

Programme



International Seminar on Physical Infrastructure

**San José de
Cúcuta,
Colombia**

**October
13-15, 2021**



First International Seminar on Physical Infrastructure

*October 13-15, 2021
San José de Cúcuta, Colombia*

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International Scientific Committee

- Dr. Francisco de Paula Montero Chacón
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- Dr. Griselda Lopez Maldonado
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- Dr. Marcio Muniz de Farias
Universidad de Brasilia, Brasil
- Dr. Luis Ángel Moreno Anselmi
Universidad de Brasilia, Brasil
- Dr. Linda Elcida Gil Lozada
Universidad Nacional Experimental Politécnica Antonio José de Sucre, Venezuela
- Dr. José Rubén Calderas Volcanes
Universidad de Los Andes de Mérida, Venezuela
- Dr. (c) Anderson Sandoval Amador
Universidad Nacional del Centro de la Provincia de Buenos Aires, Argentina

Invited Speakers

- ✓ Dr. Pedro Lastra González
Universidad de Cantabria, Spain
- ✓ Dr. Griselda Lopez Maldonado
Universidad Politécnica de Madrid, Spain
- ✓ Dr. Marcio Muniz de Farias
Universidad de Brasilia, Brazil
- ✓ Dr. Luis Ángel Moreno Anselmi
Universidade de Brasília, Brazil
- ✓ Dr. Paul Garnica
Centro de Innovación, Investigación y Desarrollo en Infraestructura y Seguridad Vial, Mexico
- ✓ Dr. José Rubén Calderas Volcanes
Universidad de Los Andes de Mérida, Venezuela

CONFERENCE ROOM

Wednesday, 13 October 20121

Principal room

Thursday, 14 October 20121

Principal room

Friday, 15 October 2021

Principal room



Topics

- **Physical infrastructure**
- **Mathematical modeling**
- **Physical and numerical modeling**
- **Physicochemical phenomena in engineering**
- **Advances in materials science and engineering**
- **Simulation of physical-mathematical problems in engineering**
- **Teaching and research techniques in Science and engineering**



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PROGRAM

1st ISPI

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FIRST DAY

13 October 2021

DAY HOUR	WEDNESDAY AFTERNOON
14:30 – 15:00	Opening Ceremony: 1st First International Seminar on Physical Infrastructure (1st ISPI) Conference Room: Principal room
15:00 – 15:30	Plenary Lecture I: Behavior of open graded mixes with reacted and reactivated rubber) Keynote Speaker: Marcio Muniz de Farias Conference Room: Principal room
15:30 – 16:00	Plenary Lecture II: Analysis of the variation of construction and demolition wasted during the washing and screening process using 3D scanning Keynote Speaker: Luis Ángel Moreno Anselmi Conference Room: Principal room
16:00 – 16:20	Oral Presentation ID 24: New concepts of characterization of geogrids for the control of cracks in asphalt layers Speaker: Juan Pablo Vargas Ballesteros Conference Room: Principal room
16:20 – 16:40	Oral Presentation ID 11: Compressive strength as a physical property characterizing construction concrete Speaker: Silvia Orozco Conference Room: Principal room
16:40 – 17:00	Oral Presentation ID 14: Evaluation of the fire resistance of steel-reinforced concrete-filled steel tubular columns with a circular cross-section Speaker: Martha Sofía Orjuela Abril Conference Room: Principal room
17:00 – 17:20	Oral Presentation ID 04: Improvement of concrete by means of metallic and natural fibers such as sugar cane Speaker: July Andrea Gomez Camperos Conference Room: Principal room
17:20 – 17:40	Oral Presentation ID 05: Design and comparison of box culverts using different design standards using Visual Basic programming Speaker: Nelson Afanador García Conference Room: Principal room
17:40 – 18:00	Oral Presentation ID 12: Effects of the physical phenomenon of concrete permeability due to the marine environment on buildings located in coastal areas Speaker: Silvia Orozco Conference Room: Principal room

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SECOND DAY

14 October 2021

DAY HOUR	THURSDAY MORNING
8:40 – 9:00	Oral Presentation ID 28: Influence of clay mineral on the results of the fall-cone test Speaker: Juan Carlos Ruge Conference Room: Principal room
9:00 – 9:20	Oral Presentation ID 20: Feasibility of ceramic waste in asphalt mix Speaker: Jorge Ivan Arias Florez Conference Room: Principal room
9:20 – 9:40	Oral Presentation ID 09: Evaluation of the Clauzel device as an energy dissipater for avalanches composed of debris flow in tropical areas Speaker: Nelson Javier Cely Calixto Conference Room: Principal room
9:40 – 10:00	Oral Presentation ID 06: Structural evaluation of a reinforced beam using strain gauges Speaker: Nelson Afanador García Conference Room: Principal room
10:00 – 10:30	Plenary Lecture III: Lessons learnt from monitoring a section of double-reinforced concrete pavement Keynote Speaker: Paul Garnica Conference Room: Principal room
10:30 – 11:00	Plenary Lecture IV: BIM Autodesk software development applied to road infrastructure projects Keynote Speaker: José Rubén Calderas Volcanes Conference Room: Principal room
11:00 – 11:20	Oral Presentation ID 07: Assessment of the asphalt mixtures properties subjected to a flexural strength test Speaker: Hugo Alexander Rondón Quintana Conference Room: Principal room
11:20 – 11:40	Oral Presentation ID 13: Service quality assessment in air trips: a structural equation modeling approach Speaker: Claudia Muñoz Conference Room: Principal room
11:40 – 12:10	Plenary Lecture V: Characterization of overtaking cyclists on rural roads in Spain using instrumented bicycles Keynote Speaker: Griselda López Maldonado Conference Room: Principal room
12:10 – 14:00	Lunch Break

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THIRD DAY

15 October 2021

DAY HOUR	FRIDAY MORNING
9:00 – 9:20	Oral Presentation ID 08: Analysis of the use of the bicycle taxi service as an alternative means of transport in the Suba Portal and la Campiña station of transmilenio Speaker: Johann Alberto Ayala Zapata Conference Room: Principal room
9:20 – 9:40	Oral Presentation ID 10: Microsimulation of road environments with the PTV Vissim technological tool based on the evaluation of vehicle mobility variables Speaker: Alba Yajaira Sanchez Delgado Conference Room: Principal room
9:40 – 10:00	Oral Presentation ID 23: Comparison of asphalt mixtures produced in the plant and in the laboratory Speaker: Adriana Rodríguez Lizcano Conference Room: Principal room
10:00 – 10:20	Oral Presentation ID 18: Determination of the structural efficiency of buildings of two and three story-level in frame-type systems by varying the dead load of the reinforced concrete slabs. Speaker: José Daniel Palacios Pabón Conference Room: Principal room
10:20 – 10:40	Oral Presentation ID 19: Identification of the structural efficiency with respect to the cost-functionality relation of bridges simply supported in post-tensioned concrete and in structural steel Speaker: Jose Ricardo Pineda Rodriguez Conference Room: Principal room
10:40 – 11:10	Plenary Lecture VI: Asphalt mixes: partial replacement of the binder with residual plastics by dry process Keynote Speaker: Pedro Lastra González Conference Room: Principal room
11:10 – 11:30	Oral Presentation ID 30: Traffic calming techniques Speaker: Margarita Rosa Gómez-Betancur Conference Room: Principal room
11:30 – 11:50	Oral Presentation ID 26: Software tool for modeling dynamic systems of a mechanical type Speaker: Johan Sebastian Becerra Nova Conference Room: Principal room
11:50 – 12:10	Oral Presentation ID 22: Pavement recycled asphalt Speaker: Yee Wan Yung Vargas Conference Room: Principal room
12:10 – 14:00	Lunch Break



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