



**Schedule for 1<sup>st</sup> IITB-NUS joint research workshop  
(‘ENERGY 2014’)**

**24<sup>th</sup> & 25<sup>th</sup> February 2014**

**Venue: Lecture hall 33, 3rd floor, VMCC, IIT Bombay**

| <b>Day 1: 24<sup>th</sup> FEBRUARY, 2014</b> (times in 24 h format) |  |
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| <b>09:30-10:00</b>  | <b>Inaugural Session</b><br>Inaugural address by Prof. Devang Khakhar, Director, IIT Bombay  |
| <b>10:00-10.25</b>  | <b>Overview : Faculty of Engineering @ NUS</b>   |
| <b>10:25-10:50</b>  | <b>High Tea</b>  |
| <b>10:50-13:00</b>  | <b>Technical Presentation Session 1:</b><br>(all presentations are by invitation)<br>Session Chair: Prof. Rajiv. O. Dusane (Department of Metallurgical Engineering and Materials Science, IIT Bombay)                       |
| 10.55-11.20   | “Research at ECE@NUS and Current PES Research Directions” by Prof. Akshay Kumar Rathore, Department of Electrical and Computer Engineering, National University of Singapore   |
| 11.20-11.45   | “Insights into Waste-to-Energy in Megacities through a Hybrid Approach: Centralization versus Decentralization” by Prof. TONG Yen Wah, Department of Chemical and Biomolecular Engineering, National University of Singapore |
| 11.45-12.10   | “Electrochromic Windows: Improvements in colour contrast and switching rates” by Prof. Daniel John Blackwood, Department of Materials science and engineering, National University of Singapore                              |
| 12.10-12.35   | “Soft Generators for Motion-Based Energy Harvesting” by Prof. Koh Soo Jin Adrian, Department of Civil and Environmental Engineering, National University of Singapore  |
| 12.35-13.00   | “Thermal Management Solutions for High Power Dissipation” by Prof. Lee Poh Seng, Department of Mechanical Engineering, National University of Singapore  |

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| <b>13:00-14:00</b>  | <b>Lunch</b>   |
| <b>14:00-15:45</b>  | <b>STUDENT POSTER PRESENTATION</b> (as contributed)<br><b>and Tea</b>  |
| <b>15:45-16:00</b>  | <b>Overview: Engineering and Research @ IITB</b><br>by Prof. Prasanna M. Mujumdar, Dean of Research and Development, IIT Bombay  |
| <b>16:00-17:40</b>  | <b>Technical Presentation Session 2:</b><br>(all presentations are by invitation)<br>Session Chair: Prof. Rangan Banerjee (Department of Energy Science and Engineering, IIT Bombay) |
| 16.00-16.25   | “Electrochemical oxygen reduction on “core-shell” nanoparticle catalysts: The effect of core” by Prof. Arindam Sarkar, Department of Chemical Engineering, IIT Bombay                |
| 16.25-16.50   | “Metallic Nano/Micro-structures for Controlling Electromagnetic Wave” by Prof. Shobha Shukla, Department of Metallurgical Engineering & Materials Science, IIT Bombay                |
| 16.50-17.15   | “Demand response and distributed storage” by Prof. Suryanarayana Doolla, Department of Energy Science and Engineering, IIT Bombay  |
| 17.15-17.40   | “Fabrication of dye sensitized solar cells and their aging behaviour” by Prof. Parag Bhargava, Department of Metallurgical Engineering & Materials Science, IIT Bombay               |
| <b>19:30</b>  | <b>Banquet Dinner at Mantra Dining Bar, Hiranandani Ground, Powai</b>  |
| <b>Day 2: 25<sup>th</sup> FEBRUARY, 2014</b> (times in 24 h format) |  |
| <b>9:30-10:45</b>   | <b>Technical Presentation Session 3:</b><br>(all presentations are by invitation)<br>Session Chair: Prof. B. M. Arora, Department of Electrical Engineering, IIT Bombay              |
| 9.30-9.55   | “Lithium-ion Battery: Advances in New Anode and Cathode Materials” by Prof. Sagar Mitra, Department of Energy Science and Engineering, IIT Bombay                                    |
| 9.55-10.20  | “Performance trade-offs for perovskite based solar cells” By Prof. Pradeep R. Nair, Department of Electrical Engineering, IIT Bombay   |

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| 10.20-10.45   | <b>“Polymer Light Emitting Diodes”</b> by Prof. Dinesh Kabra,<br>Department of Physics, IIT Bombay |
| <b>10:45-12:15</b>                                    | <b>Tea + Networking (with faculties and students)</b>  |
| <b>12:15-13:30</b>                                    | <b>Lunch</b>   |
| <b>13:30-16:15</b>                                    | <b>Laboratory visits</b>   |
| <b>16:15-16.30</b>                                    | <b>Tea</b>   |
| <b>16:30-17:00</b>                                    | <b>Summary and Future planning</b>   |
| <b>17:00-18.00</b><br>(extended session, if required) | <b>Faculty meeting and discussion on collaboration, etc.</b>                                       |