

The International Symposium on Advanced Coatings and Applications is intended to provide an overview of recent advances and innovations in the field of surface technologies. This event offers a forum for high-level networking and the exchange of knowledge and expertise in the area of application-specific coating solutions, which target a wide range of industries, including energy, automotive and aeronautics.

Registration Fees

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| Student | 100 Euro |
| Faculty & Research scholars | 250 Euro |
| Delegates from industry | 350 Euro |

Important Dates for Symposium and Tutorials

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| Abstract submission deadline | September 25, 2022 |
| Tutorial 1: Thin-film synthesis from the vapor phase: fundamentals of processes and growth evolution | November 12, 2022 |
| Tutorial 2: Properties and applications of tribological and decorative coatings | November 13, 2022 |

Conference Venue

ISACApp 2022 will be held at Mohammed VI Polytechnic University in Benguerir at the outskirts of Marrakech.

More information can be found on the conference website:

<https://msn.um6p.ma/ISACApp2022/>

Email of the Tutorials Chairs: msn@um6p.ma

Symposium Organizers

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Mohammed VI Polytechnic University
Benguerir - Morocco



Organize:

ISACApp 2022

The International Symposium on Advanced Coatings and Applications

Benguerir, November 14-16, 2022



Symposium Description

ISACApp 2022 is organized jointly by Mohammed VI Polytechnic University (UM6P) and The Society of Vacuum Coaters (SVC) to provide an international platform for industrial, academic, research and student attendees to share their research results and new advances in surface and coatings technologies.

This symposium aims at analyzing the state of the art in the fields of surface and coating technologies, with particular focus on automotive and energy sectors. The overall goal is to stimulate discussions on recent advances in the design and development of coating materials, their processing and their integration into applications, as well as the most promising solutions in coating technologies for industrial applications.

Conference Program

Session 1: Coatings For Automotive Industries

The automotive industry is one of the sectors that benefits from the latest technological advances in surface technology. For this reason, surface coatings are involved in many aspects of modern vehicle production, to improve the efficiency and durability of many parts by reducing friction or protection against corrosion and wear. Coatings are also used in other areas of the automotive ecosystem such as automotive parts manufacturing, wiring, stampings, where coatings are often used to protect surfaces or for decorative purposes.

Session 2 : SVC Session

The program for this special session sponsored and organized by SVC includes lectures on the latest industrial scale coating technologies,

tutorials on advanced surface technologies and their applications, as well as BtoB meetings.

Session 3: Coatings For Energy Applications

The application of thin films and thick coatings of conventional materials or nanomaterials in the renewable energy sector can take different forms, including solar energy conversion, electrochemical energy storage, energy-saving (i.e., low-emissivity, electrochromic, thermochromic) windows and the use of photoelectrode coating materials for photoelectrochemical production of hydrogen. This track aims at providing an understanding with regards to the potential applications of various types of coatings covering subjects such as photovoltaics, energy-saving windows, energy storage and hydrogen production.

Tutorials

ISACApp 2022 will host a full-day tutorials to provide audiences, early and mid-career researchers and professionals as well as graduate students introductory-level material on the following topics:

Tutorial 1 - Thin-film synthesis from the vapor phase: fundamentals of processes and growth evolution:

- Low-pressure plasma physics and chemistry for thin-film deposition
- Thin-film nucleation and growth

Tutorial 2 - Properties and applications of tribological and decorative coatings:

- Wear mechanisms and theories (adhesion, abrasion, erosion, fatigue, corrosion, etc.)
- Tribological and mechanical test methods (e.g., pin on disc, abrasive wheel, scratch adhesion, microhardness, etc.)
- Coating processes and selection

- Benefits of ceramic coatings by PVD methods
- Tribological coatings (e.g., metal nitrides, carbides, oxides, superlattices, multilayers, nanocomposites, DLC, etc., plus hybrid and duplex processes)
- Applications information (e.g., metal cutting and forming, molding, bearings, pumps, auto parts, etc.).

Tutorials chairs:

The technical tutorials on selected topics will be given by leading experts in their respective fields.

Dr. Allan Matthews, Professor of Surface Engineering and Tribology, The University of Manchester - United Kingdom

Dr. Gary Doll, Timken Professor of Surface Engineering, University of Akron – Akron, OH

Prof. Stephanos Konstantinidis, Plasma-Surface Interactions Chemistry, University of Mons, Belgium

Prof. Kostas Sarakinos, Surface sciences, Helsinki University, Finland

Who Should Attend?

Anyone interested in learning about these fields. Graduate students, postdocs and early career scientists in general are particularly encouraged to attend.

Where?

Tutorials will be held at the Mohammed VI Polytechnic University, Benguerir, Morocco.

