



## International Conference

### *BRICS NUs: Water Resources and Pollution Treatment [WRPT21]*



**6<sup>th</sup>-9<sup>th</sup> July, 2021**

**(Virtual meeting in Zoom platform)**

**[16:00-19:30 hrs. @ Indian Standard Time]**

#### Organized by



**NIT DURGAPUR  
INDIA**



**IIT KANPUR  
INDIA**

#### ABOUT THE CONFERENCE

In recent time BRICS nations are facing a crisis on freshwater resources and also dealing with water pollution. Water must be treated and supplied according to usage with a focus on economic efficiency and environmental sustainability. Against this backdrop, an International Conference will be organized. The conference will see a convergence of renowned experts and research students from BRICS countries.

Researchers will deliberate and discuss various water-related issues. The conference will provide an interactive platform for enormous brainstorming and sharing path breaking ideas for sustainable water resources management and pollution treatment.

#### MAJOR THEME

- **T1: Water Scarcity Challenges Ahead**
- **T2: Surface and Ground Water Management**
- **T3: Extreme Climate Event-Drought and Flood**
- **T4: River basin management**
- **T5: IoT enabled water resource management system**
- **T6: Water Supply and Treatment**
- **T7: Clean Water**
- **T8: Wastewater Treatment Technology**
- **T9: New materials for wastewater treatment**
- **T10: Mathematical modelling related to water resource management**
- **T11: Waste Containment Structures for water resource management**
- **T12: Wastewater based epidemiology and Covid-19**

## ABOUT THE INSTITUTE

### National Institute of Technology Durgapur:



NIT Durgapur is an academic institute of national importance under the Ministry of Education, Govt. of India. It was established in 1960 as Regional Engineering College at Durgapur, West Bengal state and converted to NIT in 2002 under an act of the Parliament of India. It hosts several engineering, science, management and humanities disciplines for UG, PG and Ph D students from India and abroad. NIT Durgapur is a partner institute of BRICS Network University under the thematic area “Water Resources and Pollution Treatment”.

<https://www.nitdgp.ac.in/>

<https://www.nitdgp.ac.in/p/brics-1>

### Indian Institute of Technology Kanpur:

Indian Institute of Technology, Kanpur, established in 1959, is one of the premier institutions established by the Government of India. The aim of the Institute is to provide meaningful education, conduct original research of the highest standard and to provide leadership in technological innovation. The globally acclaimed education at IIT Kanpur prepares the Indian students and

international students for exciting careers all over the world. The education develops a critical thinking led approach and imparts knowledge in science, engineering, management and humanities fields to solve problems that challenge humanity. Researchers at IIT Kanpur do cutting edge research in their area. There is great synergy between the fundamental research and applied research done at IITK. Its alumni and faculty have won many international awards.

<https://www.iitk.ac.in/>



### History and Objectives of the BRICS Network University:

For historical, economic, and political reasons, the universities of BRICS countries have not yet developed strong collaboration. Trying to cover this gap, the Ministries of Education of BRICS countries implemented in 2015 the BRICS Network University (BRICS NU).

Involving some of the top universities in the five BRICS countries, the objectives of this network are:

- in the short term, enhance the academic collaboration between universities of the five

countries through joint-researches and mobility of students and scholars;

- in the middle-term, create joint Graduate programs issuing diplomas that will be valid for the five countries, and prepare high-qualified staff for the BRICS multilateral institutions;
- in the long-term, enhance scientific development according to the necessities of non-central countries; in this sense, it may contribute to “reshaping the world knowledge”. BRICS NU is organized in six strategic axes (<https://nu-brics.ru/>):

- BRICS studies
- Computer science and informational security
- Ecology and climate change
- Economics
- Energy
- Water resources and pollution treatment

- Promote educational cooperation among all BRICS universities and education institutions
- Promoting the BRICS Network University research collaborations to foster productivity, innovation, economic growth and well-being;





**Member universities/institute under BRICS NUs:  
Water Resources and Pollution Treatment**

1. Federal University of Minas Gerais (Brazil)
2. Federal University of Rio de Janeiro (Brazil)
3. Tomsk Polytechnic University (Russia)
4. Saint Petersburg State University (Russia)
5. National Institute of Technology Durgapur (India)
6. Indian Institute of Technology Kanpur (India)
7. Hohai University (China)
8. North China University of Water Resources and Electric Power (China)
9. Durban University of Technology (South Africa)
10. Central University of Technology (South Africa)

**PAST EVENTS  
BRICS NUs ITG Meeting: Water Resources and  
Pollution Treatment**

*BRICS NU ITG MEETING, SOUTH AFRICA, 2018*



*BRICS NU ITG MEETING, CHINA, 2018*



*BRICS NU ITG MEETING, RUSSIA, 2016*



*Patrons*

- Prof. Anupam Basu, Director, NIT Durgapur
- Prof. Abhay Karandikar, Director, IIT Kanpur

*Chairpersons*

- Dr. Hirok Chaudhuri, Department of Physics, NIT, Durgapur and Centre for Research on Environment and Water, NIT, Durgapur
- Prof. Y. M. Joshi, Department of Chemical Engineering, IIT Kanpur and Dean, International Relations, IIT Kanpur

*Organizing Committee*

- Dr. Supriya Pal, Department of Civil Engineering, NIT, Durgapur
- Dr. Mrinal Kanti Mandal, Department of Chemical Engineering, NIT Durgapur
- Dr. Soumen Basu, Department of Physics, NIT Durgapur
- Prof. Rajnarayan Saha, HOD, Department of Chemistry, NIT Durgapur and Coordinator, Centre for Research on Environment and Water, NIT, Durgapur
- Prof. Nilotpala Banerjee, Dean, Alumni Affairs and Outreach, NIT, Durgapur
- Prof. Ajit Kumar Meikap, Dean Research and Consultancy, NIT, Durgapur
- Prof. Pathik Kumbhakar, Dean Academic Research, NIT, Durgapur
- Prof. Amiya Kumar Samanta, HOD, Department of Civil Engineering, NIT, Durgapur
- Prof. Kalyan Adhikari, HOD, Department of Earth and Environmental Studies, NIT, Durgapur
- Prof. Gopinath Halder, HOD, Department of Chemical Engineering, NIT Durgapur
- Dr. Sukadev Sahoo, HOD, Department of Physics, NIT Durgapur
- Prof. Sachchida Nand Tripathi, HOD, Department of Civil Engineering, IIT Kanpur
- Prof. Indra Sekhar Sen, Department of Earth Science, IIT Kanpur
- Prof. Chunendra K Sahu, Department of Civil Engineering, IIT Kanpur

## Keynote speakers

- Speaker 1 : Federal University of Rio de Janeiro, Brazil
- Speaker 2 : Federal University of Minas Gerais, Brazil
- Speaker 3 : Tomsk Polytechnic University, Russia
- Speaker 4 : Vernadsky Institute of Geochemistry and Analytical Chemistry of RAS, Russia
- Speaker 5 : Hohai University, China
- Speaker 6 : North China University of Water Resources and Electric Power
- Speaker 7 : Durban University of Technology, South Africa
- Speaker 8 : Central University of Technology, South Africa
- Speaker 9 : National Institute of Technology Durgapur, India
- Speaker 10 : National Institute of Technology Durgapur, India

## Call for Papers

### Abstract:

Invited speakers are requested to send their abstract based on original research to the conference email:

[bricswater21@gmail.com](mailto:bricswater21@gmail.com)

A one-page abstract (with in 250 words) should be prepared in the following format: (1) Use a sheet of A4 size paper. (2) Use 12 points Times New Roman for the main text and smaller fonts (10 points) may be used for figure captions. (3) The width of each line should not exceed 17.5 cm or 7.0 inch. (4) Start the first line leaving the space of 2.5 cm or 1.0 inch on the upper side. (5) Title, author's names, and affiliations, email address should be centered (6) Insert

one blank line between the affiliations and the main text. (7) Main text should be fully justified with 1.5 spacing. (8) Use bold face with bigger fonts (16 points Times New Roman) for title but not for authors, affiliations, and the main text. (9) Please underline the presenting author. (10) Leave the space of 2.5 cm or 1.0 inch at least on the bottom of the text.

Format for Abstract: Format is attached

### Abstract proceedings of the conference:

All Abstracts will be published in the abstract proceedings of the conference.

## Full Paper Publication in the edited volume in Springer Conference Proceedings

Full paper will be published in the edited volume in springer publication after peer review.

Format for Full Paper: Format is attached.

### Short Resume:

Invited speakers are requested to send their one-page short resume. The resume should be prepared in the following format: name, nationality, designation/position, affiliation, address, email and a passport size photograph at the top right corner. Short should be prepared in the following format: (1) Use a sheet of A4 size paper. (2) Use 12 points Times New Roman (3) The width of each line should not exceed 17.5 cm or 7.0 inch. (4) Start the first line leaving the space of 2.5 cm or 1.0 inch on the upper side. (5) Main text should be fully justified with single spacing. (6) Leave the space of 2.5 cm or 1.0 inch at least on the bottom of the text.

## IMPORTANT DATES

Abstract submission closed	: June 30, 2021
Acceptance of abstract	: July 2, 2021
Online Registration closed	: July 1, 2021
Full paper submission closed	: August 31, 2021

## Registration Fee

### FREE

Registration is compulsory for all the participants. Students (Post Doc/ Ph D/ PG/ UG) / Technical Staffs from University and Industry / Students/ Science Workers/ NGO Officials / Govt. Officials / Media persons need to send supporting documents (scan copy of ID proof) and forwarding letter from Research Supervisors/ HOD at the time of registration.

## WHO CAN ATTEND

Faculty Members/ Technical Staffs from University and Industry / Students/ Science Workers/ NGO Officials / Govt. Officials / Media persons

## REGISTRATION FORM

Participants are requested to fill up the **REGISTRATION FORM [Google Form]** and send the supporting documents to the conference email [bricswater21@gmail.com](mailto:bricswater21@gmail.com)

### Google Form link:

[https://docs.google.com/forms/d/e/1FAIpQLScJd375sRoHcOqDhIHf42U\\_T\\_HPlzZlVie621pIODqGGm53ig/viewform?usp=pp\\_url](https://docs.google.com/forms/d/e/1FAIpQLScJd375sRoHcOqDhIHf42U_T_HPlzZlVie621pIODqGGm53ig/viewform?usp=pp_url)



Official Language: English





**BRICS NUs Workshop at Stellenbosch University, South Africa, 2018**

**BRICS NUs Workshop at Hohai University, China, 2018**

**BRICS NUs Workshop at Higher School of Economics, Moscow, Russia, 2016**

**BRICS NUs Workshop at NIT Durgapur, India, 2019**

**Tentative Programme (International Conference - BRICS NUs: Water Resources and Pollution Treatment [WRPT21])**

Time (@ Indian Standard Time)	July 6 <sup>th</sup>	July 7 <sup>th</sup>	July 8 <sup>th</sup>
16:00-17:05	<b>Inauguration session</b>	<b>Session –IV</b> <b>Chairperson 4:</b>	<b>BRICS ITG Meeting</b>  <b>(only for the members of the ITG)</b>
16:00-16:10		CT-4 (China)	
16:10-16:20		CT-5 (India)	
16:20-16:30		CT-6 (Russia)	
		<b>Session –V</b> <b>Chairperson 5:</b>	
16:35-16:45		CT-7 (South Africa)	
16:45-16:55		CT-8 (Brazil)	
16:55-17:05		CT-9 (China)	
17:05-17:15		<b>BREAK</b>	
	<b>Session –I</b> <b>Chairperson 1:</b>	<b>Session –VI</b> <b>Chairperson 6:</b>	
17:15-17:35	IT-1 (South Africa)	IT-6 (South Africa)	
17:35-17:55	IT-2 (Russia)	IT-7 (Russia)	
17:55-18:15	IT-3 (Brazil)	IT-8 (Brazil)	
	<b>Session –II</b> <b>Chairperson 2:</b>	<b>Session –VII</b> <b>Chairperson 7:</b>	<b>Session –IX</b> <b>Chairperson 9:</b>
18:20-18:40	IT-4 (China)	IT-9 (China)	IT-11 (India)
18:40-19:00	IT-5 (India)	IT-10 (India)	IT-12 (India)
	<b>Session –III</b> <b>Chairperson 3:</b>	<b>Session –VIII</b> <b>Chairperson 8:</b>	<b>Session –X</b> <b>Chairperson 10:</b>
19:05-19:15	CT-1 (Brazil)	CT-10 (India)	CT-13 (Russia)
19:15-19:25	CT-2 (South Africa)	CT-11 (South Africa)	CT-14 (India)
19:25-19:35	CT-3 (Russia)	CT-12 (Brazil)	CT-15 (China)
19:40-20:00			<b>Valedictory Session</b>

**International Conference - BRICS NUs: Water Resources and Pollution Treatment [WRPT21]**

<b>Country</b>	<b>Time Zone</b>	
<i><b>Brazil</b></i>	07:30 – 11:00 participants from Brazil (UTC-3)	IT : 3, 8 CT : 1, 8, 12
<i><b>South Africa</b></i>	12:30 – 16:00 participants from South Africa (UTC+2)	IT : 1, 6 CT : 2, 7, 11
<i><b>Russia</b></i>	13:30 – 17:00 participants from Moscow, Russia (UTC+3)	IT : 2, 7
	13:30 – 17:00 participants from St.-Petersburg, Russia (UTC+3)	CT : 3, 6, 13
<i><b>India</b></i>	16:00 – 19:30 participants from India (UTC+5:30)	IT : 5, 10, 11, 12 CT : 5, 10, 14
<i><b>Russia</b></i>	17:30 – 21:00 participants from Tomsk, Russia (UTC+7)	IT : 2, 7 CT : 3, 6, 13
<i><b>China</b></i>	18:30 – 22:00 participants from China (UTC+8)	IT : 4, 9 CT : 4, 9, 15

IT: 20 minutes talks for ITG members only

CT: 10 minutes talks for participants other than ITG members (Faculty members and students from BRICS NUs)

