



FACULTY OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

REPORT ON GUEST LECTURE

Date: 19/02/2016

Venue: Third block, third floor auditorium.

Time: 11am-12pm

Attended by: 6th Semester students (All sections)

Guest Name: Mr. Surya Raghu,

President, Advanced fluidics,

Founding Member,

ET Cube International,

Maryland, USA

Email: sraghu@advancedfluidics.com

Introduction of guest by: Prof. Ajith Gopinath

Topic: CHALLENGES & OPPORTUNITIES FOR THE ENGINEERS OF TOMORROW.

Mr. Surya Raghu spoke briefly about his education and the work experience. He explained about the various hardships he faced as a student at Yale and at Berlin University where he studied, various world standard institutes and companies he has worked for.

He explained about the various projects he worked on with

- NASA Langley, Boeing, University of Arizona, Georgia Tech and VAST Inc. (External Flow Control)
- NASA Glenn, RPI, Northrop Grumman (Internal Flow Control – inlets, compressor blade, turbine blade, film cooling)
- TU Berlin (Combustion control),
- Illinois Institute of Technology (Cavity Flows)
- Army Research Lab, UMBC (Biosensors, Electrochemical Sensors)
- Institute of Physics (UK), International Center for Theoretical Physics, Italy, American Physical Society – Entrepreneurship Education for Scientists and Engineers from Developing Countries.

He gave abroad overview of how engineering is interconnected socially with science and societal needs, the major problem in the today's world is only catered to the elite rather than the poor and how the trend today should change against that idea. He spoke about the three important societal needs that engineers should cater i.e consumer products, commercial products and product for infrastructure.

He gave us a brief introduction on the various scales of engineering he deals with and explained to us the importance of these scales. They are

- Mega-scale Engineering Systems
- Infrastructure, Launch Systems
- Meter-scale Engineering Systems
- Satellites, HVAC Systems, automobiles, airplanes, etc.
- Meso-scale Engineering Systems
- Micro-scale Engineering Systems.
- MEMS, Microfluidics, Lab-on-a-chip
- Nano-scale Engineering Systems
- Nanorobotics, Nanomedicine, etc

He also explained about the current trends and ideas that the industry is coming up, with being Self-sustaining urban infrastructure, carbon sequestration, artificial trees, medical engineering and Solar Aerial Platforms.

Remarks by Guest

Engaged students, great hosting and many thanks

Photos of Guest lecture



Dr. Mr. Surya Raghu delivering his lecture



Participation of students and faculties during the guest lecture



Vote of thanks and honoring the guest with the memento.