YMAN 2026

Symposium

Programme and Speaker Guide

11–12 November 2026

Online on **VooV Meeting**

Manufacturing research across processes, machines and metrology

We thank the reviewers for their valuable and constructive comments.

www.yman-network.org

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Programme edition | 3 November 2026

Welcome to YMAN 2026

The Young Researchers' Manufacturing Network (YMAN) brings together researchers working on machine tools and manufacturing technologies. YMAN 2026 offers 2 days of keynote talks, contributed presentations and discussion, connecting early-career researchers with experienced colleagues across countries and institutions.

The symposium programme covers machining and surface integrity, additive manufacturing, process modelling, metrology, artificial intelligence and process monitoring. A dedicated Tool Condition Monitoring (TCM) session on 12 November brings seven contributions together for discussion with researchers and experts.

We will send the **Oral Presentation Certificate** via your YMAN email.

Symposium leadership

Prof. Luis Norberto López de Lacalle, UPV/EHU, Chair
Prof. Jun Zhang, XJTU, Vice-Chair and host institution representative
Dr. Jokin Muñoa, IDEKO, Vice-Chair
Secretariat Team: Dr. Lele Bai, Prof. Jun Wang, Dr. Lai Hu, Dr. Haizea González

How to use this guide

The overview tables show times in China, mainland Spain, the UK, Türkiye and Brasília. Local times on the session pages refer to the locations shown. Choose a parallel session in each block and return to the plenary room for the next keynote block.

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Keynotes: 30 minutes presentation + 5 minutes Q&A
Contributed talks: 15 minutes presentation + 5 minutes Q&A

Symposium Leadership

SYMPOSIUM CHAIR

Prof. Luis Norberto López de Lacalle



University of the Basque Country (UPV/EHU)
Aeronautics Advanced Manufacturing Center (CFAA), Spain

Prof. Luis Norberto López de Lacalle is a Full Member of the Royal Academy of Engineering of Spain, Professor of Mechanical Engineering and doctoral supervisor at the University of the Basque Country, and Founder and Director of the Aeronautics Advanced Manufacturing Center (CFAA). He also chairs the Academy's Industry Committee. He received his PhD in Mechanical Engineering in 1993. His research covers high-performance cutting, five-axis machining, advanced machine tools and aerospace manufacturing, and he has led numerous research projects.

He has published over 270 academic papers and four books, ranks among the world's top five researchers in machine tools by citations, and has appeared in the world's top 2% scientists list for several consecutive years. He is Editor-in-Chief of Journal of Materials and Engineering and serves on several international journal editorial boards. His group has collaborated with over 100 companies and completed hundreds of R&D and engineering validation projects. Its awards include the Royal Academy of Engineering of Spain's Engineering and Technology Award (2023), the Innovation and Sustainable Technology Award (2023), and the ASPROMEC Best Equipment Award (2018). His work has achieved broad international recognition.

SYMPOSIUM VICE-CHAIR AND HOST INSTITUTION REPRESENTATIVE

Prof. Jun Zhang



School of Mechanical Engineering
Xi'an Jiaotong University, China

Prof. Jun Zhang is a Distinguished Professor at Xi'an Jiaotong University (XJTU), Vice-Dean of its School of Mechanical Engineering. He is recognised as a National Leading Talent in China. His research covers high-end CNC machine tools, intelligent machining processes and equipment, high-performance machining theory and technology, and high-performance machining of complex aerospace structures.

He is Deputy Director-General and Standing Committee Member of the Group Technology and Intelligent Integration Branch of the Chinese Mechanical Engineering Society; Deputy Secretary-General and Standing Council Member of the Advanced Cutting Technology Research Branch of the Machinery Industry Metal Cutting Tool Technology Association; and Secretary-General of the National Mechanical Manufacturing Education Research Association. He has led over 20 research projects, including projects under China's National Key R&D Program, the National Natural Science Foundation of China and National Science and Technology Major Projects. His awards include the Shaanxi Technological Invention Award (First Prize), the National Teaching Achievement Award (Second Prize), and the inaugural National Award for Outstanding Textbooks (First Prize).

Programme for 11 November

Wednesday | Blocks 1 and 2

Main Hall ID: 842347754 (Voov Meeting)

China UTC+8	Spain UTC+1	UK UTC+0	Türkiye UTC+3	Brazil UTC−3	Programme	Host
16:00–16:05	09:00–09:05	08:00–08:05	11:00–11:05	05:00–05:05	**Welcome address** Prof. Jun Zhang Host representative and Vice-Chair	**Main Hall:** **Prof. Aitzol Lamikiz, UPV/EHU**
16:05–16:10	09:05–09:10	08:05–08:10	11:05–11:10	05:05–05:10	**Opening address** Prof. Luis Norberto López de Lacalle Symposium Chair	
16:10–16:45	09:10–09:45	08:10–08:45	11:10–11:45	05:10–05:45	**Keynote 1** Dr. Helia Hooshmand	
16:45–17:20	09:45–10:20	08:45–09:20	11:45–12:20	05:45–06:20	**Keynote 2** Prof. Yusuf Kaynak	
17:20–17:30	10:20–10:30	09:20–09:30	12:20–12:30	06:20–06:30	Break and enter parallel rooms 10 min	
17:30–20:10	10:30–13:10	09:30–12:10	12:30–15:10	06:30–09:10	**Parallel Sessions 1A, 1B and 1C** 8 talks per session	
20:10–21:00	13:10–14:00	12:10–13:00	15:10–16:00	09:10–10:00	Meal break and return to plenary 50 min	
21:00–21:35	14:00–14:35	13:00–13:35	16:00–16:35	10:00–10:35	**Keynote 3** Dr. Jokin Muñoa	**Main Hall:** **Prof. Jun Zhang, XJTU**
21:35–22:10	14:35–15:10	13:35–14:10	16:35–17:10	10:35–11:10	**Keynote 4** Prof. Adriano Fagali de Souza	
22:10–22:20	15:10–15:20	14:10–14:20	17:10–17:20	11:10–11:20	Break and enter parallel rooms 10 min	
22:20–24:00	15:20–17:00	14:20–16:00	17:20–19:00	11:20–13:00	**Parallel Sessions 2A and 2B** 5 talks per session	

30+5 = 30 min presentation + 5 min Q&A. 15+5 = 15 min presentation + 5 min Q&A.

Spain means mainland Spain. Brazil means Brasília time. China 24:00 is 00:00 on 12 November.

Programme for 12 November

Thursday | Block 3

Main Hall ID: 647968313 (Voov Meeting)

China UTC+8	Spain UTC+1	UK UTC+0	Türkiye UTC+3	Brazil UTC−3	Programme	Host
16:00–16:35	09:00–09:35	08:00–08:35	11:00–11:35	05:00–05:35	**Keynote 5** Prof. Aitzol Lamikiz	**Main Hall:** **Dr. Jokin Muñoa IDEKO**
16:35–17:10	09:35–10:10	08:35–09:10	11:35–12:10	05:35–06:10	**Keynote 6** Prof. Massimiliano Annoni	
17:10–17:20	10:10–10:20	09:10–09:20	12:10–12:20	06:10–06:20	Break and enter parallel rooms 10 min	
17:20–19:40	10:20–12:40	09:20–11:40	12:20–14:40	06:20–08:40	**Special Session 3A** Tool Condition Monitoring · 7 talks	
17:20–19:40	10:20–12:40	09:20–11:40	12:20–14:40	06:20–08:40	**Parallel Session 3B** Process monitoring and advanced manufacturing · 7 talks	
19:40–19:50	12:40–12:50	11:40–11:50	14:40–14:50	08:40–08:50	**Expert comments** Prof. Luis Norberto López de Lacalle **Session 3A**	
19:50–20:10	12:50–13:10	11:50–12:10	14:50–15:10	08:50–09:10	**Closing address** Prof. Luis Norberto López de Lacalle Symposium Chair, Plenary	

30+5 = 30 min presentation + 5 min Q&A. 15+5 = 15 min presentation + 5 min Q&A. Italy follows the same time as mainland Spain.

Keynote Speakers

11 November | KEYNOTE 01

Dr. Helia Hooshmand



Manufacturing Metrology Team, University of Nottingham, UK

16:10–16:45 UTC+08 | 08:10–08:45 UK UTC+0

Advances in Surface Topography Measurement Using Optical Metrology

Abstract

Optical metrology provides non-contact measurement techniques for both form and surface metrology and is widely used in aerospace, semiconductor, biomedical, and precision manufacturing for high-resolution surface topography measurement. Form metrology enables the assessment of overall geometry, including shape, curvature, and dimensional deviations of components, which is essential for alignment, assembly, and functional performance. In contrast, surface metrology focuses on microstructural features on the surface, which are critical for tribology, wear behaviour, optical performance, and surface functionality. Together, these complementary capabilities make optical metrology a powerful tool for multiscale characterisation. Techniques such as confocal microscopy, coherence scanning interferometry, and focus variation microscopy are among the most commonly used surface topography measurement methods, providing high vertical resolution and being essential for surface characterisation in both research and industrial quality control.

However, measurement accuracy depends not only on instrument performance but also on a comprehensive understanding of optical imaging mechanisms, measurement limitations, and sources of uncertainty. Physics-based modelling provides a rigorous framework for simulating the complete measurement chain, including light–surface interaction, image formation, surface reconstruction, and uncertainty propagation. By reproducing the physical processes governing optical measurements, these models enable quantitative analysis of systematic errors arising from surface geometry, material properties, and instrument characteristics. They also support uncertainty evaluation and instrument characterisation in accordance with ISO 25178 standards, while facilitating instrument optimisation, virtual calibration, and performance prediction.

Beyond uncertainty evaluation, physics-based modelling has broad applications in advanced manufacturing, including semiconductor inspection, ultra-precision machining, precision optics, and additive manufacturing. Coupled with emerging machine learning techniques, virtual instrument models are expected to play an increasingly important role in the development of accurate, traceable, and intelligent optical metrology systems.

About the speaker

Dr Helia Hooshmand is a Postdoctoral Research Fellow in the Manufacturing Metrology Team at the University of Nottingham. She obtained her BSc and MSc in Physics from the University of Tehran, and her PhD in Optics from Shahid Beheshti University in Iran. Her research focuses on developing physics-based optical metrology methods for quantitative surface and material characterisation, with an emphasis on light scattering techniques and virtual instrument modelling. She works on translating scattering-based measurements into robust tools for surface topography analysis, process monitoring, and in-process quality control. Her research spans optical metrology for precision manufacturing, additive manufacturing, composite materials, and emerging battery manufacturing, with applications ranging from ultra-precision machining to industrial inspection tasks. She serves as a Guest Editor for Journal of Physics: Photonics (IOP Publishing) and Photonics (MDPI). Her first- and corresponding-author publications have appeared in leading journals, including Optics Letters, Precision Engineering, and Optics and Lasers in Engineering. She was awarded a British Academy Pump Priming Award to explore optical metrology for battery quality control.

Keynote Speakers

11 November | Machining and surface integrity

KEYNOTE 02

Yusuf Kaynak



Marmara University, Türkiye

16:45–17:20 UTC+08 | 11:45–12:20 Türkiye UTC+03

Surface Integrity in Machining: From Fundamental Mechanisms to Functional Performance

Talk overview

This keynote examines how process conditions and material response determine surface integrity and functional performance. It covers non-ferrous alloys, shape memory alloys, titanium alloys and cutting tool manufacturing. Topics include surface topography, microstructural alterations, phase transformations, work hardening and subsurface damage. The talk connects machining-induced changes with component functionality and reliability, and discusses how surface integrity can be understood, characterised and controlled.

About the speaker

Yusuf Kaynak received his PhD in Mechanical Engineering from the University of Kentucky in 2013. He is a professor at Marmara University and works on machining, cutting tool technologies, additive manufacturing and surface integrity. He has led academic and industrial research projects and serves as Deputy Technical Editor of Machining Science and Technology. His distinctions include the TÜBA-GEBİP award in 2020 and the TÜBİTAK 100th Anniversary Incentive Award in Manufacturing Engineering in 2023.

Keynote Speakers

11 November | KEYNOTE 03

KEYNOTE 03

Jokin Muñoa



IDEKO, Spain

21:00–21:35 UTC+08 | 14:00–14:35 Spain UTC+01

Dampers in Machine Tools

Talk overview

The speaker explained how vibrations arise during machining, their impact on machinery, tools, and productivity, as well as the various techniques and damping systems used to mitigate them and enhance the stability of these processes.

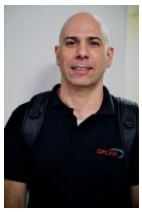
About the speaker

Dr. Jokin Muñoa serves as the Scientific Director at the IDEKO manufacturing technology center, where he also leads the "Precision Design and Simulation" research group. Recognized by the Basque Government as one of the region's most outstanding researchers within the technical center ecosystem, he has made significant scientific contributions to advanced manufacturing and the machine tool industry. His work primarily focuses on the dynamics and suppression of chatter in machine tools. He specializes in addressing low- and high-frequency vibrations—stemming from structural flexibility—that occur during high-speed machining and robotic milling, thereby enhancing both production efficiency and workpiece surface quality in advanced manufacturing. Dr. Muñoa is a Fellow Member of the International Academy for Production Engineering (CIRP) and serves as an Associate Editor for the IJMTM Journal. He has successfully facilitated the industrial transfer of technologies developed at IDEKO, such as DAS and DWS, helping Basque machine tool companies increase the value-add of their products.

Keynote Speakers

11 November | KEYNOTE 04

Adriano Fagali de Souza



Federal University of Santa Catarina, Brazil

21:35–22:10 UTC+08 | 10:35–11:10 Brasília UTC-3

Advances in CAD/CAM systems toward a new era of smart factories and AI-driven manufacturing

Talk overview

This presentation explores the integration of smart factories and artificial intelligence into computational manufacturing through CAD/CAM/CAx and CNC technologies. It considers advances in CAD/CAM/CAx architectures, Industry 4.0 approaches to CNC milling control, metallic additive manufacturing, and the monitoring and control of plastic injection moulding processes.

About the speaker

Adriano Fagali de Souza obtained his doctorate in Mechanical Engineering from the University of São Paulo in 2004. At the Federal University of Santa Catarina, he leads the Computer Aided Manufacturing Research Group (GPCAM) and coordinates projects that use the CAD/CAM/CNC-CAx chain to manufacture complex shapes. He has authored four books in this field and serves as an Associate Editor of the Journal of the Brazilian Society of Mechanical Sciences and Engineering.

Keynote Speakers

12 November | Aerospace manufacturing

KEYNOTE 05

Prof. Aitzol Lamikiz Mentxaka



University of the Basque Country (UPV/EHU) and CFAA, Spain

16:00–16:35 UTC+08 | 09:00–09:35 Spain UTC+01

Why Aren't There More 3D-Printed Parts in Aircraft? The Challenges of Additive Manufacturing in the Aerospace Industry

Talk overview

The talk focuses on the main challenges and barriers to additive manufacturing for aerospace applications. It examines part-size limitations, material restrictions, and issues of quality and reliability. It concludes with an overview of current projects at the Aeronautics Advanced Manufacturing Center (CFAA).

About the speaker

Prof. Aitzol Lamikiz Mentxaka is an Associate Member of the Royal Academy of Engineering of Spain and a Professor at the School of Engineering, University of the Basque Country (UPV/EHU). He is Deputy Director and a Technical Committee Member of the Aeronautics Advanced Manufacturing Center (CFAA), and a member of the Society of Manufacturing Engineers (SME) and the Spanish Mechanical Engineering Society.

His research focuses on predictive modelling of cutting forces in complex surface milling and laser processing of complex geometries. He has published over 270 papers in JCR-indexed journals, with more than 12,000 citations and an h-index of 67. He has authored three books on machine tools and advanced manufacturing and holds five national patents and one international patent.

He has led multiple national, regional and European research projects. His team collaborates extensively with major industrial and aerospace companies, including DANOBAT and ITP, on the commercialisation and technology transfer of advanced manufacturing technologies.

Keynote Speakers

12 November | Sustainable machining

KEYNOTE 06

Massimiliano Annoni



Department of Mechanical Engineering, Politecnico di Milano, Italy

16:35–17:10 UTC+08 | 09:35–10:10 Italy UTC+01

Beyond Productivity: The Energy Impact of Advanced Milling Strategies

Abstract

Advanced milling strategies offer opportunities to improve productivity, but how do these gains translate into energy performance? Addressing this question requires a clear definition of cutting power, machining time and energy consumption, together with an understanding of the physical mechanisms governing material removal.

This keynote explores the energy impact of milling through the relationships between specific cutting force, cutting parameters, tool selection and machining strategy. Particular attention is devoted to trochoidal milling, examining how toolpath design and cutting conditions influence power demand, cycle time, energy consumption and tool life. The aim is to identify the conditions under which productivity improvements can also support energy savings, and to clarify why shorter cycles alone could be insufficient to assess the energy performance of a machining operation.

The discussion then extends from the optimisation of individual operations to the selection of manufacturing processes. Specific energy is introduced as a common basis for comparing processes operating according to different physical principles, while an exergy perspective broadens the analysis to the quality of energy flows and the potential for waste-heat recovery. By connecting cutting mechanics with process-level energy assessment, the keynote outlines a framework for evaluating advanced milling strategies beyond productivity, placing energy demand alongside cycle time and tool life as a criterion for machining decisions.

About the speaker

Massimiliano Annoni is Associate Professor of Technologies and Production Systems in the Department of Mechanical Engineering at Politecnico di Milano. His research focuses on modelling, developing and applying advanced machining and waterjet processes at both macro and micro scales. His work on precision waterjet machining led to the establishment of the university spin-off WatAJet in 2014. He coordinates three research laboratories: PoliMill, MI_crolab and WJ_Lab. PoliMill advances the digitalisation of machining through CAM, simulation, monitoring, digital twins and artificial intelligence, developing practical solutions for manufacturing SMEs. He has coordinated regional and European projects, including LIVE4.0 and CAPP_AI4.0 on Digital Machining education, and teaches Digital Machining to master's students and industry professionals. His research output includes over 120 journal articles, conference papers, book chapters and patents.

Parallel Session 1A

Advanced Machining and Material Performance

11 November | 17:30–20:10 UTC+08 | Meeting Room ID: 179160020 (Voov Meeting)

UTC+08	Presenter local time	Presenter and presentation	Chair
17:30–17:50	China 17:30–17:50 UTC+08	Rapid microstructure forming of SiCp/Al composites through acoustic softening *Zhen Li, Zhengji Yang, Yang He*	**Hongguang Liu, XJTU**
17:50–18:10	China 17:50–18:10 UTC+08	Effects of cutting-edge micro-geometries on machinability in laser-assisted machining of titanium *Binxun Li, Yan Xia, Yujing Sun, Peirong Zhang, Jin Du*	
18:10–18:30	China 18:10–18:30 UTC+08	Modeling of Small-Hole EDM Process Integrating Discharge State Recognition and Discharge Location Determination *Jiayao Chen, Xiaodong Yang, Aocheng Zhou, Xiaoming Duan*	
18:30–18:50	China 18:30–18:50 UTC+08	Modeling and Experimental Investigation of Surface Topography in External Cylindrical Grinding of Silicon Nitride Ceramic Bearing Rings *Rui Wang, Lishu Lv*	
18:50–19:10	India 16:20–16:40 UTC+05:30	Cradle-To-Gate Life Cycle Assessment of Dry and Hybrid Nano-MQL Drilling Of PBF-LB Inconel 718: A Comparative Environmental Study *Tarang Lotwala, Prameet Vats, Kishor Kumar Gajarani, Navneet Khanna*	**Haizea Gonzalez Barrio, UPV/EHU**
19:10–19:30	Spain 12:10–12:30 UTC+01	Viscosity-controlled semi-solid processing of a secondary Al–Si–Cu aluminium alloy (A380-type): linking rheology, microstructural evolution and processing Window *S. Menargues, I. Espinosa, A. Lázaro, Claudio Aguilar, D. Gutierrez, J.A. Picas*	
19:30–19:50	Spain 12:30–12:50 UTC+01	Synergetic Effects of Cryogenic Treatment and Austenitizing Temperature on the Corrosion Resistance of AISI 420 Martensitic Stainless Steel *I. Espinosa, S. Menargues, D. Gutierrez, J. Navas, I. Toro, C. Aguilar, A. Picas*	
19:50–20:10	Spain 12:50–13:10 UTC+01	Influence of Laser-Textured Dimple Patterns on the Tribological Performance of the WC-Co/Ti6Al4V Contact Pair *J. García-Fernández, J. Salguero, M. Batista, I. del Sol, J.M. González Leal, E. Ukar, J.M. Vázquez-Martínez*	

Each talk comprises a 15-minute presentation and 5 minutes of Q&A. Local times refer to the locations shown. Numbers in brackets are YMAN2026 paper IDs.

* Participation awaiting confirmation. Programme updates will be communicated by the Organizing Committee.

Parallel Session 1B

Additive Manufacturing: Process Design and Applications

11 November | 17:30–20:10 UTC+08 | Meeting Room ID: 74360272167 (Voov Meeting)

UTC+08	Presenter local time	Presenter and presentation	Chair
17:30–17:50	Finland 11:30–11:50 UTC+02	Effect of Feedstock Type on the Surface Quality and Tribological Performance of DED-Processed Inconel 625 and 718 Superalloys *Carmen Garrote-Junco, Auezhan Amanov, Aitzol Lamikiz Mentxaka, and Iñigo Flores Ituarte*	**Mohamed Zakaria Zahaf, CRM**
17:50–18:10	Spain 10:50–11:10 UTC+01	Architecture Screening and Stress-Driven Lattice Grading of Topology-Optimized Additively Manufactured Supports *Y. Zekalmi, J. Calvo, D. Gallardo, J. Sánchez, J.A. Albajez, J.A. Yagüe-Fabra*	
18:10–18:30	Spain 11:10–11:30 UTC+01	From Markers to Feed-Forward Transformers: A comparative study of 3D reconstruction Approaches for In-Situ Additive Manufacturing Monitoring *Oumaima Charia、Arcadi Castanyer Caballe、Miquel Domingo-Espin, Inés Ferrer Real*	
18:30–18:50	Spain 11:30–11:50 UTC+01	Propeller Manufacturing Using WAAM: A Comparative Study of Pulsed-GMAW and Cold Arc Deposition Mode *Álvaro Rodríguez, Virginia Uralde, Alfredo Suárez, Eider Aldalur, Fernando Veiga*	
18:50–19:10	Italy 11:50–12:10 UTC+01	Achieving geometrical consistency with WAAM Dot-by-Dot process: manufacturing and characterization of rods and joint structures *Arturo Cioni, Giuseppe Venturini, Niccolò Grossi*	**Sarvesh Mishra, IIT-Kanpur**
19:10–19:30	Spain 12:10–12:30 UTC+01	Influence of Wire Feed Speed and WFS/TS ratio on the geometric evolution of AlSi10Mg walls manufactured by CMT-WAAM *G. Rodríguez-García, I. del Sol, J. Salguero, M. Batista, L. González-Rovira*	
19:30–19:50	Spain 12:30–12:50 UTC+01	Corrosion behavior of TiO2 Atomic Layered Deposition (ALD) coatings onto Wire Arc Additively Manufactured (WAAM) - Aluminum Alloy (Al5356) *Sergio Ibáñez-Losantos, Eneko Villabona, Xabier Sandua, Carlos Berlanga-Labaria, Pablo Zubiate Orzanco, Fernando Veiga, Jose Fernandez-Palacio, P.J.Rivero*	
19:50–20:10	Spain 12:50–13:10 UTC+01	Recent Advances in Additive Manufacturing for Metalworking Fluid Filtration: Design Strategies, Challenges and Opportunities *Gabriel H. S. Cangussu, M. Rodríguez-Martín, J. Rocha, J. E. Ribeiro*	

Each talk comprises a 15-minute presentation and 5 minutes of Q&A. Local times refer to the locations shown. Numbers in brackets are YMAN2026 paper IDs.

Parallel Session 1C

Metrology, AI and Quality Inspection

11 November | 17:30–20:10 UTC+08 | Meeting Room ID: 214973270 (Voov Meeting)

UTC+08	Presenter local time	Presenter and presentation	Chair
17:30–17:50	China 17:30–17:50 UTC+08	A Multi-Model Cascade Framework for Intelligent Recognition of Dimension Annotations in Engineering Drawings *Zongbo Han, Hanbing Zhang, Xing Dai, Xiaojian Zhang*	**Dongqian Wang, BJTU**
17:50–18:10	Spain 10:50–11:10 UTC+01	Analytical Error Propagation from Robot Joint Uncertainty to Point Cloud Measurements Using Laser Triangulation *Leire Mendieta-Echevarria, Martin Ojanguren, Luis Norberto López De Lacalle, Asier Brull Mesanza, Itziar Cabanes, and Roberto Francisco Estrada*	
18:10–18:30	Spain 11:10–11:30 UTC+01	In-situ wear assessment of steel molds for ceramic manufacturing using structured-light profilometry *Víctor Llamas, Josep Maria Serres, Magdalena Aguiló, Francesc Díaz, Xavier Mateos*	
18:30–18:50	Spain 11:30–11:50 UTC+01	Analysis of the Post-Processing Influence in X-ray Computed Tomography Porosity Measurements *Raquel Orduna, Daniel Gallardo, Lucía C. Díaz, José Antonio Albajez, José Antonio Yagüe*	
18:50–19:10	Spain 11:50–12:10 UTC+01	Machine-integrated vision for preliminary in-process defect monitoring in alumina stereolithography *Alejandro Méndez Pérez, Eduardo Fidalgo Fernández, Pablo Rodríguez González, and Ana Isabel Fernández Ábia*	**Lai Hu, THU**
19:10–19:30	Spain 12:10–12:30 UTC+01	In-Process Fracture Detection in Single Point Incremental Forming via Acoustic Anomaly Detection *Corredor-Gomez L.G., Garcia-Romeu M.L., Ferrer I.*	
19:30–19:50	Spain 12:30–12:50 UTC+01	Towards Interpretable AI-Based Quality Inspection in Circular Knitting: Fine-Tuning a Qwen-Based Multimodal Model *Arcadi Castanyer Caballe, Josep Maria Serres Serres, Xavier Mateos Ferré*	
19:50–20:10	Algeria 12:50–13:10 UTC+01	Chip formation dynamics as a process monitoring tool in end milling of AISI D3 tool steel with different hardness states *Mohamed Zakaria ZAHAF*	

Each talk comprises a 15-minute presentation and 5 minutes of Q&A. Local times refer to the locations shown. Numbers in brackets are YMAN2026 paper IDs.

* Participation awaiting confirmation. Programme updates will be communicated by the Organizing Committee.

Parallel Session 2A

Surface Engineering and Advanced Processing

11 November | 22:20–24:00 UTC+08 | Meeting Room ID: 907556542 (Voov Meeting)

UTC+08	Presenter local time	Presenter and presentation	Chair
22:20–22:40	Ecuador 09:20–09:40 UTC-05	Hard Coatings on AISI 304 Stainless Steel to Improve Abrasive Wear Resistance *Daniela Yungán-López, Michael Del Rosario-Carrión, Luis López-López, Christian CobosMaldonado*	**Lukasz Zylka, RUT**
22:40–23:00	Monterrey 08:40–09:00 UTC-06	Effect of Welding Parameters on Fiber Laser Micro-Spot Welding of Nitinol Sheets for Load-bearing Implantable Devices *Luis H. Olivas-Alanis, Luis D. Cedeño-Viveros, Sergio Romero-Martínez, Elisa Vázquez-Lepe, Ciro A. Rodríguez, Erika García-López*	
23:00–23:20	Brasília 12:00–12:20 UTC-03	Influence of Different Deburring Processes on the Surface Roughness of Micro-milled AL6101 Aluminum Alloy Parts *Caio Lins de Castro, Maksym Ziberov, Déborah de Oliveira*	
23:20–23:40	France 16:20–16:40 UTC+01	Thermal and Wear Analysis of AlTiSiN Coated WC/6Co Cutting Tool in Cryogenic Turning of Ti6Al4V *Prasenjit Sharma, Janakarajan Ramkumar*	
23:40–24:00	Poland 16:40–17:00 UTC+01	Effect of Stream-Finishing Parameters on the Surface Quality of Hardened Vanadis Extra Steel *Łukasz Żyłka, Jarosław Tymczyszyn, Grażyna Mrówka-Nowotnik, Andrzej Nowotnik*	

Each talk comprises a 15-minute presentation and 5 minutes of Q&A. Local times refer to the locations shown. Numbers in brackets are YMAN2026 paper IDs.

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Parallel Session 2B

Process Modelling, Monitoring and Additive Manufacturing

11 November | 22:20–24:00 UTC+08 | Meeting Room ID: 74360272167 (Voov Meeting)

UTC+08	Presenter local time	Presenter and presentation	Chair
22:20–22:40	Brasília 11:20–11:40 UTC-03	Comparing Laser and Arc AM of 316L: Geometry and Microhardness *Ítalo Peixoto Guedes, Alberto José Álvares, Déborah de Oliveira, Maksym Ziberov*	**Antonio Sánchez Egea, UPC**
22:40–23:00	Italy 15:40–16:00 UTC+01	A cutting force model in the frequency domain for endmills with generic geometry and runout *Lorenzo Morelli, Fausto Caldini, Niccolò Grossi*	
23:00–23:20	Italy 16:00–16:20 UTC+01	Understanding asymmetrical sidebands in milling: modelling, numerical investigation and Hilbert Transform applications *Fausto Caldini, Lorenzo Morelli, Niccolò Grossi*	
23:20–23:40	Ecuador 10:20–10:40 UTC-05	Estimation of CNC Machine Vibrations via Bivariate Linear Regression and XGBoost: A Virtual Sensor Approach *Tania A. Criollo Simbaña, Alain Gil del Val, María L. Diez Platas*	
23:40–24:00	Vancouver 08:40–09:00 UTC-07	Physics-Based Mechanics of CFRP Machining Across Laminate and Constituent Scales *Zhenghui Lu, Xiaoliang Jin*	

Each talk comprises a 15-minute presentation and 5 minutes of Q&A. Local times refer to the locations shown. Numbers in brackets are YMAN2026 paper IDs.

Presenters connecting from a different location should use the UTC+08 column to check their presentation time.

Special Session 3A

New insights into tool condition monitoring from Young Researchers

12 November | 17:20–19:40 UTC+08 | Meeting Room ID: 907556542 (Voov Meeting)

Organizers: Lele Bai, and Luis Norberto Lopez de Lacalle

UTC+08	Presenter local time	Presenter and presentation	Chair
17:20–17:40	China 17:20–17:40 UTC+08	A Physics-Informed xLSTM-Transformer Collaborative Network with Bayesian Optimization for Tool Wear Prediction in TC4 Milling *Yiwen Sun, Shengyue Tan* Beijing Jiaotong University	**Lele Bai, IDEKO**
17:40–18:00	Spain 10:40–11:00 UTC+01	Data-Driven Tool Wear and Breakage Monitoring for Grooving Operations with Chip Control Issues *Iñigo Llanos, Anne Sanz, Irantzu Ermina, Ainhoa Robles, Jokin Munoa* IDEKO Research Center	
18:00–18:20	China 18:00–18:20 UTC+08	Non-Invasive Online Monitoring of Tool Wear in Precision Milling Based on Stray Magnetic Field of Motorized Spindle *Tongshun Liu* Suzhou City University	
18:20–18:40	China 18:20–18:40 UTC+08	In-Process Tool Wear Prediction Enabled by Physics-Informed Liquid Neural Networks Under Varying Cutting Conditions *Jiaxing Yan, Jun Zhang* Xi'an Jiaotong University	
18:40–19:00	Spain 11:40–12:00 UTC+01	Tool wear monitoring of high-speed broaching process with carbide tools *Ander Del Olmo Sanz, Luis Norberto Lopez de Lacalle* CFAA, University of the Basque Country	**Diego Carou, UVigo**
19:00–19:20	Spain 12:00–12:20 UTC+01	Tool wear estimation in drilling of Inconel 718 via Bayesian state-space modelling *Felipe Ponce-Vanegas, Reinaldo Espina-Navarro* BCAM	
19:20–19:40	Spain 12:20–12:40 UTC+01	Tool and process monitoring under unfavourable chip break conditions *Lele Bai, Inigo Lanos, Ainhoa Robles, Jokin Munoa* IDEKO Research Center	
19:40–19:50	**Expert Comments**		

19:40–19:50 UTC+08 | Expert comments by Prof. Luis Norberto López de Lacalle
19:50–20:10 UTC+08 | Closing address by the Symposium Chair

Parallel Session 3B

Process Monitoring and Advanced Manufacturing

12 November | 17:20–19:40 UTC+08 | Meeting Room ID: 74360272167 (Voov Meeting)

UTC+08	Presenter local time	Presenter and presentation	Chair
17:20–17:40	China 17:20–17:40 UTC+08	AI-Enabled Intelligent Grinding of Camshaft: Towards Adaptive Process Optimization and Surface Quality Control *Sicheng Xie, Lishu Lv*	**Ni Chen, NUAA**
17:40–18:00	China 17:40–18:00 UTC+08	Thermal effect of cup wheel grinding based on acoustic emission signal *Pengcheng Zhao, Bin Lin, Tianyi Sui*	
18:00–18:20	India 15:30–15:50 UTC+05:30	Build stability and top-zone hardness variation in L-DED of Ti-6Al-4V thin walls at varying laser power and powder flow parameters *Shivam, Sarvesh Kumar Mishra*	
18:20–18:40	India 15:50–16:10 UTC+05:30	Microstructural evolution and mechanical behaviour of LENS-fabricated Ti6Al4V under an immersed argon chamber *Rakesh Moharana, Saket Kumar Gupta, Shivam, Sarvesh Kumar Mishra*	
18:40–19:00	France 11:40–12:00 UTC+01	Accuracy and inference latency of simple and machine learning models for deposition efficiency and coating height predictions in cold spray additive manufacturing *Ahmed Belahrache, Rija Nirina Raoelison, Jaafar Gaber, Sereen Alzubi, Sihao Deng*	**Jun Wang, XJTU**
19:00–19:20	Spain 12:00–12:20 UTC+01	A Conversational System for Industrial Documentation based on Knowledge Graphs *Nahia Iturregia, Endika Tapia, Leonardo Sastoque-Pinilla, Unai Lopez-Novoa, Mikel Egaña Aranguren, Luis Norberto López-de-Lacalle*	
19:20–19:40	China 19:20–19:40 UTC+08	Multi-Scale Topography for Label-Free Tool-Condition Monitoring and Process-Window Selection in Turning Ti-6Al-4V *Feng Guo, Xiaoliang Liang*	

Each talk comprises a 15-minute presentation and 5 minutes of Q&A. Local times refer to the locations shown. Numbers in brackets are YMAN2026 paper IDs.

* Participation awaiting confirmation. Programme updates will be communicated by the Organizing Committee.

After this session, join Session 3A for its final talk and expert comments, followed by the closing address at 19:50 UTC+08.

Joining and Presenting Online

Platform VooV Meeting | Language English

Before the symposium

• Install the desktop app if you will present slides. Test your microphone, camera and screen sharing in advance.

• Check your session code and local time. Join your assigned room at least 15 minutes before your presentation.

• Use your full name and institution as your display name. Keep a PDF copy of your slides available as a backup.

During your session

• Keep your microphone muted when you are not speaking. Use headphones where possible to reduce echo.

• Please respect the presentation and Q&A times so that participants can move between parallel sessions.

• Follow the session chair’s instructions for questions and for returning to the plenary room.

Meeting links, IDs and access details will be circulated separately by the Organizing Committee. Please use the room details supplied with your joining instructions.

Useful links

VooV Meeting Download Center

VooV Meeting joining page

Contact and programme updates

YMAN 2026 Organizing Committee

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www.yman-network.org

Scan to visit the YMAN website.

Programme edition: 5 November 2026. Please consult the Organizing Committee for programme updates and joining details.