

Programme

INTERNATIONAL MEETING FOR RESEARCHERS IN

MATERIALS & PLASMA TECHNOLOGY - IMRMPT

5th
IMRMPT

Cúcuta, Colombia

May 28-31
2019



Foristom
Foundation
of Researchers in Science
and Technology of Materials



Ely Dannier V. Niño

Director IMRMPT

Ely Dannier V. Niño

Editor and Layout Coordinator / Editor y Coordinador de Diagramación

Germán Quiñonez

Cover Design / Diseño Carátula

Germán Quiñonez

Web Design / Diseño Web

Fredy Humberto Vera Rivera

Web Programming / Programación Web

Information Postal Address of the Programme / Información Dirección Postal del Programa

Ely Dannier V. Niño

Foundation of Researchers in Science and Technology of Materials (FORISTOM)

Bucaramanga, Santander, Colombia

E-mail: imrmpt@gmail.com - foristom@gmail.com

Copyright © 2019 FORISTOM – FUNDACIÓN OF RESEARCHERS IN SCIENCE AND TECHNOLOGY OF MATERIALS. Programa Oficial del Quinto Encuentro Internacional de Investigadores en Materiales y Tecnología del Plasma (5th IMRMPT). Esta es una publicación del Encuentro Internacional de Investigadores en Materiales y Tecnología del Plasma (IMRMPT). La responsabilidad de la información publicada compete a los Ponente mismos.

Directives / Directivas Fundación: of Researchers in Science and Technology of Materials

Ely Dannier V. Niño

Director Ejecutivo

José José Barba Ortega

Director Administrativo y Financiero

Héctor Jaime Dulcé Moreno

Director Académico

Alejandro David Martínez Amariz

Director de Investigación

Fredy Humberto Vera Rivera

Director de Sistemas de Información

Organizing Committee / Comité Organizador Local

Gabriel Peña Rodríguez (Chairman)

José José Barba Ortega

Héctor Jaime Dulce Moreno

Alejandro David Martínez Amariz

Fredy Humberto Vera Rivera

Ely Dannier V. Niño

National Scientific Committee / Comité Académico Nacional

- Dra. Miryam Rincón Joya
Universidad Nacional de Colombia, Bogotá D.C.
- Dr. José José Barba Ortega
Universidad Nacional de Colombia, Bogotá D.C.
- Dr. Hugo Armando Estupiñan Durán
Universidad Nacional de Colombia, Medellín
- Dra. Judith del Pilar Rodríguez Tenjo
Universidad Francisco de Paula Santander, San José de Cúcuta
- Dr. Héctor Jaime Dulce Moreno
Universidad Francisco de Paula Santander, San José de Cúcuta
- Dr. Eduard Gilberto Puerto Cuadros
Universidad Francisco de Paula Santander, San José de Cúcuta
- Dra. Martha Yasmid Ferrer Pacheco
Universidad Francisco de Paula Santander, San José de Cúcuta
- Torcoroma Velásquez Pérez
Universidad Francisco de Paula Santander, Ocaña
- Dr. Zulmary Carolina Nieto
Universidad de Santander, San José de Cúcuta
- Dr. Xiomara Ramírez París
Universidad de Santander, San José de Cúcuta
- Dr. Juan Camilo Acevedo Páez
Universidad de Santander, San José de Cúcuta

- Dr. Javier Andrés Soto
Universidad de Santander, San José de Cúcuta
- Dr. Ender José Barrientos Monsalve
Fundación de Estudios Superiores Comfanorte, San José de Cúcuta
- Dr. Alejandro David Martínez Amariz
Universidad de Santander, Bucaramanga
- Dr. Darío Yesid Peña Ballesteros
Universidad Industrial de Santander, Bucaramanga
- Dr. Valeriy D. Dugar-Zhabon
Universidad Industrial de Santander, Bucaramanga
- Dr. Harold Paredes Gutiérrez
Universidad Industrial de Santander, Bucaramanga
- Dr. David Alejandro Miranda Mercado
Universidad Industrial de Santander, Bucaramanga
- Dr. Octavio Andrés González Estrada
Universidad Industrial de Santander, Bucaramanga
- Dr. Alberto David Pertuz Comas
Universidad Industrial de Santander, Bucaramanga
- Dr. Enrique Mejía Ospino
Universidad Industrial de Santander, Bucaramanga
- Dr. Rafael Cabanzo Hernández
Universidad Industrial de Santander, Bucaramanga
- Dra. Claudia Paulina González Cuervo
Universidad Pontificia Bolivariana, Bucaramanga
- Dr. José Luis Vera Rivera
Universidad del Valle, Santiago de Cali
- Dr. (c) Fredy Humberto Vera Rivera
Universidad Francisco de Paula Santander, San José de Cúcuta
- Dr. (c) Oscar Alberto Gallardo Pérez
Universidad Francisco de Paula Santander, San José de Cúcuta
- Dr. (c) Boris Raniero Pérez Gutiérrez
Universidad Francisco de Paula Santander, San José de Cúcuta
- Dr. (c) Fredy Fabián Parada Becerra
Universidad Industrial de Santander, Bucaramanga
- MSc. Anderson Sandoval Amador
Fundación of Researchers in Science and Technology of Materials, Bucaramanga.
- MSc. Fernando Durán Flórez
Universidad Pontificia Bolivariana, Bucaramanga
- MSc. Lesley Fabiola Bohorquez Chacón
Universidad de Santander, San José de Cúcuta
- MSc. Elena María Peñaranda Lizarazo
Universidad de Santander, San José de Cúcuta
- MSc. Claudia Ivonne Arámbula
Universidad de Santander, San José de Cúcuta
- MSc. Darwin Orlando Cardozo Sarmiento
Fundación de Estudios Superiores Comfanorte, San José de Cúcuta
- Esp. Carolina Marulanda Ascanio
Fundación de Estudios Superiores Comfanorte, San José de Cúcuta

International Scientific Committee / Comité Académico Internacional

- Dr. Petr Tsygankov
Universidad Técnica Estatal de Bauman, Russia
- Dr. José Luis Endrino Armenteros
Cranfield University, United Kingdom

- Dra. Raquel González Arrabal
Universidad Politécnica de Madrid, Spain
- Dr. Andrés Díaz Lantada
Universidad Politécnica de Madrid, Spain
- Dr. Juan Manuel Muñoz Guijosa
Universidad Politécnica de Madrid, Spain
- Dra. Mariana Pereyra
Universidad de la República, Uruguay
- Dr. Eduardo Méndez Morales
Universidad de la República, Uruguay
- Dra. Linda Elcida Gil Lozada
Universidad Nacional Experimental Politécnica Antonio José de Sucre, Venezuela
- Dr. Humberto José Jiménez
Universidad Nacional Experimental Politécnica Antonio José de Sucre, Venezuela
- Dra. (c) Sugheis María Liscano Durán
Universidad Nacional Experimental Politécnica Antonio José de Sucre, Venezuela
- Dr. (c) Cristhian Andres Aguirre Téllez
Universidade Federal de Mato Grosso, Brazil
- Dr. (c) Quesle Martins da Silva
Universidade Federal de Rondônia, Brazil
- Dr. (c) Natali Félix Arinos
Universidade Federal de Mato Grosso, Brazil
- Dr. (c) Ely Dannier V. Niño
Universidad Politécnica de Madrid, Spain

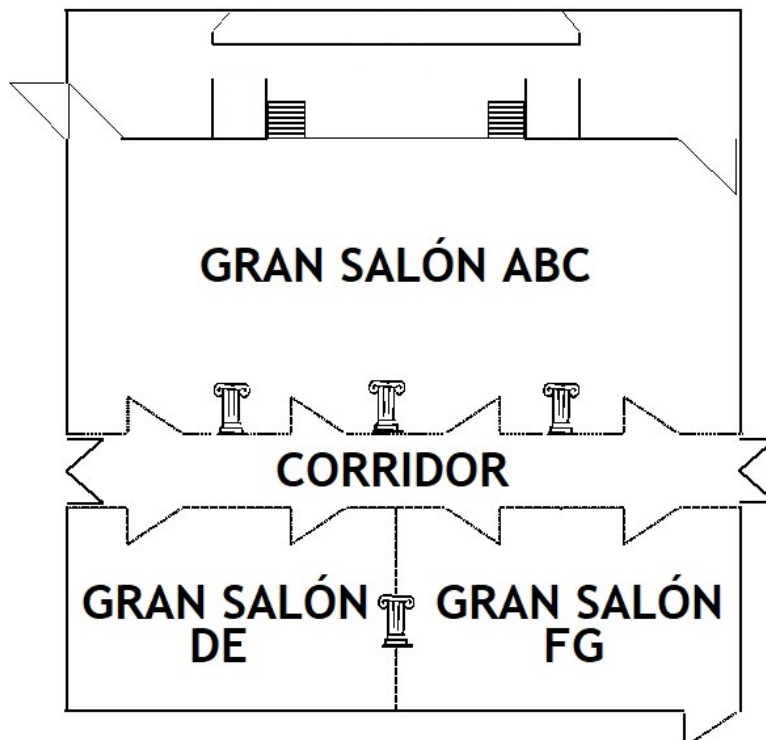
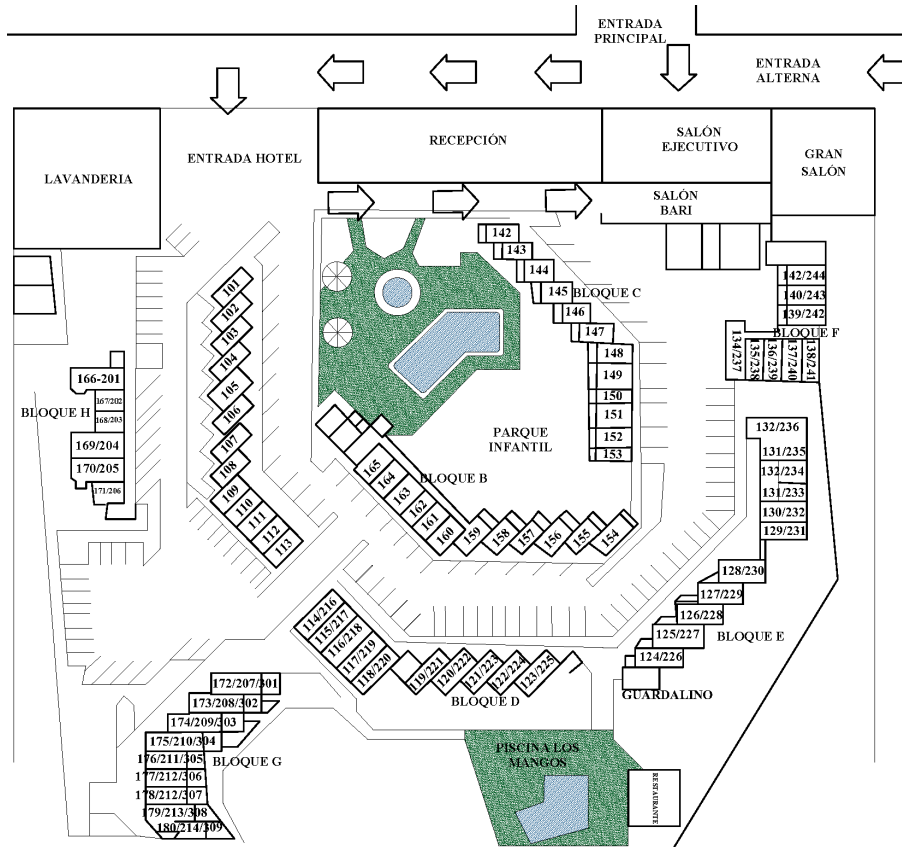
Invited Speakers / Conferencistas Invitados

- ✓ Dr. José Luis Endrino
Cranfield University, Cranfield, United Kingdom
- ✓ Dra. Raquel González Arrabal
Universidad Politécnica de Madrid, Madrid, Spain
- ✓ Dr. Ovidio Yordanis Peña Rodríguez
Universidad Politécnica de Madrid, Madrid, Spain
- ✓ Dr. Juan Manuel Muñoz Guijosa
Universidad Politécnica de Madrid, Madrid, Spain
- ✓ Dra. Enrique Chacon Tanarro
Universidad Politécnica de Madrid, Madrid, Spain
- ✓ Dr. Juan Muñoz Saldaña
Laboratorio Nacional de Proyección, México
- ✓ Dr. Amado Cabo
Ionar S.A., Buenos Aires, Argentina
- ✓ Dr. Carlos Alberto Lasorsa
Instituto de Nanociencia y Nanotecnología, Buenos Aires
- ✓ Dr. Eduardo Daniel Méndez Morales
Universidad de la República, Montevideo, Uruguay
- ✓ Dra. Elaine Cristina Paris
Empresa Brasileira de Pesquisa Agropecuária, São Carlos, Brazil
- ✓ Dr. José Albino Oliveira de Aguiar
Universidade Federal de Pernambuco, Recife, Brazil
- ✓ Dr. Claudinei de Souza Guimaraes
Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil
- ✓ Dr. Humberto José Jiménez
Universidad Nacional Experimental Politécnica Antonio José de Sucre, Puerto Ordaz, Venezuela
- ✓ Dra. Linda Elcida Gil Lozada
Universidad Nacional Experimental Politécnica Antonio José de Sucre, Puerto Ordaz, Venezuela

CONFERENCE VENUE



CONFERENCE ROOM / AUDITORIO




PROGRAM / PROGRAMA

5th IMRMPT

Topics

- New Materials
- Structural Integrity
- Renewable Energy
- Biomedical Coatings
- Additive Manufacturing
- Non Destructive Evaluation
- Characterization of Materials
- Thin Films and Nanomaterials
- Surface Hardening Processes
- Wear and Corrosion/Oxidation
- Modeling, Simulation and Diagnostics
- Plasma Applications and Technologies
- Education on Science, Engineering and Technology
- Surface Modification (Ion Implantation, Ion Nitriding, Sputtering, Sol-Gel, Thermal Spray, PVD, CVD)
- Science, Engineering, Technology and Innovation for Social Inclusion



5th INTERNATIONAL MEETING FOR RESEARCHERS IN
MATERIALS
& PLASMA
TECHNOLOGY - IMRMP

FIRST DAY / PRIMER DÍA

28th May 2019 / 28 de mayo de 2019

DAY DÍA	TUESDAY MORNING / MARTES MAÑANA
HOUR HORA	
7:00 – 10:00	Registration and Coffee
10:00 – 10:40	Opening Ceremony: 5TH INTERNATIONAL MEETING FOR RESEARCHERS IN MATERIALS & PLASMA TECHNOLOGY (5th IMRMPT) Conference Room / Auditorio: GRAN SALÓN ABC
10:40 – 11:20	Plenary Lecture I: MATERIALS AND BIOMATERIALS FOR SOCIAL INCLUSION: IN-HOME LEAD DETECTION Keynote Speaker / Ponente Magistral: EDUARDO DANIEL MÉNDEZ MORALES Conference Room / Auditorio: GRAN SALÓN ABC
11:20 – 12:00	Plenary Lecture II: USING HIGH ELECTRONIC EXCITATION TO MODIFY PLASMONIC NANOSTRUCTURES Keynote Speaker / Ponente Magistral: OVIDIO YORDANIS PEÑA RODRÍGUEZ Conference Room / Auditorio: GRAN SALÓN ABC
12:00 – 12:20	Oral Presentation ID 178: EXTENDED HUBBARD MODEL FOR THREE-COLOR FERMIONS Speaker / Ponente: JERESON SILVA VALENCIA Conference Room / Auditorio: GRAN SALÓN ABC
	Oral Presentation ID 101: SELECTION AND STUDY OF A CENTRIFUGAL PUMP OPERATING AS A TURBINE Speaker / Ponente: EMIL HERNANDEZ Conference Room / Auditorio: GRAN SALÓN DE
	Oral Presentation ID 143: EFFECTS OF CLIMATE CHANGE ON BIODIVERSE RESOURCES IN THE COUNTRY, A LOOK THROUGH THE RURAL FARMER'S EYES Speaker / Ponente: JOSÉ DE JESÚS NÚÑEZ Conference Room / Auditorio: GRAN SALÓN FG
	Oral Presentation ID 284: EVALUATION OF THE STRUCTURAL, THERMAL, RHEOLOGICAL AND MORPHOLOGICAL PROPERTIES OF POLYETHYLENE FUNCTIONALIZED WITH A MALEINIZED HYPERBRANCHED POLYESTER Speaker / Ponente: EDWIN A. MURILLO Conference Room / Auditorio: EJECUTIVO
	Oral Presentation ID 283: EFFECT OF EXFOLIATION METHOD ON GRAPHITE OXIDE. A COMPARISON BETWEEN EXFOLIATION BY BALL MILLING AND SONICATION IN DIFFERENT MEDIA Speaker / Ponente: FRANCY MAYOLI CASALLAS CAICEDO Conference Room / Auditorio: BARÍ
12:20 – 13:40	Lunch Break / Almuerzo

DAY DÍA	TUESDAY AFTERNOON / MARTES TARDE
HOUR HORA	
13:40 – 14:00	Coffee / Café
14:00 – 14:30	<p>Plenary Lecture III: APPLICATIONS OF PLASMAS IN ADDITIVE AND SUBTRACTIVE SURFACE MANUFACTURING</p> <p>Keynote Speaker / Ponente Magistral: JOSÉ LUIS ENDRINO ARMENTEROS</p> <p>Conference Room / Auditorio: GRAN SALÓN</p>
14:30 – 14:50	<p>Oral Presentation ID 106: EMBEDDED QUANTUM DOTS IN (GA,AL)AS SEMICONDUCTOR NANOSTRUCTURE: STRUCTURAL STUDY OF CURRENT TUNNELING</p> <p>Speaker / Ponente: HAROLD PAREDES</p> <p>Conference Room / Auditorio: GRAN SALÓN ABC</p>
	<p>Oral Presentation ID 176: SYNTHESIS OF A CHALCOPYRITE TYPE MATERIAL, BASED ON CUIN_{1-X}GAXSE₂ (X = 0.3 AND 0.5) FOR APPLICATION AS SEMICONDUCTOR THIN LAYERS, DEPOSITED BY A LOW-COST TECHNIQUE</p> <p>Speaker / Ponente: YEIMY TATIANA CASTELLANOS BÁEZ</p> <p>Conference Room / Auditorio: GRAN SALÓN DE</p>
	<p>Oral Presentation ID 233: VOLUME OF WATER RAISED ACCORDING TO THE HYDROLOGICAL STUDY PERFORMED AT THE UNIVERSITY OF SANTANDER</p> <p>Speaker / Ponente: LUIS CARLOS TIRIA SANDOVAL</p> <p>Conference Room / Auditorio: GRAN SALÓN FG</p>
	<p>Oral Presentation ID 324: HYDROGEN CONTENT OF UNDERWATER WET WELDS DEPOSITED BY E6013 AND WW70 ELECTRODES</p> <p>Speaker / Ponente: ANDRES MAURICIO MORENO URIBE</p> <p>Conference Room / Auditorio: EJECUTIVO</p>

14:50 – 15:10	<p>Oral Presentation ID 407: ONTOLOGICAL MODEL BASED ON THE ONTOLOGY DRIVEN ARCHITECTURE PARADIGM FOR A MIDDLEWARE IN THE MANAGEMENT OF NANODEVICES IN A SMART ENVIRONMENTS Speaker / Ponente: EDUARD GILBERTO PUERTO CUADROS Conference Room / Auditorio: GRAN SALÓN ABC</p>
	<p>Oral Presentation ID 216: SYNTHESIS OF CZTSe MATERIAL FROM NITRATE AND SELENITATE INKS, FOR USE AS ABSORBENT LAYER IN THE DESIGN OF SOLAR CELLS Speaker / Ponente: EDGAR ABSALON TORRES BARAHONA Conference Room / Auditorio: GRAN SALÓN DE</p>
	<p>Oral Presentation ID 281: BIG DATA WITHIN ORGANIZATIONS, A LOOK FROM SECURITY: REVIEW Speaker / Ponente: KELY YINETH DIAZ PEDROZA Conference Room / Auditorio: GRAN SALÓN FG</p>
	<p>Oral Presentation ID 408: REMOVAL OF CADMIUM IN WASTEWATER THROUGH GEOPOLIMERIC MATERIALS BASED ON PUMICE Speaker / Ponente: JAZNEMILETH GRILLO Conference Room / Auditorio: EJECUTIVO</p>
	<p>Oral Presentation ID 139: CrSiN COATING CORROSIVE BEHAVIOR EVALUATION UNDER HYDRODYNAMIC CONDITIONS IN AGGRESSIVE ENVIRONMENTS Speaker / Ponente: JOSÉ JULIÁN VILLATE CORREDOR Conference Room / Auditorio: BARÍ</p>
15:10 – 15:30	<p>Oral Presentation ID 117: INSULATOR PHASES OF A MIXTURE OF SPINOR FERMIONS AND HARD-CORE BOSONS Speaker / Ponente: RICHARD GIOVANNI AVELLA SARMIENTO Conference Room / Auditorio: GRAN SALÓN ABC</p>
	<p>Oral Presentation ID 229: EVALUATION OF A SOLVOTHERMAL METHOD TO OBTAIN CZTIS MATERIALS Speaker / Ponente: HELLEM GERALDING PEREZ BUSTOS Conference Room / Auditorio: GRAN SALÓN DE</p>
	<p>Oral Presentation ID 332: THE STRATEGIC ROLE OF HIGHER EDUCATION INSTITUTIONS IN THE MANAGEMENT AND TRANSFER OF KNOWLEDGE CLUSTER INITIATIVES: A STUDY CASE OF THE PARTNERSHIP UNIVERSIDAD DE SANTANDER-CÁMARA DE COMERCIO OF BUCARAMANGA, COLOMBIA, CLUSTER COMPETITIVE DESTINATION Speaker / Ponente: LUIS REINA Conference Room / Auditorio: GRAN SALÓN FG</p>
	<p>Oral Presentation ID 253: TENSILE MECHANICAL BEHAVIOR OF A POLYMERIC COMPOSITE REINFORCED WITH 4-AXIAL CARBON FIBER WOVEN Speaker / Ponente: DIEGO F VILLEGAS Conference Room / Auditorio: EJECUTIVO</p>
	<p>Oral Presentation ID 152: DESIGN AND EVALUATION OF THE DEGRADATION OF CONCRETE CA, UNDER THE INFLUENCE OF SULFURIC ACID BIOGENIC AsB Speaker / Ponente: MELQUISEDEC CORTÉS ZAMBRANO Conference Room / Auditorio: BARÍ</p>

15:30 – 15:50	<p>Oral Presentation ID 336: PROSPECTIVE MODEL OF QUALITY ECOSYSTEM AS A BUSINESS MANAGEMENT STRATEGY FOR THE STRENGTHENING OF SMALL AND MEDIUM-SIZED ENTERPRISES IN THE METALMECHANICAL SECTOR IN THE SANTANDER DEPARTMENT COLOMBIA Speaker / Ponente: LUIS REINA Conference Room / Auditorio: GRAN SALÓN ABC</p>
	<p>Oral Presentation ID 135: INTERNAL INSPECTION OF THE LISAMA EL CENTRO GAS PIPELINE USING MAGNETIC FLUX LEAKAGE (MFL) TECHNOLOGY IN SANTANDER, COLOMBIA Speaker / Ponente: GERSON RAFAEL CONDE RODRÍGUEZ Conference Room / Auditorio: GRAN SALÓN DE</p>
	<p>Oral Presentation ID 174: INFLUENCE OF MECANICAL MILLING ON THE HYDROGEN ABSORPTION PROPERTIES OF TIGR - BASED ALLOY Speaker / Ponente: ALEJANDRO DAVID AMARIZ Conference Room / Auditorio: EJECUTIVO</p>
	<p>Oral Presentation ID 170: FERRIMAGNETIC AND ELECTRIC FEATURES OF THE ND₂.68SR_{1.32}MN_{1.2}TI_{1.32}FE_{1.48}O₁₂ ORTHORHOMBIC MATERIAL Speaker / Ponente: JAVIER A. CUERVO-FARFÁN Conference Room / Auditorio: BARÍ</p>
15:50 – 16:10	<p>Oral Presentation ID 280: RESISTANCE TO CORROSION AND BIOCOMPATIBILITY OF TRANSITION METALS OXYNITRATES Speaker / Ponente: GLORIA CAROLINA NUMPAQUE ROJAS Conference Room / Auditorio: GRAN SALÓN ABC</p>
	<p>Oral Presentation ID 393: BEHAVIOR OF THE STRUCTURAL, MECHANICAL AND TRIBOLOGICAL PROPERTIES OF CARBON STEEL 1045 SUBJECTED TO COATINGS BY PHYSICAL DEPOSITION IN VAPOR PHASE (TITANIUM CARBONITRIDE, BORON CARBONITRIDE AND CHROMIUM ALUMINUM NITRIDE) FOR AUTOMOTIVE APPLICATIONS Speaker / Ponente: JUAN FRANCISCO CORREA JÁCOME Conference Room / Auditorio: GRAN SALÓN DE</p>
	<p>Oral Presentation ID 403: FRACTAL ANALYSIS IN RURAL DOMESTIC WASTEWATER QUALITY UNDER DISSOLVED OXYGEN STABILITY IN WETLANDS PLANTED WITH CHRYSOPOGON ZIZANIOIDES Speaker / Ponente: JOHAN SEBASTIAN MANTILLA MANCILLA Conference Room / Auditorio: GRAN SALÓN FG</p>
	<p>Oral Presentation ID 409: REMOVAL OF RHODAMINE B IN WASTEWATER FROM THE TEXTILE INDUSTRY USING A GEOPOLYMERIC MATERIAL Speaker / Ponente: LAURA PINTO SILVA Conference Room / Auditorio: EJECUTIVO</p>
	<p>Oral Presentation ID 241: COMPOSITIONAL, THERMAL AND MORPHOLOGICAL CHARACTERIZATION OF RECYCLED AND MODIFIED ELASTOMERS FOR INCLUSION IN COMMERCIAL CEMENT MIXTURES Speaker / Ponente: GINA KARYN MORA RODRIGUEZ Conference Room / Auditorio: BARÍ</p>

16:10 – 17:00	Coffee Break / Café
17:00 – 17:30	<p>Plenary Lecture IV: CONSTRUCTION OF BIODIGESTERS FOR BIOGAS PRODUCTION FROM URBAN SOLID WASTE Keynote Speaker / Ponente Magistral: CLAUDINEI DE SOUZA GUIMARÃES Conference Room / Auditorio: Gran Sal3n</p>
17:30 – 17:50	<p>Oral Presentation ID 300: EFFECT OF THE CONCENTRATION AND ALIGNMENT OF MAGNETITE PARTICLES IN THE MECHANICAL PROPERTIES OF A COMPOSITE MATERIAL OF POLYESTER RESIN Speaker / Ponente: LUIS 1NGEL LARA GONZ1LEZ Conference Room / Auditorio: GRAN SAL3N DE</p>
	<p>Oral Presentation ID 398: ONTOLOGY DRIVEN ARCHITECTURE FOR ACOUSTIC MANAGEMENT Speaker / Ponente: EDUARD PUERTO Conference Room / Auditorio: GRAN SAL3N FG</p>
	<p>Oral Presentation ID 214: METAL HYDRIDES WITH BCC STRUCTURE: ADVANTAGES AND CHALLENGES Speaker / Ponente: ALEJANDRO DAVID MARTINEZ Conference Room / Auditorio: EJECUTIVO</p>
	<p>Oral Presentation ID 120: EVALUATION OF ELECTROCHEMICAL PHENOMENA OF FLY ASH AND BLAST FURNACE SLAG IN COMMERCIAL CEMENT MIXTURES Speaker / Ponente: CARLOS GABRIEL HERN1NDEZ CARRILLO Conference Room / Auditorio: BAR1</p>
17:50 – 18:10	<p>Oral Presentation ID 144: OPTIMIZATION OF THE CONNECTING ROD OF A TWO-STROKE ENGINE USING FINITE ELEMENT ANALYSIS Speaker / Ponente: OCTAVIO ANDR1S GONZ1LEZ-ESTRADA Conference Room / Auditorio: GRAN SAL3N ABC</p>
	<p>Oral Presentation ID 316: PHYSICAL, CHEMICAL AND MICROBIOLOGICAL CHARACTERIZATION OF COMPOUNDS CAUSING THE DEGREE OF BIODETERIORATION IN THE INFRASTRUCTURE OF THE UNIVERSITY OF SANTANDER CAMPUS BUCARAMANGA, COLOMBIA Speaker / Ponente: SANDRA MILENA DUR1N BARAJAS Conference Room / Auditorio: GRAN SAL3N DE</p>
	<p>Oral Presentation ID 377: UFPS TRAINING CENTER TRAINING AND EDUCATION PLATFORM FOR COMPETITIVE PROGRAMMING CONTEST - ACM ICPC Speaker / Ponente: MILTON JES1S VERA CONTRERAS Conference Room / Auditorio: GRAN SAL3N FG</p>
	<p>Oral Presentation ID 155: EFFECT ON THE HEAT OF HYDRATION, SETTING TIMES AND MECHANICAL RESISTANCE ADDING FLY ASH AND BLAST FURNACE SLAG IN COMMERCIAL CEMENT MIXTURES Speaker / Ponente: CARLOS GABRIEL HERN1NDEZ CARRILLO Conference Room / Auditorio: EJECUTIVO</p>
	<p>Oral Presentation ID 401: THE STUDY OF PLASMA FLOWS GENERATED BY A VACUUM-ARC EVAPORATOR WITH A SECTIONED TITANIUM-ZIRCONIUM CATHODE Speaker / Ponente: FREDY FABIAN BECERRA Conference Room / Auditorio: BAR1</p>
18:10 – 20:00	<p>Welcome Reception / Recepci3n de Bienvenida Conference Room / Auditorio: Gran Sal3n</p>

SECOND DAY / SEGUNDO DÍA

29th May 2019 / 29 de mayo de 2019

DAY DÍA HOUR HORA	WEDNESDAY MORNING / MIÉRCOLES MAÑANA
7:30 – 8:00	Coffee / Café
8:00 – 10:00	Course 1: COATING FABRICATION BY SPUTTERING Professor / Profesor: RAQUEL GONZÁLEZ ARRABAL Conference Room / Auditorio: GRAN SALÓN ABC
	Course 2: METALLURGY OF THE WELDING Professor / Profesor: ANDREINA PALOMO HERNÁNDEZ Conference Room / Auditorio: EJECUTIVO
	Course 2: METHODS FOR THE STUDY OF THE ELECTRIC ARC OF UNDERWATER WELDING Professor / Profesor: ANDRÉS MAURICIO MORENO URIBE Conference Room / Auditorio: BARÍ
10:00 – 10:40	Coffee Break / Café Poster Presentation / Presentación de Carteles
10:40 – 11:20	Plenary Lecture V: TRIBOLOGICAL BEHAVIOR OF FERROUS ALLOYS IN THE INDUSTRY Keynote Speaker / Ponente Magistral: HUMBERTO JOSÉ JIMÉNEZ Conference Room / Auditorio: GRAN SALÓN ABC
11:20 – 12:00	Plenary Lecture VI: THE ROLE OF DLC COATINGS IN THE BEHAVIOR OF LUBRICATED CONTACTS Keynote Speaker / Ponente Magistral: ENRIQUE CHACÓN TANARRO Conference Room / Auditorio: GRAN SALÓN ABC

12:00 – 12:20	<p>Oral Presentation ID 333: MODELING OF ELECTRON RESONANT INTERACTION BY CYLINDRICAL MODES TE₀₁₁ Speaker / Ponente: OSWALDO OTERO OLARTE Conference Room / Auditorio: GRAN SALÓN ABC</p>
	<p>Oral Presentation ID 190: SINTERING OF A MMC CU-TI-TIC ASSISTED BY ABNORMAL GLOW DISCHARGE Speaker / Ponente: CRISTIAN DANIEL BOHORQUEZ MORENO Conference Room / Auditorio: GRAN SALÓN DE</p>
	<p>Oral Presentation ID 356: POSTURAL CHARACTERIZATION OF THE SAGITAL PLANE RIGHT AND LEFT BY IMAGENOLGY COMPUTED IN JUVENILES PLAYERS OF HANDBALL OF BOYACÁ Speaker / Ponente: RONY DAVID MERCHAN OSORIO Conference Room / Auditorio: GRAN SALÓN FG</p>
	<p>Oral Presentation ID 297: INFLUENCE OF POTASSIUM HYDROXIDE ACTIVATION OF GRAPHENE OXIDE ON ELECTROCHEMICAL PERFORMANCE OF ELECTRODES FOR SUPERCAPACITORS Speaker / Ponente: YEIXON QUINTERO MARTÍNEZ Conference Room / Auditorio: EJECUTIVO</p>
	<p>Oral Presentation ID 146: SYNTHESIS AND OPTIMIZATION OF PROPERTIES OF FAX(MA1-X) PBI3 THIN FILMS GROWN BY SPIN COATING WITH PEROVSKITE STRUCTURE TO BE USED AS ACTIVE LAYER IN HYBRID SOLAR CELLS Speaker / Ponente: CLARA LILIA CALDERÓN TRIANA Conference Room / Auditorio: BARÍ</p>
12:20 – 13:40	Lunch Break / Almuerzo

DAY DÍA HOUR HORA	WEDNESDAY AFTERNOON / MIÉRCOLES TARDE
13:40 – 14:00	Coffee / Café
14:00 – 14:30	Plenary Lecture VII: BICAPA ANTI-ABRASIVE COATING APPLIED BY PLASMA CVD TECHNIQUE Keynote Speaker / Ponente Magistral: CARLOS ALBERTO LASORSA Conference Room / Auditorio: GRAN SALÓN ABC
14:30 – 14:50	Oral Presentation ID 395: AUTOMATIC SEGMENTATION OF THE LEFT ATRIAL APPENDAGE, IN COMPUTED TOMOGRAPHY IMAGES Speaker / Ponente: MIGUEL VERA Conference Room / Auditorio: GRAN SALÓN ABC
	Oral Presentation ID 323: SYNTHESIS OF OXYGENATED COMPOUNDS FROM METHANE, CARBON DIOXIDE AND WATER IN LIQUID PHASE USING A PLASMA-CATALYST SYSTEM Speaker / Ponente: JOHN FREDDY GELVES DÍAZ Conference Room / Auditorio: GRAN SALÓN DE
	Oral Presentation ID 141: EXPERIMENTAL AND ANALYTICAL CALCULATION OF GRAVITY AND MOMENT OF INERTIA USING A PHYSICAL PENDULUM Speaker / Ponente: KAREN LORENA CRISTIANO RODRÍGUEZ Conference Room / Auditorio: GRAN SALÓN FG
	Oral Presentation ID 258: BLAST FURNACE DUST AS A NEW MATERIAL FOR PAVEMENTS Speaker / Ponente: MIGUEL ÁNGEL ROMERO FARFÁN Conference Room / Auditorio: BARÍ

14:50 – 15:10	<p>Oral Presentation ID 340: NUMERICAL STUDY OF LINEAR PLASMA DYNAMICS IN A SPHERICAL TOKAMAK Speaker / Ponente: JESÚS EDUARDO LÓPEZ DURÁN Conference Room / Auditorio: GRAN SALÓN ABC</p>
	<p>Oral Presentation ID 138: WEAR AND CORROSION BEHAVIOR OF N80 STEEL COVERED WITH CRSIN Speaker / Ponente: JOSÉ JULIÁN VILLATE CORREDOR Conference Room / Auditorio: GRAN SALÓN DE</p>
	<p>Oral Presentation ID 354: THE SUPERSERIES IN THE EXPLOSIVE FORCE OF LOWER TRAIN OF TABLE TENNIS PLAYERS Speaker / Ponente: RONY DAVID MERCHAN OSORIO Conference Room / Auditorio: GRAN SALÓN FG</p>
	<p>Oral Presentation ID 210: TiO₂ IN A CO₂ ENVIRONMENT: STUDY OF ANATASE AND RUTILE PHASES BY MEANS OF A HIGH ENERGY PLANETARY MILL Speaker / Ponente: CARLOS JAVIER JAIMES OCHOA Conference Room / Auditorio: EJECUTIVO</p>
	<p>Oral Presentation ID 386: ESTIMATION OF INJECTION PARAMETERS OF A BIO-BASED COMPOSITE MATERIAL FROM THE RHEOLOGICAL CHARACTERIZATION Speaker / Ponente: JORGE ISAAC FAJARDO Conference Room / Auditorio: BARÍ</p>
15:10 – 15:30	<p>Oral Presentation ID 411: ADDITIVE MANUFACTURING TECHNOLOGY OF COMPOSITE MATERIALS IN CONTINUOUS FIBER, ANALYSIS OF MECHANICAL PROPERTIES TO TRACTION BETWEEN SIMILAR STANDARDS Speaker / Ponente: IVAN FELIPE SIERRA NOSSA Conference Room / Auditorio: GRAN SALÓN ABC</p>
	<p>Oral Presentation ID 217: CHARACTERIZATION OF THE ANTICORROSIVE PROPERTIES IN BISMUTH TITANATE FILMS OBTAINED BY THE SOL-GEL METHOD Speaker / Ponente: JORGE BAUTISTA-RUIZ Conference Room / Auditorio: GRAN SALÓN DE</p>
	<p>Oral Presentation ID 413: IMPLEMENTATION OF COLLABORATIVE WORK AS ONE OF THE LEARNING STRATEGIES INCORPORATING ROBOTICS (LEGO/FISCHER TECHNIK) IN THE TEACHING OF MATHEMATICS IN THE SEVENTH GRADE OF THE ISIDRO CABALLERO DELGADO SCHOOL IN FLORIDABLANCA, SANTANDER Speaker / Ponente: NOLFER ALBERTO RICO BAUTISTA Conference Room / Auditorio: GRAN SALÓN FG</p>
	<p>Oral Presentation ID 164: SPINTRONICS APPLICABLE MAGNETIC AND ELECTRONIC PROPERTIES OF THE SM2BI2FE4O12 PEROVSKITE-LIKE MATERIAL Speaker / Ponente: JAIRO ROA-ROJAS Conference Room / Auditorio: BARÍ</p>

15:30 – 15:50	<p>Oral Presentation ID 148: SHAPE OPTIMIZATION OF A CONTROL ARM PRODUCED BY ADDITIVE MANUFACTURING WITH FIBER REINFORCEMENT Speaker / Ponente: PAULA CHACÓN Conference Room / Auditorio: GRAN SALÓN ABC</p>
	<p>Oral Presentation ID 245: EVALUATION OF THE RESISTANCE TO THE CORROSION OF HYDROXYPATITE AND BETA TRICALCICO PHOSPHATE COATINGS, DEPOSITED ON AISI 316LMV Speaker / Ponente: CESAR ENRIQUE ROJAS SÁNCHEZ Conference Room / Auditorio: GRAN SALÓN DE</p>
	<p>Oral Presentation ID 166: MICROSTRUCTURAL, MAGNETIC AND ELECTRIC FEATURES OF THE COMBUSTION SYNTHESIZED Sr_2FeWO_6 MATERIAL Speaker / Ponente: JORGE IGNACIO VILLA HERNÁNDEZ Conference Room / Auditorio: EJECUTIVO</p>
	<p>Oral Presentation ID 389: TENSILE PROPERTIES MODELLING OF A PREPREG EPOXY/CARBON LAMINATED COMPOSITE USED FOR THE MANUFACTURE OF A SINGLE-SEATER FORMULA SAE TYPE Speaker / Ponente: JORGE ISAAC FAJARDO Conference Room / Auditorio: BARÍ</p>
15:50 – 16:10	<p>Oral Presentation ID 406: A MATLAB & RSTUDIO-BASED MODELING PROGRAM FOR DISPERSION OF PARTICULATE MATTER (PM 10) EMISSIONS FROM A STEEL INDUSTRY USING GAUSSIAN PLUME EQUATION Speaker / Ponente: CLAUDINEI DE SOUZA GUIMARÃES Conference Room / Auditorio: GRAN SALÓN ABC</p>
	<p>Oral Presentation ID 211: TRIBOLOGICAL PROPERTIES AND CORROSION RESISTANCE OF NI-P-TIO₂ ELECTROLESS COATINGS OBTAINED ON MAGNESIUM ALLOY AZ91D BY A CR-FREE PROCESS Speaker / Ponente: DIEGO FELIPE CARRILLO BALLESTEROS Conference Room / Auditorio: GRAN SALÓN DE</p>
	<p>Oral Presentation ID 128: IMPROVEMENT OF THE TENSILE AND FLEXURAL STRENGTH IN COMMERCIAL CEMENT MIXTURES THROUGH NATURAL FIBERS CHEMICALLY TREATED AND IMPREGNATED WITH INORGANIC COMPOUNDS Speaker / Ponente: CARLOS EDUARDO MARTÍNEZ SUAREZ Conference Room / Auditorio: GRAN SALÓN FG</p>
	<p>Oral Presentation ID 415: ANALYSIS OF STRESSES IN THE DISCONTINUITIES OF PRESSURE VESSELS USING THE FINITE ELEMENT METHOD Speaker / Ponente: INGRID JULIETH CABRERA MONTAÑA Conference Room / Auditorio: EJECUTIVO</p>
	<p>Oral Presentation ID 209: MORPHOLOGICAL STUDY OF TITANIUM-BASED NANOSTRUCTURES Speaker / Ponente: MIRYAM RINCÓN JOYA Conference Room / Auditorio: BARÍ</p>

16:10 – 17:00	Coffee Break / Café
17:00 – 17:30	Poster Presentation / Presentación de Carteles
17:30 – 17:50	<p>Plenary Lecture VIII: ENHANCEMENT OF THE FRACTURE ENERGY OF GRAPHENE OXIDE – EPOXY NANOCOMPOSITES Keynote Speaker / Ponente Magistral: JUAN MANUEL MUÑOZ GUIJOSA Conference Room / Auditorio: GRAN SALÓN ABC</p> <p>Oral Presentation ID 410: ANALYSIS OF THE ADHESION OF TITANIUM AND DIAMOND-LIKE-CARBON COATINGS ON 3D PRINTED SURFACES Speaker / Ponente: ANGÉLICA MARÍA ZAPATA URIBE Conference Room / Auditorio: GRAN SALÓN ABC</p> <p>Oral Presentation ID 279: COATING OF TRICALCIUM PHOSPHATES BY FLAME SPRAY Speaker / Ponente: MARTHA FERRER Conference Room / Auditorio: GRAN SALÓN DE</p> <p>Oral Presentation ID 402: FRACTAL ANALYSIS OF THE PRESENCE OF PARTICULATE MATERIAL OF 2.5 AND 10 MICRONS IN THE AIR OF THE CITY OF MEDELLIN, COLOMBIA Speaker / Ponente: JUAN DAVID TARAZONA Conference Room / Auditorio: GRAN SALÓN FG</p> <p>Oral Presentation ID 100: USING FLUORESCENCE SPECTROSCOPY TO CHARACTERIZATION OF PLANTS EXPOSED TO SOUND AND ULTRASOUND Speaker / Ponente: JENIFFER YEISMAR CALDERÓN DUARTE Conference Room / Auditorio: EJECUTIVO</p> <p>Oral Presentation ID 201: GRAPHENE DEPOSIT IN THE ABNORMAL GLOW DISCHARGE IN DIRECT CURRENT Speaker / Ponente: ARMANDO SARMIENTO Conference Room / Auditorio: BARÍ</p>
17:50 – 18:10	<p>Oral Presentation ID 136: COMPARISON OF SEGMENTATION TOOLS FOR STRUCTURAL ANALYSIS OF BONE TISSUES BY FINITE ELEMENTS Speaker / Ponente: DUVAN ARGUELLO Conference Room / Auditorio: GRAN SALÓN ABC</p> <p>Oral Presentation ID 219: CHARACTERIZATION OF BISMUTH SILICATE SOLES Speaker / Ponente: JORGE BAUTISTA-RUIZ Conference Room / Auditorio: GRAN SALÓN DE</p> <p>Oral Presentation ID 237: ADSORPTION OF AS, CR, CU AND MN ATOMS ON THE G-ZNO / GRAPHENE INTERFACE Speaker / Ponente: GUSTAVO BERRIO CORDERO Conference Room / Auditorio: GRAN SALÓN FG</p> <p>Oral Presentation ID 286: PROTOTYPES OF MECHANO-LUMINESCENT SENSORS FROM STRONTIUM ALUMINATES AND COMMERCIAL POLYMER RESINS WITH STRUCTURAL STEEL SUBSTRATE Speaker / Ponente: RICARDO ALFONSO PAREDES ROA Conference Room / Auditorio: EJECUTIVO</p> <p>Oral Presentation ID 187: INFLUENCE OF IRON SLAG AND NANOSILICA PARTICLES IN SELF-COMPACTING CONCRETE MIXTURES Speaker / Ponente: SERGIO RUIZ Conference Room / Auditorio: BARÍ</p>

THIRD DAY / TERCER DÍA

30th May 2019 / 30 de mayo de 2019

DAY DÍA	THURSDAY MORNING / JUEVES MAÑANA	
HOUR HORA		
7:30 – 8:00	Coffee / Café	
8:00 – 10:00	Course 1: COATING FABRICATION BY SPUTTERING Professor / Profesor: RAQUEL GONZÁLEZ ARRABAL Conference Room / Auditorio: GRAN SALÓN ABC	
	Course 2: METALLURGY OF THE WELDING Professor / Profesor: ANDREINA PALOMO HERNÁNDEZ Conference Room / Auditorio: EJECUTIVO	
	Course 3: METHODS FOR THE STUDY OF THE ELECTRIC ARC OF UNDERWATER WELDING Professor / Profesor: ANDRÉS MAURICIO MORENO URIBE Conference Room / Auditorio: BARÍ	
10:00 – 10:40	Coffee Break / Café Poster Presentation / Presentación de Carteles	
10:40 – 11:20	Plenary Lecture IX: BISMUTH BASED MATERIALS: ENVIRONMENTAL REMEDIATION, ALTERNATIVE ENERGIES AND SMART CERAMICS Keynote Speaker / Ponente Magistral: JUAN MUÑOZ SALDAÑA Conference Room / Auditorio: GRAN SALÓN ABC	
11:20 – 12:00	Plenary Lecture X: DEVELOPMENT OF NANOMATERIALS FOR AGRIBUSINESS APPLICATIONS Keynote Speaker / Ponente Magistral: ELAINE CRISTINA PARIS Conference Room / Auditorio: GRAN SALÓN ABC	

12:00 – 12:20	<p>Oral Presentation ID 405: FORMATION OF A COMBINED BIOCERAMICS LAYER ON TITANIUM IMPLANTS Speaker / Ponente: PETR TSYGANKOV Conference Room / Auditorio: GRAN SALÓN ABC</p>
	<p>Oral Presentation ID 172: ESTIMATION OF POTENTIAL HYDROGEN PRODUCTION FROM PALM KERNEL SHELL IN NORTE DE SANTANDER, COLOMBIA Speaker / Ponente: JUAN CAMILO ACEVEDO PÁEZ Conference Room / Auditorio: GRAN SALÓN DE</p>
	<p>Oral Presentation ID 220: MODEL OF KNOWLEDGE MANAGEMENT FOR FRANCISCO DE PAULA SANTANDER OCAÑA UNIVERSITY Speaker / Ponente: LEIDY TORCOROMA GUERRERO PRADO Conference Room / Auditorio: GRAN SALÓN FG</p>
	<p>Oral Presentation ID 185: ANALYSIS OF BEHAVIOR OF SOIL COMPRESSIBILITY OF THE LACUSTRE DEPOSIT OF TUNJA Speaker / Ponente: OMAR JAVIER JIMÉNEZ JIMÉNEZ Conference Room / Auditorio: EJECUTIVO</p>
	<p>Oral Presentation ID 412: YTTRIUM OXIDE EVALUATION AS COATING TO REDUCE THE CORROSION VELOCITY IN INDUSTRIAL EQUIPMENT WORKING UNDER COMBUSTION ENVIRONMENTS. CASE STUDY: ASTM A335 P91 STEEL Speaker / Ponente: ANIBAL ALVIZ MEZA Conference Room / Auditorio: BARÍ</p>
12:20 – 13:40	Lunch Break / Almuerzo

DAY DÍA	THURSDAY AFTERNOON / JUEVES TARDE	
HOUR HORA		
13:40 – 14:00	Coffee / Café	
14:00 – 14:30	<p>Plenary Lecture XI: INTERTYPE SUPERCONDUCTIVITY: ON THE COMPLETENESS OF THE CLASSIFICATION OF A SUPERCONDUCTOR MATERIAL Keynote Speaker / Ponente Magistral: JOSÉ ALBINO OLIVEIRA DE AGUIAR Conference Room / Auditorio: GRAN SALÓN ABC</p>	
14:30 – 14:50	<p>Oral Presentation ID 208: TOPOLOGICAL SUPERCONDUCTORS: A BRIEF DESCRIPTION Speaker / Ponente: JOSE JOSE BARBA ORTEGA Conference Room / Auditorio: GRAN SALÓN ABC</p>	
	<p>Oral Presentation ID 200: ACETYLENE POLYMERIZATION IN PLASMA OF DIRECT CURRENT Speaker / Ponente: ARMANDO SARMIENTO SANTOS Conference Room / Auditorio: GRAN SALÓN DE</p>	
	<p>Oral Presentation ID 242: SYSTEM FOR THE USE OF RAIN WATER IN THE SCHOOL ALBERTO SANTOS BUITRAGO HEADQUARTERS AND THE FOREST, OF THE SOCORRO, SANTANDER Speaker / Ponente: KAREN ANDREA TORRADO VERJEL Conference Room / Auditorio: GRAN SALÓN FG</p>	
	<p>Oral Presentation ID 140: THIXOTROPIC BEHAVIOUR STUDY OF CLAYEY SOILS FROM LACUSTRINE DEPOSITS OF BOGOTA HIGH PLATEAU Speaker / Ponente: JUAN CARLOS RUGE C. Conference Room / Auditorio: EJECUTIVO</p>	
	<p>Oral Presentation ID 232: BLAST FURNACE DUST: AN ALTERNATIVE FOR THE IMPROVEMENT OF GRANULAR MATERIALS FOR PAVEMENTS Speaker / Ponente: RICARDO OCHOA DÍAZ Conference Room / Auditorio: BARÍ</p>	

14:50 – 15:10	<p>Oral Presentation ID 397: SEMI-AUTOMATIC DETECTION OF THE EVOLUTIONARY FORMS OF VISCERAL LEISHMANIASIS IN BLOOD SMEARS OBSERVED IN LIGHT MICROSCOPY Speaker / Ponente: JUAN PABLO SALAZAR TORRES Conference Room / Auditorio: GRAN SALÓN ABC</p>
	<p>Oral Presentation ID 275: BIOMETHANE PRODUCTION POTENTIAL FROM SELECTED AGROINDUSTRIAL WASTE IN COLOMBIA AND PERSPECTIVES OF ITS USE IN VEHICULAR TRANSPORT Speaker / Ponente: FAUSTO POSSO Conference Room / Auditorio: GRAN SALÓN DE</p>
	<p>Oral Presentation ID 376: CONTAMINATION LEVEL ANALYSIS OF THE GENERATED GASES ON THE SURFACE CLEANING PROCESS IN METAL SHEETS BY LOW-PRESSURE COLD P Speaker / Ponente: LUIS LÓPEZ Conference Room / Auditorio: GRAN SALÓN FG</p>
	<p>Oral Presentation ID 183: IMPLEMENTATION OF RESEARCH AGENDAS IN THE TRAINING OF INDUSTRIAL ENGINEERS: ACADEMIC TRAINING WITH A SOCIAL SENSE Speaker / Ponente: MARYORIE ANGELICA AVENDAÑO Conference Room / Auditorio: EJECUTIVO</p>
	<p>Oral Presentation ID 180: PHYSICS OF THE T-MNO₂/GRAPHENE INTERFACE Speaker / Ponente: JUAN DAVID MORINSON NEGRETE Conference Room / Auditorio: BARÍ</p>
15:10 – 15:30	<p>Oral Presentation ID 347: SIMULATION OF THE ELECTRON DYNAMICS IN A MAGNETRON SPUTTERING WITH EQUIPOTENTIAL AND NON-EQUIPOTENTIAL CATHODE Speaker / Ponente: PAULA ANDREA CÁRDENAS AYALA Conference Room / Auditorio: GRAN SALÓN ABC</p>
	<p>Oral Presentation ID 248: PREPARATION BY CHEMICAL METHOD OF CZO BUFFER LAYERS ON YSZ SUBSTRATES FOR GROWING YBCO SUPERCONDUCTING FILMS Speaker / Ponente: PAULA ANDREA GARCÉS CONSTAÍN Conference Room / Auditorio: GRAN SALÓN DE</p>
	<p>Oral Presentation ID 162: CHARACTERIZATION OF TiO₂ NANOTUBES GROWTH THROUGH ANODIZATION IN ORGANIC SOLVENTS Speaker / Ponente: KATHERINE ALEJANDRA LOPEZ-JAIMES Conference Room / Auditorio: GRAN SALÓN FG</p>
	<p>Oral Presentation ID 189: RHEOLOGICAL BEHAVIOR OF THE EUCALYPTUS FIBERS MODIFIED WITH COBALT FERRITE NANOPARTICLES Speaker / Ponente: XIOMARA PINEDA SERRANO Conference Room / Auditorio: BARÍ</p>

15:30 – 15:50	<p>Oral Presentation ID 345: MODELING THE EFFECT OF TEMPERATURE ON THE PHYSICAL AND MECHANICAL PROPERTIES OF AL₂O₃/SiO₂ CERAMIC COMPOSITES Speaker / Ponente: KAROL LIZETH ROA BOHÓRQUEZ Conference Room / Auditorio: GRAN SALÓN ABC</p>
	<p>Oral Presentation ID 321: SUBSTITUTION OF ZN ATOMS BY MN AND CR IN THE G-ZNO / GRAPHENE INTERFACE Speaker / Ponente: GUSTAVO BERRIO CORDERO Conference Room / Auditorio: GRAN SALÓN DE</p>
	<p>Oral Presentation ID 378: SURFACE ACTIVATION OF POLYETHYLENE BY LOW-PRESSURE COLD PLASMA TO IMPROVE THE ADHESION OF PRINTING DYES Speaker / Ponente: LUIS LÓPEZ Conference Room / Auditorio: GRAN SALÓN FG</p>
	<p>Oral Presentation ID 192: ADSORPTION OF ELEMENTAL MERCURY ON THE INTERFACE T-MNO₂/GRAPHENE Speaker / Ponente: JUAN DAVID MORINSON NEGRETE Conference Room / Auditorio: BARÍ</p>
15:50 – 16:10	<p>Oral Presentation ID 379: COMPUTATIONAL STUDY OF THE AUTORESONANCE ACCELERATION OF ELECTRONS IN MAGNETIC FIELDS VARYING ON TIME Speaker / Ponente: EDUARDO ALBERTO OROZCO OSPINO Conference Room / Auditorio: GRAN SALÓN ABC</p>
	<p>Oral Presentation ID 145: EFFECT OF TEMPERATURE ON CO₃O₄ SAMPLES SYNTHESIZED BY THE SOL GEL METHOD Speaker / Ponente: LEYDI JULIETA CARDENAS FLECHAS Conference Room / Auditorio: GRAN SALÓN DE</p>
	<p>Oral Presentation ID 355: IMPLEMENTATION OF A SYSTEM OF AUTOMATED FERTILIZATION FOR THE CONTROL OF NUTRITIONAL DEFICIENCIES IN YELLOW MAIZE CROPS IN THE MUNICIPALITY OF ABREGO, NORTE DE SANTANDER, COLOMBIA Speaker / Ponente: LUIS ARMANDO GAONA PÁEZ Conference Room / Auditorio: GRAN SALÓN FG</p>
	<p>Oral Presentation ID 177: CARBON STRUCTURES OBTAINED FROM ACETYLENE IN AN ABNORMAL GLOW DISCHARGE IN DIRECT CURRENT Speaker / Ponente: BRENDA MILEIDY ÁLVAREZ LUNA Conference Room / Auditorio: BARÍ</p>
16:10 – 17:00	<p>Coffee Break / Café</p> <p>Poster Presentation / Presentación de Carteles</p>
17:00 – 17:30	<p>Plenary Lecture XII: ADVANCED OPTICAL SPECTROSCOPY IN MATERIALS CHARACTERIZATION Keynote Speaker / Ponente Magistral: JOÃO LUCAS RANGEL SILVA Conference Room / Auditorio: GRAN SALÓN ABC</p>

THIRD DAY / TERCER DÍA

30th May 2019 / 30 de mayo de 2019

. DAY DÍA HOUR HORA	THURSDAY AFTERNOON / JUEVES TARDE Only FORISTOM and IMRMPT Members, and Special Invited
12:30 – 13:40	Lunch Break of integration / Almuerzo Integración
13:40 – 14:00	Coffee / Café
15:10 – 16:10	<p>3rd Panel: Innovation and technology development: Colombia present and future Tercer Panel: Innovación y desarrollo tecnológico: Colombia presente y futuro Speaker / Ponente: José Luis Endrino, Eduardo Méndez, Linda Gil de Fuentes, Ranquel González Arrabal, Ely Dannier V. Niño Conference Room / Auditorio: Ejecutivo</p>
16:10 – 17:00	<p>Coffee Break / Café Poster Presentation / Presentación de Carteles</p>
17:00 – 18:10	<p>Socialization of the IMRMPT Network / Socialización de la Red IMRMPT Topic: Technological, scientific and academic collaborations between the Universities of Colombia with Cranfield University of U.K., Republic University of Uruguay, National Experimental Polytechnic University of Venezuela, Polytechnic University of Madrid and companies. Tema: Colaboraciones tecnológicas, científicas y académicas entre las Universidades de Colombia con la Universidad de Cranfield del Reino Unido, Universidad de la República de Uruguay, Universidad Nacional Experimental Politécnica Antonio José de Sucre de Venezuela, Universidad Politécnica de Madrid de España y empresas. Speaker / Ponente: José Luis Endrino, Eduardo Méndez, Linda Gil de Fuentes, Raquel González Arrabal, Ely Dannier V. Niño, Conference Room / Auditorio: Ejecutivo</p>

FOURTH DAY / CUARTO DÍA

31th May 2019 / 31 de mayo de 2019

DAY DÍA	FRIDAY MORNING / VIERNES MAÑANA
HOUR HORA	
8:00 – 8:30	Coffee / Café
8:00 – 10:00	Course 1: COATING FABRICATION BY SPUTTERING Professor / Profesor: RAQUEL GONZÁLEZ ARRABAL Conference Room / Auditorio: GRAN SALÓN ABC
	Course 2: METALLURGY OF THE WELDING Professor / Profesor: ANDREINA PALOMO HERNÁNDEZ Conference Room / Auditorio: EJECUTIVO
	Course 3: METHODS FOR THE STUDY OF THE ELECTRIC ARC OF UNDERWATER WELDING Professor / Profesor: ANDRÉS MAURICIO MORENO URIBE Conference Room / Auditorio: BARÍ
10:00 – 10:40	Coffee Break / Café
10:40 – 11:10	Plenary Lecture XIII: DEVICES FUNCTIONALIZED WITH GRAPHENE-OXIDE MANUFACTURED BY 3D PRINTING Keynote Speaker / Ponente Magistral: ELY DANNIER V. NIÑO Conference Room / Auditorio: GRAN SALÓN ABC
11:10 – 11:40	Plenary Lecture XIV: FABRICATION, CHARACTERIZATION, TESTING AND MODELLING OF NEW ADVANCED MATERIALS FOR INERTIAL FUSION REACTORS Keynote Speaker / Ponente Magistral: Raquel González Arrabal Conference Room / Auditorio: GRAN SALÓN ABC
11:40 – 12:20	Plenary Lecture XV: NANOSTRUCTURED TITANIUM SURFACES: THE IDEAL MATERIAL FOR IMPROVING ORTHOPEDIC IMPLANT EFFICACY? Keynote Speaker / Ponente Magistral: LINDA ELCIDA GIL LOZADA Conference Room / Auditorio: GRAN SALÓN ABC
12:20 – 13:00	Closing Ceremony: 5TH INTERNATIONAL MEETING FOR RESEARCHERS IN MATERIALS & PLASMA TECHNOLOGY (5th IMRMPT) Conference Room / Auditorio: GRAN SALÓN ABC
13:00 – 15:00	Lunch Break / Almuerzo

POSTER PRESENTATION

PONENCIAS EN MODALIDAD POSTER

28th - 31th May 2019 / Del 28 al 31 de mayo de 2019

ID	Thin Films and Nanomaterials - TFN Películas Delgadas y Nanomateriales – TFN
105	Presentation: DESALINATION OF SEAWATER BY POLY(3,4-ETHYLENEDIOXYTHIOPHENE) MODIFIED ELECTRODES Speaker / Ponente: RODRIGO DANIEL SALGADO ORDOSGOITIA
121	Presentation: DESIGN OF POROUS ALUMINA MEMBRANES. SURFACE MODIFICATION WITH A MIXTURE OF ORGANOSILANES. Speaker / Ponente: MICHELL ANDREY JIMÉNEZ CABALLERO
205	Presentation: EFFECT ON MECHANICAL RESISTANCE TO TRACTION AND THE RATE OF DEFORMATION IN INDIVIDUAL NATURAL FIBERS WITH ALKALINE TREATMENTS Speaker / Ponente: YESICA MILENA NEVA LEGUIZAMON
227	Presentation: CHANGING WAVELENGTHS OF A PULSED LASER TO OBTAIN SIZE DISTRIBUTIONS OF GOLD NANOPARTICLES Speaker / Ponente: ANDREA CAMILA AREVALO
228	Presentation: EFFECT OF THE AGGLOMERATION OF GOLD NANOPARTICLES IN A LIQUID MEDIUM BY MEANS OF A PULSED LASER ABLATION SYSTEM Speaker / Ponente: ALEXANDRA GUATIBONZA
260	Presentation: ANTICORROSIVE EVALUATION OF SOL-GEL COATINGS SI -TI-ZR ON ALUMINUM SUBSTRATES AA2024T3 Speaker / Ponente: JOSÉ RAFAEL EUGENIO LÓPEZ
269	Presentation: OBTENTION OF COBALT-BEARING COATINGS USING SPENT LITHIUM-ION BATTERIES AS RAW MATERIAL Speaker / Ponente: EDWIN YOHANY VILLAMIZAR RIVERA
276	Presentation: GRAPHENE AND ZNO COMPOSITE USED FOR PHOTOCATALYTIC DEGRADATION OF PHENOL IN AQUEOUS MEDIUM Speaker / Ponente: WILMAR ANTONIO CONTRERAS TOLOZA
357	Presentation: EVALUATION OF THE USE OF BIOMATERIALS FOR THE MANUFACTURE OF BIODEGRADABLE FILMS Speaker / Ponente: ESTEBAN FELIPE CÁCERES GELVEZ
380	Presentation: PLATFORMS REDUCED GRAPHENE OXIDE RGO/PEDOT: PSS FOR SENSING BIOMOLECULES Speaker / Ponente: JAMES JANDERSON ROSERO ROMO

ID	Biomedical Coatings – BC Revestimientos Biomédicos – BC
246	Presentation: ELECTROCHEMICAL BEHAVIOR OF MULTILAYER COATINGS (HA/B-TCP), DEPOSITED ON AISI 316LVM Speaker / Ponente: CESAR ENRIQUE ROJAS SÁNCHEZ
271	Presentation: ELECTROCHEMICAL AND BIOACTIVE EVALUATION OF POLYCAPROLACTONE / MULTI-WALLED CARBON NANOTUBE COATINGS ON Ti6Al4V Speaker / Ponente: NERLY MONTAÑEZ

ID	Surface Modification (Ion Implantation, Ion Nitriding, Sputtering, Sol-Gel, Thermal Spray, PVD, CVD) - SM Modificación Superficial (Implantación Iónica, Nitruración Iónica, Sputtering, Sol-Gel, Thermal Spray, PVD, CVD) – SM
230	Presentation: EFFECT OF THE NUMBER OF LAYERS ON SURFACE TOPOGRAPHY OF Bi/Ti COATINGS Speaker / Ponente: PEDRO A. GARZÓN AGUDELO
249	Presentation: EFFECTS OF TREATMENT BY ARGON PLASMA ON PINEAPPLE LEAF FIBERS Speaker / Ponente: TATIANA FRANCO
278	Presentation: OBTAINING AND CHARACTERIZATION OF WC-CO COATINGS OBTAINED BY THERMAL SPRAY BY FLAME Speaker / Ponente: MARTHA FERRER
307	Presentation: EFFECTS OF PULSE WIDTH ON THE DLC FILM GROWTH INSIDE OF A LONG TUBE BY USING THE PULSED-DC PECVD PROCESS Speaker / Ponente: ELVER JUAN DE DIOS MITMA PILLACA

ID	New Materials – NM Nuevos Materiales – NM
112	Presentation: ENERGETIC STABILITY, ELECTRONIC AND MAGNETIC PROPERTIES OF THE ALLOYS Nb _{1-x} Crx Speaker / Ponente: CÉSAR ORTEGA LÓPEZ
113	Presentation: AB-INITIO STUDY OF FERROMAGNETIC BEHAVIOR OF TI-DOPED ALN AND GAN IN THE ZINCBLLENDE STRUCTURE Speaker / Ponente: MIGUEL JOSÉ ESPITIA RICO
118	Presentation: HEXAGONAL ALN MONOLAYER WITH VACANCIES: A FIRST PRINCIPLE STUDY Speaker / Ponente: JEAN FRED MURILLO GARCÍA
124	Presentation: HYDROSTATIC PRESSURE INFLUENCE ON THE ELECTRONIC BEHAVIOR OF 1X1-GAN/MNN MULTILAYER Speaker / Ponente: MIGUEL JOSÉ ESPITIA RICO
161	Presentation: LOCALIZATION OF CHARGE IN MONOLAYER GRAPHENE: EFFECTS OF VACANCIES, SUBLATTICE POLARIZATION AND DISORDER Speaker / Ponente: JUAN SEBASTIAN ESPITIA MANTILLA
169	Presentation: NUMERICAL MODEL OF THE MECHANICAL RESPONSE TO TENSILE STRESS OF A COMPOSITE MATERIAL REINFORCED WITH SUGAR CANE FIBERS Speaker / Ponente: HEINER FABIAN VEGA VERGARA
181	Presentation: NEW 2D TERNARY ALLOYS BASED ON TRANSITION METAL DIOXIDES Speaker / Ponente: ÁNGEL HUMANEZ TOBAR
186	Presentation: ELECTRONIC STRUCTURE, STRUCTURAL, MAGNETIC AND FERROELECTRIC PROPERTIES OF THE Bi ₂ Eu ₂ Fe ₄ O ₁₂ BIFERROIC PEROVSKITE Speaker / Ponente: CRISPULO ENRIQUE DELUQUE TORO
193	Presentation: NEW 2D TERNARY ALLOYS BASED ON TRANSITION METAL DIOXIDES Speaker / Ponente: ÁNGEL HUMANEZ TOBAR
199	Presentation: FIRST-PRINCIPLES STUDY OF THE STRUCTURAL AND ELECTRONIC PROPERTIES OF Y _{1-x} IN _x ALLOY Speaker / Ponente: GLADYS PATRICIA ABDEL RAHIM GARZON
259	Presentation: COMPUTATIONAL MODELING OF THE STRUCTURAL, ELECTRONIC AND THERMOPHYSIC PROPERTIES OF THE Dy ₂ Bi ₂ Fe ₄ O ₁₂ DOUBLE PEROVSKITE Speaker / Ponente: LUIS C. GARRIDO

305	Presentation: LOW COST ADSORBENT PRODUCTION FROM COFFEE WASTE FOR DYES REMOVAL FROM AQUEOUS SOLUTIONS Speaker / Ponente: ANYI PAOLA RAMÍREZ MUÑOZ
306	Presentation: ADSORBENT MATERIALS OBTAINED FROM PALM INDUSTRY WASTE FOR DYES REMOVAL FROM AQUEOUS SOLUTIONS Speaker / Ponente: ANYI PAOLA RAMÍREZ MUÑOZ
308	Presentation: A REVIEW ABOUT OF THE USE OF THERMALLY EXPANDED CLAY IN LIGHTWEIGHT CONCRETE MIXTURES Speaker / Ponente: JOSÉ DANIEL PALACIOS PABÓN
366	Presentation: INFLUENCE OF FE ³⁺ DOPANT ON THE STRUCTURE AND MICROSTRUCTURE PROPERTIES OF POTASSIUM SODIUM NIOBATE Speaker / Ponente: SEBASTIAN AMAYA ZABALA
390	Presentation: SYNTHESIS AND CHARACTERIZATION OF A DERIVATIVE OF CABAZOLE OBTAINED FROM BROMOBENZYL ALCOHOL Speaker / Ponente: EDWIN MURILLO

ID	Additive Manufacturing – AM Manufactura Aditiva – AM
142	Presentation: INTERLAMINAR TENSILE STRENGTH FOR COMPOSITES PRODUCED BY ADDITIVE MANUFACTURING Speaker / Ponente: ANDREA CAROLINA PAREDES SAAVEDRA
156	Presentation: GEOMETRIC PARAMETERS IN ADHESIVE JOINTS FOR COMPOSITE MATERIALS PRODUCED BY ADDITIVE MANUFACTURING Speaker / Ponente: ANDREY FELIPE CASAS PULIDO
157	Presentation: STUDY OF THE EVOLUTION OF A CRACK GROWS IN COMPOSITE MATERIALS REINFORCED WITH CARBON FIBERS Speaker / Ponente: DANIEL LIZARAZO
160	Presentation: EVALUATION OF THE GROWTH OF A FATIGUE CRACK ACCORDING TO THE INTERNAL GEOMETRIC STRUCTURE OF THE MANUFACTURING BY ADDITION Speaker / Ponente: YULLI CLAUDINE TORRES ALVAREZ
368	Presentation: METHOD OF ACTIVATION OF PLA IN AUTO-EXPANDABLE STENTS FOR THE TREATMENT OF CORONARY DISEASES WITH MINIMALLY INVASIVE SURGERY Speaker / Ponente: MADORISTELL JULIANA VARGAS MONDOL

ID	Plasma Applications and Technologies – PAT Aplicaciones del Plasma y Tecnologías – PAT
179	Presentation: GRAPHITE FORMATION IN ABNORMAL GLOW DISCHARGE Speaker / Ponente: BRENDA ALVAREZ LUNA
200	Presentation: ACETYLENE POLYMERIZATION IN PLASMA OF DIRECT CURRENT Speaker / Ponente: ARMANDO SARMIENTO SANTOS
383	Presentation: COMPUTATIONAL STUDY OF THE WAKEFIELD GENERATION BY A MICROWAVE PULSE IN A RECTANGULAR WAVEGUIDE Speaker / Ponente: EDUARDO ALBERTO OROZCO OSPINO

ID	Characterization of Materials - CM Caracterización de Materiales – CM
108	Presentation: TECHNOLOGICAL CHARACTERIZATION OF A COLOMBIAN CLAY DURING THE STAGES OF THE PRODUCTION PROCESS Speaker / Ponente: EDER FLÓREZ SOLANO
126	Presentation: MANUFACTURE AND EVALUATION OF THE TENSILE PROPERTIES OF A BIODEGRADABLE COMPOSITE MATERIAL REINFORCED WITH COLOMBIAN COCONUT FIBERS Speaker / Ponente: SERGIO LESMES-ALFONSO
127	Presentation: USE OF MUSA PARADISIACA FIBERS FOR THE PREPARATION AND CHEMICAL, PHYSICAL AND MECHANICAL CHARACTERIZATION OF A BIODEGRADABLE COMPOSITE MATERIAL Speaker / Ponente: SERGIO LESMES-ALFONSO
129	Presentation: SYNTHESIS AND PROPERTIES OF INDIUM OXIDE (IN ₂ O ₃) DOPED WITH TRANSITION METALS Speaker / Ponente: LUIS CARLOS SÁNCHEZ PACHECO
130	Presentation: INFLUENCE OF CALCINATION TEMPERATURE ON THE PROPERTIES OF CE DOPED LAFeO ₃ Speaker / Ponente: JUAN MANUEL OVIEDO CUETER
147	Presentation: MECHANICAL CHARACTERIZATION OF THE RACHIS FIBER OBTAINED FROM THE AFRICAN PALM ELAEIS GUINEENSIS Speaker / Ponente: LUIS CARLOS ANGULO POVEDA
158	Presentation: DETERMINATION OF THE INTERLAMINAR TENSILE STRENGTH OF THE AFRICAN PALM OIL BUNCHES RACHIS FIBERS COMPOSITE AND EPOXY MATRIX Speaker / Ponente: RAFAEL ALEXIS PINTO FLÓREZ
159	Presentation: DYNAMIC CHARACTERIZATION OF VISCOELASTIC MATERIALS FOR USE IN PASSIVE DAMPING SYSTEMS IN THE TIME DOMAIN Speaker / Ponente: CARLOS ANDRÉS RINCÓN VELÁSQUEZ
184	Presentation: ANALYSIS OF THE BEHAVIOR OF TUNJA DIATOMAS, BEFORE DISPERSIVE EFFECT, ACIDES AND SUCTION Speaker / Ponente: OMAR JIMENEZ
191	Presentation: EFFECTS OF HUMIDITY-DRYING AND COOLING-HEATING CYCLES ON GEOMECHANICAL BEHAVIORS OF MUDROCKS IN THE LUTITAS DE MACANAL Speaker / Ponente: CAMILO ANDRES CHAPARRO BARREA
195	Presentation: CHARACTERIZATION OF THE METALLIC PHASE AND THE SLAG PHASE OBTAINED DURING THE INERTIZATION OF THE CATHODES OF SPENT ALKALINE BATTERIES IN LIQUID ALUMINIUM Speaker / Ponente: JUAN SEBASTIAN MOLINA SILVA
202	Presentation: EFFECT OF THE CURVATURE OF A CLOSED NANOSCOPIC LOOP ON THE MAGNETO-ELECTRONIC PROPERTIES Speaker / Ponente: JUAN SEBASTIAN ESPITIA MANTILLA
203	Presentation: POTENTIAL BIOFERTILIZER OF A FERTILIZER BASED ON CIENEGO AND NATIVE MICROORGANISMS IN MAIZE SEEDS Speaker / Ponente: CLAUDIA ELIZABETH DIAZ
204	Presentation: PERFORMANCE CHEMICAL COMPOSITION AND ANTIBACTERIAL ACTIVITY OF THE ESSENTIAL OIL OF RUTA CHALEPENSIS L, ORIGANUM VULGARE Speaker / Ponente: CLAUDIA IVONNE ARAMBULA
212	Presentation: APPLICATION OF MATURITY METHOD TO ESTIMATE COMPRESSIVE STRENGTH OF MASS CONCRETE FOR 2000, 2500, 3000 AND 3500 PSI Speaker / Ponente: OSMAR ALBERT GAMBA GOMEZ
213	Presentation: MOTT INSULATOR FEATURE IN THE BA ₂ YSBO ₆ PEROVSKITE OXIDE Speaker / Ponente: JERÓNIMO A. GRISALES CERÓN

221	Presentation: SPEED, GRINDING TIME, GASEOUS O ₂ : VARIATION OF THE RUTILE PHASE AND ANATASE (IN TiO ₂) BY MEANS OF A HIGH ENERGY PLANETARY MILL Speaker / Ponente: CARLOS JAVIER JAIMES OCHOA
234	Presentation: ALTERNATIVE USE OF RESIDUAL EXPANDED POLYSTYRENE FOR THE CREATION OF WATERPROOFING PAINT TO MITIGATE ENVIRONMENTAL IMPACTS Speaker / Ponente: LUIS CARLOS TIRIA SANDOVAL
236	Presentation: THERMAL AND MORPHOLOGICAL PROPERTIES IN POLYESTER RESIN-BASED COMPOUNDS FILLED WITH CERAMIC WASTE POWDERS FROM TRADITIONAL INDUSTRY Speaker / Ponente: JESSICA KATHERINE LAMUS SANGUINO
238	Presentation: OBTAINING OF APATITE AND COLOPHANE CONCENTRATES FLOTATION FROM PHOSPHORUS MINERALS FROM PESCA, BOYACÁ (COLOMBIA), AS RAW MATERIAL FOR THE FERTILIZERS PRODUCTION Speaker / Ponente: EDGAR AGUDELO
261	Presentation: ANALYSIS AND COMPARISON OF THERMAL PROPERTIES OF THERMOPLASTICS WITH POLYVINYL ACETATE AND CASSAVA STARCH MATRIX, REINFORCED WITH 20% FIQUE FIBER AND PINEAPPLE FIBER Speaker / Ponente: ELKIN ANDRÉS SILVA CALDERÓN
268	Presentation: MECHANICAL BEHAVIOR OF THE CONCRETE MIX (500PSI) WITH ACCELERATION ADDITIVES, USING THE MATURITY METHOD AND IST CORRELATION WITH THE TRADITIONAL NORM OF MECHANICAL RESISTANCE TO COMPRESSION NTC 673-2010 Speaker / Ponente: CARMEN TERESA MEDRANO LINDARTE
270	Presentation: VITRIFICATION OF THE SOLID WASTES OBTAINED FROM THE VACUUM CRUSHING OF FLUORESCENT LAMPS: CHEMICAL ANALYSIS AND DETERMINATION OF THE CHEMICAL STABILITY IN WATER OF THE VITRIFIED SOLIDS Speaker / Ponente: JOSE MIGUEL JIMENEZ MARTINEZ
273	Presentation: SYNTHESIS AND CHARACTERIZATION OF AN ORGANOMETALLIC PEROVSKITE OF TYPE [CH ₃ NH ₃ SnCl ₃] TO BE USED AS ABSORBENT LAYER IN SOLAR CELLS Speaker / Ponente: GINA YASMIN SORACÁ PÉREZ
290	Presentation: ARDUINO DATA-LOGGER AND ARTIFICIAL NEURAL NETWORK TO DATA ANALYSIS Speaker / Ponente: GHIORDY FERNEY CONTRERAS CONTRERAS
295	Presentation: INFLUENCE OF WATER/CEMENT RATIO ON MECHANICAL STRENGTH OF CONCRETE WITH PARTIAL ADDITION OF FLY ASH AND HYDRATED LIME Speaker / Ponente: FRANCISCO JOSE ECHAVARRIA PAEZ
296	Presentation: MECHANICAL STRENGTH OF EXPERIMENTAL PASTE MORTARS WITH PARTIAL ADDITION OF FLY ASH AND HYDRATED LIME IN RELATION TO THE WEIGHT OF THE CEMENTITIOUS MATERIAL Speaker / Ponente: EDISSON JOSE VEGA VANEGAS
299	Presentation: DESIGN AND CHARACTERIZATION ON HIGH FREQUENCY OF A MAGNETO-DIELECTRIC COMPOSITE LOADED WITH MAGNETITE POWDERS ALIGNED Speaker / Ponente: LUIS ANGEL LARA GONZALEZ
304	Presentation: EVALUATION AND ANALYSIS OF STRUCTURES WITH PORCH SYSTEM IN LIGHTWEIGHT CONCRETE FROM THERMALLY EXPANDED CLAY FROM THE METROPOLITAN AREA OF CÚCUTA, COLOMBIA Speaker / Ponente: JOSÉ DANIEL PALACIOS PABÓN
312	Presentation: VOLUMETRIC AND ACOUSTIC PROPERTIES OF 2 AMINO BUTYRIC ACID IN AQUEOUS SOLUTIONS OF SODIUM SULPHATE AT DIFFERENT TEMPERATURES Speaker / Ponente: YAIR ALFONSO VEGA VEGA
317	Presentation: COMPARATIVE STUDY OF THE EFFECT OF THE EXCHANGE-CORRELATION FUNCTIONAL ON THE STRUCTURAL AND ELECTRONIC PROPERTIES OF RUTILE Speaker / Ponente: YOVANNY BOLIVAR MARIN

319	Presentation: RELATION BETWEEN SYNTHESIS, PROCESSING AND PROPERTIES OF $x\text{BiFeO}_3-(1-x)\text{BaTiO}_3$ NEAR MORPHOTROPIC PHASE BOUNDARY Speaker / Ponente: DAVID SILVA
320	Presentation: EFFECT OF EXPANDED POLYSTYRENE WASTE IN THE CREATION OF WATERPROOFING PAINT Speaker / Ponente: SANDRA MILENA DURÁN BARAJAS
327	Presentation: EFFECT OF CONCENTRATION OF STARCH IN THE PROPERTIES MORPHOLOGICAL AND STRUCTURAL OF POROUS CERAMIC BASED ON EXPANSIVE CLAYS Speaker / Ponente: MANUEL FELIPE SUÁREZ MANCILLA
330	Presentation: SYNTHESIS AND SIZE EVOLUTION OF 1D HYDROXYAPATITE CRYSTALS UNDER SURFACTANT-FREE HYDROTHERMAL CONDITIONS Speaker / Ponente: CARLOS GARCÍA-NEGRETE
342	Presentation: COMPARATIVE FOR OBTAINING THE OPTIMUM DOSAGE OF THE SOIL-CEMENT IN THE DIFFERENT TYPES OF CLAY Speaker / Ponente: MARTHA SOFIA ORJUELA ABRIL
344	Presentation: EVALUATION OF THE EFFECT OF A HYPERBRANCHED POLYESTER ON THE THERMAL, RHEOLOGICAL, MORPHOLOGICAL AND MECHANICAL PROPERTIES OF POLYVINYL CHLORIDE/HEMP FIBER BLEND Speaker / Ponente: ROGER TOLOSA
350	Presentation: EVALUATION OF CLAYS COMING FROM THE ALGODONAL FORMATION AND MECHANICAL PROPERTIES OF PRODUCTS MANUFACTURED IN THE BRICKYARD HORA LTDA IN THE MUNICIPALITY OF OCAÑA, NORTE DE SANTANDER Speaker / Ponente: GUSTAVO GUERRERO GÓMEZ
359	Presentation: INFLUENCE OF THE DISPERSION RATE AND CONTENT OF TITANIUM OXIDE ON THE RHEOLOGICAL, MORPHOLOGICAL, FILM, THERMAL OF DISPERSIONS POLYVINYL ALCOHOL, CARBOXYMETHYLCELLULOSE AND TITANIUM OXIDE Speaker / Ponente: ELKIN ALVAREZ
373	Presentation: SUBSTITUTION OF CELLULOSE ACETATE IN FILTERS OF CIGARETTES FROM AGRICULTURAL RESIDUES Speaker / Ponente: MARÍA ANGÉLICA PACHÓN COLMENARES
399	Presentation: CHARACTERIZATION OF MECHANIC-PHYSICIST AND THERMAL BEHAVIOR OF PROTOTYPE OF CONSTRUCTIVE UNITY OF CLAY DESIGNED WITH THERMAL INSULATION ATTRIBUTES AND ORGANIC ADDITIVE OF CISCO'S COFFEE Speaker / Ponente: MARLYN STEPHANNY NARVAEZ ORTEGA

ID	Renewable Energy - RE Energías Renovables – RE
188	Presentation: OBTENTION OF PHOTOANODES BASED ON THE $\text{TiI}-\text{XNBXO}_2$ SYSTEM BY MEANS SOLID STATE METHOD Speaker / Ponente: MONICA ARIZA
198	Presentation: ALL-GALSS VACUUM TUBE HEAT TRANSFER SIMPLIFIED MODEL Speaker / Ponente: OMAR ANDRÉS ARDILA SANCHEZ
255	Presentation: MODEL OF SUSTAINABLE MANAGEMENT FOR THE BUILDING STAGE OF RESIDENTIAL BUILDINGS IN BUCARAMANGA Speaker / Ponente: KAREN ANDREA TORRADO VERJEL
267	Presentation: DESIGN OF AN AUTONOMOUS PHOTOVOLTAIC SOLAR SYSTEM AS AN ALTERNATIVE OF USING OF ELECTRIC POWER FOR THE SOCIAL AND ADMINISTRATIVE AREA OF SAN AUGUSTIN TORRE CLUB BUILDING, FROM THE CITY OF OCAÑA, NORTE DE SANTANDER COLOMBIA Speaker / Ponente: JHON AREVALO TOSCANO

ID	Non Destructive Evaluation - NDE Evaluación No Destructiva – NDE
154	Presentation: PIPELINES INTEGRITY ASSESSMENT BASED ON GUIDED WAVE BASED: OPPORTUNITIES AND PERSPECTIVES IN COLOMBIA Speaker / Ponente: ANDRES FELIPE CORREDOR ALVAREZ
302	Presentation: OBSERVATION OF SIGNIFICANT DIFFERENCES BETWEEN ELECTROMAGNETIC AND ACOUSTIC EMISSIONS DURING FRACTURE PROCESSES: A STUDY ON ROCKS UNDER COMPRESSION LOADING Speaker / Ponente: JORGE CLAVIJO

ID	Structural Integrity –SI Integridad Estructural– SI
134	Presentation: ANALYSIS FOR THE IMPLEMENTATION OF A SYSTEM FOR NATURAL GAS LIQUIDS REMOVAL AND RECOVERY AT THE GAS PROCESSING PLANT EL CENTRO IN SANTANDER, COLOMBIA Speaker / Ponente: GERSON RAFAEL CONDE RODRÍGUEZ
375	Presentation: METHODOLOGY BASED ON CROSS MODAL STRAIN ENERGY METHOD (CROSS MSER) TO ESTIMATE THE DAMAGE SEVERITY ON METALLIC STRUCTURES Speaker / Ponente: GERMAN HUMBERTO RODRÍGUEZ CUBIDES

ID	Wear and Corrosion/Oxidation - WCO Desgaste y Corrosión/Oxidación – WCO
153	Presentation: EVALUATION OF CORROSION CAUSED BY BIOGENIC SULFURIC ACID (BSA) ON THE CONCRETE STRUCTURES OF SEWERAGE SYSTEMS (CHEMICAL TESTS) Speaker / Ponente: MELQUISEDEC CORTÉS ZAMBRANO
231	Presentation: EVALUATION OF MECHANICAL WEAR IN BI / TI COATINGS SYNTHETIZED BY THE SOL-GEL METHOD AND APPLIED ON 316L STEEL SUBSTRATES Speaker / Ponente: PEDRO A. GARZÓN AGUDELO
262	Presentation: WEAR MECHANISMS IN THE REFRACTORY MAGNESIA CARBON IN THE SLAG ZONE OF STEEL LADLES IN A COLOMBIAN IRON AND STEEL INDUSTRY WEAR MECHANISMS IN THE REFRACTORY MAGNESIA CARBON IN THE SLAG ZONE OF STEEL LADLES IN A COLOMBIAN IRON AND STEEL INDUSTRY Speaker / Ponente: JOSÉ HUMBERTO FARIGUA PÉREZ

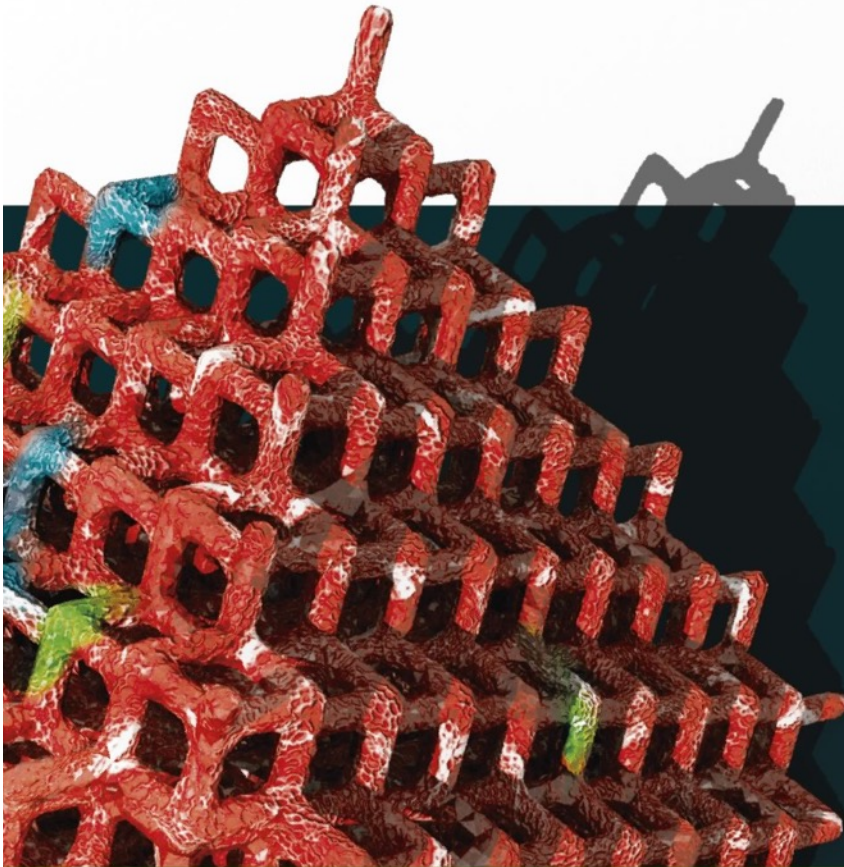
ID	Modeling, Simulation and Diagnostics – MSD Modelado, Simulación y Diagnóstico - MSD
109	Presentation: THERMAL AND FLUID-DYNAMIC ANALYSIS OF AN AUTOMOTIVE DISC BRAKE WITH VENTILATION PILLARS TYPE NACA 66-209 Speaker / Ponente: EDER FLÓREZ SOLANO
175	Presentation: SIMULATION OF STRUCTURAL PROPERTIES OF HYDROGEN STORAGE ALLOYS BY THERMOCALC SOFTWARE Speaker / Ponente: DANIELA BELLON MONSALVE
194	Presentation: ARTIFICIAL MODELLING OF TRIAXIAL TESTS IN UNSATURATED CONDITIONS CONSIDERING THE SUCTION CONTROL ON POROUS COLLAPSIBLE CLAYS Speaker / Ponente: JUAN CARLOS RUGE C.
207	Presentation: MODELING OF N POLYSTYRENE SPHERES COLLIDING ON AN ENCLOSED VESSEL, THROUGH MAXWELL-BOLTZMANN DISTRIBUTION Speaker / Ponente: JULIAN ALBERTO ALZATE CARDENAS

222	Presentation: COMPUTATIONAL MODELLING AND VALIDATION OF GUIDED WAVE'S DISPERSION CURVES IN AN ALUMINIUM FLAT PLATE BY EMPLOYING ANSYS SOFTWARE Speaker / Ponente: LEONARDO DAVID GALVIS CANDELARIO
264	Presentation: MULTICRITERIA ANALYSIS OF METHANE MITIGATION OPTIONS ON MARINE OIL AND GAS PRODUCTION PLATFORMS Speaker / Ponente: DANIELA BELLON MONSALVE
282	Presentation: MODELING OF HELIUM ATOM (HE) FROM A COLLISION OF AN ELECTRON (E-) WITH AN IONIZED HELIUM ATOM (HE+) Speaker / Ponente: LUIS ARTURO ALCALÁ VARILLA
292	Presentation: SOFTWARE TO DETERMINE THE VISCOSITY AND HONEY'S PURITY USING A BALL VISCOMETER Speaker / Ponente: NICOLÁS GONZÁLEZ
303	Presentation: A NON-LINEAR RESISTIVE NETWORK AS A MODEL TO ANALYZE FRACTURE PROCESSES IN MASONRY STRUCTURES UNDER DIAGONAL STRESSES Speaker / Ponente: JORGE CLAVIJO
322	Presentation: USING SCATTERING THEORY TO CALCULATE THE ENERGIES OF THE GROUND STATE AND OF THE FIRST EXCITED STATES OF A LITHIUM ATOM Speaker / Ponente: LUIS ARTURO ALCALÁ VARILLA
328	Presentation: COMPUTATIONAL STUDY OF A GLOW DISCHARGE DEVICE Speaker / Ponente: YHONATAN QUINTERO PACHECO
343	Presentation: SPATIAL PONENTEONANCE ACCELERATION PHYSICAL SCHEME BASED ON MAGNETIC RINGS SYSTEM Speaker / Ponente: JESÚS EDUARDO LÓPEZ DURÁN
349	Presentation: NUMERICAL SIMULATION OF FAST IONS GUIDING-CENTER ORBITS IN MAST-REACTOR CONFIGURATION Speaker / Ponente: PAULA ANDREA CÁRDENAS AYALA
358	Presentation: TECHNOLOGICAL AND METHODOLOGICAL INDICATORS TO GUIDE AND SELECT SOCCER PLAYERS IN THE FORWARDS POSITION OF YOUTH CATEGORY Speaker / Ponente: YENER ADRIAN RAMÍREZ ORTIZ
384	Presentation: COMPARATIVE THERMAL ANALYSIS OF EXTRUDED CERAMIC PRODUCTS: THE MULTI-PERFORATED BRICK VS. MODIFIED BRICKS IN THE DISTRIBUTION OF CELLS Speaker / Ponente: ANDREA PAOLA COLMENARES URIBE
388	Presentation: NUMERICAL MODEL OF THE BEHAVIOR OF THE RESISTANCE TO COMPRESSION IN PRISMS OF SOLID MASONRY FOR THE MUNICIPALITY OF OCAÑA, COLOMBIA Speaker / Ponente: KARINA ANDREA ALVAREZ FARELO
394	Presentation: USE OF AN SMART OPERATOR FOR THE HUMAN LIVER AUTOMATIC SEGMENTATION, PRESENT IN MEDICAL IMAGES Speaker / Ponente: MIGUEL VERA
396	Presentation: USEFULNESS OF DIGITAL SEGMENTATION OF IMAGES IN LUNG TRANSPLANTS Speaker / Ponente: ELKIN GELVEZ-ALMEIDA

ID	Education on Science, Engineering and Technology - ESET Educación en Ciencia, Ingeniería y Tecnología – ESET
183	Presentation: IMPLEMENTATION OF RESEARCH AGENDAS IN THE TRAINING OF INDUSTRIAL ENGINEERS: ACADEMIC TRAINING WITH A SOCIAL SENSE Speaker / Ponente: MARYORIE ANGELICA AVENDAÑO
218	Presentation: EDUCATIONAL SOFTWARE FOR THE SUPPORT OF THE LEARNING OF THE SUBJECT PROGRAMMING FUNDAMENTALS OF THE PROGRAM SYSTEMS ENGINEERING OF THE UNIVERSIDAD FRANCISCO DE PAULA SANTANDER, OCAÑA Speaker / Ponente: JESÚS CAMARGO PÉREZ
226	Presentation: MODEL OF GOVERNMENT OF INFORMATION TECHNOLOGY FOR THE PRODUCTIVE PROCESSES OF THE FARM OF THE UNIVERSIDAD FRANCISCO DE PAULA SANTANDER, OCAÑA Speaker / Ponente: ALBA LUZ SÁNCHEZ PERILLA
285	Presentation: GOOD PRACTICES AROUND INTERNET SAFETY OF THINGS FOR SMART HOMES Speaker / Ponente: LAURA MARCELA SANCHEZ PEREZ
291	Presentation: QUALITY ASSESSMENT OF THE IMAGES USED IN A BIOMETRIC RECOGNITION SYSTEM Speaker / Ponente: MARÍA FERNANDA GARCÍA TORRES
293	Presentation: EVALUATION OF THE ONTOLOGY FOR THE SUPPORT IN THE APPROACH OF THE DEVELOPMENT AREA OF THE SYSTEMS ENGINEERING PROFESSIONAL CAREER Speaker / Ponente: VANESSA NUMA PICÓN
313	Presentation: VIRTUAL LABORATORY FOR MEASURING OF YOUNG MODULUS WITH STRESS AND STRAIN FOR DIFFERENT METALS Speaker / Ponente: JENNYFER CAMILA ACEVEDO MUÑOZ
335	Presentation: IMPLEMENTATION OF EDUCATIONAL SOFTWARE ON TEACHING OF VECTORS (ARROW REPRESENTATION AND VECTOR ADDITION) Speaker / Ponente: OSWALDO OTERO OLARTE
352	Presentation: MOBILE APPLICATION PROTOTYPE FOR GEOLOGICAL AND STRUCTURAL DESCRIPTION Speaker / Ponente: ANDRES LEONARDO MERCHAN CHAPARRO
360	Presentation: IMPACT OF TECHNOLOGY ON THE EVOLUTION OF SPORTS TRAINING Speaker / Ponente: YENER ADRIAN RAMÍREZ ORTIZ
372	Presentation: COLOSSAL A COMPONENT-BASED SOFTWARE REPOSITORY FOR THE DEVELOPMENT OF WEB APPLICATIONS Speaker / Ponente: FREDY HUMBERTO VERA RIVERA

ID	Science, Engineering, Technology and Innovation for Social Inclusion - SETISI Ciencia, Ingeniería, Tecnología e Innovación para la Inclusión Social – SETISI
235	Presentation: DESIGN AND CONTENT VALIDITY OF AN INSTRUMENT TO EVALUATE ACCESS TO HOSPITAL INFRASTRUCTURE IN COLOMBIA Speaker / Ponente: ROCIO DEL PILAR MARTÍNEZ MARÍN
301	Presentation: PRODUCTIVITY AND COMPETITIVENESS IN THE AGRO-INDUSTRIAL VALUE CHAIN OF COLOMBIAN COCOA Speaker / Ponente: MAY STEFANNY GONZALEZ VERJEL
315	Presentation: EFFECT OF THE DIFFERENCE OF POTENTIAL AND TIME IN THE TREATMENT OF WATER WITH DYES USING ELECTROCOAGULATION Speaker / Ponente: DAYANA MARCELA RAMÍREZ MORENO
337	Presentation: BIODEGRADABLE THERMOSETS, AN INNOVATIVE ALTERNATIVE TO THE ENVIRONMENTAL PROBLEMS OF PLASTICS Speaker / Ponente: HENRY OMAR PAIPA ÁLVAREZ

338	<p>Presentation: THERAPEUTIC POLYMERS. APPLICATION IN NANOMEDICINE AS AN ANTICARCINOGENIC TREATMENT</p> <p>Speaker / Ponente: HENRY OMAR PAIPA ÁLVAREZ</p>
374	<p>Presentation: UNIVERSITY SOCIAL RESPONSIBILITY AS A STRATEGY FOR THE SUSTAINABILITY OF HIGHER EDUCATION IN COLOMBIA</p> <p>Speaker / Ponente: JANETH LORENA VALERO PABÓN</p>



Sponsors



Partners

