

18th June		
Room 1+2 PLENARIES		
TIME	TITLE	AUTHOR
8:00-8:30h.	Attendees Registration	
8:30-9:00h.	Opening Ceremony	Provincial Council of Gipuzkoa, Ana Aranzabe (Tekniker), Ian Sherrington (JOST)
Chairperson - Ana Aranzabe (TEKNIKER)		
9:00-9:30h.	Science From Space By AVS	Cristina ORTEGA
Room 1+2 TRIBOLOGY-IBERTRIB		
TIME	TITLE	AUTHOR
Chairperson - Amaya Igartua (TEKNIKER)		
9:30-10:00h.	Materials and Lubrication Challenges in Electric Vehicle Drivetrains: Recent Progress and Future Outlook	Ali ERDEMIR - <b>KEYNOTE SPEAKER</b>
10:00-10:20h.	Tribological Performance of Lubricant Bases Under Electrification	Eduardo TABARES
10:20-10:40h.	Modern Tools for Tribological Optimization of EV Transmissions and E-Axles	Boris ZHMUD
11:00-11:25h.	Coffe break	
Chairperson - Ian Sherrington (JOST INSTITUTE FOR TRIBOTECNOLOGY)		
11:25-11:45h.	Development of a-C:H:Si:O coatings and their tribological behaviour against engineering polymers	Albano CAVALEIRO
11:45-12:05h.	Study of the Rheological and Tribological Behavior of New 3D Printed PLA Modified by Ionic Liquid	Cristian SÁNCHEZ RODRÍGUEZ
12:05-12:25h.	Integrated Characterization Techniques for Enhanced Tribological and Mechanical Insights: Synergizing Mechanical Testing, 3D Profilometry, and Electrified Tribology	Gregory FAVARO
12:25-13:00h.	STAND VISIT	
13:00-14:00h.	Lunch	
Chairperson - José Manuel Ramos Gomes (UNIVERSIDADE DO MINHO)		
14:00-14:30h.	Grease Starvation and Power Loss in Hybrid Deep Groove Ball Bearings.	Jorge SEABRA - <b>KEYNOTE SPEAKER</b>
14:30-14:50h.	Mechanical and tribological characteristics of ZrN-Cu coatings obtained by hybrid HiPIMS-DCMS technology	Sandra CARVALHO
14:50-15:10h.	Influence of Protection Lips on The Frictional Torque of Rotary Shaft Seals	Christoph OLBRICH
15:10-15:30h.	Using Multiphase Conjugate Heat Transfer Analyses to Predict The Contact Temperature of Rotary Shaft Seals	Jacqueline GERHARD
15:30-16:00h.	Coffe break	
Chairperson - Jorge Seabra (INEGI)		
16:00-16:20h.	Studies on 3D Printed Rotary Shaft Seals	Marco GOHS
16:20-17:20h.	IBERTRIB Scientific Committee Meeting	
End of the Sessions		

Room 3 LUBRICANTS		
TIME	TITLE	AUTHOR
Chairperson - Stefan Mitterer (OELCHECK)		
9:30-10:00h.	The Evolution of OCM Oil Condition Monitoring: A Look Into Its Past, Present And Future	Yesid GOMEZ ESTRADA - <b>KEYNOTE SPEAKER</b>
10:00-10:20h.	Coolant Analysis In Wind Turbine. A Case Study	Jose CIRIA
10:20-10:40h.	Assessment of Hydraulic Oil Longevity Enhancement Techniques	Jo AMEYE
10:40-11:00h.	Eco-friendly vegetable lubricants based on cellulose nanocrystals	María Jesús GARCÍA GUIMAREY
11:00-11:25h.	Coffe break	
Chairperson - Bill Quesnel (WEARCHECH CANADA)		
11:25-11:45h.	Characterization and Implications Shear-Stress Deposits	Greg LIVINGSTONE
11:45-12:05h.	Accelerated Innovative Compatibility Test of Sealing Materials and Lubricants Under Dynamic Stress Collective	Ameneh SCHNEIDER
12:05-12:25h.	STAND VISIT	
13:00-14:00h.	Lunch	
Chairperson - Jose Ciria (BUREAU VERITAS - LUBRICATION MANAGEMENT)		
14:00-14:30h.	The Economic and Environmental Importance of Mixed And Boundary Lubrication	Ian TAYLOR - <b>KEYNOTE SPEAKER</b>
14:30-14:50h.	Tribological Improvement of Transmission Fluids for Electric Vehicles Using Double Functionalized Graphene Oxide as Additives	José Manuel LIÑEIRA DEL RÍO
14:50-15:10h.	Tribological properties of several electrified transmission nanofluids for electric vehicles	Josefa FERNÁNDEZ
15:10-15:30h.	Modified Carbon Nanofibers Doped With Acid Oleic-Functionalized Fe3O4 Nanoparticles as Additives for Electrified Transmission Base Fluids	Óscar GINER RAJALA
15:30-16:00h.	Coffe break	
Chairperson - Yesid Gomez Estrada (BUREAU VERITAS - LUBRICATION MANAGEMENT)		
16:00-16:20h.	Experimental assessment of an engine oil formulation specifically designed for hybrid vehicles	Bernardo TORMOS
16:20-16:40h.	Tribological Sinergy between copper oleate and gear oils EP/AW additives under boundary lubrication	Borja ARMENDARIZ MOLINERO
16:40-17:00h.	High Quality Sustainable Products From Agricultural Plastic Waste and Biomass	Boris ZHMUD
End of the Sessions		

Room 4+5 CONDITION MONITORIG		
TIME	TITLE	AUTHOR
Chairperson - Bruno Pilotti (ATTEN2)		
9:30-10:00h.	Impact of AI on Maintenance and Plant Reliability	Gerardo TRUJILLO - <b>KEYNOTE SPEAKER</b>
10:00-10:20h.	AI-Infused Predictive Maintenance in Industry 4.0: Revolutionizing Asset Management Through Online Lubricant Monitoring	Guillermo MIRÓ
10:20-10:40h.	A New Approach to Diagnose Water in Lubricant Using A Display RH% Sensor	Chris KNOWN
10:40-11:00h.	Viscosity and Density Sensors in Maintenance – Performance and Perspectives	Alexander NIEDERMAYER
11:00-11:25h.	Coffe break	
Chairperson - Jefferson Barbosa (CPFL RENOVÁVEIS)		
11:25-11:45h.	Machine Learning Modelling With In-Service Lubricant Data for Proactive Maintenance	Tiago COELHO
11:45-12:05h.	Condition Monitoring of Grease Lubricated Wind Turbine Bearings: Screening Samples for Chemistry and Wear to Enhance Laboratory Result Turnaround Time	Daniel WALSH
12:05-12:25h.	Oil Mist Lubrication in Refineries. Improvements in Reliability and Sustainability	Cristian SCHMID
12:25-13:00h.	STAND VISIT	
13:00-14:00h.	Lunch	
Chairperson - Javier Barriga (TEKNIKER)		
14:00-14:30h.	Sustainable Industrial Practices: Sensor-Based Lubricant Optimization in a Tire Manufacturing Plant	Rafa QUIROS - <b>KEYNOTE SPEAKER</b>
14:30-14:50h.	A Numerical Model for Scuffing Prediction in Gear Contacts Subject to Starved Lubrication	Julen ELIZEGI
14:50-15:10h.	Surface contact fatigue in low-alloy carbon steel spur gears	Ibai ULACIA
15:10-15:30h.	Molecular Dynamics Comparative Study of the Friction Performance of Sustained Unidirectional Rotation in Carbon and Boron Nitride Nanotubes-Based Nanobearings	Cristiano SIMÕES DE ABREU
15:30-16:00h.	Coffe break	
Chairperson - Ian Taylor (UCLAN)		
16:00-16:20h.	A Review of Analyticals Protocol, Failure Modes, Condition Monitoring and Fault Diagnosis Methods for Wind Turbine Transformer	Maria Elena GARCIA
16:20-16:40h.	Ghost Particles - Particle Counting Methods and Their Impact on ISO Cleanliness Codes	Bill QUESNEL
16:40-17:00h.	New Generation of Fuel Economy Nanolubricants Based on ZnO Dispersion	Iker ELEXPE
17:00-17:20h.	Numerical Study of Solid Body Temperature Impacts on Thermo- Elastohydrodynamic Lubrication (TEHL) In 2D Line Contacts Under Rolling and Sliding Condition	Mohammadreza BANAKERMANI
End of the Sessions		



19th June		
Room 1+2 PLENARIES		
TIME	TITLE	AUTHOR
8:30-9:00h.	Early Problems Detection in Aeronautics.	Silvia LAZCANO - PLENARY SPEAKER
Room 1+2 TRIBOLOGY-IBERTRIB		
TIME	TITLE	AUTHOR
<b>Chairperson - Matzke Markus (BOSCH)</b>		
9:00-9:30h.	Polymer Chains on Surfaces: Hip Joints, Contact Lenses, Car Engines, Wine...	Nicholas SPENCER - KEYNOTE SPEAKER
9:30-9:50h.	Behaviour of Solid Lubricants, as grease component, under various Tribological Contacts and temperature regimes	Mehdi FATHI-NAJAFI
9:50-10:10h.	On The Design of a "Floating-Liner" for Piston-Assembly Friction Measurement In An Internal Combustion Engine	Abdelrahman YOUSSEF
10:10-10:30h.	Tribology Challenge: Reciprocating Friction Tests	Xavier BORRAS
10:30-10:50h.	Laboratory Tribological Test Methodology to Evaluate Metalworking Lubricants' Performance For Stamping	Marko POLAJNAR
10:50-11:10h.	High Temperature Tribology of Inconel Alloy With B4C Reinforcement	Ana Maria FUENTES CAPARROS
11:10-11:30h.	<b>Coffe break</b>	
<b>Chairperson - Josefa Fernandez (UNIVERSIDAD DE SANTIAGO)</b>		
11:30-11:50h.	Investigation of the Formation of Boundary Lubrication Films Arising from Polysulfide Using Synchrotron X-ray Diffraction Technique	Kazuyuki YAGI
11:50-12:10h.	Use Of Thermal Camera and Microphones to Monitor Wear In The Flãm Railway Line	Sergio ARMADA
12:10-12:30h.	Steady-State Performance Measurements of a Passive Tilting-Pad Thrust Bearing for Benchmark Comparison with a Novel Tribotronic Tilting-Pad Thrust Bearing	David MACMILLAN
12:30-13:00h.	<b>STAND VISIT</b>	
13:00-14:00h.	<b>Lunch</b>	
<b>Chairperson - Albano Cavaleiro (UNIVERSIDAD COIMBRA)</b>		
14:00-14:30h.	Shaping A Future-Prove Lubricant Portfolio For A Wide Application Spectrum	Markus Matzke - KEYNOTE SPEAKER
14:30-14:50h.	Lubricating Properties Of Oil-Based Solutions Containing Graphene As Additive	Luis Vilhena
14:50-15:10h.	Analysis of nanocellulose-based electrorheological biolubricants for tribological applications	Samuel David FERNÁNDEZ SILVA
15:30-16:00h.	<b>Coffe break</b>	
<b>Chairperson - Prof. Guoxin Xie (TSINGHUA UNIVERSITY)</b>		
16:00-16:20h.	Physicochemical And Tribological Behavior Of Two Bio-Oils Derived From Haematococcus Pluvialis And Nannochloropsis Gaditana Microalgae	Claudia SANJURJO MUÑIZ
16:20-16:40h.	Synthesis Of 2D Tungsten And Molybdenum Diselenide Nanoparticles And Their Antiwear Performance As Additives To Lubricating Oils	Kostyantyn GRINKEVYCH
16:40-17:00h.	Synergy Of Phospholipid And Hyaluronan Based Super-Lubricated Hydrogels	Yuhong LIU
17:00-17:20h.	Biobased Polyamide With Chemically Bonded PTFE As Solid Lubricant	Michaela GEDAN-SMOLKA
<b>End of the Sessions</b>		

Room 3 LUBRICANTS		
TIME	TITLE	AUTHOR
<b>Chairperson - Aldara Naveira (RECONDOIL-SKF)</b>		
9:00-9:30h.	Lubricating Microcapsules	Prof. Guoxin XIE - KEYNOTE SPEAKER
9:30-9:50h.	The Impact of Water Microencapsulation on the Leidenfrost Effect of HPDC Lubricants	Gabriela MACÍAS
9:50-10:10h.	Using a Semi-Staging approach to Improve Oil Scoop Capture Efficiency	Akinola ADENIYI
10:10-10:30h.	Green Glide: Avocado Oil - Based Railway Friction Modifier For Sustainable Transportation	Juan VELEZ
10:30-10:50h.	Assessment of Lubricant Performance in Hydrogen-Assisted Dual-Fuel Internal Combustion Engines	Ahmad ALFETYANI
10:50-11:10h.	Machine Learning Time Series in Wind Turbines Analysis	Ibon ZUBICARAY
11:10-11:30h.	<b>Coffe break</b>	
<b>Chairperson - Nicole Dörr (AC2T)</b>		
11:30-11:50h.	Hydration lubrication: the mechanism and applications	Chenhui ZHANG
11:50-12:10h.	How to select the most suitable dielectric fluid for instrument transformers. A holistic approach	Alberto VILLAR VERGUIZAS
12:10-12:30h.	Characterization of tribological functional properties of engineering surfaces with ARS scattered light measurement technology	Cesar WEIGMANN
12:30-13:00h.	<b>STAND VISIT</b>	
13:00-14:00h.	<b>Lunch</b>	
<b>Chairperson - Jo Ameye (FLUITEC NV)</b>		
14:00-14:30h.	Circular use of oil : The effect of nano-clean oil on machine performance	Aldara NAVEIRA - KEYNOTE SPEAKER
14:30-14:50h.	Chlorinated Paraffins and Sulfur Carriers – a Comparison of their ecological Profiles and Performance Characteristics	Wilhelm REHBEIN
14:50-15:10h.	Biobased lubricant from modified Epoxidized Soybean oil	Diana RIBEIRO
15:10-15:30h.	Elm pulp cellulose nanofibers-based greases as candidate to replace lithium greases for the benefit of sustainable lubrication	Miguel Angel DELGADO CANTO
15:30-16:00h.	<b>Coffe break</b>	
<b>Chairperson - Adolfo Málaga (BUREAU VERITAS)</b>		
16:00-16:20h.	Digital twin and data-based modelling for identification of lubrication regimes in journal bearings	Helena RONKAINEN
16:20-16:40h.	New alternatives to conventional Environmentally Acceptable Lubricants (EALs)	Sergio ARMADA
16:40-17:00h.	Effects of biofuel use on lubricating oil quality on a spark ignition engine: case study with road and laboratorial tests	João FONSECA PEREIRA
17:00-17:20	Pilot plant validation of ester-based lubricants designed for aluminium die casting	Eduard VIDALES COCA
<b>End of the Sessions</b>		

Room 4+5 CONDITION MONITORIG		
TIME	TITLE	AUTHOR
<b>Chairperson - Aitor Amaiz (TEKNIKER)</b>		
9:00-9:30h.	Operation & Maintenance 4.0 – An Application of an Integrated Solution Using Condition Monitoring Systems and Engineering Field Improvements at CPFL Renováveis.	Jefferson BARBOSA - KEYNOTE SPEAKER
9:30-9:50h.	A Universal Health Indicator For Fast And Accurate Detection Of Faulty Bearings From Healthy Ones Based On Vibrations At Bearing Characteristic Frequencies	Amirmasoud KIAKOJOURI
9:50-10:10h.	In Line Near-Infrared Spectrometry for Moisture Detection in Lubricants: Recent advances and cases	Bruno PILOTTI
10:10-10:30h.	Results And Benefits Of The Implementation Of An Online Oil Monitoring System – Success Cases In Mining, Metals, and Power Plants.	Isac LACERDA
10:30-10:50h.	Limit Values For The Evaluation Of Lubricant Analyses	Stefan MITTERER
10:50-11:10h.	A spatial inferred temporal deep learning-based approach for bearing remaining useful life prediction.	Ahmed Onsy
11:10-11:30h.	<b>Coffe break</b>	
<b>Chairperson - Eneko Gorritategi (ATTEN2)</b>		
11:30-11:50h.	Critical Design Factors for In-Situ Space Tribometers: Characterising Lubricant Degradation	Dhanushka HEWARALALAGE - Ian SHERRINGTON
11:50-12:10h.	Condition Based Maintenance: A Human Approach to Increase Asset Reliability and Business Productivity	Jesus Manuel LABOY
12:10-12:30h.	Strategic Annotation and Quantification Approach for Gear Pitting Analysis with a Vision Condition Monitoring System	Djordy VAN MAELE
12:30-13:00h.	<b>STAND VISIT</b>	
13:00-14:00h.	<b>Lunch</b>	
<b>Chairperson - Guillermo Miró (ATTEN2)</b>		
14:00-14:30h.	The Existing Field Contamination Monitors and Their Associated Calibration Procedures	Nicolas PETILLON - KEYNOTE SPEAKER
14:30-14:50h.	Applying Grease Analysis to Enhance Reliability Using a Process Improvement Approach	Richard WURZBACH
14:50-15:10h.	Additive Monitoring by Elemental Analysis	Ashley MAYER
15:10-15:30h.	How To Establish The Right Fluid Analysis Program	Barbara MONSE
15:30-16:00h.	<b>Coffe break</b>	
<b>Chairperson - Amaya Igartua (TEKNIKER)</b>		
16:00-16:20h.	Influence of Microstructure of a Manganese Aluminum Bronze (MAB) on Tribocorrosion	José FERNÁNDEZ PALACIO
16:20-16:40h.	Tribocorrosion Assessment and Comparative Analysis of Additively Manufactured and Conventionally Processed AISI 316 Stainless Steel	José Manuel Amado Paz
16:40-17:00h.	Polymer Composites With Self-Lubrication And Self-Healing Functions	Guoxin XIE
17:00-17:20h.	Tribochemical Strategies for Degrading Complex Pollutants	Román NEVSHUPA
<b>End of the Sessions</b>		

19:30-23:00h.	Cider House Experience - Bus Departure from Kursaal Centre	<b>Atten[2]</b> <small>DATA MONITORING SOLUTIONS</small>
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**20th June**

**Room 1+2  
PLENARIES**

TIME	TITLE	AUTHOR
<b>Chairperson - Ewoud Kamminga (BUREAU VERITAS)</b>		
9:00-9:30h.	<b>Optimizing and Monitoring the Life of Our Industrial Assets through Artificial Intelligence and 5G</b>	<b>Itziar LANDA</b>
<b>Room 1+2 TRIBOLOGY-IBERTRIB</b>		
TIME	TITLE	AUTHOR
<b>Chairperson - Ali Erdermir (TEXAS A&amp;M UNIVERSITY)</b>		
9:35-10:00h.	Influences on the Development of Tribotronics: Active Control for Future Machine Elements”	Ian SHERRINGTON - <b>KEYNOTE SPEAKER</b>
10:00-10:20h.	Tribological Study Of Magnetron Sputtered TMD-Based Coatings In Contact With Aluminium At Elevated Temperatures	Todor VUCHKOV
10:20-10:40h.	Tribological Response Of ?-Bi2O3 Coatings Deposited By RF-Magnetron Sputtering	Juan Carlos SÁNCHEZ-LÓPEZ
10:40-11:00h.	Friction And Wear Of DLC Coatings Lubricated Graphene Oil Suspensions	Amílcar RAMALHO
11:00-11:20h.	How Tribology Meets Safety And Sustainability Objectives	Amaya IGARTUA
11:40-12:00h.	<b>STAND VISIT</b>	
12:00-12:30h.	<b>Coffe break</b>	
12:30-13:00h.	<b>Closure of the Conference</b>	

**Room 3  
LUBRICANTS**

TIME	TITLE	AUTHOR
<b>Chairperson - Gerardo Trujillo (NORIA LATIN AMERICA)</b>		
9:35-10:00h.	Lubricants For Carbon-Free Energy Carriers	Nicole DÖRR - <b>KEYNOTE SPEAKER</b>
10:00-10:20h.	Performance-Based Specification for Greases: Enhancing Reliability of MOV Valves In The Oil & Gas Industry	Victor Hugo RUBIANO LOZADA
10:20-10:40h.	Heavy Naphthenic Oil – A Sustainable Solution Provider in Lubricating Greases	Mehdi FATHI-NAJAFI
10:40-11:00h.	Temperature Profile-Based Method to Measure the Thermo-Mechanical Aging of Grease During the Churning Process	Sathwik CHATRA K R
11:00-11:20h.	AI Applications for Oil Analysis Software	David BRAND
11:20-11:40h.	Lubricant Technology for E-Mobility	Estitxu ECHENIQUE-ERRANDONEA
11:40-12:00h.	<b>STAND VISIT</b>	
12:00-12:30h.	<b>Coffe break</b>	

**Room 4+5  
CONDITION MONITORIG**

TIME	TITLE	AUTHOR
<b>Chairperson - Egoitz Konde (TEKNIKER)</b>		
9:35-10:00h.	Artificial Intelligence In Asset Management And Condition Monitoring Applications: Current Status, Trends And Challenges	Aitor ARNAIZ - <b>KEYNOTE SPEAKER</b>
10:00-10:20h.	Development Of A New Dynamic Lubricant Dispenser to Reduce Noise And Wear In Wheel-Rail Contacts.	Eduardo VICENTE
10:20-10:40h.	Blade Health Monitoring of Turbo Propulsion Systems: A Survey of Techniques, Implement	Naweendra Bhaggya Jayasundara JAYASUNDARA MUDIYANSELAGE
10:40-11:00h.	Monitoring Lubricant Degradation Due to Mechanical Stress Using Machine Learning	Matthew DANIELS
11:00-11:20h.	Industrial Lubrication Outsourcing – Lubrication Maintenance of the Plant In the Hands Of Professionals. Why Is It Worth of Considering and What One Can Expect? How the ICML 55.1 Standard Helps Managers to Make An Appropriate Choice of World-Class Lubrication Service Provider In Outsourcing Mode?	Wojciech MAJKA
11:40-12:00h.	<b>STAND VISIT</b>	
12:00-12:30h.	<b>Coffe break</b>	

**13:30-17:00h. Shuttle bus from Kursaal to Tekniker, Atten2 and Bureau Veritas**