**Fundamental Aspects of Coatings**

This innovative TechCon session is jointly organized by the program teams of the Society of Vacuum Coaters (SVC) and the International Conference of Metallurgical Coatings and Thin Films (ICMCTF) and leverages the combined strengths of SVC’s application-oriented perspective with the first-principles rigor typical of the ICMCTF to highlight the latest advances in coatings and coating technologies. The topic highlights the connection between technologies that often nucleate in academia and government-funded R&D environments and a market environment that demands continued coating technology innovation to deliver competitive new products.

The session welcomes contributions that employ and emphasize a science-based approach to examine the role coatings and coating systems play in realizing application-related functionalities that meet the demands of the industrial environment. Special emphasis will focus on the Symposium topic, “Coatings for Healthcare, Biometric Monitoring, and Bio-Interfaces.”

Whether you are investigating interface effects, engage in modeling, simulation, and analytical aspects that address fundamentals of coatings and biomedical correlation such as adhesion, wettability, drug delivery, sensing, or biocompatibility (as examples), or are involved with successfully commercialized products that heavily rely on coatings for biomedical use or sensing, this session is your podium!

**Invited Speakers:**

Paul K. Chu, Department of Physics and Materials Science, City University of Hong Kong, Kowloon, Hong Kong  
*Surface Functionalization of Biomaterials by Plasma and Ion Beam*

Otto Gregory, Department of Chemical Engineering, University of Rhode Island, Kingston, RI, gregory@egr.uri.edu  
*Thin Film Strain Gages for High Performance Applications*

**Session Organizers:**

*Representing SVC*: Holger Gerdes, Fraunhofer Institute for Surface Engineering and Thin Films IST, Germany, holger.gerdes@ist.fraunhofer.de  
*Representing ICMCTF*: Jianliang Lin, Southwest Research Institute, San Antonio, TX, jianliang.lin@swri.org