

# **Workshop on Challenges and Opportunities in Modeling/Developing Industrial Processes**

**Department of Chemical Engineering, Indian Institute of Science, Bangalore**

**Friday, May 5<sup>th</sup> 2017**

1. **10 – 11 am Hydrocracking in the Refining Industry**  
**Gokul Bhuvaragun, Senior Technical Service Engineer,**  
**Chevron Lummus Global, Mumbai**
  - i. Refining Flow sheet and Hydrocracking place
  - ii. Hydrocracking fundamentals
  - iii. Hydrocracking Flow schemes
  - iv. Basic Catalyst information and formulation.
  - v. Areas of Current Research.
  - vi. BPCL UDCT Technical collaboration models.
  
2. **11 am – noon Olefins Processes: Operation and Optimization**  
**Dr. Chandra Gannavarapu, Senior Manager, Global Risk Analytics,**  
**LyondellBasell Industries , Houston, Texas**
  - i. Fundamentals issues in steam cracker operations
  - ii. Process control advancements and challenges
  - iii. Cracker feed optimization opportunities

**noon – 12.15 p.m. Coffee**

3. **12.15 pm – 1.15 pm Polycarbonate process technologies: The drivers  
of process options.**  
**Dr. S. Sivakumar, Chief Scientist, SABIC, Bangalore**
  - i. Introduction to PC (product and applications)
  - ii. Routes to make PC
  - iii. Technology/chemistry approaches for intermediates
  - iv. Interplay of kinetics, thermodynamics and equipment design
  - v. Challenges

**1.15 p.m. – 2 p.m. Lunch**

4. **2 pm – 2.45 pm Presentation about the department and research activities  
by the chairman Prof. Ganapathy Ayappa**