab Mudoi , and Kali Prasad Sarma                                                                      |
|               | <b>Break</b>                                                                                                                                                                                                                                           |
|               | <b>Cultural Program</b>                                                                                                                                                                                                                                |
|               | <b>Conference Dinner</b>                                                                                                                                                                                                                               |
| 17:00 – 18:00 |                                                                                                                                                                                                                                                        |
| 18:00 – 19:00 |                                                                                                                                                                                                                                                        |
| 19:00 – 20:00 |                                                                                                                                                                                                                                                        |
| 20:30 – 21:00 |                                                                                                                                                                                                                                                        |



| Session              | A-4<br>(Venue: Council Hall)                                                                                               | B-4<br>(Venue: MCJ, Screening Room)                                                                                                                                             |
|----------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 09:00<br>to<br>10:20 | [A4] Water quality monitoring and modeling                                                                                 | [B4] Health-related water microbiology                                                                                                                                          |
| Chairpersons         | Prof AL. Ramanathan and Dr. Francisco M Arriola                                                                            | Prof. Hiroaki Furumai and Dr. Anwar Khursheed                                                                                                                                   |
| 9:00-9:20            | A4-1<br><br>An assessment to evaluate the effects of changing climate on glaciers using stable isotopes and remote sensing | B4-1<br><br>Application of ferrihydrite treatment to improve RT-qPCR virus detection in Tokyo coastal water after rainfall event                                                |
| 9:20-9:40            | A4-2<br><br>Estimation of Re-aeration Coefficient Using MLR for Modelling Water Quality of Rivers in Urban Environment     | B4-2<br><br>Influence of DOM and POM on Photolysis of Diclofenac                                                                                                                |
| 9:40-10:00           | A4-3<br><br>A sustainable resilience framework for regional coastal wetlands through aquaculture and geospatial monitoring | B4-3<br><br>Human exposure and health risk assessment in the upper Brahmaputra floodplain (Lakhimpur, Assam, India) with special reference to arsenic and fluoride geochemistry |
| 10:00-10:20          | A4-4<br><br>Artificial Neural Network Model for Prediction of Nitrate concentration in groundwater of Kadava River basin.  | B4-4<br><br>Mechanism and identification of reaction byproducts for the degradation of Chloramphenicol drug in heterogeneous photocatalytic process                             |
| 10:20-10:30          | Tea break                                                                                                                  |                                                                                                                                                                                 |



**Day 2: June 24, 2017 (Saturday), 10:30 – 10:20**

**Parallel Session 5**

| Session        | A-5<br>(Venue: Council Hall)                                                                                                     | APN Session<br>(Venue: Conference Hall, Guest House)                                                                                                       |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:30 to 11:50 | <b>[A5] Water environmental issues and sustainability</b>                                                                        |                                                                                                                                                            |
| Chairpersons   | <b>Dr. Vikrant Jain and Dr. Sudip Mitra</b>                                                                                      | <b>Prof. Hiroaki Furumai</b>                                                                                                                               |
| 10:30-10:50    | A5-1<br>Performance and cost analysis of decentralized wastewater treatment plants: A case study from Northern India             | 10:30 – 11:00<br>Health of Himalayan glaciers in changing climate scenario and its implication on water resources and livelihood by Prof. A.L. Ramanaathan |
| 10:50-11:10    | A5-2<br>Characterizing River Morphology and Watershed Characteristics Using Satellite Data for Improved Hydrological Forecasting | 11:00 – 11:30<br>Sustainable Approach to Urban Hydrological System: A Case Study of an Emerging City of Assam<br>Prof. Chandan Mahanta                     |
| 11:10-11:30    | A5-3<br>A Paradigm shift towards integrated approach in wastewater management for future cities                                  | 11:30 – 12:00<br>Environmental Education and Water: Implications for Sustainable Development Goals<br>Dr. Abhay Kumar                                      |
| 11:30-11:50    | A5-4<br>Nepal's agriculture and climate change challenges                                                                        | 12:00 - 12:30<br>Can bio-treatments of solid waste minimize the water contamination risk?<br>Satya Sundar Bhattacharya                                     |
| 11:50-12:10    | A5-5<br>Water Resource Management of Port Blair City: An appraisal                                                               | 12:30 – 13:00<br>Concluding Brainstorming                                                                                                                  |
| 13:00-14:00    | <b>Valedictory Function</b>                                                                                                      |                                                                                                                                                            |
| 14:00 -15:00   | <b>Farewell Lunch</b>                                                                                                            |                                                                                                                                                            |



## Organized by

- ❖ Tezpur University, India
- ❖ Kanazawa University, Japan
- ❖ University of Ruhuna, Sri Lanka
- ❖ The University of Tokyo, Japan

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