



IIM
Metallurgy
Materials Engineering



About Indian Institute of Metals

The Indian Institute of Metals (IIM) is a premier organization representing materials and metallurgical engineers in India. Founded in 1946 by a group of metallurgists led by Dr. D P Antia, IIM is the largest professional organization for metallurgists in India with over 10,000 members from R&D laboratories, academia and industry. The two main objectives of IIM are: promoting and advancing the science and technology of metals and alloys and protecting the interests of metallurgists and metallurgical industry.

Established in 1947, IIM Pune Chapter has been actively engaged in organizing important professional events for the benefit of metallurgical fraternity in and around Pune. In addition to various national level activities, IIM Pune Chapter in collaboration with IIM Mumbai, Baroda, Nagpur Chapters and College of Engineering, Pune (COEP) had hosted the 52nd National Metallurgists Day (NMD) and the 68th Annual Technical Meeting (ATM) of the Indian Institute of Metals from 12-15 November 2014 on the College of Engineering, Pune Campus.

IIM Pune Chapter will be co-hosting the 54th NMD-70th ATM, being organized by IIM Mumbai and IIM Goa Chapters, on BITS, Pilani-Goa Campus later this year from Nov 11-14, 2017.

www.iimpc.com

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THE INDIAN INSTITUTE OF METALS

Pune Chapter

Cordially invites you to

Dr. Dara P. Antia Memorial Lecture

Success and Failure in the Design and Commercialization of Novel Steels

by

Dr. HKDH (Harry) Bhadeshia,
FRS, FEng, FNAE

Tata Steel Chair Professor of Metallurgy
University of Cambridge, UK

Date:

Monday, 20th March, 2017, 11.00 AM

Venue:

Institute Mini-Auditorium,
New Academic Complex (Near Boat Club)
College of Engineering, Pune

Beena Rai
Secretary

Hemant Nerurkar
Chairman

Dr Dara P Antia Memorial Lecture Committee



Dr. Dara P. Antia Memorial Lecture Series

As a tribute to Dr. Dara P Antia (1914-1999) for his outstanding contributions and dynamic leadership in advancing technical education, engineering profession, and technology management, this Lecture Series was

instituted by the Indian Institute of Metals (IIM) in the year 2006. The previous Dara P Antia distinguished lecturers include Late Dr. APJ Abdul Kalam, the then President of India, Professor T B Massalski, Professor V Raghavan, Professor Subra Suresh, Dr. JJ Irani, Professor P Rama Rao, Professor E C Subbarao, Dr. Baba Kalyani, Professor CNR Rao and Dr. Srikumar Banerjee.

Dr. Antia was a doyen of the metallurgical fraternity and the founding secretary of IIM. Born on May 31, 1914, Dara Antia studied metallurgy at the Banaras Hindu University (1934-38) and was the first Indian to receive his Sc.D. in metallurgy from MIT, USA in 1943. He had an illustrious career spanning almost five decades serving private sector (Indian Aluminum Company and Union Carbide), several important government departments, as well as on the board of several companies. Dr. Antia was the founder of Journal of Alloy Phase Diagrams, which is currently being published as "Journal of Phase Equilibria and Diffusion" by ASM International, USA. Dr. Antia was an elected fellow of Indian National Science Academy (INSA) and the Indian National Academy of Engineering (INAE). He was the recipient of INAE 'Lifetime Contribution Award' in 1998. Dr. Antia passed away in Pune on May 24, 1999.



Distinguished Speaker: Professor Harry Bhadeshia

Harry Bhadeshia is the TATA Steel Chair Professor of Metallurgy and Director of SKF Steel Technology Centre at the University of Cambridge. Over the last four decades, he has made major contributions towards the development of the theory of solid state phase transformations, in particular multicomponent steels. The overall aim is to implement these mechanisms into mathematical models that lead to novel alloys and processes. He has published over 650 research papers, books on bainite, steels, crystallography and mathematical modelling. His teaching, research and software are available freely on the world-wide web:

www.msm.cam.ac.uk/phase-trans/

Harry Bhadeshia is the recipient of several prestigious honours including the Hume Rothery Prize (1992), Fellow of Royal Society (1998), Fellow of the Royal Academy of Engineering (2002), Fellow of the Indian National Academy of Engineering (2005), Bessemer Gold Medal (2006), Honorary Member of the Iron and Steel Institute of Japan (2010), Honorary Member of the Indian Institute of Metals (2013) and Knight Bachelor in the Queen's 2015 Birthday Honours.

(https://en.wikipedia.org/wiki/Harshad_Bhadeshia)

Abstract of the Lecture

The complexity, versatility and cost of steel makes it the most used structural material in the world. Some of this complexity can be embedded in mathematical models that help stimulate new ideas in steel design, but these ideas must be tested in the harsh world of industry, where the realities of life meet academic ambition. I will illustrate the nature of the problem with specific examples where a combination of methods and large scale experiments have resulted in entirely new steel concepts, together with equivalent cases where the ideas faltered at an elementary stage of technology readiness.