

REPORT ON AESI EVENT - 01 (2019-20)

Invited Talk on “Hypersonic Propulsion” by Dr. Debasis Chakraborty on 26th July 2019

Aeronautical Society of India, Pune Branch organised an *Invited Expert Talk on “Hypersonic Propulsion”*, by **Dr. Debasis Chakraborty**, *Outstanding Scientist, DRDL, Hyderabad, on 26th July 2019*. The event was organised in the ‘**Patwardhan Hall**’ of **HEMRL, Sutarwadi, Pune**. Chief Guest *Dr. Debasis Chakraborty*, is currently, the Group Director (Design), DRDL, leading the activities of Directorate of Systems, Aerodynamics, Flight Structures, Thermal Engg., Computational Dynamics, Hypersonic Wind Tunnel (HWT) & Hypersonic Technical Demonstrator Vehicle (HSTDV). He has worked in VSSC and DRDL for the past 03 decades. He led the project HSTDV as Programme Director. He has worked extensively in numerical simulations of high speed reacting & non-reacting flows and provided useful aerodynamics & propulsion design inputs for satellite launch vehicle, strategic and tactical missiles. He received the DRDO Scientist of the Year Award in 2012 & DRDO Award for Best Innovation / Futuristic Development in 2010. He is also the Director Designate for Center of Propulsion Technology, IIT, Bombay.

Shri. KPS Murthy, Chairman, AeSI, Pune Branch, Outstanding Scientist & Director, HEMRL and Shri. PT Rojatkar, Vice-Chairman, AeSI, Pune Branch, Associate Director, ARDE participated in the event. *Shri. AM Datar, (Retd.) Director General (ACE) & Ex-Chairman AeSI, Pune Branch, Air-Vice Marshal (Retd.) RD Limaye, Executive Council Member, AeSI, Pune Branch, Air Cmde. (Retd.) KV Rao, AeSI Member and Shri. Madhav Khare, Aero-Modelling Expert* were among the other dignitaries who participated in this event. Around 250 members including AeSI Members, Students from various academic institutes in & around Pune, officers & staff from HEMRL also participated in this event. Around 65 students & academicians from the following colleges attended this event:

1. Sanjay Godawat College of Engineering, Kolhapur
2. Bharati Vidyapeeth's College of Engineering, Lavale, Pune
3. Sinhgad Institute of Technology & Science, Narhe, Pune
4. Maharashtra Institute of Technology, Kothrud, Pune

Chairman AeSI, Shri. KPS Murthy delivered the welcome speech and highlighted the importance of Aeronautical & Aerospace Engineering in our country, especially the involvement of Air Force & DRDO products in the Kargil Operation, as the day being the Kargil Vijay Diwas. He also highlighted the role of AeSI and the major events organised by AeSI, Pune Branch, in promoting the advancements and dissemination of knowledge of Aeronautical and Aerospace Sciences, to common people.

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A dedicated website for AeSI, Pune Branch (www.aesipune.co.in) was launched on this auspicious day, by *Shri. AM Datar, Ex-Chairman, AeSI* together with the Chief Guest, Chairman and Vice-Chairman, AeSI. The website provides information about the History and Role of AeSI India, Membership Details, various events and programs organised & planned by AeSI, Pune Branch, etc. The Chairman also welcomed the Newly Registered AeSI Members of the Branch, introduced them to all other members and offered them flowers, as a sign of welcome.

This was followed by the Invited Talk by the *Chief Guest Dr. Debasis Chakraborty*, wherein the concept, importance, design aspects, technological challenges and achievements in the design and development of an Indigenous Hypersonic Vehicle were highlighted by the Chief Guest. He also discussed about the various studies, analysis and simulations involved and carried out during the design phase of the Hypersonic Vehicle. The technological challenges, failures encountered during the design phase and the methodologies adopted to overcome those failures were also highlighted. The talk was truly a technical treat for the scientific community and the students.

AVM (Retd.) RD Limaye, offered the AeSI Memento to the Chief Guest as a token of respect and appreciation. The event ended successfully with a vote of thanks offered by *Shri. SD Shelar, AeSI Member, HEMRL*. The photos of the event are attached in Appendix 'A'



(ANANDARAJ. A.)
Hon. Secretary,
AeSI, Pune Branch

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Appendix 'A'



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