



VIII INTERNATIONAL CONFERENCE

ON SCIENCE, TECHNOLOGY AND
INNOVATION FOR SOCIETY



Reception

Jun 22th
Wednesday ^

MORNING

ROOM FOR MULTIPLE PURPOSES

(1st floor, Building D)

WORKSHOP 01

9:30 | 12:30 (GMT-5)

*"Introduction to Big Data
and social network analysis
case study (Twitter)"*

PhD. Roger Clotet, Universidad
Internacional de Valencia
(VIU),
Spain

AUDITORIUM

(1st floor, Building D)

WORKSHOP 02

9:30 | 12:00 (GMT-5)

*"Business resilience in times of
pandemic"*

Dra. Raquel Sanchis Gisbert,
Universitat Politècnica de
València,
Spain

AUTOTRONICS LAB

(Mezzanine, Building E)

WORKSHOP 03

9:30 | 12:30 (GMT-5)

*"Applications of submodeling in
large-scale problems using
finite element analysis"*

PhD. José A. Alvarado Contreras,
Universidad de Los Andes,
Venezuela

13:00
14:00

R E C E S S

AUDITORIUM

(1st floor, Building D)

WORKSHOP 04

14:30 | 17:30 (GMT-5)

*"Tips for writing and submitting scientific
articles to international journals in
engineering"*

PhD. Alejandro Valencia Arias, Instituto
Tecnológico Metropolitano,
Colombia

COMPUTER LAB B1

(3st floor, Building B)

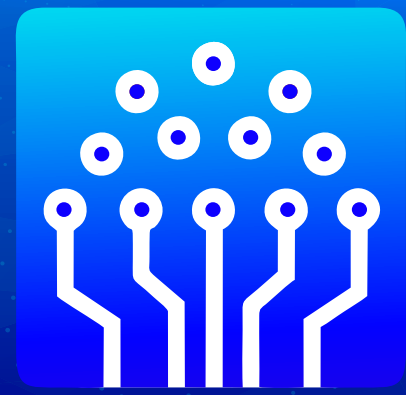
WORKSHOP 05

14:30 | 17:30 (GMT-5)

*"Simulation of internal combustion, electric,
and hybrid vehicle powertrain systems"*

Juan Diego Valladolid, Universidad
Politécnica Salesiana Sede Cuenca,
Ecuador

AFTERNOON



CITIS

VIII INTERNATIONAL CONFERENCE

ON SCIENCE, TECHNOLOGY AND
INNOVATION FOR SOCIETY



Reception

Jun 23th
Thursday



08:30
13:00

Registration to the Conference
Registration Bureau
(Building D, Hall next to the Aula Magna)

09:00
09:45

Inaugural Ceremony
AULA MAGNA (Low level/Planta baja, Building D)

09:45
10:45

Keynote Speech: “The convergence of smart people and cyborgs to make
innovation for making resilient and smart cities”
Prof. Ignacio Castillo,
Universidad Autónoma de la Ciudad de México (UACM), México
AULA MAGNA

ROOM FOR MULTIPLE PURPOSES
(1st floor, Building D)

AUDITORIUM
(1st floor, Building D)

11:00
12:00

ENGINEERING EDUCATION

Keynote Speech: “IEEE Standards: COVID-era Learning Technologies
Powering Innovation and Standards Education Programs”
Prof. Ernesto Vega Jánica, IEEE Standards Association Senior Manager,
E.U.A.

P14. Monitoring and adaptation of assessment activities in a VLE
supported by learning analytic
Joe Llerena-Izquierdo, M. Elena Rodríguez and Ana Guerrero-Roldán

12:00
12:15

P28. Simulation of Synchronous and Asynchronous Generator Models
in Matlab for a Virtual Electrical Machines Laboratory
Patricia Otero Valladares

12:15
12:30

P33. Virtual laboratory for induction motor simulation
Esteban Chiguano, Luis Hidalgo, Patricia Otero and Nelson Granda

12:30
12:45

P46. Homogeneity of engineering courses from an assignment
management model in virtual learning environments
Alicia Cedeño-Tello and Joe Llerena-Izquierdo

12:45
13:00

HEALTH

Keynote Speech: “A Voice Assisstant to examine
cognitive impairment using Azure Cognitive Services”
PhD. Carmen Moret Tatay, Catholic University of
Valencia, San Vicente Mártir, Spain

P1. Evaluation of Biomechanical Conditions in Infants from 20 to 48
Months of Age in Gaitt
Yessenia Armas and Victor Hugo Cabrera

P3. Comparison of biomechanical conditions in persons with
overweight between 18 and 35 years old to obtain characteristic
curves with the use of inertial sensors
Gerson Moreta, Diego Ortega and Victor Cabrera

P16. Inertial sensors based stabilometric analysis for postural control
in elderly people: Systematic review
Byron Zapata Chancusig, José Bucheli Naranjo and Fabian Narváez
Espinoza

P43. wPLI for Pre-training desynchronization Identification
Frank Zapata, Óscar Gómez, Andrés Álvarez and César
Castellanos

R E C E S S

14:00
15:00

ENVIRONMENT

Keynote Speech: “Terahertz time-domain spectroscopy for
characterizing materials in agribusiness”
PhD. Jimy Oblitas Cruz
Universidad Nacional de Cajamarca, Peru

P11. Fog collectors systems with IoT sensors in the Andes and the
coast of Ecuador Southamerica and data processing
David Carrera, Felipe Carrera, José Luis Carrera and Lucía Vernaza

15:00
15:15

P36. An IoT device for determine the level of chlorine present in water
based on electrochemical reactions
Marcelo Flores, Angelica Zea Cobos, Miguel Mayancela and Juan V.
Capella

15:15
15:30

P39. Quantification of contaminants through infrared spectrometry in
naphtha engine oils
Diego Vinicio Díaz Sinche, Jairo Darío Castillo Calderón and Rubén
Darío Carrión Jaura

15:30
15:45

P45. Measurement of free residual chlorine in drinking water using
clean technologies "oxidation and reduction potential (ORP)" as an
alternative technique to the use of chemical reagents
Angélica Zea, Gabriela Ordoñez, Borys Quiroz and Marcelo Flores

15:45
16:00

INDUSTRY

Keynote Speech: “Multimodal 3d medical imaging”
PhD. Mauren Abreu de Souza
Pontifical Catholic University of Paraná, Brazil

P4. Nonlinear Identification and Position Control of a Pneumatic
System.
Victor Huilcapi, Ricardo Cajo, Jorge Orellana and Alex Cascante

P5. After-sales and customer loyalty strategies for fixed Internet
through the implementation of virtual assistance in the
Ecuadorian context
Bruno Alcivar-Cruz and Joe Llerena-Izquierdo

P7. Synthesis of nanometric and submicron particles of titanium
dioxide (TiO2) for the formation of nanostructured films
Daysi Baño Morales, Nelly Rosas- Laverde and Cristian Santacruz

pg. Classification of mechanical failures in Provoked Ignition Engine
by means of ANN and SVM
Rafael Wilmer Contreras Urgiles, Jorge Chiluisa, Esteban Rocano
and José Maldonado

16:00
17:00

Keynote Speech: “High-impact scientific journals search for the publication
of scientific articles in engineering”
PhD. Alejandro Valencia Arias,
Instituto Tecnológico Metropolitano, Colombia
AUDITORIUM

17:00
20:00

Guayaquilean evening/Tarde Guayaquileña
Recreational and cultural activity in the Patio of the Coworking Space, 4th floor, Building D.



VIII INTERNATIONAL CONFERENCE

ON SCIENCE, TECHNOLOGY AND
INNOVATION FOR SOCIETY

CITIS



Reception

Jun 24th
Friday

08:30
13:00

Registration to the Conference
Registration Bureau
(Building D, Hall next to the Aula Magna)

ROOM FOR MULTIPLE PURPOSES
(1st floor, Building D)

AUDITORIUM
(1st floor, Building D)

09:00
10:00

Keynote Speech: “Fuzzy computing and decision-making in real-world applications”
Prof. Dr. Sunny Joseph Kalayathankal Jyothi Engineering College, India

10:00
10:15

P17. Hybrid iiot & arduino iot cloud platform for continuous industrial process analysis
Javier Molina, María Yugcha and William Montalvo

10:15
10:30

P22. Discrete Loop Filter for Time- Synchronization: A approach from design to real implementation with RTL-SDR system
Diego Lamadrid, Juan Inga and Andrés Ortega

10:30
10:45

P23. Simulation by CFD of the Internal Baffles of the Condenser in a 300 L Heat Pump for Residential Water Heating with Refrigerants R717 and R744
Fernando Toapanta-Ramos, Stalyn Oleas, Kevin Páez and William Quitiaquez

10:45
11:00

P24. Leveraging Modal Analysis for Multi-Scenario Power System
Gabriel Alfredo Rodríguez Proaño and José Antonio Oscullo Lala

11:00
11:15

P25. Development of a system based on artificial vision to determine the length of billets in the cutting process in steel mills
Richard Xavier Sánchez Pozo and Víctor David Larco Torres

ENVIRONMENT

INDUSTRY

Keynote Speech: “Industrial production and logistics optimization in Industry 4.0”
PhD. Josefa Mula, Universitat Politècnica de València, Spain

P51. Design and implementation of a photovoltaic system for the Simón Bolívar basic education school in the community La Masa 2, Puna gulf island
Gary Ampuño, Luis Alcívar Tello and Esteban Vilegas

P53. Photovoltaic energy for mobility and building operation in unconditioned equatorial households: A case of study in Quito
Santiago Vaca-Jiménez, Anthony López-Vega, Carlos Naranjo Mendoza and Freddy Ordóñez

P49. Evaluation of the surface quality obtained in AISI 201 stainless steel by fiber laser cutting in 2 mm sheet.
Bryan Calderón, Kevin Suquillo, Luis Juiña and Eduardo Vaca

P52. Design and construction of a prototype backpack-type ergonomic cutting system with exoskeleton for oil palm fruit.
July Ana Masache Apolo and Fabio Eduardo Obando Herrera

P54. Roughness Analysis on Concave Surfaces for Martensitic Steel AISI 420 obtained in the 3D machining process.
Luis Juina, David Gavilanes, Julio Campos and Emilio Dávalos

11:15
11:30

R E C E S S

11:30
11:45

P12. Estimation of zones of greatest accidents on the Cuenca-Loja road according to the driving maneuvers.
Néstor Rivera, Paúl Molina and Juan Molina

11:45
12:00

P19. Efficiency increase of supercharged engines.
Paúl Molina, Juan Molina, Andrea Bermeo and Gina Novillo

12:00
12:15

P30. FOC Control design of VSI-SiC power converter for an electric traction system.
David Galindo and Efrén Fernández Palomeque

12:15
12:30

P31. A Toyota Corolla Hybrid GUI based on Simulink and LabVIEW for live- data acquisition and monitoring system.
Angel López, Diego Rojas and Efrén Fernández

12:30
12:45

P34. Multi-agent algorithm for the generation of the route matrix of the y=ax linear system used in the estimation of the origin-destination matrix.
Patricia Zapata, Francisco Castro and José Luis Aguayo

12:45
13:00

P48. Public Lighting System Management Adapted to Remote Management: Case Study.
Oscar Álvarez Leslie Mendía and Jorge Rojas

INFOTELECOM

P2. Low-cost fault prediction system for a rolling system on an augmented reality platform with cloud communication.
Andrés Carvajal, Kevin Pazmiño, William Montalvo and Johanna Celi

P15. Nonlinear fuzzy control of position and velocity using crisp outputs implemented in a general purpose micro- processor.
Gabriel Moreano, Julio Tafur and Jhonny Pancha

P18. Analysis of a network interface for an on-chip network architecture.
Darwin Alulema, Mayerly Sáenz and Verónica Alulema

P29. Credit default risk analysis using machine learning algorithms with hyperparameter optimization.
Juan Inga and Jairo Sacoto

P35. Social, labor and cultural integration of immigrants: a quali-quantitative approach to the Venezuelan- Ecuadorian case.
Candice Medina, Nicole Tapia, Marco Velásquez and Fabricio Zanzzi

P50. Use case LPWAN outdoor power analysis based on the Okumura- Hata model.
Alejandra Pinto Erazo, Luis Suárez Zambrano, Fabián Cuzme Rodríguez and Edgar Jaramillo Vinueza

13:00
14:00

R E C E S S

14:00
15:00

Keynote Speech: “Robotic neuro-rehabilitation”
PhD. Teodiano Freire Bastos,
Universidade Federal do Espírito Santo, Brazil
AUDITORIUM (1st floor, Building D)

14:00
15:00

Closing Ceremony
Recognition to the best papers of the conference