Detailed Programme

		Easter School	CONFERENCE		
		April 3rd - Monday	April 4th - Tuesday	April 5th - Wednesday	April 6th - Thursday
08:30	09:00	*Registration*	*Registration*	*Registration*	*Registration*
09:00	09:10	Room 2	Large Auditorium *Opening cerimony*	Large Auditorium	Large Auditorium
09:10	09:55		**Plenary Lecture 1: Alexandre Marques** (ZF R+D Centre, Portugal) *Materials in Car safety Systems* Chair: António J. Pontes	**Plenary Lecture 2: Ugo Lafont** (ESA/ESTEC, Netherlands) *New Materials, new Possibilties for Space Applications* Chair: J. Pedro Nunes	**Plenary Lecture 3: Francisco Chinesta** (ENSAM, France) *Empowering Materials Science and Engineering from the Use of Physics-Based and Data-Driven Hybrid Modelling Approaches* Chair: J. Miguel Nóbrega

April 3rd - Monday (Easter School)

Start	End	Easter School
10:00	11:00	Introduction to OpenFoam: Pre-Processing
11:00	11:20	*Easter Course Coffee Break*
11:20	12:40	Introduction to OpenFoam: Simulation and Post-Processing
12:40	14:00	*Easter Course Lunch*
14:30	15:50	Hands-on: Multiphase flow
15:50	16:10	*Easter Course Coffee Break*
16:10	17:50	Hands-on: Structural Mechanics and Thermal Residual Stresses

April 4th - Tuesday

Start	End	Room S1	Room S3	Room S4	Room S2
		Materials for Energy & Power Generation - Synergy special session Chairs: Luis Pereira e Pedro Salomé	**Materials for Environm. Protect. & Remediation** Chair: J Labrincha	**Biomedical, Bio-Derived & Bio-Insp. Materials I** Chair: Miguel Cerqueira	**Materials & Cultural Heritage** Chair: João P. Veiga
10:00	10:20	**KN10** - *Everyone knows that hydrogen is a rather bad energy vector, but nobody says - strategies for a sustainable and swift energy decarbonisation* **Adélio Mendes (FEUP/Portugal)** (10:00–10:30)	**O77** - Characterization of used foundry sands/ plastic waste composites **João Ribeiro (UM/Portugal)**	**O6** - *Finite Element Analysis of Different Stent Designs and Thicknesses using 3D-Printed PLA and PCL* **Ana Sousa (UC/Portugal)**	**O132** - *Lead antimonate: A base ingredient for yellow, orange, and green decorations in Portuguese azulejos* **Umberto Veronesi (UNL/Portugal)**
10:20	10:40		**O84** - *g-C3N4 functionalized with bromine for photocatalysis and water decontamination: thermal conditions effects* **Júlia Souza (UC/Portugal)**	**O93** - *Ligament scaffolds based on PLA/graphite nanoplatelet composites* **Magda Silva (UM/Portugal)**	**O13** - *The Carpenter & Westley's art of painting magic lantern glass slides: the contribution of material characterisation studies* **Angela Santos (UNL/Portugal)**
10:40	11:00	**KN11** - Advanced Characterization of Material Degradation Processes in Li-ion Batteries **Andre Claustner (Fraunhofer /Germany)** (10:30–11:00)	**O70** - *Reusable polymeric membranes for efficient chromium removal from contaminated water* **Joana Queirós (UM/Portugal)**	**O35** - *Study of the exfoliation of layered double hydroxides and their dispersion in biopolymer systems* **Cristina Neves (UA/Portugal)**	**O30** - *Portuguese glass arcana – evolution through time* **Catarina Santos (UNL/Portugal)**
11:00	11:20	*Coffee Break*			
11:20	11:40	**KN12** - *Energy storage systems: from the challenges of lithium-ion batteries to the strategies beyond lithium* **Carlos Costa (UM/Portugal)** (11:20–11:50)	**O11** - *Mechanically recycled thermoplastics: thermal and mechanical analysis* **André Costa (IPL/Portugal)**	**O130** - *From disposable to wearable bioelectronics using paper-derived laser induced graphene* **Tomás Pinheiro (UNL/Portugal)**	**O3** - *Unravelling Uranium Uses: U-yellow glass as a fashionable material in the 19th century* **Alexandra Rodrigues (UNL/Portugal)**
11:40	12:00		**O67** - *Towards a circular economy for novel eco-friendly composite materials: a reprocessability and recyclability study* **Joana Guedes (INEGI/Portugal)**	**O108** - *Ionic-Liquid-Based Electroactive Polymer Composites for Cardiac Tissue Engineering* **Rafaela Meira (UM/Portugal)**	**O124** - *Wood-based panels and their conservation challenges while used in Contemporary Art* **Susana Duarte (UNL/Portugal)**
12:00	12:20	**KN13** - *Lignin-based matrices for self-healable and environmental friendly potassium batteries* **Federico Bella (Politecnico Torino/Italy)** (11:50–12:20)	**O57** - *Renewable 3D printing filaments using agrifood byproducts as feedstocks – a circular economy strategy* **Idalina Gonçalves (UA/Portugal)**	**O50** - *Attribution of somatosensory properties to an upper limb prosthesis* **Gonçalo Fonseca (UBI/Portugal)**	**O122** - *Earrings with complex goldwork from Iron Age Western Iberia: gold alloy composition and decoration techniques* **Sofia Serrano (UNL/Portugal)**
12:20	12:40		**O136** - *Blends of Recycled Polypropylene / Polyethylene* **Carla Martins (UM/Portugal)**	**O91** - *Effect of pine resins incorporation on physicochemical, thermal, and mechanical properties of biobased and biodegradable composites* **Liliana Sousa (UA/Portugal)**	**O10** - *Preliminary results from an archaeometric approach to ceramic analysis from early Neolithic society in Vale Pincel I (Sines, Portugal)* **Ana Saraiva (UNL /Portugal)**
12:40	14:00	*Lunch*			
		Chairs: Luis Pereira e Pedro Salomé	Chair: Ana V Machado	Chair: Maria A. Lopes	Chair: Júlio C. Viana
14:00	14:30		**KN1** - *Materials and Sustainability* **António T. Marques (FEUP/Portugal)**	**KN7** - *Bio-based materials towards the development of new structures for food packaging applications* **Miguel Cerqueira (INL/Portugal)**	**KN5** - *Cultural Heritage, Materials Science and Synchrotron Radiation: a perspective from a group of Portuguese users* **João P. Veiga (UNL/Portugal)**
					Materials for Mobility Chair: Júlio C. Viana
14:30	14:50	**KN14** - *Challenges and Opportunities in the Lithium Battery Value Chain* **José Gonçalves (CENTI/Portugal)** (14:30–15:00)	**O137** - *Improving the environmental performance of a plastic toilet cistern by reintroducing reprocessed plastic* **Sofia Rocha (UA/Portugal)**	**O98** - *Advantage of poly(L-lactic) acid coating for bioactive functionalization of 316L Stainless Steel* **Maxim Ivanov (UA/Portugal)**	**O44** - *Decorative Chromium Coatings on Polycarbonate Substrates for the Automotive Industry* **Filipa Ponte (UC/Portugal)**
14:50	15:10	**KN15** - *Roll-to-roll pilot production of photovoltaics and batteries* **Mari Ylikunnari (VTT/Finland)** (15:00–15:30)	**O139** - *Canned Tuna Wasteflow: Analytical Data and Chemical Characterization* **Nádia Valério (CVR/Portugal)**	**O103** - *Xanthan gum biosynthesis by reusing moist olive pomace* **Pedro Crugeira (IPB/Portugal)**	**O85** - *Multifunctional Ceramics for Aeronautical and Aerospace Applications* **Kateryna Shvydyuk (UBI/Portugal)**
15:10	15:30		**O140** - *The Potential of Agri-food Waste to Solve Construction's Environmental Problems: A Review* **Margarida Soares (CVR/Portugal)**	**O5** - *Development of luminescent nanoparticles for the detection of pathogenrelated diseases in plants* **Ana Brinca-Moreira (UA/Portugal)**	**O134** - *Prospective Materials for Modern Railway Systems* **Ruben Santos (FEUP/Portugal)**
		Materials for Energy & Power Generation I Chair: Carla Martins			**Sensors & Actuators I** Chair: Vitor Sencadas
15:30	15:50	**O104** - *Challenges and opportunities to integrate novel substrates for enhanced performance into recognized PV technologies* **Pedro Salomé (INL/Portugal)**	**O152** - *Alternative solid activators from waste glass for alkali activated materials or geopolymers manufacture* **P. Delgado-Plana (Univ. Jaén/Spain)**	**O17** - *Material Design-For Excellence (or M-DFX) – A New Holistic Analysis for Bio-Composite Materials* **A. T. Marques (INEGI-FEUP/Portugal)**	**O101** - *Sputter deposited Au-TiO2 nanocomposites for highly sensitive LSPR gas sensing* **Nuno Figueiredo (UC/Portugal)**
15:50	16:10	*Coffee Break*			
16:10	16:30	**O107** - *Influence of active material ratio in direct ink printed lithium-ion cathodes* **Rafael Pinto (UM/Portugal)**	**O153** - *Manufacture of coral recruitment substrates: influence of mortar formulations on ideal seawater parameters* **Ilse Matus (FEUP/Portugal)**	**O34** - *Flexible Nanostructural Ti-Cu/Ag Thin Films for Highsensing Biomedical Application s* **Cláudia Lopes (UM/Portugal)**	**O9** - *FDM Capacitive Sensors* **Ana Silva (UA/Portugal)**
16:30	16:50	**O32** - *Hybrid Energy Harvesting/Storage Textiles and Flexible Plastics for Self-Powered Wearable Technologies* **Clara Pereira (FCUP/Portugal)**	**O161** - *Life cycle assessement of metalic surface finishings on plastic components for the automotive industry* **Ana Pires (CENTIMFE/Portugal)**	**O12** - *Organic-Inorganic nanofibrous 3D Scaffolds for tissue regeneration* **André Lopes (UA/Portugal)**	**O71** - *Novel smart layer concept for real time monitoring of composite structures* **João Correia (UM/Portugal)**
16:50	17:10	**O97** - *PEDOT:PSS Electrospray Functionalization of Carbon Yarns for Integration in Flexible Fibre-Shaped Supercapacitors* **Mariana Moniz (UNL/Portugal)**		**O29** - *Synthesis and characterisation of hydroxyapatite aerogel composite with micro- and nanoparticles of barium titanate for bone regeneration* **Carmo Lança (UNL/Portugal)**	**O66** - *Flexography-Printed Thermochromic Stickers based on Nickel Complexes and Cellulose Derivatives Inks for Smart Sensing* **Joana Figueira (UNL/Portugal)**
17:10	18:30	***Poster Session 1*** *with Posters of sessions: "Materials for environmental protection and remediation", "Biomedical, Bio-Derived & Bio-Inspired Materials", "Materials and cultural heritage", "Materials for mobility" and "Materials for energy and power generation "*			
18:30	19:00	**Cocktail Party**			

April 5th - Wednesday

Start	End	Room S1	Room S3	Room S4	Room S2
		Materials for Energy & Power Generation II Chair: Carlos Costa	**Materials for Structural & Multifunct. Applications I** Chair: Maria G. Rasteiro	**Biomedical, Bio-Derived & Bio-Insp. Materials II** Chair: João C. Bordado	**PARALAB Workshop**
10:00	10:20	**O119** - *Max Phase / MXENE / NI Porous Composites for Energy Conversion Application* **Sergii Sergiienko (UA/Portugal)**	**O126** - *Magnetic Fe-doped calcium phosphates as promising multifunctional materials* **Tânia Carvalho (UA/Portugal)**	**O63** - Gelatin microspheres for the delivery of Calcium in coated Mg1Ca alloys for biomedical applications for controlled alloy biodegradation **Isabel Sousa (UA/Portugal)**	Complete Characterization of Thermoplastics by DSC, DMA and Rotational Rheology Workshop (10:00–11:00)
10:20	10:40	**O7** - *An investigation of pitting corrosion on copper heat exchangers by surface analysis and electrochemical techniques* **Ana Cruz (FCUP/Portugal)**	**O64** - *Gas tungsten arc welding of as-cast AlCoCrFeNi2.1 eutectic high entropy alloy* **Jiajia Shen (UNL/Portugal)**	**O38** - Nanofibers functionalized with cyclic dipeptides for biosensor applications **Daniela Santos (UM/Portugal)**	
10:40	11:00	**O4** - *A facile blow spinning technique for green cellulose acetate/polystyrene composite separator for flexible energy storage devices* **Amjid Rafique (UNL/Portugal)**	**O79** - *Silica-methyl modified alkoxysilanes coatings for writing surfaces - whiteboards* **José C. Almeida (UA/Portugal)**	**O127** - *Piezoelectric and Magnetically Responsive Biodegradable Composites with Tailored Porous Morphology For Neural Tissue Engineering* **Teresa Almeida (UM/Portugal)**	
11:00	11:20	*Coffee Break*			
11:20	11:40	**O129** - *Transparent piezoelectric materials for energy harvesting and multi-touch detection devices* Tiago Marinho (UM/Portugal)	**O125** - *Nonmigratory internal plasticization of poly(vinyl chloride): efficient approaches* **Talita Rezende (UC/Portugal)**	**O133** - Smart mapping pad for continuous monitoring of the pressure at the lower limb-socket interface **Vitor Sencadas (UA/Portugal)**	Complete Characterization of Thermoplastics by DSC, DMA and Rotational Rheology Workshop (11:20–12:40)
11:40	12:00	**O86** - *Formation of Crystalline Silicon Tunnel Junctions for Perovskite on Silicon Tandem Solar Cells* **Killian Lobato (FCUL/Portugal)**	**O28** - *Reversible deactivation radical polymerization of vinyl chloride: from fundamental studies to high performance PVC materials* **Carlos Abreu (UC/Portugal)**	**O117** - Immobilization of enological pectinase in polyamide microparticles for wine clarification **Sandra Oliveira (UM/Portugal)**	
12:00	12:20	**O74** - *Dielectric barrier discharge plasma actuators based on thermosetting composites for flow control in wind turbines blades* **João Pereira (UBI/Portugal)**	**O100** - *On the reliability of electrically conductive textiles prepared through screen-printing of industrial-grade conductive ink* **Nuna Costa (UM/Portugal)**	**O52** - *Suitability of using active bioplastics derived from potato and coffee byproducts on paper coating* **Gonçalo Oliveira (UA/Portugal)**	
12:20	12:40	**O68** - *Development of transparent TiO2:Nb thin films by Reactive Magnetron Sputtering for thermoelectric modules* **Joana Ribeiro (UM/Portugal)**	**O113** - *Influence of polymer matrix on the performance of printable electroluminescent materials and devices* **Daniela Fernandes (UM/Portugal)**		
12:40	14:00	*Lunch*			
		Chair: Carlos Costa	Chair: Ugo Lafont	Chair: Maria C. Lança	
14:00	14:30	**KN9** - *Multibody Dynamics for Biomedical and Aerospace Engineering Applications* **Paulo Flores (UM/Portugal)**	**KN3** - *Composites of cellulose nanofibrils and minerals with high barrier properties* **Maria G. Rasteiro (UC/Portugal)**	**KN8** - *Polymers from Sustainable Raw Materials* **João C. Bordado (IST/Portugal)**	
14:30	14:50	**O51** - *Lead-free MDABCO-NH4I3 perovskite crystals embedded in electrospun nanofibers* **Gonçalo Moreira (UM/Portugal)**	**O25** - *Synthesis, dielectric and magnetic properties of Ca3Mn2O7 thin films prepared by pulsed laser deposition* **Bruna Silva (UM/Portugal)**	**O148** - *Functionalised fibre-based substrates with ZnO nanoparticles envisaging antimicrobial filter applications* **Inês Moreira (Fibrenamics-UM/Portugal)**	Complete Characterization of Thermoplastics by DSC, DMA and Rotational Rheology Workshop
		Materials Processing I Chair: Paulo Flores			
14:50	15:10	**O56** - *The impact of the temperature holding time on the optical properties of microwave synthesis* **Houssem Sekrafi (UM/Portugal)**	**O112** - *Thick and smooth nanostructured Cr-based coatings by HiPIMS* **Ricardo Serra (UC/Portugal)**	**O150** - *Thermoplastic starch/PLA/CaCO3 biocomposite for a multifunctional and circular economy-enabled visual communication board substrate* **Carlos Correia (UA/Portugal)**	Complete Characterization of Thermoplastics by DSC, DMA and Rotational Rheology Workshop
15:10	15:30	**O14** - *The Effect of Preconditioning Treatment on Microstructural Characterization of Spheroidal Graphite Irons* **António Pires (FEUP/Portugal)**	**O76** - *CFRP laminates enhanced with graphene nanoparticles in multifunctional applications* **João Parente (UBI/Portugal)**	**O155** - *Improvement of the ductility of polylactic acid by using a natural based plasticizer* **Jaume Caturla (Univ. Polytechnic Valencia/Spain)**	
15:30	15:50	**O21** - *A Sustainable and Fast Method for the Fabrication of Multiwall Carbon Nanotubes (MWCNTs) – Synthesis Protocol and Mechanism s* **Behrouz Nemati (UA/Portugal)**	**O36** - *Machine Learning Methodologies in the Identification of Material Hardening Parameters* **Daniel Cruz (INEGI/Portugal)**	**O61** - *Valorization of bivalve shell residues in earthenware products* **Inês Vilarinho (UA/Portugal)**	Complete Characterization of Thermoplastics by DSC, DMA and Rotational Rheology Workshop
15:50	16:10	*Coffee Break*			
16:10	16:30	**O106** - *Consolidation Model for Heated Compression Moulding of Thermoplastic Composites* **Púria Esfandiari (ISEP/Portugal)**	**O118** - *Microwave-Assisted Synthesis of TiO2 for a simple photodegradation process of Methylene blue (MB)* **Sara Zandi (UA/Portugal)**	**O163** - *Chemical and biological characterization of nanostructured multilayers of [YSZ/HAp-Ag]n for biomedical applications* **Erika Miranda (Univ. Sorbonne Paris/France)**	Complete Characterization of Thermoplastics by DSC, DMA and Rotational Rheology Workshop
				Sensors & Actuators II Chair: Maria C. Lança	
16:30	16:50	**O92** - *Thermoplastic matrix composites based on commingled yarns* **Luis Amorim (INEGI/Portugal)**	**O96** - *Electrically conductive thermoplastic polyurethane composites with oriented single wall carbon nanotubes* **Mariana Silva (UM/Portugal)**	**O55** - *Process and Structural Health Monitoring of a Composite Overwrapped Pressure Vessel* **Helena Rocha (PIEP/Portugal)**	Complete Characterization of Thermoplastics by DSC, DMA and Rotational Rheology Workshop
16:50	17:10	**KN6 (16:50 - 17:20)** - *Materials Innovation for Extrusion-Based Additive Manufacturing* **Ludwig Cardon (Ghent Univ/Belgium)**		**O164** - *The influence of knitted fabric orientation on pressure sensors performance* **Luisa Arruda (Fibrenamics-UM/Portugal)**	
17:10	18:30	***Poster Session 2*** *with Posters of sessions: "Materials for the digital transformation", "Materials for structural and multifunctional applications", "Materials Processing", "Sensors and Actuators" and "Industrial Forum"*			
20:00	22:00	**Conference Dinner (Hotel de Guimarães)**			

April 6th - Thursday

Start	End	Room S1	Room S3	Room S4	Room S2	Large Auditorium
		Materials for Structural & Multifunct. Applications Chair: Albano Cavaleiro	**Materials Processing II** Chair: J. Miguel Nóbrega	**Materials for Digital Transformation** Chair: Jorge L. Alves	**Industrial Forum** Chair: Renato Reis	
10:00	10:20	**O62** - *Photothermal treatment of silver coated glass surfaces* **Irena Ivanisevic (Univ. Zagreb/Croatia)**	**O45** - *The Effect of a Dynamic Mixing System in the Thermoplastic Resin Transfer Molding Process* **Filipe Martins (UA/Portugal)**	**O53** - *Electronic Paper with Polypyrrole for IoT Smart Security Tag* **Guilherme Ferreira (UNL/Portugal)**	**O149** - *LEIMSA – Lightweight Electronics by Injection Moulding in Seamless Architecture* **Ana Cortez (CELOPLAS/Portugal)**	
10:20	10:40	**O94** - *Phosphate adsorption and its impact on the structure of MMOs* **Márcia Silva (UA/Portugal)**	**O123** - *Deposition of hard and dense Cr thin films by sputtering without the need of energetic particles bombardment* **Sunday Adebayo (UC/Portugal)**	**O83** - *Printed textile-based supercapacitors for wearable electronics* **José T. Carvalho (UNL/Portugal)**	**O47** - *Layered double hydroxides (LDH): one multifunctional material for phosphorus recovery* **Frederico Maia (SMALLMATEK/PT)**	
10:40	11:00	**O40** - *Mechanical analysis for varied sample dimensions of ABS and its short carbon fiber composite* **Ellen Fernandez (Ghent Univ/Belgium)**	**O120** - *Thermal analysis as a tool to perceive changes in polymer blends* **Sibele Cestari (UM/Portugal)**	**O115** - *Improving performance of paper-based dipole antennas by electromagnetic flux concentration* **Rui Carvalho (UM/Portugal)**	**O114** - *Characterization of lignin and its polymer composites for the production and stabilization of green fiber as a precursor of carbon fiber* **Rui Ribeiro (UM/Portugal)**	
11:00	11:20	*Coffee Break*				
11:20	11:40	**O90** - *Multifunctional polymer-based magnetoelectric platform incorporating magnetic ionic liquids* **Liliana Fernandes (UM/Portugal)**	**O54** - *Microstructural and Mechanical Characterization of Al-Steel Bimetallic Composite* **Hélder Nunes (INEGI/Portugal)**	**O135** - *Mechanical characterization of 3D printed carbon nanotubes reinforced thermoplastic composites via FFF additive manufacturing* **Yiyun Wu (UA/Portugal)**	**O159** - *CELINOV – New solutions for the car of the future* **Ana Cortez (CELOPLAS/Portugal)**	
11:40	12:00	**O42** - *Wear resistance by copolymers with controlled structure under Boundary Lubrication Conditions* **Fábio Ferreira (UC/Portugal)**	**O26** - *Ultra-low temperature fabrication of Ba0.6Sr0.4TiO3 dielectric ceramics* **Camila Ribeiro (UA/Portugal)**	**O75** - Laser Powder Bed Fusion of 2D and 3D Auxetic Structures **João Cardoso (UNL Portugal)**	**O116** - *SAFEGRES - Stoneware with high thermal performance and safety to the end-user* **Samuel Moreira (CTCV/Portugal)**	
12:00	12:20	**O138** - *Fibrous reinforced multilayer composites for structural applications: modeling and experimental* **Fernando Leite (Fibrenamics-UMinho/Portugal)**	**O46** - *In situ interlayer hot forging arc-based directed energy deposition of Inconel 625: process and microstructure analysis* **Francisco Farias (UNL/Portugal)**	**O20** - Hybrid digital-droplet microfluidics for nano-droplet generation **Beatriz Coelho (UNL/Portugal)**	**O15** - *New Mineral Resources for the Portuguese Ceramic Industry – Case Studies of Industrial Symbiosis with the Natural Stone Sector* **António Silva (CTCV/Portugal)**	
12:20	12:40	**O146** - *Low electrical percolation threshold MWCNT/Fe3O4 using magnetic patterning* **David Esteves (Centi/Portugal)**	**O59** - *In situ hot-forging and post-deposition stress relief heat treatment on HSLA steels produced via arc based additive manufacturing* **Igor Felice (UNL/Portugal)**	**O19** - *Alginate-based luminescent composite inks for anti-counterfeiting and soft actuator applications* **Bárbara Cruz (UM/Portugal)**	**O165** - *Surface functionalization of a polymer substrate with electroluminescent inks for automotive components for lighting* **Dina Esteves (SIMOLDES/Portugal)**	
12:40	14:00	*Lunch*				
			Chair: Maria. C. Paiva	Chair: Fernando Duarte		**Materials for Strctural & Multifunct. Applications** Chair: António T Marques
14:00	14:30			**KN4** - *Analysis of thermal reprocessing in powder bed of FFF printed PLA parts: compaction method and powder selection* **Jorge L. Alves (FEUP/Portugal)**		**KN2** - *Sputtering: a nanotechnology for tailoring nanomaterials* **Albano Cavaleiro (UC/Portugal)**
		ORAiDEA Workshop Chair: Sandra Carvalho			**S4 Plast Workshop** Chair: António J. Pontes	
14:30	14:50	**O167** - *Design and machining of dental implants* **Pedro Prezas (Prifer Group)**	**O131** - *Calcium phosphate production via high energy ball milling: Effect of CO2 partial pressure and post-milling quenching* **Tomás Seixas (IST/Portugal)**	**O33** - Thermoresistive Properties of Fully Inkjet Printed PEDOT:PSS Patterns, **Claudia Buga (UM/Portugal)**	**O143** - *Polymer laser transmission welding for the automotive industry* **Tânia Viana (IBER-OLEFF/Portugal)**	**O151** - *Development of Polymeric Food Packing Films with Improved Barrier Properties* **Carolina Barros (PIEP/Portugal)**
14:50	15:10	**O168** - *Preparation and characterization of bioactive glass for dental implant coatings* **Manuel Graça and Imen Hammami (UA/Portugal)**	**O87** - Manufacturing of cork powder reinforced polyamide 6 composites by Thermoplastic Resin Transfer Molding **Laura Santos (UA/Portugal)**	**O39** - *Influence of printing parameters on the geometry, dilution, and mechanical properties of 3DPMD produced single layers using EuTroLoy 16604 powder* **Diogo Silva (ISEP/Portugal)**	**O145** - *Evaluation of high wall thickness variation on the properties of injected components through CIM and RHCM processes: A case study* **André Costa (IPL/Portugal)**	**O157** - *Conductive PEEK nanocomposites for melt-spinning applications* **Sofia Silva (Centi/Portugal)**
15:10	15:30	**O169** - *PVD deposition of TiN-Me (Me = Ag or Zn) thin films on dental implants* **Mariana Marques (UM/Portugal)**	**O99** - *Numerical Simulations of Carbon Fibers Impregnation with Polymer as Anisotropic Permeability Medium* **Nelson Gonçalves (INEGI/Portugal)**	**O60** - Regenerated cellulose-based ionic conductors for green electronic applications **Inês Cunha (UNL/Portugal)**	**O156** - *Laser transmission welding rib design for polymers* **Agnieszka Rocha (PIEP/Portugal)**	**O102** - *Fluorescent carbon dots produced from Agapanthus Africanus (L.) Hoffm. Leaves* **Paulo Nunes (UTAD/Portugal)**
15:30	15:50	**O170** - *Study of biocompatibility and antimicrobial response of the developed implants* **Maria C. Lança (UNL/Portugal)**	**O111** - *Thermodynamic simulation and design of microstructure in PcBN composites produced by SPS* **Ricardo Mineiro (UA/Portugal)**	**O154** - *Adjustment of the mechanical properties of PHA samples obtained by additive manufacturing* **Juan Ivorra Martínez (Univ. Polytechnic Valencia/Spain)**	**O160** - *Reprocessing Study of Thermoplastic Industrial Residues* **Ana Vera Machado (UM/Portugal)**	**O162** - *Color-customizable photoluminescent polyethylene composite* **Laura Prior (UA/Portugal)**
15:50	16:10	*Coffee Break*				
16:10	16:30	**O171** - *Description of the abrasion deposition process* **Eduardo Pires and Silvia Gavinho (Ceramed II/Portugal)**	**O24** - *Microstructural Analysis of Inconel 718 manufactured via DED: Response Surface Methodology for process parameters optimization and post heat treatment* **Bernardo Ribeiro (FEUP/Portugal)**	**O166** - *Extrusion Blow Molding Simulator: a Novel Approach to Support the Digital Transformation of the Packaging Industry* **Francisco Alves**		
16:30	16:50	**O172** - *Selection and conduction of case studies in a clinical environment* **Henrique Armés (Hospital Vet. S. Bento/Portugal)**	**O72** - *Gas Tungsten Arc Welding of a Fe50Mn30Co10Cr10 TRIP high entropy alloy: microstructure and mechanical behavior* **João G. Lopes (UNL/Portugal)**	**A tribute to Prof. Teresa Cidade**		
16:50	17:10	**Closing Cerimony (Large Auditorium)**				

Poster Session 1 (April 4th - Tuesday)

	Poster Panel No.	Poster Number	Title	Author/Affiliation
Materials for Environmental Protection and Remediation	1	44	Cork formulations based on thermoplastic starch for additive manufacturing	Luiza Melo de Lima (UA/Portugal)
	2	99	Recycling Polyurethane and Thermoplastic Urethane Waste from External Prostheses for the Manufacture of Filaments for 3D Printing	Daniela Leal (INEGI/Portugal)
	3	28	Analysis and characterization of microplastics in beach sediments from coastal environments of Northern Portugal	Inês Machado (UM/Portugal)
	4	23	Electroconductive silicon nitride ceramic: a novel substrate material for BDD electrodes for water remediation	Filipe Oliveira (UA/Portugal)
	5	17	Analysis of microplastics in a commercial exfoliating product	Daniel Ribeiro (PIEP/Portugal)
	6	67	Microplastics in Marine Environment: Establishing a Methodology for Sampling and Analysis	Rui Sousa (UM/Portugal)
	7	29	Upscaling photodegradation of organic micropollutants	Inês Oliveira (UA/Portugal)
	8	73	Removal of phosphate from eutrophic waters using lamellar double hydroxides of MgAl	Tiago Farraia (UA/Portugal)
	9	22	Techniques for rapid identification of recycled PP	Filipa Rocha (UM/Portugal)
	10	79	Incorporation of recycled PET in new materials for Additive Manufacturing	Sofia Sousa (UA/Portugal)
	11	81	Polyethylene terephthalate glycol degradation effects on material morphology	Chiara Fiorillo (Ghent Univ /Belgium)
	12	93	Spent filtering earths as precursor in the synthesis of geopolymers or alkali activated materials. Effect of sodium hydroxide-sodium silicate solutions ratio on	P. Delgado-Plana (Univ. Jaén /Spain)
	13	101	New technologies for the energy and circular transition - the demand of Mineral Resources	José Miguel Martins (DGEG/Portugal)
	14	102	Effect and characterisation of a natural based terpenoid on the mechanical properties of PLA and tangerine peel flour green composite	Juan Ivorra Martinez (Univ. Polytechnic Valencia/Spain)
	15	109	Environmental Impact Assessment on the Production of a Fire Curtain	L. Nascimento (CVR/Portugal
	16	110	Life Cycle Assessment of a Pavement with industrial waste incorporation	L. Nascimento (CVR/Portugal)
	17	113	Last decade of research on cork use in adsorption applications	Raquel N. Silva (CTCOR/Portugal)
	18	117	A methodology to foster plastics recycling	Sibele Cestari (UM/Portugal)
Biomedical, Bio-Derived, and Bio-Inspired Materials	19	1	Functionalized nanofibers with linear dipeptides for biosensor applications Adelino Handa (UM/Portugal)	Adelino Handa (UM/Portugal)
	20	68	Preparation of flexible Leather-Polymer Composites adapted for Additive Manufacturing	Sílvio Abrantes (UA/Portugal)
	21	55	A preliminary study of PLLA coating in Ti-alloy substrate for application in bone implants	Noelle C. Zanini (UA/Portugal)
	22	18	Sustainable functionalisation of stents to prevent urinary tract infections	Daniela Santo (UC/Portugal)
	23	43	Bio-based expanded cork polymer composites (eCPC) with poly(lactic acid) (PLA) for injection moulding	Lisete Moutinho (UA/Portugal)
	24	64	Biodegradable agricultural mulch films loaded with bionematicides - a novel strategy to control root-knot nematodes	Rita Chim (UC/Portugal)
	25	51	Optimization of melt processing, drawing and stabilization of ligninbased green fibers	Miguel Guerreiro (PIEP/Portugal)
	26	7	Hap deposition on PCL/CH 3D Scaffolds for tissue regeneration	André F. P. Lopes (UA/Portugal)
	27	52	Hollow and non-hollow bioceramics porous microspheres for bone regeneration	Miguel Rodrigues (FEUP/Portugal)
	28	19	Nanomaterial-Based Biosensor Development: Application of Plasmonic Thin Film for Optical Detection Purposes	Diana I. Meira (UM/Portugal)
	29	41	PLLA-316L Stainless Steel Piezoelectric Device Potential Towards Next-Generation Bone Implants	Julio Rocha (UA/Portugal)
	30	33	Cork and MoS2 Composite – A Novel Green Material Suitable for Thermoelectric Sensing Applications	Joana Figueira (UNL/Portugal)
	31	75	Chitosan-based magnetic aerogels for bone tissue engineering	Marta Corvo (UNL/Portugal)
	32	42	Development of drug-loaded gelatin spheres for incorporation into bone-like composite scaffolds	Júnia Rodrigues (UA Portugal)
	33	9	Development of a wearable sensor to monitor pulmonary function	Bernardo Vicente (UA/Portugal)
	34	58	ZnO-based coatings to reduce microbial growth on high-touch surfaces	Patrícia P. Silva (UM/Portugal)
	35	74	Composite materials using banana tree and sugarcane agro wastes	Tiago Fernandes (UM/Portugal)
	36	20	LSPR-based optical transducers for biosensing using magnetron sputtered nanocomposite thin films	Diogo Costa (UM/Portugal)
	37	87	Synthesis of Biobased TPUs by Reactive Extrusion	Ana R. Torres (UM/Portugal)
	38	103	Mechanical behavior of poly(lactic acid) biocomposites reinforced with Posidonia oceanica wastes and plasticized with cinnamic acid esters	Jaume G. Caturla (Univ. Polytechnic Valencia/Spain)
	39	104	Biopolymers with biological additives for plant nutrition in aquatic environment	A C Machado (UMinho/Portugal)
	40	108	Nanocomposite foam-coated fabrics for biological protective clothing	Inês Moreira (Fibrenamics-UMinho/Portugal)
	41	126	Poly(Ionic Liquid) derived materials for Tissue Engineering applications	Marta Corvo (UNL/Portugal)

Materials & Cultural Heritage	42	25	VTERE-FELICITER: The materiality of a Portuguese archaeological Roman glass collection conservation and restoration case-study	Inês Coutinho (UNL/Portugal)
	43	69	Late Bronze Age metals from Monte Cavalo (Vouzela, Viseu): characterization of the copper-based alloy and its corrosion	Sofia Serrano (UNL/Portugal)
	44	105	Study on grisaille paint layers stability under natural conditions	Carla Machado (UNL/Portugal)
	45	125	Bedding mortars from medieval ceramic flooring from the Alcobaça Monastery in Portugal	Fernanda Carvalho (UNL/Portugal)
Materials for Mobility	46	92	Application of micro-level indicators for circularity in the automotive industry: case studies of plastic products	Joana Matos (UM/Portugal)
Materials for Energy & Power Generation	47	3	Exfoliated carbon yarn structure for highly stable flexible supercapacitors electrodes in simulated sweat solutions	Amjid Rafique (UNL/Portugal)
	48	57	Transverse magnetic susceptibility and relaxation in Li ferrite nanoparticles	Pablo Hernández-Gómez (Univ. Vallodolid/Spain)
	49	49	Comparison of different pseudocapacitive red-ox mediator electrodes in decoupled water electrolysis	Martins Vanags (Riga Technical Univ./Latvia)
	50	45	Use of ultra-small TiO2 anatase nanoparticles in energy applications	Mairis Iesalnieks (Riga Technical Univ./Latvia)
	51	34	Green cellulose-based polymer electrolyte suitable for e-Textiles	Ana Baptista (UNL/Portugal)
	52	27	Processing of flexible PDMS/KNN/G piezocomposites for energy harvesting enhancement	Inês Loureiro (UA/Portugal)
	53	12	Composite Hull for Wave Energy Converters	Diogo Vale (CorPower Ocean/Portugal)
	54	4	All-fibre Photovoltaic Storage Devices for e-Textiles	Ana Baptista (UNL/Portugal)
	55	62	Enhancement of power conversion on single electrode yarn shaped triboelectric generators	Raquel Barras (UNL/Portugal)
	56	11	Application of binary PdSb/C as an anode in a polymeric electrolyte reactor -fuel cell type for electrosynthesis of methanol from methane	Camila Godoi (Univ. São Paulo/Brazil)
	57	32	Methane-to-methanol conversion and power co-generation on PdNi supported on ATO electrocatalysts in a polymeric electrolyte reactor-fuel cell (PER-FC)	Jéssica F. Coelho (Univ. São Paulo/Brazil)
	58	111	High porosity biowaste electrocatalyst for seawater batteries	João P. Ferreira (FCUP/Portugal)
	59	112	Wool based battery separator for energy storage applications	João Serra (UM/Portugal)
	60	128	Light-cured and biosourced polymer electrolytes for aqueous photovoltaics	Federico Bella (Politecnico Torino/Italy)
	61	130	Three Dimensional BaTiO3 – Graphite composite with hierarchical porosity for mechanical energy harvesting	Artur Baeta (UA/Portugal)

Poster Session 2 (April 5th - Wednesday)

	Poster Panel	Poster Number	Title	Author/Affiliation
Materials for Digital Transformation	1	10	Study of fiber-based capacitive sensors for wearable applications	Bernardo Vicente (UA/Portugal)
	2	54	Development of a sol-gel film for digital inkjet printing on impermeable tableware ceramic surfaces	Monique Dias (UA/Portugal)
	3	26	Sensing light on paper: Tunable optoelectrical resistor switch as load resistance for digital photoelectronics on paper	Inês Cunha (UNL/Portugal)
	4	100	Characterization of resins to DLP 3D print porous structures: the effects of post-curing and cleaning time on the technological properties of materials	Leonardo Santana (FEUP/Portugal)
	5	124	Low Temperature Sintering of Printed Zinc Oxide Nanoparticle Layers towards Printed Electronics	Madalena Roque (UNL/Portugal)
Materials for structural and multifunctional applications	6	63	Influence of Cr and V on quaternary FeTiTaW alloy	Ricardo Martins (IST/Portugal)
	7	30	Increasing habitat safety by integrating technological solutions into ceramic materials	Inês Rondão (CTCV/Portugal)
	8	16	Behavior of screen-printed carbon-based inks over different stretchable polymeric substrates	Cláudia Buga (DTX/Portugal)
	9	15	Design of Hybrid MWCNT/Ferrite Nanomaterials for Electromagnetic Shielding Textile Applications	Clara Pereira (FCUP/Portugal)
	10	37	Silicon nitride-based suspensions for vat photopolymerization – a study	João Pereira (UA/Portugal)
	11	61	Development of a fully function food packaging for orange juice	Pedro Rodrigues (UM/Portugal)
	12	8	Kinetics of first-order phase transitions on magnetic materials for energy applications: magnetization and atomic structure	André Beleza (FCUP/Portugal)
	13	38	Development and characterization of fire-retardant polyurethane foams	Jocyla R. Manhique (IPB/Portugal)
	14	14	Development of e-skin adhesives based on eco-friendly polyurethane (PU)	Cidália Castro (UM/Portugal)
	15	5	Influence of suspensions additives in the rheological behaviour of glazes for stoneware	Ana Caetano (UA/Portugal)
	16	70	Exfoliation of layered double hydroxides for application in nanocomposites	Sofia Silva (UA/Portugal)
	17	48	Preliminary assessment on the utilization of biomass fly ash in the production of controlled low-strength materials	Marinelia Capela (UA/Portugal)
	18	31	Alternative sintering of ceramics by Flash sintering: a case study of alumina	Ines Vilarinho (UA/Portugal)
	19	6	Application of Adiabatic Temperature Rise Method for Fast Kinetics TPUs Formulation Development	Ana C. Lima (IPB/Portugal)
	20	50	Synthesis and characterization of semiconducting diamond membranes for electro-optical biosensors	Miguel A. Neto (UA/Portugal)
	21	2	Defects analysis and solidification simulation of aluminium mechanical component, manufactured by HPDC	Alexandre Velhinho (UNL/Portugal)
	22	53	Mechanical performance of silicon nitride parts made by robocasting	Mónica Faria (UA/Portugal)
	23	47	Transparent hydrophobic silica-based coatings	Mariana R. Silva (UA/Portugal)
	24	21	One-step Synthesis of Diamond-Carbon Nanofiber Composites	Eduardo Silva (UA/Portugal)
	25	35	Validation of An In-Line Slit Microrheometer Coupled to A Microextruder for 3D-Printing Filament Production	João D. Sousa (UM/Portugal)
	26	46	Magnetic thermoplastic polyurethane composites	Mariana M. Silva (UM/Portugal)
	27	59	Lime ash waste from the cellulose industry as raw material in rehabilitation mortars	Paula Seabra (UA/Portugal)
	28	60	Development of eco-cement with Municipal Solid Waste Incineration Bottom Ash	Paula Seabra (UA/Portugal)
	29	71	Effect of solvent vapor annealing on optical properties and surface adhesion of conjugated D:A thin films	Taina Casagrande (Univ Fed Tecn Curitiba/Brazil
	30	65	Effect of laser parameter on plastic injection mould' cleaning	Rodrigo Santos (UA/Portugal)
	31	76	Strategies to modify the leather conductivity towards wearable sensor applications	Vitor Sencadas (UA/Portugal)
	32	36	CoFe2O4\BaTiO3 Bilayers deposited by laser ablation over SrTiO3 substrates	João M. Oliveira (UM/Portugal)
	33	13	Thermoformability of polycarbonate substrates with silver-based conductive ink for in-mould electronics applications	Catarina Ribeiro (UM/Portugal)
	34	80	Characterization of printed films with conductive silver-based inks via screen-printing used for functional parts	Catarina Ribeiro (UM/Portugal)
	35	84	Prediction of alloying elements' effects on the structural properties of NbMoTaWX (X = Al, Ti, V, Cr, Zr, and Y) using the CALPHAD method	Bernardo Ribeiro (FEUP/Portugal)
	36	90	Structural and Dielectric Properties of Electrospun LiNbO3-CoFe2O4 Composite Nanofibers with Different Co-Ferrite Concentrations	Tiago Rodrigues (UM/Portugal)
	37	91	Resistance Spot Welding Parameters Optimization Using Taguchi Method	Gonçalo A. Amorim (ISEP/Portugal)
	38	98	Impact of gas tungsten arc welding on the microstructure and mechanical performance of a newly developed Cr29.7 Co29.7Ni35.4Al4Ti1.2 multi-principal	João G. Lopes (UNL/Portugal)
	39	114	Microstructure and Mechanical Properties of Gas Metal Arc Welded CoCrFeMnNi Joints Using a 410 Stainless Steel Filler Metal	Jiajia Shen (UNL/Portugal)
	40	115	Development of Polymeric Material Systems with Metallic Aspect	L. Pedroso (UM/Portugal)
	41	116	From Transparent to Translucent: a Route Towards Multifunctional Parts Injected with a Single Material	L. Pedroso (UM/Portugal)
	42	118	Electroplated Ni-Al2O3 Nanocomposite Coatings on AA6082	Ruben Santos (FEUP/Portugal)
	43	119	Characterisation of low-carbon steel reinforced with TiC and WC particles	Aida Moreira (FEUP/Portugal)
	44	120	Using lignin and coffe grounds as bio-additives for PLA processing by FDM 3D-printing	Silvia L. Rivera (Univ. Coruna/Spain)
	45	122	Development of different wheelchair cushions for pressure ulcer prevention: Preliminary user evaluation	Silvia Ferreira (Fibrenamics-UM/Portugal)
	46	123	Multilayer Composites for Application in Bulletproof Vests	Maurício Malheiro (UM/Portugal)

Materials Processing	47	66	Reuse of plastic injection moulds by degraded coating removal through laser technology	Rodrigo Santos (UA/Portugal)
	48	72	Synthesis and application of monolith Silica/Pebax aerogel for CO2 adsorption under high pressure	Thauane Selva (UNIT/Brazil)
	49	77	The influence of the material and processing conditions in injection moulding high-gloss parts	Cláudia Freitas (UM/Portugal)
	50	78	Integration of multi-material and advanced processing concepts in a single moulding step	Tiago F. Fernandes (UM/Portugal)
	51	83	Thermoformability of biopolymer composites with coffee husk	Filipa Rocha (UM/Portugal)
	52	96	Effect of mold material on mechanical properties and morphology of short carbon fiber reinforced ABS	Ellen Fernandez (Ghent Univ/Belgium)
	53	97	Microstructure evolution of WAAM fabricated HSLA steel during uniaxial load	Igor Felice (UNL/Portugal)
	54	106	Production and Characterization of Jute Reinforced Composites with Thermoplastic Matrix	Ana R. Carreiras (ISEP/Portugal)
	55	107	Influence of Moisture on the Mechanical Behavior of Composite Materials Produced by Manual Molding	Gabriela Pinheiro (ISEP/Portugal)
	56	127	Exploring Flash sintering as a processing technique of porcelain-based materials	Camila Ribeiro (UA/Portugal)
Sensors & Actuat.	57	89	Electrical response to moisture of pure polyantimonic acid-based sensors	Sofia R. Mendes (UC/Portugal)
Industrial Forum	58	121	Development of polypropylene compound with natural fibres and recycled thermoplastic with glass fibre for automotive applications: A competitive alternative to polyamide 6	Clara Gonçalves (PIEP/Portugal)