



**GCSTMR 4<sup>th</sup> CONGRESS**  
**PROGRAM SCHEDULE (20 – 22 January, 2019)**

<b>GCSTMR CONGRESS INAUGURAL SESSION</b>		
<b>Sunday, 20 January 2019</b>		
<b>The Institution of Engineers, Bangladesh (IEB) Auditorium, Ramna, Dhaka</b>		
<b>8.30 – 10.00</b>	<b>REGISTRATION</b>	
<b>10:00 – 11:00</b>	<p align="center"><b>CONFERENCE OPENING</b></p> <p align="center"><b>Chief Guest</b></p> <p align="center"><b>MC</b></p> <p align="center"><b>Vote of Thanks</b></p>	<p align="center"><b>K M Khalid, MP</b> Hon'ble State Minister Ministry of Cultural Affairs Government of Bangladesh</p> <p align="center">Dr Farhana Ferdousi</p> <p align="center">Dr Amir Ahmed and Engr Didarul Alam</p>
<b>11:00 – 11:30</b>	<b>MORNING TEA</b>	
<b>11:30 – 12:00</b>	<p align="center"><b>PLENARY 1</b></p> <p align="center"><b>Presenter</b></p> <p align="center"><b>Title</b></p>	<p align="center"><b>Engr Klaas Visser</b> Principal, KAV Consulting Pty Ltd, Australia</p> <p align="center">Bypassing the HFC Phasedown by Using Highly Efficient CO<sub>2</sub> and Hydro Carbon Refrigeration for the Cooling of Buildings in Bangladesh</p>
<b>12.00 – 12:30</b>	<p align="center"><b>PLENARY 2</b></p> <p align="center"><b>Presenter</b></p> <p align="center"><b>Title</b></p>	<p align="center"><b>Dr Taha B M J Ouarda</b> Professor National Institute for Scientific Research Canada</p> <p align="center">Impacts of Climate Change on Water Resources</p>
<b>12:30-13:30</b>	<b>LUNCH</b>	

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<b>13:30-14:00</b>	<b>PLENARY 3</b>	
	<b>Presenter</b>	<b>Dr Rafiqul Islam</b> Principal and Director Solar E. Technology Sydney, Australia
	<b>Title</b>	Educating Engineers with Personality as World Citizen Leading to Sustainable Development
<b>14:00-14:30</b>	<b>PLENARY 4</b>	
	<b>Presenter</b>	<b>Professor Dr Vivian Tam</b> Western Sydney University Australia
	<b>Title</b>	Construction Automation: A Concrete Perspective
<b>14:30-15:00</b>	<b>PLENARY 5</b>	
	<b>Presenter</b>	<b>Prof. Dr. Shams Rahman</b> RMIT University, Australia
	<b>Title</b>	Brain Gain and Economic Development: How Strategic the Strategy Is?
<b>15:00-15:30</b>	<b>HIGHLIGHTS BY SPONSORS</b>	
<b>15:30-16:00</b>	<b>AFTERNOON TEA</b>	
<b>16:00-16:30</b>	<b>PLENARY 6</b>	
	<b>Presenter</b>	<b>Prof. Dr. Ataur Rahman</b> Western Sydney University, Australia
	<b>Title</b>	Bangladesh Has So Much Rain, But So Little for Drinking: Is there any Sustainable Solution?
<b>16:30-17:00</b>	<b>PLENARY 7</b>	
	<b>Presenter</b>	<b>Md Jakariya, PhD</b> Professor Department of Environmental Science and Management North South University, Bangladesh

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	<b>Title</b>	Groundwater Arsenic Contamination in Bangladesh: Challenges and Way Forward to Ensure Sustainable Safe Water Coverage
<b>17:00-17:30</b>	<b>PLENARY 8</b>  <b>Presenter</b>	<b>Professor Dr Tofail Ahmed</b> Vice Chancellor Britannia University, Bangladesh
	<b>Title</b>	Challenges and Opportunities in Rural Development in Bangladesh

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### CONFERENCE SCHEDULE (iCSNBE 2019)

**1<sup>st</sup> International Conference on Sustainability in Built and Natural Environment**  
Organized by: Global Circle of Scientific, Technological and Management Research (GCSTMR)

Hosting Partner and Institution: North South University

For details visit [www.icsnbe.au/](http://www.icsnbe.au/) or mail [raisa.bashar@northsouth.edu](mailto:raisa.bashar@northsouth.edu)

iCSNBE DAY 1 MONDAY, 21 JANUARY 2019 NORTH SOUTH UNIVERSITY		
8:30 – 9:00	<b>REGISTRATION</b> Location(s)	Booth 1: Reception Booth 2: Faculty Lounge ( <b>WELCOME SNACKS</b> ) Booth 3: AUDI 801
SESSION – 1		
9:00 – 9:30	<b>INAUGURATION</b> Location	AUDI 801
	Chief Guest	<b>Professor Atiqul Islam</b> Vice Chancellor North South University
	Session Chair	<b>Prof. Dr. Gias U Ahsan, PhD</b> Pro Vice Chancellor (Designate) and Dean, School of Health and Life Sciences North South University
	Special Guests	<b>Dr. Vivian W. Y. Tam</b> Professor and Associate Dean (International) School of Computing, Engineering and Mathematics Western Sydney University, Australia  <b>Muqeed Majumdar Babu</b> Chairman, Prokriti O Jibon Foundation Director, Channel I  <b>Dr. Nurul Quadir</b> Additional Secretary Ministry of Environment, Forest and Climate Change Government of Bangladesh  <b>Dr. Rafiqul Islam</b> Principal and Director, Solar E. Technology (Australia) Chair, iCSNBE 2019

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<p><b>9:30 – 10:00</b></p>	<p><b>KEYNOTE PRESENTATION</b> Location  Keynote Speaker   Topic</p>	<p>AUDI 801  <b>Dr. Nurul Quadir</b> Additional Secretary Ministry of Environment, Forest and Climate Change Government of Bangladesh  Government's Role in Environmental Protection</p>
<p><b>10:00 – 10:30</b></p>	<p><b>INVITED PRESENTATION</b> Location  Invited Speaker   Paper Title</p>	<p>AUDI 801  <b>Dr. Mohammad Afsar Uddin</b> Research Professor Korea University, Korea  (57) Organic Material Design Strategy for Efficient Organic Photovoltaic Cells</p>
<p><b>11:00 – 12:30</b></p>	<p><b>ORAL PRESENTATION - PARALLEL SESSION – 1A</b> Theme  Location  Chair  Co-Chair  Presenters</p>	<p><b>ENERGY AND INNOVATION</b>  AUDI 801  <b>Dr. Md. Nazrul Islam</b> Associate Professor Dept. of Geography and Environment Jahangirnagar University  <b>Ahmed Ishtiaque</b> Lecturer Department of Microbiology and Biochemistry North South University  1. <b>(48) Mujtaba Ahsan and Shahriar Raj</b> Strategies to Improve Energy Use in Urban University Campus Design in Bangladesh</p>

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		<p>2. <b>(38) Md. Tanvir Khan, Mohammad Ilias Inam and Abdullah Al-Faruk</b> CFD Analysis of a Floating Offshore Vertical Axis Wind Turbine</p> <p>3. <b>(67) Nishat Tabassum, Al Ibtida Sultana and Shoeb Ahmed</b> Development and Performance Evaluation of Novel Graphite-Starch Electrodes-based Microbial Fuel Cells (MFC)</p>
<p><b>11:00 – 12:30</b></p>	<p><b>ORAL PRESENTATION - PARALLEL SESSION – 1B</b> Theme</p> <p>Location</p> <p>Chair</p> <p>Co-Chair</p> <p>Presenters</p>	<p><b>BUILT VS NATURAL ENVIRONMENT</b></p> <p>SYNDICATE HALL</p> <p><b>Dr. Mohammad Moshiur Rahman</b> Assistant Professor and Chair Dept. of Environmental Science and Management North South University</p> <p><b>Tousif Rahman</b> Lecturer Department of Civil and Environmental Engineering North South University</p> <p>1. <b>(88) Sadia Afroj, Nafis Fuad, Dr. Md. Musleh Uddin Hasan and Mr. Anindya Kishore Debnath</b> Sustainability of Car-sharing Service in Dhaka: A Case Study on Uber Users</p> <p>2. <b>(89) Rian Binte Kamal and Bias Binte Kamal</b> Challenges Faced in Preparing Sustainability Reporting: Emphasis on Commercial Banks Reporting Pattern in Bangladesh</p>

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		<p>3. <b>(31) Md. Sarwar Jahan Talukdar, Afrin Khandaker and Md. Shahadat Hossen</b> Evaluation of the Outdoor Thermal Discomfort of Three Major Cities of Bangladesh</p> <p>4. <b>(83) Manasi Wijerathna, Samanthika Liyanapathirana and Chin Leo</b> Effect of Rectangular and Triangular Grids of Columns on Load Transfer Mechanism of Column-supported Embankments</p>
<b>12:30 – 14.00</b>	<b>LUNCH</b> Location	FACULTY LOUNGE
<b>SESSION – 2</b>		
<b>14:00 – 14:30</b>	<p><b>KEYNOTE PRESENTATION</b> Location</p> <p>Keynote Speaker</p> <p>Topic</p>	<p>AUDI 801</p> <p><b>Mr. Abdullah M Talha</b> Deputy Managing Director Noman Group</p> <p>The Textile Industry and the Environment</p>
<b>14:30 – 15.00</b>	<p><b>INVITED PRESENTATION</b> Location</p> <p>Invited Speaker</p> <p>Paper Title</p>	<p>AUDI 801</p> <p><b>Dr. Muhammad Abdur Rouf</b> Professor Khulna University, Bangladesh</p> <p>(60) Partial Nutrient Budget of Shrimp Culture Ponds in Southwest Coastal Region of Bangladesh</p>
<b>15:00 – 16:30</b>	<p><b>ORAL PRESENTATION - PARALLEL SESSION – 2A</b></p> <p>Theme</p> <p>Location</p>	<p><b>LAND, AIR AND WATER</b></p> <p>AUDI 801</p>

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	<p>Chair</p> <p>Co-Chair</p> <p>Presenters</p>	<p><b>Dr. Biswas Karabi Farhana</b> Professor Dept. of Environmental Science and Management North South University</p> <p><b>Segufta Dilshad</b> Lecturer Department of Public Health North South University</p> <p>1. <b>(22) Debasish Roy Raja, Habibul Bashar Ayon and Tasnim Alam Nishat</b> Spatial Analysis of Heat Stress Vulnerable Areas in Chittagong City Corporation</p> <p>2. <b>(33) Sultana N Nury, Nigel Tapper, Andrew Coutts and Jason Beringer</b> Informed Implementation of Greening as an Urban Heat Mitigation Measure in Melbourne, Australia: A Remote Sensing Study</p> <p>3. <b>(41) Ahmed Imran Swanan and Sanjit Sikder</b> Experimental Study and Performance Test of Composite Internal Fins</p> <p>4. <b>(50) Kaniz Rokhsana and Sajid Hasan</b> Investigation of Soils' Behaviour by Using Lime</p>
<p><b>15:00 – 16:30</b></p>	<p><b>ORAL PRESENTATION - PARALLEL SESSION – 2B</b> Theme</p> <p>Location</p> <p>Chair</p>	<p><b>LAND, AIR AND WATER</b></p> <p><b>SYNDICATE HALL</b></p> <p><b>Mirza Shawkat Ali</b> Director (Climate Change and International Convention) Department of Environment, GoB</p>

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	Co-Chair	<p><b>Haniyum Maria Khan</b> Lecturer Dept. of Environmental Science and Management North South University</p>
	Presenters	<p>1. <b>(51) Nawshin Tabassum and Ishrat Islam</b> National Climate Fund Projects in Urban Areas of Bangladesh: A Study of Their Spatial Distribution and Association with NAPA (2005) and BCCSAP (2009)</p> <p>2. <b>(70) Md. Hamidur Rahman, Md. Hedaetul Islam and Meher Nigar Neema</b> Compactness of Neighbourhood Spatial Structure: A Case Study of Selected Neighborhoods of DNCC and DSCC area</p> <p>3. <b>(76) Paromita Sarker</b> Geotechnical Investigations on Landslide in Rangamati by Analyzing Slope Stability in Numerical Modelling</p> <p>4. <b>(84) Mohammad Rafayet Hossain</b> Environmental Pollution of Present Chinese Industrial Revolution and Its Impact on Surrounding Countries</p>
<b>16:30 – 17.30</b>	<b>TEA &amp; SNACKS</b> Location	FACULTY LOUNGE

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<b>iCSNBE DAY 2</b> <b>TUESDAY, 22 JANUARY 2019</b> <b>NORTH SOUTH UNIVERSITY</b>		
<b>8:30 – 9:30</b>	<p><b>REGISTRATION</b> Location(s)</p> <p>Opening Speech</p>	<p>Booth 1: Reception Booth 2: Faculty Lounge (<b>WELCOME SNACKS</b>) Booth 3: AUDI 801</p> <p><b>Dr. Ataur Rahman</b> Professor of Water Engineering Western Sydney University Chair, GCSTMR</p>
<b>SESSION – 3</b>		
<b>9:30 – 10:00</b>	<p><b>KEYNOTE PRESENTATION</b> Location</p> <p>Keynote Speaker</p> <p>Topic</p>	<p>AUDI 801</p> <p><b>Dr. Mizan R Khan</b> Professor Dept. of Environmental Science and Management North South University</p> <p>Climate Change and Sustainability</p>
<b>10:00 – 10:30</b>	<p><b>INVITED PRESENTATION</b> Location</p> <p>Invited Speaker</p> <p>Paper Title</p>	<p>AUDI 801</p> <p><b>Rafiqul Islam (PhD)</b> Principal and Director Solar E. Technology International, Australia</p> <p>(92) A Real Market Property Financing Model for an Equity Based Sustainable Banking</p>
<b>11:00 – 12:30</b>	<p><b>ORAL PRESENTATION - PARALLEL SESSION – 3A</b></p> <p>Theme</p> <p>Location</p>	<p><b>HOUSING AND INFRASTRUCTURE</b></p> <p>AUDI 801</p>

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	Chair	<b>Md. Jakariya, PhD</b> Professor Dept. of Environmental Science and Management North South University
	Co-Chair	<b>Sujaul Khan</b> Senior Lecturer Department of Architecture North South University
	Presenters	<p>1. <b>(1) Ahmed Sajid and Kaniz Roksana</b> A Study about the Traffic Congestion at Gumti Bridge on Dhaka –Chittagong Highway</p> <p>2. <b>(2) T. M. S. A. Hossain</b> Instrumental Characterization of Available Sedimentary Clay Collected from Hobiganj District for Structural Applications in Bangladesh</p> <p>3. <b>(14) Md Chowdhury</b> An Index for Sustainable Urban Transportation with Reviews, Analyses, and Recommendations</p> <p>4. <b>(24) Arif Ahmed Nowfel, Dr. Nova Ahmed and Rahat Janhangir Rony</b> Sustainable Houses of Bangladesh</p> <p>5. <b>(40) Vivian Tam, Anthony Butera, Luis Da Silva and Ana Evangelista</b> Statistical Study of Mixtures Characteristics in Carbon Conditioning Recycled Aggregate Concrete Performance Using Machine Learning</p>
<b>11:00 – 12.30</b>	<b>ORAL PRESENTATION - PARALLEL SESSION – 3B</b> Theme	<b>HOUSING AND INFRASTRUCTURE</b>
	Location	<b>SYNDICATE HALL</b>

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	Chair	<b>Dr. Nazmul Ahsan Khan</b> Professor Department of Environmental Science and Management Proctor North South University
	Co-Chair	<b>Ismat Hossain</b> Senior Lecturer Department of Architecture North South University
	Presenters	<p>1. <b>(39) Fahmida Hanif, Muntasir Hossain and Anindya Debnath</b> A Study on Mode Choice Behavior of Working Population in Dhaka: A Way Towards Sustainable Transportation</p> <p>2. <b>(42) Vivian Tam, Ana Evangelista and Rui Zhang</b> Comparative Analyses of Prefabrication Technologies, Innovation and Sustainability between China and Australia</p> <p>3. <b>(46) Mohammad Al-Amin</b> Evaluation of Rural Piped Water Distribution Systems in Bangladesh</p> <p>4. <b>(61) Mehreen Hossain and Dr. Hassan Mahmud</b> A Study of Commonly Used Design Solutions for Rooftop Gardens in Dhaka City and Their Comparative Analysis</p>
<b>12:30 – 14.00</b>	<b>LUNCH</b> Location	<b>FACULTY LOUNGE</b>
<b>SESSION – 4</b>		
<b>14:00 – 14:30</b>	<b>KEYNOTE PRESENTATION</b> Location	<b>AUDI 801</b>

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	Keynote Speaker	<b>Dr. K M U Ahmed</b> Professor and Chair Department of Geology, University of Dhaka
	Topic	Environmental Aspects of Groundwater Development
<b>14:30 – 15:00</b>	<b>INVITED PRESENTATION</b> Location	AUDI 801
	Invited Speaker	<b>Mohammad Nazmul Hossain</b> Department of Glass and Ceramics Engineering Bangladesh University of Engineering and Technology
	Paper Title	(90) Removal of Chromium from Tannery Effluents Using Egg Shell and Snail Shell
<b>15:00 – 16:30</b>	<b>ORAL PRESENTATION - PARALLEL SESSION – 4A</b> Theme	<b>ENVIRONMENTAL MANAGEMENT</b>
	Location	AUDI 801
	Chair	<b>Dr. Hassan Mahmud</b> Professor Dept. of Environmental Science and Management North South University
	Co-Chair	<b>Raisa Bashar</b> Lecturer Dept. of Environmental Science and Management North South University
	Presenters	1. <b>(7) Md Mahfuzul Haque and S. M. Monowar Hossain</b> Site Characteristics & Evolution of the Solid Waste Landfill Sites of Dhaka, Bangladesh

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		<p>2. <b>(9) Rahanat Ara Jafar and Sadia Nowshin</b> Rethinking the Residential Environment of Ship Breaking Worker’s Community</p> <p>3. <b>(10) S M Tariquzzaman, Farhana Ahmed Chaity and Dr. Md. Jakariya</b> The Situation of Non-Biodegradable Waste Management in Dhaka City and Approaches to Sustainable Solution</p> <p>4. <b>(20) Mithila Parvin, Sahadat Hossain and Md. Ashrafur Rahman</b> Sustainability Reduction in Groundwater Resources of Madhupur Tract Aquifer due to Climatic Changes in N-C region of Bangladesh</p>
<b>15:00 – 16:30</b>	<p><b>ORAL PRESENTATION - PARALLEL SESSION – 4B</b> Theme</p> <p>Location</p> <p>Chair</p> <p>Co-Chair</p> <p>Presenters</p>	<p><b>ENVIRONMENTAL MANAGEMENT</b></p> <p><b>SYNDICATE HALL</b></p> <p><b>Dr. Md. Humayun Kabir</b> Professor Dept. of Geography and Environment Dhaka University</p> <p><b>Dr. Shah Mahmud Mishu</b> Lecturer Department of Public Health North South University</p> <p>1. <b>(58) Md. Rakibul Hasan Kauser and Meher Nigar Neema</b> Service Area Analysis of Hospitals in Chittagong Using Geographic Information System</p>

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		<p>2. <b>(73) Ali Ashraf</b> A Financial Decision Model for Sustainable Alternative</p> <p>3. <b>(82) Caleb Christian Amos, Ataur Rahman, Fazlul Karim and John Mwangi Gathenya</b> Sustainable Development of Roof Harvested Rainwater for Domestic Use and Urban Agriculture in Developed and Developing Nations: Economic and Feasibility Analysis</p> <p>4. <b>(21) Vivian Tam, Mahfooz Soomro and Anthony Butera</b> Performance Improvement of Recycled Aggregate</p>
<b>16:30 – 17.30</b>	<b>TEA &amp; SNACKS</b> Location	FACULTY LOUNGE

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**FIND THE VENUES (iCSNBE 2019)**

<b>AUDI 801</b>	<b>SYNDICATE HALL</b>	<b>FACULTY LOUNGE</b>
Arrive at the Reception Area (Administrative Building) via NSU Gate 1 - Register at the Booth	Arrive at the Reception Area (Administrative Building) via NSU Gate 1 - Register at the Booth	Arrive at the Reception Area (Administrative Building) via NSU Gate 1 - Register at the Booth
Pass through the right-hand side doors into the plaza area	Take the lift up to the 5 <sup>th</sup> floor	Take the lift up to the 5 <sup>th</sup> floor
Walk straight and arrive at the second set of lifts to your right (near the cafeteria entrance)	Walk straight for 6/7 steps	Walk straight, then take a left at the 2 <sup>nd</sup> turn
Take the lift to the 8 <sup>th</sup> floor (this is the SAC Building)	The wooden doors to the Syndicate Hall is to your right	You have reached the glass doors to the Faculty Lounge
Follow the arrows on the wall to AUDI 801 (right – left – right)		

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