

AGENDA		
Friday, November 29th		
Registration		
8:00	-	9:00
Plenary Session 4		
Prof. Irene García-Cano		
9:00	-	9:40
Gold Spray as an Additive Manufacturing Technology		
Vice Dean of Research and Transfer of the Faculty of Chemistry - Director of the Thermal Spray Center, University of Barcelona - Barcelona, Spain		
Additive Manufacturing Processes Session - Chair: Prof. Felipe Fernández		
Talk # 1		
9:40	-	9:55
Additive Manufacturing Processes		
Luis Felipe Fernández Ayala - Optimized design of variable-stiffness composite laminates: balancing strength and manufacturing constraints		
Talk # 2		
9:55	-	10:10
Additive Manufacturing Processes		
René Xavier Londoño Márml - Desarrollo de una Prótesis Miográfica de Bajo Costo y Alto Torque Mediante Fabricación Aditiva y Control EMG		
Talk # 3		
10:10	-	10:25
Additive Manufacturing Processes		
Victor Hugo Hidalgo Díaz - Optimización de Manufactura Aditiva para Piezas Aerodinámicas en Entornos de Alta Temperatura: Análisis Comparativo de PLA, PETG y ABS		
Talk # 4		
10:25	-	10:40
Additive Manufacturing Processes		
Jonnathan Dario Santos Benítez - Mode I - Interlaminar Fracture Toughness of 3D-printed CFRP Composites with Multidirectional Interfaces		
10:40	-	11:00
Coffee Break		
Natural Materials for Industrial Applications Session - Chair: Prof. Lourdes Orejuela, Prof. Andrea Landázuri		
Talk # 1		
11:00	-	11:15
Natural Materials for Industrial Applications		
Lourdes Magdalena Orejuela Escobar - Parte A: Materiales Avanzados y Biocombustibles de Biomasa Residual – Ingeniería Circular, Bioeconomía Circular y Economía Circular en la Sostenibilidad de la Cadena de Suministros Industrial		
Talk # 2		
11:15	-	11:30
Natural Materials for Industrial Applications		
Andrea Landazuri - Parte B: Materiales Avanzados y Biocombustibles de Biomasa Residual – Ingeniería Circular, Bioeconomía Circular y Economía Circular en la Sostenibilidad de la Cadena de Suministros Industrial		
Talk # 3		
11:30	-	11:45
Natural Materials for Industrial Applications		
Victor Hugo Guerrero Barraquán - Oportunidades y desafíos en la producción de bio-plásticos y bio-composites en Ecuador		
Talk # 4		
11:45	-	12:00
Natural Materials for Industrial Applications		
Nicolás Renato Jara Medina - In Vivo and In Vitro Evaluation of Eucalyptus and Guava Extracts: Promising Eco-Alternatives to Antibiotics for Shrimp Biofilm Control		
Talk # 5		
12:00	-	12:15
Natural Materials for Industrial Applications		
Jeanette Verónica Carrera Cevallos - Perfil químico y estructural de la cereza magenta, Syzygium paniculatum Gaertn, mediante de espectroscopia vibracional FTIR – Raman		
Talk # 6		
12:15	-	12:30
Natural Materials for Industrial Applications		
Sarah Briceño - Diatomites doped with plasmonic nanoparticles for environmental remediation.		
Plenary Session 5		
Dr. Luis Cumbal, Ph.D		
From Laboratory to Field Applications: The Long Journey for Nanomaterials being useful for Humankind		
Former Director of Center for Nanosciences and Nanotechnology - Universidad de las Fuerzas Armadas ESPE, Quito, Ecuador		
The Science Hall of Fame - CIMA honoring scientists		
13:10	-	14:15
LUNCH		
Talk # 2		
Miscellaneous Topics		
César Paltán - Evaluación de propiedades mecánicas por fractura en materiales CAD/CAM aplicados en restauración odontológica		
Natural Materials for Industrial Applications Session - Chair: Prof. Frank Alexis, Prof. José Alvarez		
Talk # 7		
14:30	-	14:45
Natural Materials for Industrial Applications		
Andrea Natali Zárate Villacrés - Estado de la investigación del uso de materiales alternativos en hormigones.		
Talk # 8		
14:45	-	15:00
Natural Materials for Industrial Applications		
Inés Carolina Hernández Guerra - Sustainable Innovation: Bioplastics from Biowaste.		
Talk # 9		
15:00	-	15:15
Natural Materials for Industrial Applications		
López Velástegui Jorge - Prototype of a Biodegradable Plate Made from Sugarcane Bagasse: Evaluation of Formation and Mechanical Properties.		
Talk # 10		
15:15	-	15:30
Natural Materials for Industrial Applications		
Sebastian Ponce - Biomass-based catalysts for chemical recycling of residues.		
Talk # 11		
15:30	-	15:45
Natural Materials for Industrial Applications		
Lourdes Magdalena Orejuela Escobar - Tagua (Phytelephas aequatorialis) Biorefinery, Circular Engineering, Circular Bioeconomy, Circular Economy and Industrial Symbiosis – Generating		
15:45	-	16:05
Coffee Break		
Plenary Session 6		
Prof. Frederico Barros De Sousa Ph.D.		
16:05	-	16:45
Photochromic Properties of Spiroprans and Their Uses Combined with Polymers		
Federal University of Itajubá		
Talk # 12		
16:45	-	17:00
Natural Materials for Industrial Applications		
Diego Fernando Venegas Vásconez - Impregnación de metales de transición en la zeolita natural chilena como potencial catalizador para reacciones de pirólisis		
Talk # 13		
17:00	-	17:15
Natural Materials for Industrial Applications		
Gabriela Vivanco - Desarrollo de Bioreinas para la Fabricación de Tableros Aglomerados a partir de Fibras de Cañamo		
Talk # 14		
17:15	-	17:30
Natural Materials for Industrial Applications		
Frank Alexis - Materiales adsorbentes para potenciar la productividad en cultivos bajos déficit de agua		
Talk # 15		
17:30	-	17:45
Natural Materials for Industrial Applications		
José Alvarez - Pretreatment Technologies for Lignocellulosic Biomass Valorization through Bioprocesses		
Miscellaneous Session - Chair: Prof. Marco León		
Talk # 1		
17:45	-	18:00
Miscellaneous Topics		
Herman Alfredo Murillo Romero - Síntesis de nanopartículas asistida por residuos provenientes de la conversión termoquímica de biomasa.		
Talk # 3		
18:00	-	18:15
Miscellaneous Topics		
Marco León - 3D Microstructure and Finite Element Modelling of the Mechanical Behavior of Cast Iron Using Deep Learning for Metallographic Analysis		
18:15	-	18:30
Closing Remarks		
Adjourn		
18:30	-	19:30
MRS-Ec Ecuadorian Materials Research Society Meeting (SEIMAT)		
USFQ, Edificio Hayek, Auditorio H-116M (Paseo San Francisco - Piso P)		