



jointly organising

Indo-South African Workshop on Water-Energy-Nexus in Process Industries

20th – 21st April, 2022

ABOUT

This workshop is organised as a part of the ongoing SPARC project on “Advanced Optimization Strategies for Efficient Water and Energy Utilization in Batch Processes: Case Studies in Pharmaceutical and Textile Industries” jointly by the Indian Institute of Technology Madras, Indian Institute of Technology Gandhinagar, and the University of the Witwatersrand and it is open for interested students.

REGISTRATION

- ✓ All researchers and industry practitioners are welcome
- ✓ No registration fee but prior registration is mandatory. For [registration](#) scan/click the QR
- ✓ The seminar will be held using Zoom.



SPEAKERS



Prof. Rajagopalan Srinivasan
Head of Amex-DART Lab,
Professor, Department of Chemical
Engineering,
Indian Institute of Technology Madras

Prof. Thokozani Majazi
Executive Dean of the Faculty of Engineering
and the Built Environment
University of the Witwatersrand



Dr. Harrison Pienaar
Water resource management,
Council for Scientific and Industrial Research
(CSIR), South Africa

Dr. Vijaysai Prasad
Head, Water Technology Center
L&T Water & Effluent Treatment, India



Dr. Vanita Prasad
Founder & Director, CTO
REVE Environmental Solutions Pvt. Ltd., India

Mr. Ashwin Seetal
Specialist Consultant: Water Management
Council for Scientific and Industrial Research
(CSIR), South Africa



Prof. Geoffrey S. Simate
Professor, School of Chemical and
Metallurgical Engineering
University of the Witwatersrand

Prof. Jaichander Swaminathan
Kanchan and Harilal Doshi Chair Assistant
Professor, Mechanical Engineering
Indian Institute of Technology Gandhinagar



Prof. Seshagiri Rao Ambati
Associate Professor, Department of Chemical
Engineering
National Institute of Technology, Warangal

Prof. Jean Mulopo
Associate Professor, School of Chemical and
Metallurgical Engineering
University of the Witwatersrand



Program Schedule

Day I – 20 April 2022

SAST (UTC +2H)	IST (UTC +5H30)	Session Chair: Prof. Thokozani Majazi
09:30 AM – 09:45 AM	01:00 PM – 01:15 PM	Welcome and Opening Remarks
09:45 AM – 10:15 AM	01:15 PM – 01:45 PM	System Engineering Technologies for Water-Energy Optimization: Opportunities for Small and Medium-Sized Enterprises Prof. Rajagopalan Srinivasan
10:15 AM – 10:45 AM	01:45 PM – 02:15 PM	Water-Energy-Food-Nexus: CSIR's Water related Research Dr. Harrison Pienaar
10:45 AM – 11:15 AM	02:15 PM – 02:45 PM	Resource Efficiency in Small and medium scale Industry Dr. Vanita Prasad
11:15 AM – 11:45 AM	02:45 PM – 03:15 PM	Carbon nanotubes as heterogeneous coagulants and flocculants for wastewater treatment Prof. Geoffrey S. Simate
11:45 AM – 12:15 PM	03:15 PM – 03:45 PM	Supervisory control configurations for improved operability of biological wastewater treatment plants Prof. Seshagiri Rao Ambati
12:15 PM – 01:00 PM	03:45 PM – 04:30 PM	Panel discussion

Day 2 – 21 April 2022

SAST (UTC +2H)	IST (UTC +5H30)	Session Chair: Prof. Babji Srinivasan
09:30 AM – 09:35 AM	01:00 PM – 01:05 PM	Welcome
09:35 AM – 10:05 AM	01:05 PM – 01:35 PM	Water Minimization in South African Industries Prof. Thokozani Majozi
10:05 AM – 10:35 AM	01:35 PM – 02:05 PM	Waste-To-Value: An Arc of Power-Water Nexus within the Circular Economy Framework Dr. Vijaysai Prasad
10:35 AM – 11:05 AM	02:05 PM – 02:35 PM	Water-Energy-Food-Nexus: CSIR's Water related Research Mr. Ashwin Seetal
11:05 AM – 11:35 AM	02:35 PM – 03:05 PM	Nanofiltration and UF for cheaper textile effluent recycling: A proof-of-concept demonstration Prof. Jaichander Swaminathan
11:35 AM – 12:05 PM	03:05 PM – 03:35 PM	The water-energy nexus: perspective on the experimental analysis of membrane technology for the treatment of Acid Mine Drainage (Brackish water). Prof. Jean Mulopo
12:05 PM – 12:50 PM	03:35 PM – 04:20 PM	Panel discussion
12:50 PM – 01:00 PM	04:20 PM – 04:30 PM	Next steps & closing