1ST WORKSHOP "THERMAL SURFACE TECHNOLOGIES" (TST)
JANUARY 29, 2019
Venue: Fraunhofer IWS, Winterbergstraße 28, 01277 Dresden

- 09:00 Welcome and opening
  Prof. Dr. Christoph Leyens, Fraunhofer IWS, TU Dresden, Germany

- 09:10 The Fraunhofer Center of Thermal Surface Technology: Tailored solutions for challenging problems
  Dr. Denise Beitelschmidt, Fraunhofer IWS, Germany

**Session I: Laser Cladding**
Chair: Prof. Dr. Steffen Nowotny, Fraunhofer IWS

- 09:40 Laser repair cladding for the nuclear Industry
  Sandro Mehner, Fraunhofer Center for Laser Applications, USA

- 10:00 Laser ID cladding in industrial dimensions
  Torsten Bady, NUTECH GmbH, Germany

- 10:20 Coffee break

- 10:40 Laser wire deposition in aircraft applications
  Jürgen Silvanus, Airbus Group Innovations, Germany

- 11:00 Clever solutions for large-area surface claddings
  Henry Köhler, InnoJoin GmbH, Germany

- 11:20 Laser cladding/direct metal deposition options for different titanium alloy powders
  Dipl.-Ing. Jörg Spatzier, Oerlikon Metco, Switzerland

- 11:40 Lunch break

**Session II: Thermal Spraying**
Chair: Dr. Maria Barbosa, Fraunhofer IWS

- 12:30 Advanced thermal-sprayed coatings for reinforced polymer composite structures
  Prof. Dr. André G. McDonald, University of Alberta, Canada

- 12:50 Development of SPS-sprayed TBC by using the latest cascaded KK plasma gun technology
  Dr. Alexander Schwenk, CEO, AMT AG, Switzerland

- 13:10 Suspension spraying enters serial production
  Dr.-Ing. Richard Trache, Treibacher Industrie AG, Austria

- 13:30 Environmental, Economical and Performance Impacts of Ar2/H2 & N2/H2 Plasma Sprayed YSZ TBCs
  Dr. Rogerio S. Lima, National Research Council of Canada, Canada

- 13:50 Coffee break

**Session III: Laser Hardening**
Chair: Marko Seifert, Fraunhofer IWS

- 14:10 Machine concepts for laser hardening in tool manufacturing
  Thomas Arnold, Arnold GmbH, Germany

- 14:30 Laser beam hardening in engine production
  Dr. Steffen Bonß, Laserline GmbH, Germany

- 14:50 Advantages of scanned laser beams in laser heat treatment
  Marko Seifert, Fraunhofer IWS, Germany