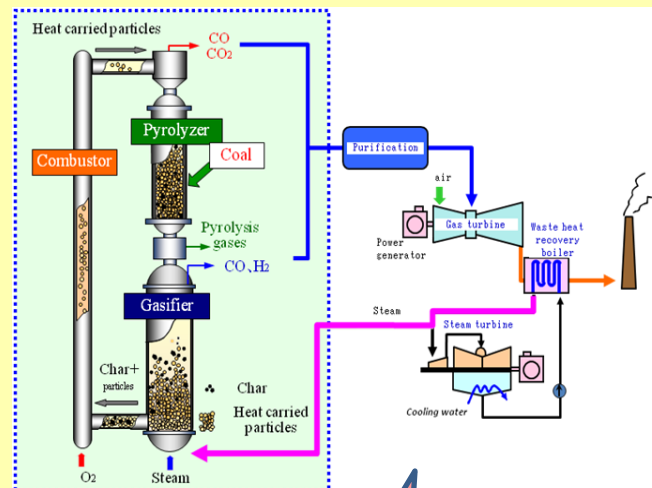
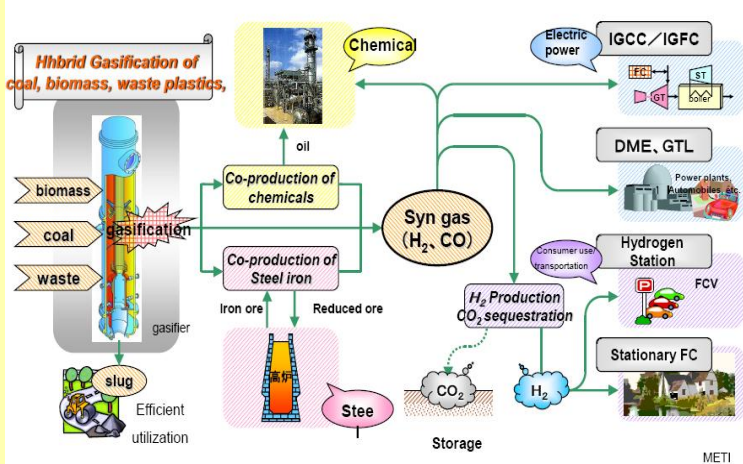


# Exergy Recuperative Gasification Technology for Hydrogen & Power Co-production

Workshop By

**Professor Atsushi Tsutsumi**

Collaborative Research Center for Energy Engineering, The University of Tokyo, Japan



**Prof. A. Tsutsumi will be discussing areas on:**

1. Clean coal technology
2. Principles of gasification
  - Kinetics and reaction mechanism
  - Gasifier
  - Integration of gasification technologies
3. Advanced gasification Technology
  - Exergy recuperative technology
  - Process design of A-IGCC/IGFC
  - Fluidization Technology
4. Biomass gasification



**Admission is free**

9:30am to 2:30pm, 12<sup>th</sup> August, 2010 (Thursday)

E1A-03-10, Faculty of Engineering, National University of Singapore

[NUS Campus Map](#) & [NUS: Faculty of Engineering](#)

Contact Number: (+65) 65168296

Please register and confirm your attendance via email: [engnrma@nus.edu.sg](mailto:engnrma@nus.edu.sg)

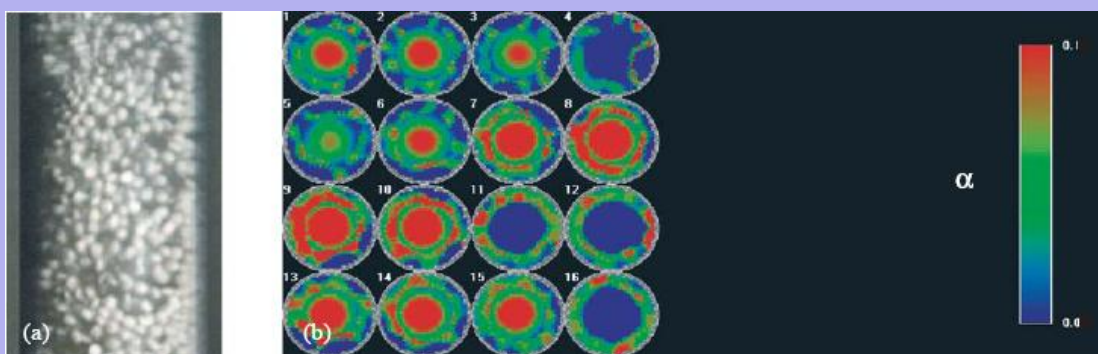
Please visit our website for more details, <http://www.m3tc.sg>

# Particle Technology Studies for Coal Gasification Applications

Workshop By

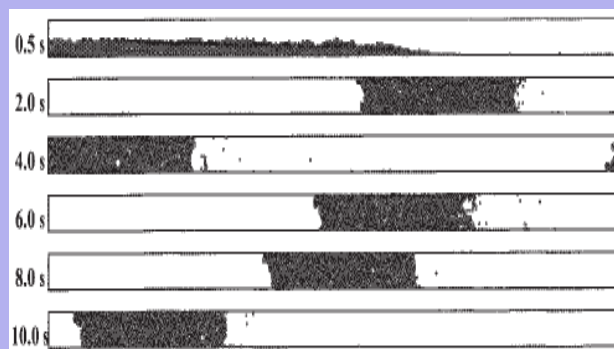
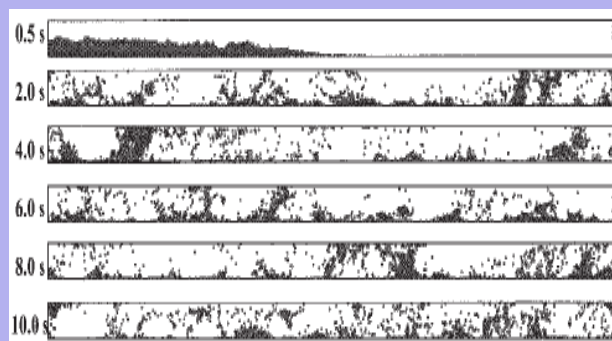
**Associate Professor Chi-Hwa Wang**

Department of Chemical and Biomolecular  
Engineering, National University of Singapore



A/Prof. C.H. Wang will be discussing areas on:

1. Applications of electrical capacitance tomography for on-line monitoring of solids transport and processing.
2. Electrostatics characterization for the transport and processing of granular solids.
3. Dynamic modeling of particulate systems.
4. CFD Simulation for coal gasification processes.



**Admission is free**

2:30pm to 5:00pm, 12<sup>th</sup> August, 2010 (Thursday)

E1A-03-10, Faculty of Engineering, National University of Singapore

[NUS Campus Map](#) & [NUS: Faculty of Engineering](#)

Contact Number: (+65) 65168296

Please register and confirm your attendance via email: [engnrma@nus.edu.sg](mailto:engnrma@nus.edu.sg)

Please visit our website for more details, <http://www.m3tc.sg>

# About the Speakers

ATSUSHI TSUTSUMI (B.S., M.S., Ph.D., The University of Tokyo) is Director of the Collaborative Research Center for Energy Engineering and Professor at the Institute of Industrial Science, Department of Mechanical and Biofunctional Systems at the University of Tokyo. He is well-known in the field of energy systems with research interests in the areas of Energy and Material Co-production Systems for Minimizing Exergy Loss and CO<sub>2</sub> Emission, Hydrogen Production by Energy Recuperative Gasification of Biomass, Development of Energy-Efficient Biomass Drying Process based on Self-Heat Recuperation Technology, Advanced-Integrated coal Gasification Combined Cycle/Integrated coal Gasification Fuel Cell Combined Cycle (A-IGCC/IGFC) with Exergy Recuperation and Novel Type of Electrochemical Energy Production/Storage System.

Dr. Chi-Hwa Wang is an Associate Professor of Chemical and Biomolecular Engineering at the National University of Singapore (NUS). 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 particle technology and drug delivery systems. He is currently 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) and an Executive Guest Editor for Current Pharmaceutical Design (Bentham Science Publisher).