

Thermal spray technology: position among films and coatings technologies, coatings characterization, applications and technology's future

A theoretical and practical formation on thermal spraying organized prior to **7th RIPT** (*Rencontres Internationales sur la Projection Thermique*) December 9th, 2015 in Limoges, France



<http://www.unilim.fr/ript>

Morning session

4 lectures given by:

Christopher C. Berndt - "Physical properties & characterization of thermal spray coatings"

Professor, Industrial Research Institute Swinburne, Swinburne University of Technology, Australia
Chairman of 'ASM International', 2007 Inductee to Thermal Spray Hall of Fame

Seiji Kuroda - "Thermal sprayed coatings for harsh environments and longer service life"

Professor/Researcher, National Institute for Materials Science, Tsukuba, Ibaraki, Japan Unit Director, High Temperature Materials Unit, Environment and Energy Materials Division, NIMS

Shrikant V. Joshi - "Solution precursor plasma spraying: A vast playground for pursuing exciting research and realizing niche applications"

Researcher, International Advanced Research Center for Powder Metallurgy and New Materials
Additional Director of ARCI, Hyderabad, India

Lech Pawłowski - "Physical methods of film and coatings deposition"

Professor, Laboratory SPCTS, UMR CNRS 7315, University of Limoges, France
Chairman of European Thermal Spray Association, 2007 Inductee to Thermal Spray Hall of Fame

Afternoon session

Demonstration of thermal spray technology at SPCTS:

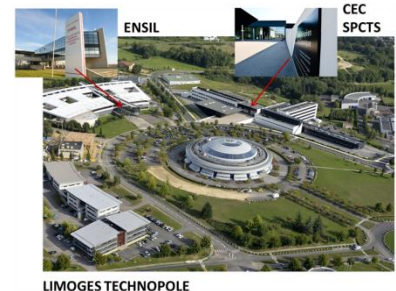
"Solution and suspension spraying, followed by scanning electron microscope observation of obtained coatings"

Responsible persons: Lech Pawłowski, Alain Denoirjean, Geoffroy Rivaud

Payment: € 800,- (this fee includes the 7RIPT conference participation)

Condition: ID copy to be sent by October 1st (including date / place of birth, nationality)

Please be aware that the number of places is limited to 30 persons. Registration will be made on a 'first come, first served' policy.



Christopher C. BERNDT



Chris Berndt hails from Adelaide in South Australia yet very early on in his career as a trainee metallurgist spent 4 years working in a small country town in the area of iron smelting and steel making. His first degree in 1977 was a Bachelor of Applied Science in Secondary Metallurgy, Hons from what is now called the University of South Australia. This was followed by 3.5 years in the Materials Engineering Department of Monash University (Melbourne, Australia) to earn a PhD in the area of "The Adhesion of Flame and Plasma Sprayed Coatings". Berndt took on several Post Doctoral Fellowships in the USA before returning to an academic appointment at Monash University. This included a 2 year stint from 1983-85 at NASA-Lewis Research Center in Cleveland (OH-USA) as a Fellow of the Institute for Aerospace Propulsion and Power where he worked on thermal barrier coatings. In early 2005 Berndt moved back to Australia as the founding Professor of Surface and Interface Engineering, James Cook University, Queensland, Australia. He moved to Swinburne University of Technology in early 2008 as the founding Professor of Surface Science and Interface Engineering. Professor Berndt is author/co-author of more than 240 scientific papers. He was the president of ASM International in 2011 – 2012 and was inducted into TSS Hall of Fame in 2007.

Seiji KURODA



Professor Seiji Kuroda is a renowned specialist in materials engineering whose research is focused on thermal sprayed coatings. He is currently the director of High Temperature Materials Unit, Environment and Energy Materials Division, National Institute for Materials Science, Japan. Professor Kuroda is an author/co-author of 1 book, over 100 articles published in international scientific journals and 40 more published in Japanese scientific journals, as well as 11 patented discoveries. He is also a laureate of numerous international and domestic awards. Professor Kuroda gave lectures at Cambridge University (UK), University of Limoges (France), Tokyo University of Science (Japan), Chiba Institute of Technology (Japan), and has a position of a visiting scholar at Warsaw University of Technology (Poland). His current research include topics such as thermal barrier coatings, corrosion, residual stress, process instrumentation, warm spray. He is a Fellow of AMS International, President of Japan Thermal Spray Society, and a member of Japan Welding Society and The Japan Institute of Metals.

Shrikant V. JOSHI



Shrikant Joshi was born in India, and studied at the Osmania University in Hyderabad (B. Tech. in Chemical Engineering), then at the Rensselaer Polytechnic Institute, USA (M.Sci. in Chemical Engineering), and University of Idaho, USA (PhD in Chemical Engineering). His professional experience includes a researcher / scientist position at Defence Metallurgical Research Laboratory, Hyderabad, India (1989-1997), and Head of the Centre for Laser Processing of Materials, Hyderabad, India (1997-2005). Currently, he is Associate Director at the International Advanced Research Centre for Powder Metallurgy & New Materials (ARCI) in Hyderabad, India. His research areas of interest include solution precursor plasma spraying and cold gas dynamic spraying, but also laser surface engineering and laser cutting, drilling and welding, together with modeling of gas-particle transport phenomena in thermal spray systems. He published over 100 works, as journal articles, book chapters, and technical papers in proceedings of international conferences, and filed for / owns several patents.

Lech PAWŁOWSKI



Lech Pawłowski was born in Wrocław (Poland), where he studied Electronic Technology at Wrocław University of Technology, obtaining his diploma in 1974. After having completed his PhD on vacuum plasma spraying of copper and tantalum coatings in 1978, he obtained a postdoctoral position in The University of Limoges in France and made there a DSc in 1985. His research appointments included positions in The University of Stuttgart (Germany), The Monash University (Melbourne, Australia) and The University of Trento (Italy). He is now a professor of Surface Engineering at SPCTS / University of Limoges, France. Professor Pawłowski had worked in thermal spray industry as project manager, consultant and managing director in Germany, Italy and in France. His industrial work was mainly focussed on the development of anilox and corona rollers. His research work concerns mainly different aspects of thermal spraying and laser treatment of materials, with current research that is focussed on suspension plasma sprayed ceramic coatings. He initiated in 2003, and keeps organizing every 2 years, the RIPT meetings on thermal spraying, in Lille and Limoges. Since 2011, he has been an invited professor in China University of Petroleum in Qingdao (Shandong). He wrote two books on films and coatings deposition and is author/co-author of more than 100 scientific papers. The chairman of E.T.S.A he obtained a *doctorate honoris causa* of Technical University of Chemnitz in Germany in 2013 and was inducted into TSS Hall of Fame in 2015.



Science des Procédés Céramiques
et de Traitements de Surface



Université
de Limoges

**'Thermal spray technology', formation prior
to 7th RIPT conference in Limoges, FRANCE
on 9th December 2015**

FURTHER INFORMATION - <http://www.unilim.fr/ript>

To receive further information about the meeting and to register with the intention to take part, please complete and return the reply form below.

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