



INTERNATIONAL WEEK OF RESEARCH, DEVELOPMENT AND INNOVATION - SIIDI 2017
Bucaramanga 2-6 October 2017

DAY ONE: MONDAY 2 OCTOBER 2017

HOUR	MONS. JESÚS QUIRÓZ CRISPÍN AUDITORIUM
8:00 - 10:00	NO EVENTS AVAILABLE
10:00 - 10:20	COFFEE BREAK
10:20 - 10:40	Communication: Implementation Of A Polar Robotic Structure To Generate Lingual Movemets For The Tele-Therapy In Speech Therapy; Authors: Juan Sebastián Díaz Salguero; Andrés Felipe Campos Agudelo; Jennifer Paola Corredor Gómez
10:40 - 11:00	Communication: Possibilities Of Carbon Black Recovery From Waste Tire Pyrolysis To Be Used As Additive In Rubber Products; Authors: Natalia Cardona Uribe; Felipe Campuzano Diosa; Mariluz Betancur Vélez; Leyla Jaramillo; Juan Daniel Martínez
11:00 - 12:00	INTERNATIONAL CONFERENCE Speaker: Dr. Ing. Rogerio Gomes De Oliveira; Topic: Design, Test And Applications For A Novel Type Of Chemisorption Chiller Driven By Low Grade Heat
12:00 - 14:00	LUNCH BREAK
14:00 - 14:20	Communication: Development Of A Monolateral External Fixator Made Of A Carbon Fiber Reinforced Material; Authors: William Alberto Carabali; Gonzalo Fernando Casanova; Arlex Leyton; Andrés Machado Caicedo; José Jaime García
14:20 - 15:20	NATIONAL CONFERENCE Speaker: Dr. Gail Gutierrez Ramirez; Topic: High Potential of Solar Adsorption for Producing Ice in La Guajira Colombia
15:20 - 15:40	COFFEE BREAK
15:40 - 16:00	Communication: Assesment of cohesive traction-separation relationship according stiffness variation; Authors: Liliana M. Bustamante Goez; Edwin Chica Arrieta; Junes A. Villarraga
16:00 - 16:20	Communication: Influence Of TiO ₂ Coatings On Wear Resistance Of Gear; Authors: Alfonso Santos Jaimes; Edwin Córdoba Tuta; Jose Marulanda Arevalo
16:20 - 16:40	Communication: Determination Of Corrosion Of AISI/SAE 1020 Steel With Commercial Anti-Corrosive Coatings By Immersion Test; Authors: Carlos Cárdenas Arias; Camilo Sandoval Rodriguez; Alfonso Santos Jaimes; Mónica Lizet Díaz; Olinda Bayona Velandia; Heriberto Noguera Uribe
16:40 - 17:00	Communication: Numerical Study of Hydrogen Production by Steam Reforming of Methanol: operating Conditions Influence; Authors: Leonardo Esteban Pacheco Sandoval, Carlos Alirio Díaz Gonzalez, Luis Eduardo Jaimes Reatiga
17:00 - 18:00	CULTURAL EVENT

SIIDI 2017

International Week of Research, Development and Innovation
Bucaramanga, Colombia
October 2 - 6, 2017



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DAY TWO: TUESDAY 3 OCTOBER 2017

HOOR	MONS. JESÚS QUIRÓZ CRISPÍN AUDITORIUM
8:00 - 8:20	Communication: Effect of the Addition of Titanium in the Micro-Structural and Mechanical Variation of a Maraging Steel; Authors: Andrea Fernández, Mauricio Sierra, Arnoldo Bedolla
8:20 - 8:40	Communication: Effect Of Temperature, Starch And Plasticizer Concentrations On Colour Parameters Of Ulluco Edible Films; Authors: Angie Katherine Homez Jara; Luis Daniel Daza Ramírez; José Fernando Solanilla Duque; Henry A. Váquiro Herrera
8:40 - 9:00	Communication: Phyto-Extraction of Gold Nanoparticles by Plants in Mining Areas at the Municipality of California, Santander; Authors: Sandra Natalia Correa Torres; Claudia Santoyo Muñoz; Adriana Patricia Herrera
9:00 - 10:00	INTERNATIONAL CONFERENCE Speaker: Professor Dr. Ing. Da-Wen Sun; Topic: Development of Novel Food Processing Technologies for Enhancing Process Efficiency and Food Quality
10:00 - 10:20	COFFEE BREAK
10:20 - 10:40	Communication: Effect Of The Shear Movements In The Stiffness Of Bone External Fixator; Authors: Juan Felipe García; Arlex Leyton; Fernando Casanova; Jose Jaime García; Andrés Machado
10:40 - 11:00	Communication: Synthesis and morphological characterization of Li-Ti/PVP fibers as precursors for Li ₄ Ti ₅ O ₁₂ anode materials in Li-ion fiber batteries by means of Electrospinning; Authors: Nicolas Castaño Villa; Maria Alexandra Cortéz Lopez; Esteban García Tamayo; Hader Vladimir Martínez Tejada
11:00 - 12:00	NATIONAL CONFERENCE Speaker: Dr. Hader Vladimir Martínez; Topic: Nonferrous alloys metal matrix composites
12:00 - 14:00	LUNCH BREAK
14:00 - 14:20	Communication: Superficial Modification By Alkalization Of Cellulose Fibres Obtained From Fique Leaf; Authors: Rolando Guzmán López; Sergio Gómez, Christopher Apan
14:20 - 15:20	NATIONAL CONFERENCE Speaker: Dr. Diana Sinuco; Topic: Fine or Flavor Cocoa: Flavor Chemistry Approach
15:20 - 15:40	COFFEE BREAK
15:40 - 16:00	Communication: Fractal Analysis Of Persistence In Fluctuation Of Levels Of The Magdalena River; Authors: Dúwamg Alexis Prada Marín; David Joseph A. Serrano Suárez; Érika Ximena Niño; Laura Duarte; María Sofía Rueda
16:00 - 16:20	Communication: Fractality in Basin Hydrological Menzuly by means of Hurst Coefficient and Box Counting; Authors: Dúwamg Alexis Prada Marín; Michael Andrés Alvarez; Arvey Fernando Torres
16:20 - 16:40	Communication: Evaluation Of Conditions Of Combined Drying: Osmodehydration-Microwaves In Obtaining Radish Flour For The Preparation Of Cookies; Authors: Jesus Antonio Galvis; Liliana Marcela Cifuentes; Johan Esteban Villamil
16:40 - 17:00	Communication: Productive chain management around disruptive technologies. Engaging sustainability and materials research; Authors: Hader Vladimir Martínez
17:00 - 18:00	CULTURAL EVENT



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DAY THREE: WEDNESDAY 4 OCTOBER 2017

HOUR	MONS. JESÚS QUIRÓZ CRISPÍN AUDITORIUM
8:00 - 8:20	Communication: Flow Through Soils In A Homogeneous Porous Media; Authors: Pedro Julián García Guarín; Mayerly Durán Pinzón; Jorge Eliecer Páez Arango
8:20 - 8:40	Communication: Design of a thermal energy storage system in a Hohenheim Solar Tunnel Dryer; Authors: Mario Alberto Escobar Ochoa; Sonia Lucía Rincón Pratt; Sandra Patricia Cuervo Andrade
8:40 - 9:00	Communication: Practical PID Controller Implementation For The Speed Control Of A Motor Generator System; Authors: Miller Páez; Jairo Viola; Luis Angel
9:00 - 10:00	INTERNATIONAL CONFERENCE Speaker: Prof. Dr. Ing. Arun Mujumdar; Topic: Innovation and R&D Challenges in Drying Technologies
10:00 - 10:20	COFFEE BREAK
10:20 - 10:40	Communication: Detection Of Soft Suburban Areas From Images Taken By Unmanned Aerial Vehicles Using A Logistic Regression Model; Authors: Angela Niño; Claudia Rueda; Sergio Pineda
10:40 - 11:00	Communication: ¿Will Machines Ever Rule The World?; Authors: Mauricio Pedroza Torres; Gustavo Alfonso Villamizar Acevedo; James Méndez Gómez
11:00 - 12:00	NATIONAL CONFERENCE Speaker: Dr. Henry Alexander Váquiro; Topic: Regression and sensitivity analysis of mass and heat diffusion equations applied to drying modeling
12:00 - 14:00	LUNCH BREAK
14:00 - 14:20	Communication: Design Of A Cutting System For Oil-Palm Branches; Authors: Lina Parra; Leonardo Quintero; Fernanda Maradei
14:20 - 15:20	NATIONAL CONFERENCE Speaker: Dr. Sonia Lucía Rincón Prat; Topic: Biomass-based Energy Systems
15:20 - 15:40	COFFEE BREAK
15:40 - 16:00	Communication: Detection Of Palm Oil Bud Rot Employing Artificial Vision; Authors: Daniel Montero; Claudia Rueda
16:00 - 16:20	Communication: Evaluation of the Performance of a Solar Collector of a Tunnel Dryer Type Hohenheim; Authors: Iván Andrés Sánchez Ramírez; Sonia Lucía Rincón Prat; Sandra Patricia Cuervo Andrade
16:20 - 16:40	Communication: Theoretical And Experimental Study Of Heat Transfer Processes During Phase Change In A Horizontal Cylindrical Enclosure; Authors: Diego Alonso Herrera; Mario Alberto Escobar; Sonia Lucía Rincón; Sandra Patricia Cuervo
16:40 - 17:00	Communication: Sensors Integration and Android Application In The Agriculture; Authors: María Camila Vargas Sarmiento; Jennifer Paola Corredor Gómez
17:00 - 17:20	Communication: Drying Uniformity Analysis In A Tray Dryer: An Experimental And CFD Simulation Approach; Authors: Natalia Sofia Vargas Marin; Hugo Fabian Lobaton Garcia; Hugo Alexander Martínez Correa; Anderson Alfonso Aza Solarte; Mauricio Cardona Caicedo
17:00 - 18:00	WELCOME COCKTAIL



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DAY FOUR: THURSDAY 5 OCTOBER 2017

HOUR	MONS. JESÚS QUIRÓZ CRISPÍN AUDITORIUM
8:00 - 12:00	NO EVENTS AVAILABLE
12:00 - 14:00	LUNCH BREAK
14:00 - 14:20	Communication: 3D Printing as a Tool for Predicting Behavior the Mechanical-Functional of Components and Mechanical Systems; Authors: Juan Manuel Arguello Espinosa; Alfonso Santos Jaimes
14:20 - 15:20	NATIONAL CONFERENCE Speaker: Dr. Jhon Jairo Padilla; Topic: Information and Telecommunications Technologies applied to Smart Farming
15:20 - 15:40	COFFEE BREAK
15:40 - 16:00	Communication: Displacement Measurement Using DSPI Technic; Authors: S. A. Ballesteros; J. L. Nisperuza
16:00 - 16:20	Communication: Improvement in the maintenance program for Colombian Petroleum Institute; Authors: Juan Carlos Villamizar Rincón, Maryory Patricia Villamizar León; Rosvan Johan Plata Villamizar
16:20 - 16:40	Communication: Instrumental-level analysis of research and development (R&D) assets management at the Colombian Petroleum Institute; Authors: Marcela Villa Marulanda, Silvia Alejandra Sotelo Lopez, Pedro Nel Jaimes Jaimes, Rossvan Plata Villamizar, Juan Felipe Moreno Caballero, Yeirleth Liliana Sánchez Cancela, Jorge Andrés Roa Jerez
16:40 - 17:00	Communication: Web Information System for Process Monitoring in the Framework of the PAAIS Proyect: SIPA; Authors: Andrés Felipe Jerez Prada; Ariel René Carreño Oléjua; Urbano Eliécer Gómez Prada
17:00 - 17:20	Communication: Custom software for friction energy loss unit in fluid mechanics laboratory in University of La Guajira; Authors: Darío Andrés Serrano Flórez; Fainer Yesid Cerpa Olivera; Gail Albeiro Gutiérrez Ramirez
17:20 - 17:40	Communication: Effect Of Three Drying Methods On Antioxidant Efficiency And Vitamin C Content Of Moringa Oleifera Leaves Extract; Authors: Juan Alonso; Kenia Martínez; Geniel Talavera
17:40 - 18:00	Communication: Phytoextraction Of Cadmium By Helianthus Annuus From Cocoa Plantation Soil In Carmen De Chucurí, Colombia; Authors: Maria Kopytko; Claudia Santoyo; Carolina Monoga
18:00 - 19:00	CULTURAL EVENT



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FINAL DAY: FRIDAY 6 OCTOBER 2017

HOUR	MONS. JESÚS QUIRÓZ CRISPÍN AUDITORIUM
8:00 - 8:20	Communication: Design Of An Electric Generator Through The Heat Produced By The Oven Of A Trapiche; Authors: Victor Danilo Sánchez; Yeison Montaña Hernández
8:20 - 8:40	Communication: Design Of An Alternative Micro-Grid Using Asynchronous Generators; Authors: Edwin Forero; Laura Valenzuela; Miguel Chacón; Juan Cubillos
8:40 - 9:00	Communication: Review of the IPCC Guidelines for Calculating the Carbon Footprint of an Oil Field; Authors: Carlos Fernando Arenas Jiménez; Clara Viviana Leal Bárcenas; Sandra Natalia Correa Torres; Sandra Rocío Villamizar; Favio Jimenez; Edgar Castillo
9:00 - 10:00	NATIONAL CONFERENCE Speaker: Dr. David A. Pertuz C.; Topic: Fatigue Integrity in Agro-Industrial Machinery
10:00 - 10:20	COFFEE BREAK
10:20 - 10:40	Communication: Reproductive Behavior Of Dung Beetles (Coleoptera: Scarabaeidae) In Laboratory Conditions; Authors: Andrés Páez Martínez; Estrella Cárdenas Castro
10:40 - 11:00	Communication: Design And Modelling Of A Water Desalinator Prototype Using Alternative Energies; Authors: David Fernando Bedoya; Jhonatan Javier Duarte; Sandra Patricia Cuervo
11:00 - 12:00	INTERNATIONAL CONFERENCE Speaker: Prof. Dr. Oliver Hensel Topic: Agricultural Machines are Getting Intelligent
12:00 - 14:00	LUNCH BREAK
14:00 - 14:20	Communication: Automated Urban Garden; Authors: Luis Mauricio Camacho Zarate; Juan Felipe Araque Vargas; Karin Liseth Gallego Puentes; Jennifer Paola Corredor Gómez
14:20 -15:20	NATIONAL CONFERENCE Speaker: Dr. Paolo Andrea Moreno; Topic: From Waste to a Green Construction Material: Application of Agro-Waste and Recycled Materials for the Development of Sustainable Construction Materials
15:20 - 15:40	COFFEE BREAK
15:40 - 16:00	Communication: Machine Vision Identifier Of Healthy Strawberries; Authors: Jennifer Paola Corredor Gómez; Luisa María Medina Barragán; Miguel José Delgado Gutiérrez; Daniel Felipe Herrera Guillén
16:00 - 16:20	Communication: A Pump System Powered By Solar Panels; Authors: Ivan Jose Villalobos Monsalve; Eudes Guevara Sanguino
16:20 - 16:40	Communication: Autonomous Unmanned Aircraft System For The Geometrically Irregular Surfaces Sampling: Dynamical Analysis; Authors: Oscar Daniel Sánchez Plazas, Jennifer Paola Corredor-Gómez
16:40 - 17:00	Communication: Identifier Of Insects In Field Crops Based On Signal Segmentation; Authors: María Isabel Marín Henao; Jennifer Paola Corredor Gómez; Jeyson Javier Borrero Domínguez
17:00 - 17:20	Communication: Position Regulation of a Forearm-Like Platform Using Sliding-Mode Control Approach; Authors: Hugo Celedón; Carlos Andrés Torres Pinzón; Jaime Vitola; Maribel Anaya; Diego Alexander Tibaduiza
17:00 - 18:00	CULTURAL EVENT