



INVITATION



ASM – IIM Lecture

Organised by

**PUNE CHAPTER, ASM INTERNATIONAL
&
INDIAN INSTITUTE OF METALS, PUNE CHAPTER**

ON

Development of Materials for Energy Efficient Transportation

By

**Kumar Sadayappan, PhD
CANMET Materials, Canada**

DATE: Mon. 5th Dec. 2011

Time: 6.30 PM

VENUE

**Department of Metallurgy & Materials Engineering
College of Engineering, PUNE – 411 001.**

Subhash Kulkarni
Chairman
Tech. Program

B. R. Galagali
Chairman

Rahul Gupta
Secretary

Pune Chapter, ASM International

Dr.N.B.Dhokey
Chairman

Dr. S.T.Vagge
Secretary

Indian Institute of Metals, Pune Chapter

RSVP: Mr Ratnaparkhi

E-mail: asm.pune@gmail.com,

Tel.:020-25670808/25674455

About the Speaker:



Dr. Kumar Sadayappan is a senior research scientist at CANMET Materials, Natural Resources Canada. He joined CANMET in 1996 as a NSERC Visiting Fellow. His area of expertise is metal casting and structure-property correlation studies of non-ferrous metals and alloys. Dr. Sadayappan has completed his doctoral degree from Indian Institute of Science in 1994 and worked at Indian Institute of Technology-Chennai for two years. Dr. Sadayappan published more than 50 papers in refereed journals on subjects including non-ferrous and ferrous casting research and delivered more than 25 talks in many national and international conferences. He is a member of ASM, ASTM, SAE and AFS. He served in the ASM Ottawa Valley chapter in many capacities including the chair and serves as a member of editorial committee for the journal International Materials Review.

About the Topic:

This presentation highlights some of the selected research activities on advanced materials and their processing technologies that contribute to improved energy efficiency of vehicles. The vehicle efficiency can be improved either by reducing the weight or improving the efficiency of powertrain. Most of the time a combination of the two technologies is deployed to realise improvements. Reducing the weight of a vehicle by 10% can lead to a 6-8% improvement in fuel efficiency for internal combustion engines or to a 4% improvement in the range of electric vehicles with regenerative braking.

Vehicle designers have many materials including steels, light metals and polymers to achieve the goal of energy efficiency. The ultimate goal for future vehicles is to demonstrate an effective vehicle body and powertrain design using new materials without compromising the safety and performance. This talk will highlight some of the materials research under progress.

About the Program :

6.30 to 7.00 PM	Registration & Fellowship
7.00 to 8.00 PM	Presentation
8.00 to 8.15 PM	Open House.

TECHNICAL PRESENTATION IS OPEN TO ALL