

Workshop on “Emerging Aero Gas Turbine Technologies”

The Department of Aeronautical Engineering HOD had organized a two day workshop on “Emerging Aero Gas Turbine Technologies” on March 19th and 20th 2014.

The Program was inaugurated at 11:00 AM by Prof. S.C. Gupta, Head of Aeronautical Engineering (P.G) and Presided by Ms. Deepa M.S ,Head of Aeronautical Engineering (U.G) at Smt. Rajalakshmi Jayaraman Seminar Hall.

DATE	TIMINGS	PROGRAM
1ST Day 19-03-2014	11:00 AM	Inaugural Function
	11:15-12:00 PM	Dr. K Ramachandra, NDRF Key Note Lecture
	12:00-12:45 PM	Dr.J J Isaac, NAL
	1:45- 2:45 PM	Dr. Sundararajan V, Quest Global
	2:45- 3:30 PM	Dr. R Rajendran, NAL
2nd Day 20-03-2014	10:00-10:45 AM	Dr. Venkata Krishnaiah Thandaga, GTRE
	10:45 – 11:30 AM	Dr. Venkat S Iyengar, NAL
	11:30 – 12:15 AM	Dr. NKS Rajan, IISC
	1:30-2:15 PM	Dr. Dheepa Srinivasan, GE
	2:15- 3:00 PM	Panel Discussions

The first key note lecture was delivered by Dr. K Ramachandra, former Director Gas Turbine Research Establishment, from where he retired as outstanding scientist. He started his lecture by 11:15 AM. The first key note lecture given more ideas about:

- Hyperloop Transportation
- Combustion Instabilities
- Spacecraft Propulsion

- Slosh Dynamics in Spacecraft

The lecture is concluded by 12:00 PM. The lecture given the students and faculties more details about the future trends in propulsion in Spacecraft Propulsion.

The second lecture was delivered by Dr. J Jlsac, distinguished scientist NAL. The lecture started by 12:00 PM. The lecture given details about the following topics:

- Engine Health Monitoring
- Composites material optimization for Turbine Blades
- FADEC- Full Authorized Digital Engine Control

The lecture got over by 12:45 PM. The given the details about continuous health monitoring in engines of Aircraft and Spacecraft. After the session all the workshop attendees went for their Lunch. The post lunch session started at 1:45 PM

The post lunch session was started by the Lecture of Dr. Sundararajan V, former director of Gas Turbine Research Establishment from where he retired as outstanding Scientist. He served that organization for 37 year that included 20 years in senior management positions. His lecture started by 1:45 PM. His lecture was about:

- Future trends in Aerospace Propulsion
- Spacecraft Attitude Dynamics and Control using propulsion system
- Solar Sail

The lecture was concluded by 2:45 PM. The lecture given ideas about the future trends in spacecraft propulsion and also about the optimization of Solar Sail.

The next lecture started by 2:45 PM by Dr. R Rajendran, NAL. The lecture was about following topics:

- Gas turbine efficiency enhancement techniques for Aircraft Propulsion
- Propulsion for Missiles and Launch Vehicles

The lecture got over by 3:30 PM. The lecture given ideas about the enhancement of efficiency for Gas turbine engines. The first day of the workshop got over by this lecture.

The day given the students and faculties about the recent trends in aero engines and also the research areas which can be used for further studies in aero engines.

The second day of workshop was started on 10:00 AM at Smt. Rajalakshmi Jayaraman seminar hall. The day started by the lecture of Dr. Venkata Krishnaiah Thandaga, former additional director Gas Turbine Research Establishment and Emeritus Scientist,

Defense Research and Development Organization. He given a lecture on the following topics:

- Aerothermodynamics of Turbo Machines
- Turbines for Aerospace Vehicle
- Selection of turbines

The lecture given lots of details about Turbine selection of Aircraft Engines. The lecture got over by 10:45 AM.

The next lecture started on 10:45 AM. The lecture was given by Dr. Venkat S Iyengar, Distinguished scientist, National Aerospace Laboratories. He give a lecture on the following topics:

- Advanced Combustion in Aero Engines
- Combustion Enhancement

The lecture given more details about the combustion process in in gas turbine engine and also in missiles, Launch vehicles. The lecture got over by 11:30 AM.

The next lecture was started by 11:30 AM which was delivered by Dr. NKS Rajan, Principle Research Scientist, Department of Aerospace Engineering, Indian Institute of Science, Bengaluru. His lecture was about following topics:

- Heat Transfer
- Bio – mass Gasification
- Numerical Modelling and Software development in Aerospace Propulsion

The lecture got over by 12:15 PM. The lecture given idea about heat transfer applications in aircraft engines. After the lecture attendees of workshop went for Lunch. The post lunch session started by 1:30 PM.

The post lunch session started by 1:30 PM. The lecture was delivered by Dr. Dheepa Srinivasan, Indian Institute of Science. The lecture was about the following topic:

- Investigation of characteristics of Jets
- Free Jets and Forced Jets

The lecture given details about the characterization of Jets. The lecture got over by 2:15PM. These lecture was the last lecture of the workshop.

The panel discussion about the Worshop was started by 2:15PM , headed by Prof. S.C. Gupta, Head of Department, Aeronautical Engineering. The discussion with the

distinguished scientists given ideas to students and faculties to recent trends and areas of research. The panel discussion got over by 3:00 PM.

The seminar ended with the vote of thanks by Ms. Roohi, Assistant Professor, Department of Aeronautical Engineering who thanked the event organizers and Speakers and faculties of the departments. Feedback was collected from department faculties.

The event was organized by following faculties:

Ms. Deepa M.S

Mr. Nishanth P

Mr. Venugopal M M

Mr. Punith R

Mr. Jayaraman P

Ms. Nikita Venugopal

Mr. Ranjan H M

Mr. Rajendra P

Mr. Gururaj


PRINCIPAL SIGNATURE WITH SEAL
Dr. K. S. Shreeharadhy
Principal
MVJ College of Engineering
Near ITPS, Channarayana
Bangalore-560 087