

7.11.14

**Subject: Turbomachinery Workshop on Advances in Radial Compressor Aerodynamics and Gas Turbine Aeroelasticity**

For the second consecutive year, the Technion's aerospace dept. held a turbomachinery workshop. Organized by Dr. Beni Cukurel, the workshop hosted two of the world's leading experts in the fields of radial compressors and gas turbine aeroelasticity, Prof. Michael Casey and Prof. Damian Vogt.

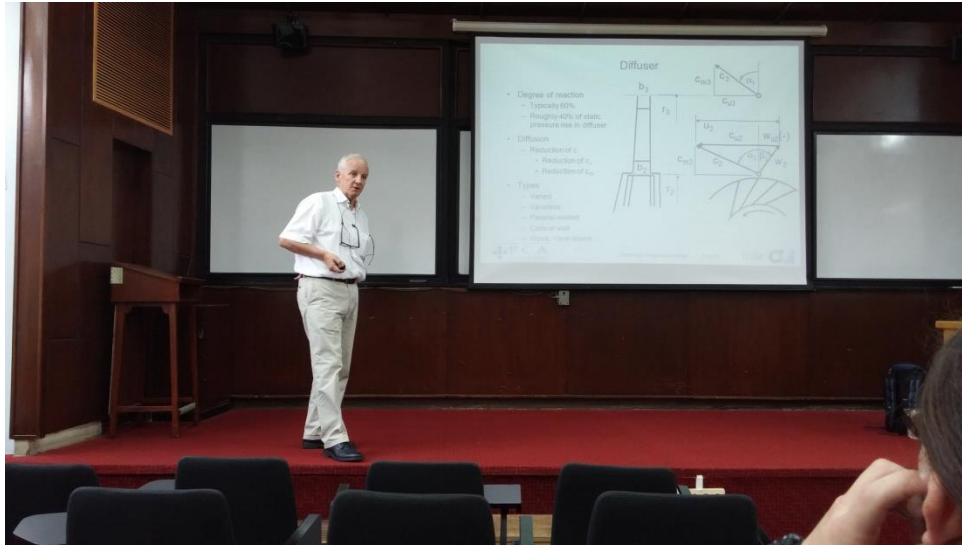
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On November 4<sup>th</sup> 2014, for the second consecutive year, a turbomachinery workshop organized by Dr. Beni Cukurel was held by the Technion aerospace department. The training activities were geared towards creating a platform for world's leading minds in the field of turbomachinery to come and share their knowledge with students, members of academia and industry.

This year we had the honor of hosting Prof. Michael Casey and Prof. Damian Vogt – experts in the fields of radial compressor design, and turbomachinery aeroelasticity respectively.

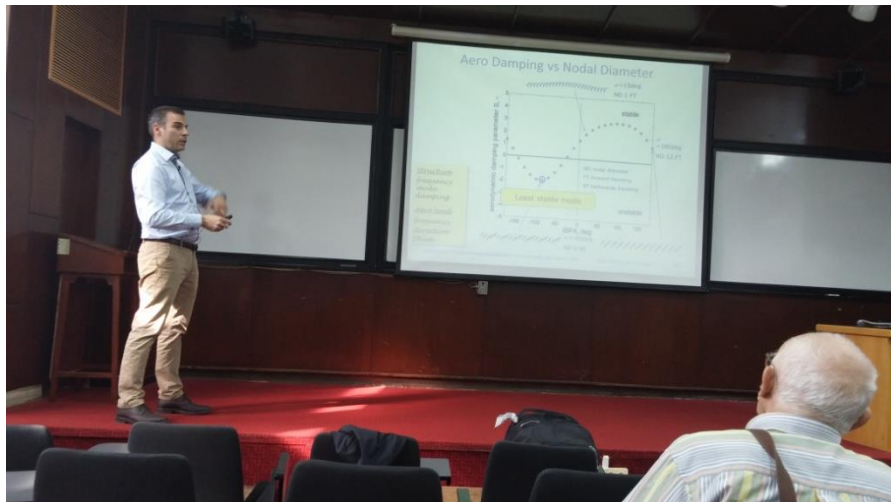


Prof. Casey's session was on the topic of *Advances in Radial Compressor Aerodynamic Design*, and included:

- An introduction to flow in centrifugal compressors - velocity triangles and Euler equation, non-dimensional parameters, loss mechanisms.
- Key aspects of centrifugal compressor design - impeller inlet, impeller exit, diffuser, and volute.
- Centrifugal compressor performance characteristics - range, surge, and choke, performance map, stage characteristics.
- Modern centrifugal compressor design tools - VistaCCD, BladeGen.

Prof. Vogt presented on the topic of *Turbomachinery Aeroelasticity*, and covered aspects such as:

- Introduction to turbomachinery aeroelasticity – general aspects, flutter, forced response, rotating instabilities.
- Methods in turbomachinery aeroelasticity – experimental methods, numerical methods.



The event included participation of members from branches of MAFAT, members of Israeli Air Force, members of Bet Shemesh Engines, members of Rafael, members of Israeli Aircraft Industries, in addition to Aerospace Department faculty/staff/students. We have received significant positive feedback from all those who attended the sessions.

Thank you for your support,

With best regards,

Asst. Prof. Beni Cukurel