POST NUBES LUX: AEROSPACE PROPULSION.

'AFTER DARKNESS LIGHT'.

Institution of MECHANICAL ENGINEERS

India Branch
Prestige Lecture

17 February 2016, Hyderabad
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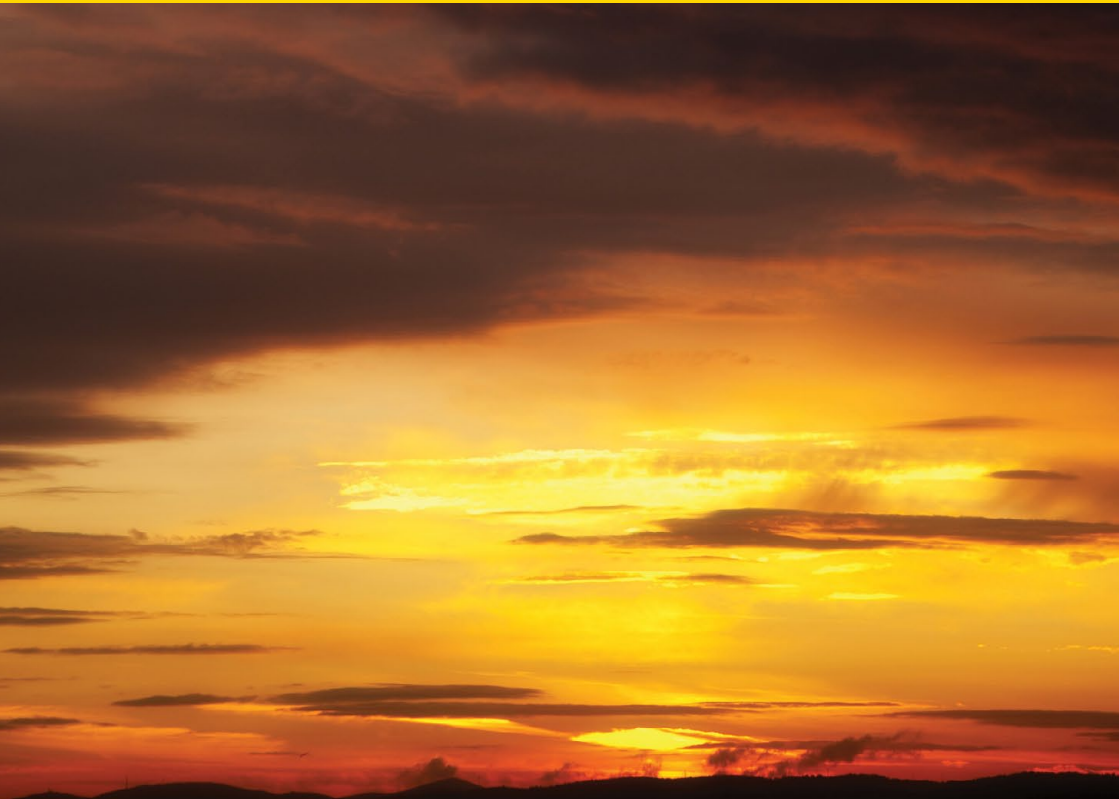
Presented by **Professor Riti Singh,**



POST NUBES LUX: AEROSPACE PROPULSION. 'AFTER DARKNESS LIGHT'.

The confluence of the growth of civil aviation and the need to limit its impact on climate change is set to bring the aerospace industry down to earth. Anticipated large improvements in propulsion systems, airframes and operations are likely to be offset by market growth, not least by increasing demands from the BRIC economies.

Where are propulsion system developments in civil aviation leading? A drive to improve thermal and propulsive efficiencies still promises significant improvements. Bio-mix 'drop-in' fuels are likely in the next 20 years and offer further improvements. In the longer term, we are likely to see a shift to distributed propulsion to further improve both propulsive efficiency and air frame performance. This may result in a few very high-efficiency generators, to drive a large number of small electric fans. In the long term, the growth of civil aviation may have to be curtailed, in spite of growing market demand.

A way forward could be the combination of hydrogen and other technologies, including the intriguing possibility of an aircraft being able to produce global warming or cooling at will, perhaps allowing mankind to control the earth's temperature by the use of civil aviation.

PRESENTED BY

PROFESSOR RITI SINGH

PROFESSOR EMERITUS, CRANFIELD UNIVERSITY

Riti Singh was Head of Department of Power, Propulsion and Aerospace Engineering. He is a Board member (Past Chair) of the Aerospace Industries Board, Institution of Mechanical Engineers and the International Society of Air Breathing Engines where he was Vice-President.
His research has been strongly supported by industry, the European Union and the UK's Research Council. He is the PI for a unique NASA Grant on distributed propulsion.

He has received many accolades, including the International Aircraft Engine Technology Award for 2010, from ASME's International Gas Turbine Institute for sustained innovative personal contribution. Professor Singh has given many plenary/keynote speeches. He holds numerous patents, and has published widely. Professor Singh has consulted for over 40 gas turbine manufacturers and users in over 20 countries.

THE INSTITUTION IN INDIA:

The Institution of Mechanical Engineers is committed to enhance India's growing reputation as an engineering powerhouse. Professional registration with the Institution gives Indian engineers an internationally-recognised benchmark and status. The Institution works towards building networks in industry and academia that can raise the standard of engineering across the subcontinent.

The Institution has designed its types of membership and levels of professional registration to match an engineer's development. Engineering Technician, Incorporated and Chartered Engineer status are an endorsement of an Engineer's skills, competence and professionalism.
The Institution supports engineers by promoting programmes of Continuous Professional Development (CPD).

THIS LECTURE IS FREE AND OPEN TO ALL

17 February 2013,
16:00 to 17:30
Refreshments will be served prior to the lecture
Indian Institute of Technology Hyderabad,
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Sangareddy(Mandal,
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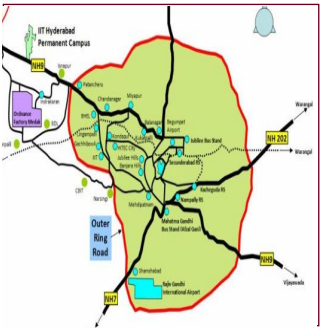

For more information and to register please contact **Alisha Fernandes** International Administrator - Member Development **Institution Of Mechanical Engineers**
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