The Indian Institute of Metals Bangalore Chapter,
The ASM(I) Bangalore Chapter

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Department of Materials Engineering, Indian Institute of Science, Bangalore

Cordially invites you for a Lecture

On

"Computational Materials Engineering and the Future of Structural Alloy Design and Application"

By

Dr. David Furrer

Senior Fellow, Discipline Lead, Materials & Processes Engineering
Director, Manufacturing Technologies Development
Pratt and Whitney, East Hartford, CT, USA

Date : Thursday, September 19, 2019

Time : 3:30 P.M. – 4:30 P.M.

Venue : Lecture Hall, Department of Materials Engineering, Indian Institute of Science, Bangalore

Tea: 4:30 P.M.

Abstract: Computational materials and process modeling has continued to advance over several decades. The vision of truly integrated computational material and manufacturing engineering (ICM2E) is nearly upon us with rapid changes in how we design and develop new material and associated processing methods. The continued adoption and application of computational methods is changing the materials science and engineering discipline, and is enabling materials and processes to be a much greater part of component and system design at the earliest possible stages. This talk will review some of the advances being made in computational materials engineering, informatics and data analytics relative to various applications within the aerospace industry.

Biography: Dr. Furrer is the Senior Fellow Discipline Lead for the Materials and Processes Engineering organization at Pratt & Whitney. He is responsible for leading the Pratt & Whitney Materials Discipline Leaders and Materials Fellows in the development of technical strategy and the development/improvement of engineering standard work for all processes in the discipline. David also supports the ongoing development, design, manufacturing, and aftermarket and service investigation related materials projects. Additionally, Dr. Furrer oversees the overall discipline health and technical leadership, critical skills identification, and the Materials and Processes Fellows program, among other initiatives.

David is also the director of Pratt & Whitney Manufacturing Technologies, leading new and emerging manufacturing processes development and transition into production, including such technologies as conventional and novel machining, coating, cleaning and additive manufacturing processes. As part of these efforts, he also manages a core tools and methods group aimed at development and application of materials and process modeling and simulation capabilities.

He has over 30 years of experience in the areas of aerospace materials engineering, including forging manufacture, and materials and process modeling. In addition to previously working within the aerospace and forging industry, he has been an adjunct professor at the Milwaukee School of Engineering, where he taught materials and manufacturing technology courses within the Mechanical Engineering Department.

David has received Bachelors and Masters degrees in Metallurgical Engineering from the University of Wisconsin-Madison, and a Doctorate of Engineering from the Universität Ulm, Ulm Germany.

Dr. Furrer is currently the President of ASM-International, the materials information society (2018-2019).