

SmartTech-IC 2022:
Third International Conference on Smart Technologies, Systems and Applications
Cuenca – Ecuador
Conference Final Program

Wednesday, November 16			
8:00 – 9:00	Registration		
9:00 – 10:00	Conference Opening		
10:00 – 11:00	Keynote: "Neuroprosthesis: Building the Brain Machine Interface" Prof. Nitish Thakor, Ph.D <i>Director of the Laboratory for Neuroengineering and NIH Training Grant on Neuroengineering at Johns Hopkins University (USA)</i>		
11:00 – 11:30	Coffee Break		
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Session I: Smart Systems (Auditorio 2 Monseñor Alberto Luna)</td> <td style="width: 50%; text-align: center;">Session II: Smart grid and Renewable Energy (Auditorio 3 Luis Arba)</td> </tr> </table>	Session I: Smart Systems (Auditorio 2 Monseñor Alberto Luna)	Session II: Smart grid and Renewable Energy (Auditorio 3 Luis Arba)
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16:00 – 16:30	Coffee Break		
16:30 – 17:30	Keynote Prof. Mary Sánchez ATICA		
17:30 – 18:30	Cultural Event		

Los Caballeros del Sur

Thursday, November 17			
8:00 – 8:30 Registration			
	Session V: Smart Health (Auditorio 2 Monseñor Alberto Luna)	Session VI: Smart Trends (Auditorio 3 Luis Arba)	Session VII: Smart Trends (Auditorio 4 Aurelio Pischedda)
08:30 – 08:50	P3 Software Hope: User centered design for children with ASD , Authors: Monica Romero, Estela Macas and Ivana Harari	P13 Perspectives on Climate Change until 2030 , Authors: Ricardo Llugsi	P26 Android mobile application for cattle body condition score using convolutional neural networks , Authors: Sebastián Montenegro, Marco Pusedá-Chulde, Víctor Caranqui-Sánchez, Jorge Herrera-Tapia, Macarthur Ortega-Bustamante and Iván García-Santillán
08:50 – 09:10	P9 Virtual Learning Environment for Children with Down Syndrome Through Leap Motion and Artificial Intelligence , Authors: Johanna Celi, René Chauca, Andrea Simbaña and William Montalvo	P25 Automatic class extraction from spanish text of user stories using natural language processing , Authors: Miguel Tovar and Jorge Camargo	P24 Application of Supervised Descriptive Rule Discovery Methods: Review and Architecture , Authors: Araceli Olmos-Vallejo, Lisbeth Rodríguez-Mazahua, José Antonio Palet-Guzmán, Isaac Machorro-Cano, Giner Alor-Hernández and José Luis Sánchez-Cervantes
09:10 – 09:30	P110 Effects of a Robotic Lower-Limb Orthosis on Gait based on the Analysis of sEMG Signals and Kinematic Data: Preliminary Results , Authors: Jessica Paola Souza Lima, Ana Cecilia Villa-Parra, Laura Susana Vargas-Valencia, Denis Delisle-Rodríguez and Teodiano Freire Bastos-Filho	P19 Financial credit risk measurement using a binary classification model , Authors: Oscar Chiluiza, Cathy Pamela Guevara Vega, José Antonio Quiña Mera, Pablo Landeta and Franklin Javier Montaluisa Yugla	P54 Identification of Potential Fishing Areas Through Daily Analysis of Physical and Biogeochemical Variables of the Ocean , Authors: Fernando Chávez, Massimo Coltorti, Roberta Ivaldi and Guido Sciacivico
09:30 – 09:50	P121 Postural Stabilometric Analysis Based On Inertial Sensors , Authors: Jorge Inlago, Byron Zapata and Fabian Narvaez	P55 Interactions in the digital learning ecosystem in teacher learning outcomes , Authors: Diana Carolina Burbano Gonzalez and Jaime Antonio Alvarez Soler	P28 Identification of tropical dry forest transformation from soundscapes using supervised learning , Authors: Andrés Eduardo Castro Ospina, Susana Rodríguez-Burítica, Nestor Rendón, María Camila Velandia-García, Claudia Isaza and Juan David Martínez Vargas
10:00 – 11:00	<p align="center">Keynote: "Digital Health Research and Translation" Prof. Sri Krishnan, PhD <i>Co-Director of the Institute for Biomedical Engineering, Science and Technology (iBEST)</i> <i>Department of Electrical, Computer, and Biomedical Engineering</i> <i>Toronto Metropolitan University (CANADA)</i></p>		
11:00 – 11:30	Lunch		

	Session VIII: Smart Applications (Auditorio 2 Monseñor Alberto Luna)	Session IX: E-learning and Informatics (Auditorio 3 Luis Arba)
11:30 – 11:50	P88 FPGA-based Four-band Multispectral Camera Prototype for Precision Agriculture Applications , Authors: Julian Uribe-Rios, David Marquez-Viloria, Luis Castano-Londono and María C. Torres-Madronero	P107 CIEMS: A Review Towards a Collaborative Industrial Emergency Management Information System , Authors: Miguel Jimeno, Nicolas Buitrago, Hector Camacho, Cesar Viloria and Jairo Cardona
11:50 – 12:10	P117 Routing Protocols Implementation for WSN Using Optimal Dimensioning , Authors: Jordi Castel and Juan Inga	P15 Performance analysis of emotion recognition prediction on mobile devices , Authors: Jonathan Pillajo, Pamela Tello and Vinicio Changoluisa
12:10 – 12:30	P120 Demand forecasting of Fast Moving Consumer Goods by Deep Learning-based Time-Series Analysis , Authors: Nicolás Valbuena, Roberto Arias and Hugo Franco	P119 Colombian Sign Language Classification based on Hands Pose and Machine Learning Techniques , Authors: Camilo Pérez, Anny Gómez, Juan José Sánchez and Alvaro David Orjuela-Cañón
12:30 – 15:00	Lunch	
	Session X: Smart Trends (Auditorio 2 Monseñor Alberto Luna)	Session XI: Smart Systems (Auditorio 3 Luis Arba)
15:00 – 15:20	P33 Abiotic Maize Stress Detection Using Hyperspectral Signatures and Band Selection , Authors: Pablo Carmona, María C. Torres-Madronero, Manuel Goez, Tatiana Rondon, Manuel A. Guzman and María Casamitjana	P57 Setting-up the Audiomoth recorder for wildlife monitoring in the rainforest , Authors: José López, Claudia Isaza, David Luna-Naranjo, Angela Sucerquia, Camilo Sánchez-Giraldo and Juan Daza
15:20 – 15:40	P48 Small-Scale Precision Agriculture: a Case Study Applied to a Seed Germination Chamber , Authors: Roberto-Sostrand Velazquez-Gonzalez, Julio Sosa and Elsa Ventura-Zapata	P72 HAND GAMES: Reforzar la motricidad en personas de la tercera edad , Authors: Diego Naula, Pablo Aguirre, David Luna and Gabriel Bermeo
15:40 – 16:00	P64 Atmospheric Dispersion Prediction for Toxic Gas Clouds by using Machine Learning Approache , Authors: Maria Ines Valle Rada, Bethsy Guerrero Granados, Christian Giovanni Quintero Monroy, Cesar Augusto Viloria Nuñez, Jairo Alberto Cardona Peña and Miguel Angel Jimeno Paba	P113 System to Support Physical Multitasking Training based on Visual Stimuli , Authors: Fabian Enrique Guaraca Defas, Jennifer Katherine Vidal Sanchez and Ana Cecilia Villa-Parra
16:00 – 16:30	Coffee Break	
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17:30 – 18:30	Cultural Event Noche Cuencana Pacios UPS	

Friday, November 18		
Registration		
	Session XII: Smart Health (Auditorio 2 Monseñor Alberto Luna)	Session XIII: Smart grid and Renewable Energy (Auditorio 3 Luis Arba)
8:00 – 8:30		
08:30 – 08:50	P17 Classification of Epileptic Seizures Based On CNN And Guided Back-Propagation for Interpretation Analysis , Authors: Yomin Jaramillo-Múnera, Lina M. Sepulveda Cano, Andres Eduardo Castro Ospina, Juan David Martinez Vargas and Leonardo Duque-Muñoz	P114 Design of an integrated system for the measurement and monitoring of electrical parameters under ISO 50001: a case study , Authors: Washington Xavier Garcia-Quilachamin, Kelvin Adrian Atencia-Fuentes, Jenniffer Dennisse Ante-Moreno, Jorge Herrera Tapia, Francisco Ulloa-Herrera and Marjorie Coronel-Suárez
08:50 – 09:10	P63 Medical diagnostic support software for depressive disorder in adolescents and adults based on electroencephalogram readings , Authors: Giovana Vaca, Lady Laura González Bohórquez, Marilyn Elizabeth Figueroa Guayllas, Adriana Estefania Estrella Guevara, Evelyn Gabriela González Simbaña, Jonathan Cruz-Varela, Carolina Cadena-Morejón, Diego Almeida-Galárraga, Andrés Tirado-Espín and Fernando Villalba-Meneses	P115 Aerodynamic Analysis based on Materials and Shapes of Different Types of Wind Turbine Blades for Wind Energy Production Using Fast and Matlab Simulink , Authors: Luis Jara, José Cali and Edy Ayala
09:10 – 09:30	P93 Data Mining Application for the Generation of User Profiles in Serious Games Aimed at Attention and Memory Training , Authors: Sebastian Toledo Gonzalez, María-Inés Acosta-Urigüen and Marcos Orellana-Cordero	P84 Numerical Comparison Using CFD of R134a and R600a Condensation in Helical and Spiral Exchangers , Authors: Fernando Toapanta Ramos, Tito Hidalgo, Jefferson Parra and William Quitiaquez
09:30 – 09:50	P109 Design and Evaluation of a prototype of Dual Channel Electrical Stimulator: application in the assessment of current perception thresholds to multiple stimuli , Authors: Danilo Andrés Molina Vidal, Pablo Fernando Cevallos Larrea, Leimer Eligio Guambaña Calle, Danielle Liquori and Carlos Julio Tierra Criollo	P8 Tire Pressure Optimization for a Competition Kart Using the Box Behnken Method , Authors: Rafael Wilmer Contreras Urgiles, Brian J. Jimenez, Carlos X. Alvarez and Julio E. Guillen
10:00 – 11:00	Keynote: "Overview of Artificial Intelligence and Renewable Energy" Prof. Fausto Pedro García, PhD <i>Director of Robotic and Assstive Technology Lab Ingenium Research Group Universidad Castilla La Mancha (SPAIN)</i>	
11:00 – 11:30	Lunch	
11:30 – 13:00	Forum "Technology and Inclusion: Experiences" Prof. Teo Freire Bastos <i>Director of the Robotic and Assistive Technology Lab Post-Graduate Program in Electrical Engineering and Biotechnology Federal University of Espirito Santo (BRAZIL)</i> Prof. Mary Sanchez, Prof. Sri Krishnan, Prof. Nitish Thakor	
13:00 – 13:30	Conference Closing	