



Minerals, Metals, and Materials Technology Centre



NUS
National University
of Singapore

You are cordially invited to a one-day workshop on
Clean Coal Technologies - New Developments

Organized by

Minerals, Metals & Materials Technology Centre, M3TC

Chair: Prof. Arun S. Mujumdar, Professor of Mechanical Engineering & Centre Director, M3TC

Co-chairs: Dr. Sachin V. Jangam and Karthik Somasundaram

Date: Tuesday, 04 September 2012

Time: 09:00 - 17:00

Venue: Faculty of Engineering, National University of Singapore (EA-06-05)

Program#

09:05-09:15	Registration		
09:15-09:30	Introduction - (Role of coal - Global perspective)	Prof A.S. Mujumdar	Minerals, Metals, and Materials Technology Centre (M3TC) Department of Mechanical Engineering, NUS
09:30-10:45	Advances in Clean Coal Technologies - Overview of Japanese Technologies	Prof Y Itaya	Department of Mechanical and Systems Engineering Gifu University, Japan
10:45-11:00	Coffee Break		
11:00-12:00	Coal Gasification for Clean Energy Research	Prof Wang Chi-Hwa	Minerals, Metals, and Materials Technology Centre (M3TC) Department of Chemical and Biomolecular Engineering, NUS
12:00-12:30	Desulphurization techniques for coal - An overview	Jeremy D Lease	Minerals, Metals, and Materials Technology Centre (M3TC)
12:30-14:00	Lunch Break		
14:00-15:15	Upgrading of Low Rank Carbonaceous Resources - Advanced Dewatering and Gasification Technologies	Prof Y Itaya	Department of Mechanical and Systems Engineering Gifu University, Japan
15:15-16:00	New Hydrothermal Technology for Producing Biochar for Direct Co-combustion with Coal	Prof Rajasekhar Balasubramanian	Minerals, Metals, and Materials Technology Centre (M3TC) Department of Civil and Environmental Engineering, NUS
16:00 - 16:30	Upgrading of low rank coal	Prof. A. S. Mujumdar / Sachin Jangam	Minerals, Metals, and Materials Technology Centre (M3TC) Department of Mechanical Engineering, NUS
16:30-17:00	Open Discussion		

For details of registration, contact: Dr. Sachin V. Jangam, Tel.: (65) 6516 8870, E-mail: mpejsv@nus.edu.sg

For details and updates, please visit <http://www.eng.nus.edu.sg/m3tc/> and <http://serve.me.nus.edu.sg/aron/>

***** Seats are limited. Please register early. *****

- Tentative programs subject to minor changes

About speakers



Prof. Arun S Mujumdar has published over 400 papers and is Editor-in-Chief of the journal *Drying Technology*. As the world's top contributor to archival literature on drying and editor of over 70 books, author of three books and founding Program Chairman of the IDS series started in 1978, he is globally known as the Drying Guru. He was professor of chemical engineering at McGill University, Canada until 2000, after which he moved to NUS, Singapore where he is Professor of Mechanical Engineering. Visit <http://serve.me.nus.edu.sg/arun> for details.

Prof. Yoshinori Itaya is a Professor of Mechanical and Systems Engineering at Gifu University, Gifu 501-1193 Japan. Professor Itaya is well-known for his contributions to a number of research themes which include energy, combustion, environmental issues, drying, and material processing. He is a member of various international scientific organizations. Prof Itaya has published more than 150 papers and has contributed to at least 15 books. He also has 12 patents to his name.



Assoc Prof Rajasekhar Bala has been a faculty member at the National University of Singapore since 1996, and he is currently an Associate Professor & Director (Special Projects) in the Department of Civil and Environmental Engineering. He is also holding a concurrent position as Director of Research in M3TC. Prof. Bala and his research group have been investigating a wide range of environmental issues, from urban air pollution to resource recovery, with a cross-disciplinary approach. The research activities undertaken over the years include fundamental laboratory investigations, processes-oriented field research, and theoretical studies to achieve a deep understanding of complex phenomena related to a range of research topics such as Waste-To-Energy Conversion, Industrial Ecology and Environmental Toxicology. He has published over 125 research articles in high impact international journals with his research team. He has managed several multi-national, multi-disciplinary research projects successfully over the years. He has won numerous teaching awards at Department, Faculty and University levels. He also received service awards from Spring-Singapore in recognition of his outstanding service contributions to implementing best laboratory practices in various commercial laboratories and testing facilities in Singapore.



Dr. Chi-Hwa Wang is currently a Professor of Chemical and Biomolecular Engineering at the National University of Singapore (NUS). He had the following joint appointments in his service to the same university (i) Assistant Dean for Research at the Faculty of Engineering, NUS (2006-2008), and (ii) Faculty Fellow, Singapore-MIT Alliance (2001-2006). He received his B.S. degree (Chemical Engineering) from the National Taiwan University, M.S. degree (Biomedical Engineering) from Johns Hopkins University, M.A. and PhD degrees (both in Chemical Engineering) from Princeton University, respectively. His current research interests include coal gasification and transport & reaction in particulate systems. He is on the editorial boards of *Journal of Controlled Release* (Elsevier) and *Powder Technology* (Elsevier). He is also an Executive Editor for *Advanced Powder Technology* (Elsevier).



Dr. Jeremy Lease is working as a Programme Manager at M3TC, NUS, Singapore. Dr. Jeremy completed his PhD from the Department of Chemical and Biomolecular Engineering, National University of Singapore in 2008. Since then he has been working as a Research Fellow at M3TC. Dr. Jeremy was appointed as a Programme manager in 2011 and he has handled several research projects at M3TC. He has a number of journal and conference papers to his name.