

Brochure
A Two Day Workshop On

Surface Coatings Technologies

December 1-2, 2014
Metallurgy Seminar Hall (MSB104)
IIT Madras

Organized by
Dept. Of Metallurgical and Materials Eng.,
IIT Madras &
ASM International Chennai Chapter &
The Indian Institute of Metals Chennai Chapter

Coordinators
Dr. Srinivasa Rao Bakshi
Dr. Ravi Sankar Kottada

Topics Covered

- Description of various thermal spray processes
- Comparison of various processes
- Tips for selecting different processes
- Testing of thermal spray coatings
- Application of thermal spraying in Industry
- Plasma Nitriding and its Applications
- Weld cladding techniques and applications
- Laser Cladding and Surfacing
- Electrochemical conversion coatings
- PVD and Diamond Coatings



Featuring one-day coverage of
Thermal Spraying by
Prof. Christopher Berndt
(Past ASM President and world
renowned expert on Thermal
Spray Technology)



About the Workshop

Surface Engineering by means of surface modifications and applications of surface coatings is widely used by several industries. Many components used in automotive, aerospace, power generating and other processing industries that work under severe conditions of temperature, corrosive environment and stresses need different types of coatings to protect them. Surface modifications by electrochemical and heat treatment procedures are also widely used. The goal of the workshop is to impart theoretical and practical knowledge on both the types of the technologies.

The **first day** of the workshop is dedicated to **Thermal Spray Processes** which are widely used in the industry today for application of coatings for resistance to wear, temperature and environmental attack. New applications are coming up in the automobile and aerospace industry along with heavy industries. Research in the development of special coatings with tailor-made properties for different applications is being carried out extensively in research organizations and academic institutions. There is a general lack of knowledge about these wonderful technologies that are available to an engineer and what can he do with them. The topics will be covered by **Prof. Christopher Berndt of University of Swinburne**, Australia, past President of ASM International (2011-2012), and a world renowned expert in thermal spray technologies with decades of experience.

The second day of the conference is dedicated to other types of coating technologies which are also widely used in the industry. Techniques such as carburization, nitriding, electrochemical conversion coatings, electrodeposited coatings, PVD coatings, laser based coatings and weld cladding will be discussed. It is necessary to understand the processes available, their characteristics, advantages and limitations. Lectures will be delivered by experts from industry and academia.

Brief Bio of Prof. Chris Berndt

Prof. Christopher Berndt's has been working on Thermal Spraying for more than 3 decades and contributed extensively to this area. He was Vice President of the Thermal Spray Society of ASM in 2000 and President in 2002. He was the Proceedings Editor for the Thermal Spray Conferences held in the USA from 1992-2003. He is the Founding Editor, and now Editor Emeritus, for the Journal of Thermal Spray Technology (first issued in 1992) which is published by ASM International. He was a member of the ASM Action in Education Team from 2000-2004. He was appointed a Trustee (the Board of Directors) of the American Society of Materials for the 2005-2008 period. He is a Fellow of the Australian Institution of Engineers, Fellow of ASM International, Fellow of American Ceramic Society, Fellow of the Institute of Materials, Minerals and Mining (UK) and Fellow of The Institution of Metallurgists (UK). He was inducted into the Thermal Spray Hall of Fame in 2007. Prof. Berndt has more than 480 publications in the field of Materials Science and Engineering. He is the Editor/Co-editor of 10 conference proceedings on thermal spray. He moved to Swinburne University of Technology (Melbourne, Victoria) in early 2008 as the founding Professor of Surface Science and Interface Engineering. He has supervised and advised about 23 Ph.D. and 9 M.Sc. students in Australia and the USA. He has served as President of ASM International (2011-2012), President of the Thermal Spray Society (2002-2004), and President of the Australian Ceramic Society (2008-2010).

Registration Details

Registration fees

- Professional body members: Rs. 4000
- Faculty Members: Rs. 3000
- Students: Rs. 2000
- Others: Rs. 5000

Registration fees to be paid by cheque/DD in favour of "INDIAN INSTITUTE OF METALS CHENNAI CHAPTER".

Companies sending 4 or more persons will get a discount of 20%

Name(s): _____

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Cheque/DD no.: _____

Last date for registration
25th Nov. 2014

Please send all communications to:

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