

M3TC SEMINAR

MINERALS, METALS AND MATERIALS TECHNOLOGY CENTRE (M3TC)
FACULTY OF ENGINEERING
National University of Singapore
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TOPIC	Upgrading of Low Rank Coal (LRC)
SPEAKER	Sachin Vinayak Jangam Research Fellow, Minerals, Metals and Materials Technology Centre (M3TC), National University of Singapore
CHAired BY	Prof Arun Mujumdar (Director M3TC)
DATE	21st October 2011
TIME	5 pm to 6 pm
VENUE	EA-06-03, Faculty of Engineering, National University of Singapore <u>NUS Campus Map</u> & <u>NUS: Faculty of Engineering</u>

Please register via email: enqlctc@nus.edu.sg

SYNOPSIS

Low rank coal reserves are plentiful and well distributed around the globe. As clean coal technologies evolve it will be increasingly necessary to use coal to meet the global energy needs over the next four to five decades at least. LRCs have high moisture content which poses problems in transport, combustion and gasification/liquefaction processes. Converting LRCs to high value activated carbon, for example, also requires that coal be dried to very low moisture levels. Thermal drying of coal is a practical process that is energy-intensive. While the calorific value of dried coal is higher, there is parasitic energy loss suffered due to energy required for drying. It is also necessary to consider LCA of different coal upgrading technologies which is work in progress.

This seminar will present a detailed background, state-of-the-art of industrial scale coal dryers and our proposed options for drying of low rank coal such as lignite and brown coal. The speaker will also give the status of pilot drying units that we have designed and built. Some ideas and estimated dryer design configurations based on our preliminary scale-up models will also be presented.

About the Speaker

Sachin Vinayak Jangam is a Research Fellow in Minerals, Metals and Materials Technology Centre (M3TC) at National University of Singapore. He completed his Ph D in Chemical Engineering at the Institute of Chemical Technology, Mumbai, India. He has worked on drying of various food products as the major part of his Ph D thesis. Sachin Jangam is currently working on developing cost-effective drying techniques for minerals and low rank coal as well as modeling of heat and mass transfer processes of industrial interest. He is co-author of 10 journal papers, 2 book chapters, more than 15 conference presentations and co-editor of 4 e-books on Drying which can be freely downloaded from http://serve.me.nus.edu.sg/aron/E_books.htm.

All Are Welcome. Admission is Free

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