



Day 1 October 31st 2017

ETSA Workshop on high-kinetic spraying processes
Tampere University of Technology, Konetalo, Hall 1702

8.30 Registration and coffee

9.00 Opening of the ETSA workshop

Petri Vuoristo, Tampere University of Technology, Finland

9.10 Evolution of thermal spray technology

Lech Pawlowski, University of Limoges, France

9.40 Methodologies to interpret properties of high velocity sprayed materials

Sanjay Sampath, University of Stony Brook, USA

10.20 High velocity air fuel (HVOF) spraying process: recent developments and experimental results

Giovanni Bolelli, University of Modena, Italy

10.50 Break

11.00 Properties of thin WC-based HVOF coatings

Benno Gries, H.C. Starck, Germany

11.30 Influence of powder characteristics on the coating properties of HVOF sprayed carbide materials

Guido Reisel and Stefan Zimmermann, Oerlikon Metco Woka, Germany

12.00 Lunch

13.00 Review of latest HVOF technology, Uniquecoat M3 and i7

Stefan Björklund, PTC Innovation, Sweden

13.30 New developments in HVOF coating equipment and technology

Andrew Verstak, Kermetico, USA

14.00 Developments in dust extraction installation for thermal spraying – requirements of different spray processes

Boris Vnette, Donaldson, Belgium

14.30 Coffee break

15.00 Influence of nozzle geometry and spray parameters on structure and properties of HVOF sprayed carbide coatings

Ville Matikainen, Tampere University of Technology, Finland

15.30 Influence of thermal spray process on residual stress and mechanical properties of coatings

Tommi Varis, Tampere University of Technology, Finland

16.00 - 18.00 Laboratory tour & cocktails



Day 2 November 1st 2017

**Advances in Surface Engineering
Vapriikki Museum Centre, Tampere**

8.30 Registration and coffee

9.00 Trends in surface engineering research at TUT

Petri Vuoristo, Tampere University of Technology, Finland

9.20 Partnership for accelerated insertion of new technology: Case study for thermal spray

Sanjay Sampath, University of Stony Brook, USA

10.00 Cermet coatings obtained by cold gas spray

Sergi Dosta, University of Barcelona, Spain

10.30 Break

10.40 Advanced high pressure cold spray equipment, coatings and selected applications

Peter Richter Jr., Impact Innovations, Germany

11.10 New developments in high pressure and low pressure cold spray

Klaas Rozema, Dykomet Europe

11.40 Laser-assisted cold sprayed coatings

Heli Koivuluoto, Tampere University of Technology, Finland

12.10 Lunch

13.00 Properties of suspension thermal sprayed coatings

Tanvir Hussain, University of Nottingham, UK

13.30 Function dependent coating architectures by hybrid liquid-powder feedstock spraying

Shrikant Joshi, University West, Sweden

14.00 New functionalities and added values in thermal spray coatings by different post treatments

Petri Sorsa, Millidyne, Finland

14.30 Coffee break

15.00 In situ measurement of cold spray particle velocity and size distributions

Jussi Larjo, Oseir, Finland

15.30 Essential factors influencing the bonding strength of cold sprayed aluminum coatings on ceramic substrates

Rico Drehmann, Technische Universität Chemnitz, Germany

18.00 Evening program. Cocktails and TUT Prof Experience.



Day 3 November 2nd 2017

The International TWC Wear Seminar
Tribological and wear resistant coatings and surface treatments
Vapriikki Museum Centre, Tampere

- 8.30 Registration and coffee**
- 9.00 Opening of the TWC seminar**
Veli-Tapani Kuokkala, Tampere University of Technology
- 9.05 Wear of nanocomposite coatings**
Tanvir Hussain, University of Nottingham, UK
- 09.50 Erosion and corrosions resistant coatings applied on-site/shop industrial and municipal boilers**
Hans Bengtsson, Castolin Scandinavia, Sweden
- 10.20 Break**
- 10.30 Evaluating wear of WC/NiBCrSi by translatory oscillating wear tests with oil and sandy oil**
Annett Dorner-Reisel, University of Applied Sciences Schmalkalden, Germany
- 11.00 Tribological and wear properties of thermal spray coatings**
Giovanni Bolelli, University of Modena, Italy
- 11.30 Tribological and mechanical characterization methods for hard and soft coatings**
Steven Shaffer, Bruker Nano Surfaces Division, USA
- 12.00 Lunch**
- 13.00 Importance of powder feedstock design for tailoring hard metal HVAF-sprayed coating properties for Optimal Wear Applications**
Christophe Lyphout, University West, Sweden
- 13.30 Erosion resistant hardmetal coatings by HVOF and HVAF spraying**
Ville Matikainen, Tampere University of Technology, Finland
- 14.00 Nanostructural thermal spray WC-Co coatings by utilizing novel powder manufacturing route**
Marjaana Karhu, VTT Technical Research Centre of Finland
- 14.30 Coffee break**
- 15.00 Modeling the formation and mechanical response of WC-Co thermal spray coating microstructures**
Tatu Pinomaa, VTT Technical Research Centre of Finland, Finland
- 15.30 Wear Forum Round Table**
- 16.00 End of the seminar**