

Iberian Industrial WORKSHOP

**“Advancing to a competitive industrial transition
through surface engineering solutions”**



2-3 October, San Sebastián, Spain

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PRELIMINARY PROGRAM

Thursday, 2th October morning

8:00	REGISTRATION
9:00	WORKSHOP PRESENTATION
SESSION 1 Ramón Escobar Galindo (Universidad de Sevilla, Spain) Sandra Carvalho (Universidade de Coimbra, Portugal)	
9:15	<i>(INVITED) Victor Bellido, Genco Ltd, UK</i> Magnetron Sputtering, a brief review and current trends
9:45	<i>Klaus Böbel, Oerlikon, Germany</i> HIPIMS Technology in Industrial Applications
10:00	<i>M^a de la Paz Cumia Espinosa de los Monteros, Nano4Energy, Spain</i> Scalable Magnetron Sputtering of GDC Interlayers for Long-Life SOCs
10:15	<i>Anastasia Dianova, Tecnalia, Spain</i> HiPIMs tailored MoS₂-Based Coatings for Enhanced Tribological Performance in Different Environments
10:30 - 11:15	COFFEE & POSTERS
SESSION 2 Marta Brizuela (Tecnalia, Spain) Albano Cavaleiro (Universidade de Coimbra, Portugal)	
11:15	<i>Iñigo Braceras, TTTGroup / Tecnalia, Spain</i> Plasma Nitriding of Hydrogen components to improve tribo-leak properties
11:30	<i>Oihane Hernández-Rodríguez, Tekniker, Spain</i> Development of Hydrogen-Barrier Coatings via Magnetron Sputtering for Compressors in Electrolyser Systems
11:45	<i>Gustavo Santos, CENTI, Portugal</i> PVD-Based development of LiFePO₄ (LFP) Li-ion cathodes
12:00	<i>Marya Baloch, Asociación de la Industria Navarra, Spain</i> Catalytic Engineered Surface Architectures for Green Hydrogen Production
12:15	<i>Jordi Orrit-Prat, EURECAT, Spain</i> Development and characterisation of protective surface treatments and coatings for bipolar plates of PEM fuel cells and electrolyzers
12:30 - 13:30	LUNCH & POSTERS

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SESSION 3 Sandra Carvalho (Universidade de Coimbra, Portugal) Iñigo Braceras (Tecnalia, Spain)	
13:45	<i>(INVITED) Christoph Schiffrers, CemeCon, Germany</i> HiPIMS Coatings for Cutting Tools: Trends and Visions
14:00	<i>Eduardo Silva, Durit Coatings, Portugal</i> DRIVOLUTION Agenda - Creation of an innovative Factory of the Future
14:15	<i>Ricardo Alexandre, Inovatools, Portugal</i> Wear behaviour and machining performance of TiNAg and TiAl(Y/Ta)N Thin Films for cutting tools
14:30	<i>Jorge Laranjeira, Moldit, Portugal</i> Recyclable plastic components with high performance and low weight
14:45 - 15:15	COFFEE & POSTERS
SESSION 4 Sandra Carvalho (Universidade de Coimbra, Portugal) Iñigo Braceras (Tecnalia, Spain)	
15:15	<i>Armando Ferreira, Universidade do Minho, Portugal</i> Multifunctional Thin Films for Sensing Applications
15:30	<i>Ana Sofia Ramos, Universidade de Coimbra, Portugal</i> Surface Modifications by Laser Hardening, Nitriding and Carburizing
15:45	<i>Eduardo Silva, Durit Coatings, Portugal</i> Exploratory routes for the Valorization of Critical Raw Materials in Laser Cladding
16:00	<i>Albano Cavaleiro, Instituto Pedro Nunes, Portugal</i> Production of H₂ using photovoltaic energy
16:15 - 16:45	COFFEE & POSTERS

Silver sponsor:



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Thursday, 2th October afternoon (cont.)

SESSION 4 Marta Brizuela (Tecnalia, Spain) Ramón Escobar Galindo (Universidad de Sevilla, Spain)	
16:45	<i>Eva García-Lecina, CIDETEC, Spain</i> Evaluating Electroless NiP Coatings as Hydrogen Permeation Barriers
17:00	<i>Desiderio Diaz Garcia, Plasmatreat Iberia, Spain</i> Plasma Driven Progress: Enabling the Industrial Transition through Advanced Surface Engineering
17:15	<i>Annika Mann, Fraunhofer Institute for Surfaces and Thin Films IST, Germany</i> Adhesion control by thin films deposited by atmospheric pressure plasma processes
17:30	<i>Ricardo Serra, Universidade de Coimbra, Portugal</i> Comparative study of sacrificial anode and imposed current cathodic protection for sanitary water heat pump systems
18:00 - 19:00	VISIT TECNALIA
20:30	DINNER

Bronze sponsors:

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Friday, 3rd October morning

8:30	REGISTRATION
SESSION 5 Sandra Carvalho (Universidade de Coimbra, Portugal) Iñigo Braceras (Tecnalia, Spain)	
9:30	<i>(INVITED) Agustín R. González-Elípe, Instituto de Ciencia de Materiales de Sevilla, Spain</i> Tailoring the porosity of thin films for alternative surface engineering applications
10:00	<i>Joao Costa, Intermolde, Portugal</i> Impact of Coating Materials and Manufacturing Innovations on Glass Moulding Industry
10:15	<i>Carles Colominas, Flubetech, Spain</i> Advanced PVD coatings: Architecture, nanostructure and industrial challenges in modern applications
10:30	<i>Mikel Garitano, Tekniker, Spain</i> Development of W/SiC multilayer films for fusion-related applications
10:45 - 11:30	COFFEE & POSTERS
SESSION 6 Marta Brizuela (Tecnalia, Spain) Ramón Escobar Galindo (Universidad de Sevilla, Spain)	
11:30	<i>Daniel Figueiredo, Palbit, Portugal</i> Hybrid process strategies for advanced coating solutions in cutting tools
11:45	<i>Raül Bonet, EURECAT, Spain</i> Design of an innovative cathodic arc source with high deposition rate and low macroparticles generation
12:00	<i>Lara Maroto, Genco Ltd, United Kingdom</i> Arc sources for low defect coatings and high target utilisation
12:15	<i>Ibon Azkona, Meta Estalki SL, Spain</i> PVD based surface treatments for space applications
12:30	<i>Fabio Ferreira, CEMMPRE, Portugal</i> Development of Environmentally Friendly Tribological Systems for Heavy Machinery Components
12:45	FINAL REMARKS
13:00	END

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POSTER SESSION (During coffee breaks and lunch)	
P1	<i>Jaume Caro, EURECAT, Spain</i> Development and characterization of ultra-hard DLC coatings for high quality machining of high strength aluminium alloys
P2	<i>Amaya Garcia-Casas, CIDETEC, Spain</i> Boosting corrosion and chemical resistance of aluminum alloys with anaphoretic e-coatings
P3	<i>Maite Redín Azcona, Asociación de la Industria Navarra, Spain</i> Incorporation of Mo and W for the enhancement of AlTiN layers by PVD
P4	<i>Rodrigo Santos, i3N, Universidade de Aveiro, Portugal</i> Surface Treatment by Laser Irradiation for Injection Moulding Efficiency Enhancement
P5	<i>Yerila Rodríguez-Martínez, Tecnalia, Spain</i> Advanced electrocatalytic surfaces for Anion Exchange Membrane Water Electrolysis fabricated via Magnetron Sputtering
P6	<i>Ana Sofia Ramos, Universidade de Coimbra, Portugal</i> Laser Hardening of P20+S Mold Steel
P7	<i>Todor Vuchkov, Instituto Pedro Nunes, Portugal</i> Laboratory Evaluation of WS₂ and DLC-Si-O Coatings Under Simulated Stamping Conditions
P8	<i>Carlos Patacas, Instituto Pedro Nunes, Portugal</i> Cutting tools integrating a novel thin-film sensor for real-time temperature monitoring
P9	<i>José D. Castro, Universidade de Coimbra, Portugal</i> MoS₂/Ni nano architectural synergy for hydrogen production
P10	<i>Sandra Carvalho, Universidade de Coimbra, Portugal</i> Sustainable Structural Coloring of Polymers for Automotive Applications
P11	<i>Iñigo Braceras, Tecnalia, Spain</i> Hydrogen permeation barriers for treated steels prepared by HiPIMS
P12	<i>Ramon Escobar-Galindo, Universidad de Sevilla, Spain</i> Development of physical vapour deposition coatings for weathering protection of additive manufacturing polymer substrates
P13	<i>Anastasia Dianova, Tecnalia, Spain</i> Functional Coatings based on Barrier Layers and Conductive Metal Spinels for Protection and Electrical Performance of Interconnectors in Electrolysis Cells
P14	<i>Filipe Fernandes, Politecnico de Porto</i> Wear Behavior and machining performance of TiNAg and TiAl(Y/Ta)N Thin Films for cutting tools
P15	<i>Diogo Cavaleiro, Universidade de Coimbra, Portugal</i> M2R PRR – Sustainable solutions for bike chains

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Workshop location:

TECNALIA

Parque Científico y Tecnológico de Gipuzkoa

Mikeletegi Pasealekua, 2

E-20009 Donostia-San Sebastián (Gipuzkoa), Spain

GPS coordinates: Lat = 43.286444 Lon = -1.985472

<https://www.tecnalia.com/en/locations/donostia-san-sebastian-1-mikeletegi-pasealekua-2>



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Workshop dinner:

Txirrita Sagardotegia

Calle San Bartolomé, 32,

E- 20007 Donostia – San Sebastián, Gipuzkoa

<https://txirritasagardotegia.com/>

