



Program – Wednesday, December 2nd, 2020

08:00 – 10:00	Session 1: Opening Session – Main Room https://cedia.zoom.us/j/89349396740
08:00 – 09:00	Registration
09:00 – 10:00	Welcome to ICAT 2020 – Opening Session
10:00 – 11:00	Session 2: Academic Keynote – Main Room https://cedia.zoom.us/j/89349396740
10:00 – 11:00	Keynote by Prof. Jesus Gonzalez-Barahona Universidad Rey Juan Carlos - Spain
11:00 – 11:30	ZOOM Break
11:30 – 12:30	Session 3: Technology Trends https://cedia.zoom.us/j/89349396740
11:30 – 11:45	A case study in the banking sector: A ontology for the selection of Agile and Lean Software development methodologies <u>Itza Morales</u> , Belen Bonilla Morales and Miguel Vargas
11:45 – 12:00	Model for Supporting Decisions of a Group of a Smart City Project Investors, Taking into Consideration Multifactoriality and Turnover Valery Lakhno, Volodimir Malyukov, Dmytro Kasatkin, Andrii Blozva, Nataliia Kotenko, Maryna Kotova and Tetiana Zhyrova
12:00 – 12:15	Building an OWL ontology step by step for Lean-based software development implementation <u>Sandra Gutierrez-Rios</u> , Miguel Vargas-Lombardo and Jose Manuel Gomez Pulido
12:15 – 12:30	Beyond visual and radio line of sight UAVs monitoring system through open software in a simulated environment Miguel Murillo, Julio Alvia and Miguel Realpe
12:30 – 14:00	Lunch
14:00 – 16:00	Session 4: Technology Trends https://cedia.zoom.us/j/89349396740
14:00 – 14:15	A Quality in Use Model for Ambient Assisted Living (AAL) Systems Lenin Erazo, <u>Lourdes Illescas</u> and Priscila Cedillo



14:15 – 14:30	<p>Methodological approach for evaluating the impact of Electric Vehicles on Power Distribution Networks Jorge Basantes, <u>Santiago Palma</u>, Diego Ortiz and Jacqueline Llanos</p>
14:30 – 14:45	<p>Comparative analysis of the performance of electric and internal combustion buses in the load and orography conditions of Loja city. <u>Jose Raul Castro</u>, Karen Arciniega, Tuesman Castillo and Joge Luis Jaramillo</p>
14:45 – 15:00	<p>Mobile app for automation of observational instrument for continuous emotional evaluation <u>Carlos Vicente-Tene</u>, Pablo Torres-Carrion and Carina Gonzalez-González</p>
15:00 – 15:15	<p>Improving Software Project Management by Applying Agile Methodologies: A Case Study <u>José Antonio Quiña Mera</u>, Lincon Hermel Chamorro, Javier Montaluisa and Cathy Pamela Guevara Vega</p>
15:15 – 15:30	<p>DESIGN OF AN IRRIGATION CONTROL SYSTEM USING AUTOMATIC LEARNING TECHNIQUES APPLIED TO PRECISION AGRICULTURE (INTERNET OF FARM THINGS IoT) Edgar Maya-Olalla, <u>Camilo Nogales Romero</u>, Marcelo Zambrano, Hernán Domínguez-Limaico and Hector D Cadena-Lema</p>
15:30 – 15:45	<p>IoT management analysis using SDN: Survey <u>Manuel Montaña</u>, Rommel Torres, Patricia Ludeña and Francisco Sandoval</p>
15:45 – 16:00	<p>Development of a Cross-Platform Architecture for the analysis of vehicular traffic in a smart city with machine learning tools <u>Darwin Alulema</u>, Evelyn Lomas and Priscila Cevallos</p>
16:00 – 16:30	ZOOM Break
16:30 – 17:30	<p>Session 5: Security https://cedia.zoom.us/j/89349396740</p>
16:30 – 16:45	<p>Implementation of an elliptic curve encryption to a database <u>Erika Toro</u>, Carlos Romero and Paúl Bernal</p>
16:45 – 17:00	<p>Performance and security evaluation in microservices architecture using open source containers Diego Antonio Castillo Rivas and <u>Daniel Guamán</u></p>
17:00 – 17:15	<p>PDU's Header-Based Online User Behavior Detection Algorithm <u>Darío Valarezo</u> and Diego Avila</p>
17:15 – 17:30	<p>Adenovirus for detection of fecal pollution in Santa Clara river, Rumiñahui - Ecuador Berenice Sarmiento, Alma Koch, Dario Bolaños and <u>Andrés Izquierdo</u></p>



Program – Thursday, December 3rd, 2020

09:00 – 10:00	Session 6: Academic Keynote – Main Room https://cedia.zoom.us/j/89349396740
09:00 – 10:00	Keynote by Prof. Esteban Pino Universidad de Chile
10:00 – 11:00	Session 7: Electronics https://cedia.zoom.us/j/89349396740
10:00 – 10:15	Construction of a low-cost semi-automatic machine for tensile testing José Varela-Aldás, Jorge Buele and <u>Juan Cruz</u>
10:15 – 10:30	An Electronic Equipment with Face Recognition Capacity Oriented to Measuring the Alcoholic Level in People Luis Merino, <u>Wilson Chavesta</u> , Guillermo Kemper and Kalun Lau
10:45 – 11:00	Comparison of Infinite Impulse Response (IIR) and Finite Impulse Response (FIR) filters in Cardiac Optical Mapping records David Rivas-Lalaleo, Sergio Muñoz-Romero, Monica Huerta, Víctor Bautista-Naranjo, Jorge García-Quintanilla, Javier Moreno-Planas, and José Luis Rojo-Álvarez
10:45 – 11:00	Carwash Station Prototype with Automatic Payment Using Intelligent Control Systems <u>Jorge Buele</u> , Franklin Salazar, Darío Quilumba, David I. Ilvis and Fernando Saá
11:00 – 11:30	ZOOM Break
11:30 – 12:30	Session 8: Electronics https://cedia.zoom.us/j/89349396740
11:30 – 11:45	A comparison of Linear and Nonlinear PID controllers Reset-Based for Nonlinear Processes with Variable Deadtime Renato Díaz and <u>Oscar Camacho</u>
11:45 – 12:00	Distribution networks with Distributed Generation and Electric Vehicles <u>Wilson Jhonatan Olmedo Carrillo</u> , Andrés Santiago Cisneros Barahona, María Isabel Uvidia Fassler, Gonzalo Nicolay Samaniego Erazo and Byron Andrés Casignia Vásquez
12:00 – 12:15	SENSOR NODES AND COMMUNICATION PROTOCOLS OF THE INTERNET OF THINGS APPLIED TO INTELLIGENT AGRICULTURE <u>Cristian Chuchico</u> and David Rivas-Lalaleo
12:15 – 12:30	Obstacle detection algorithm by means of images with a ZED camera using ROS software in a drone



	Milton Fabricio Pérez Gutiérrez and <u>Andrea Concepción Córdova Cruzatty</u>
12:30 – 14:00	Lunch
14:00 – 16:00	Session 9: Machine Vision / e-Government and e-Participation https://cedia.zoom.us/j/89349396740
14:00 – 14:15	DEVELOPMENT OF A PROTOTYPE TO REHABILITATE KNEE AND ANKLE INJURIES, USING A PARALLEL ROBOT WITH 6 DEGREES OF FREEDOM <u>Xavier Arias</u> , Sandro Balarezo, Javier Gavilanes, Miguel Aquino and Geovanny Novillo
14:15 – 14:30	VIRTUALIZATION OF A MULTISENSORY ENVIRONMENT FOR THE TREATMENT OF STRESS IN CHILDREN WITH AUTISM THROUGH INTERACTIVE SIMULATION Ricardo Plasencia, Gabriela Herrera, <u>Patricio Navas Moya</u> and Ximena López
14:30 – 14:45	Control scheme for a robotic platform with omnidirectional traction system, based on the kinematic and dynamic model <u>Luis Gallo</u> , Byron Paste, Jessica Ortiz and Víctor Andaluz
14:45 – 15:00	Autonomous Intelligent Navigation For Mobile Robots In Closed Environments <u>Steven Silva</u> , Dennys Paillacho, David Soque León, Maria Guerra Pintado and Jonathan Paillacho Corredores
15:00 – 15:15	Design and construction of a low-cost CNC milling machine for woodworking <u>Manuel Ignacio Ayala Chauvin</u> , Fernando Saá, Ricardo Rodríguez, Carles Domènech and Genís Riba
15:15 – 15:30	Formation Control of Mobile Unicycle-type Robots in Hardware Environments in the Loop <u>Manuel Andrés Quispe</u> , Martha Cecilia Molina, Jessica Sofía Ortiz and Victor Hugo Andaluz
15:30 – 15:45	Marine Delay and Disruption Tolerant Networks (MaDTN): Application for Artisanal Fisheries <u>Héctor Bedón</u> , Jaime Lopez Pastor, Edwin Cedeño Herrera and Carlos Miguel Nieto
15:45 – 16:00	Lean Manufacturing for Optimizing Operational Processes in a Bicycle Assembly Line Santiago Rodas, Lorena Siguenza-Guzman and Juan Llivisaca
16:00 – 16:30	ZOOM Break
14:00 – 16:00	Session 10: e-Learning https://cedia.zoom.us/j/89349396740
16:30 – 16:45	Metrics Design of Usability and Behavior Analysis of a Human-Robot-Game Platform



	<p><u>Nayeth I. Solorzano Alcivar</u>, <u>Luis C. Herrera Paltan</u>, <u>Leslie del Rocío Lima Palacios</u>, <u>Jonathan S. Paillacho Corredores</u> and F. Dennys Paillacho Chiluita</p>
16:45 – 17:00	<p>Storytelling digital: Experience and technology in designs of tele-collaborative projects in higher education <u>Elizabeth Ibadango-Galeano</u>, Lizarda Vargas-Chagna, Mónica Gallegos Varela, Maricela Vélez-Meza and Esteban Placencia-Enriquez</p>
17:00 – 17:15	<p>Gamification within the learning evaluation process using Ardora at the Salesian Polytechnic University (Guayaquil, Ecuador) Joe Llerena-Izquierdo and <u>Leidi Atiaja-Balseca</u></p>



Program – Friday, December 4th, 2020

09:00 – 10:00	Session 11: Academic Keynote – Main Room https://cedia.zoom.us/j/89349396740
09:00 – 10:00	Keynote by Prof. Raymundo Forradellas & Ricardo Palma Universidad Nacional de Cuyo, Argentina
10:00 – 11:00	Session 12: Intelligent Systems https://cedia.zoom.us/j/89349396740
10:00 – 10:15	Detection and Fault Prediction in Electrolytic Capacitors Using Artificial Neural Networks Acelio Mesquita, Vandilberto P. Pinto and Leonardo R. Rodrigues
10:15 – 10:30	Data Mining to Predict COVID-19 Patients' Recovery on a Balanced Dataset <u>Priscila Valdiviezo-Diaz</u>
10:45 – 11:00	Machine learning model for the prediction of emotions in a mobile application Pablo Torres-Carrion, <u>Carlos Vicente-Tene</u> , Yuliana Jiménez and Darwin Patricio Castillo Malla
10:45 – 11:00	Constraint Programming for the pandemic in Peru <u>Willy Ugarte</u>
11:00 – 11:30	ZOOM Break
11:30 – 12:30	Session 13: Intelligent Systems https://cedia.zoom.us/j/89349396740
11:30 – 11:45	Categorization of tweets about the International Festival of Living Arts Loja-Ecuador using the KDT methodology <u>Ramiro R. Rivera-Guamán</u> and Oscar M. Cumbicus-Pineda
11:45 – 12:00	Detecting Xenophobic Hate Speech in Spanish Tweets Against Venezuelan Immigrants in Ecuador using Natural Language Processing <u>Raul R. Romero-Vega</u> and Oscar M. Cumbicus-Pineda
12:00 – 12:15	Chatbot for Technical Support, Analysis of Critical Success Factors using Fuzzy Cognitive Maps Miguel Angel Quiroz Martinez, Segundo Estuardo Mayorga Plúa, Monica Gomez, <u>Maikel Leyva</u> and Daniel Plua
12:15 – 12:30	Topic Identification from Spanish Unstructured Health Texts Andrea Mena and <u>Ruth Reátegui</u>
12:30 – 14:00	Lunch



14:00 – 16:00	Session 9: Computing https://cedia.zoom.us/j/89349396740
14:00 – 14:15	Is it intelligent? A systematic review of intelligence in the most cited papers in IoT <u>Billy Grados</u> and Hector Bedon
14:15 – 14:30	Feature extraction methods for SSVEP signals measured by the information transfer rate <u>Danni De la Cruz</u> , Wilfredo Alfonso and Eduardo Caicedo
14:30 – 14:45	Interpreting Felony Acts Using Georeferenced Data. Case Study in Ambato, Ecuador <u>Jorge Buele</u> , Franklin Salazar, Hernán Naranjo-Ávalos and José Varela-Aldás
14:45 – 15:00	User Affective Experience into a scope of Conversational Artificial Intelligence <u>Ligia Elena Maza Jiménez</u> , Pablo Torres-Carrion, Carina González, Germanía Rodríguez Morales and Silvia Vaca
15:00 – 15:15	Assessment of two-Equation RANS Turbulence Models for High Prandtl Number Forced Convection in a Pipe <u>Paul Balcazar</u>
15:15 – 15:30	Virtual reality and haptic devices applied in the system of teaching learning with children of early education age <u>Marco Pilatásig</u> , Emily Tobar, Lisette Paredes, Zulia Sánchez and Grace Naranjo
15:30 – 15:45	Human-Robot Collaborative Control for Handling and Transfer Objects Geovanny P. Moreno, <u>Nelson D. De la Cruz</u> , Jessica S. Ortiz and Víctor H. Andaluz
15:45 – 16:00	Development of a web-based medical record management software for digital immigrant users Félix Fernández-Peña and <u>Ricardo Celi-Párraga</u>
16:00 – 16:15	ICT AND CREATIVE ECONOMY: AN ANALYSIS FROM TECHNOLOGY AND INDUSTRY ENTERPRISES 4.0, BOGOTÁ-COLOMBIA CASE Camilo Jose Peña Lapeira and Liliana Vargas Puentes
16:15 – 16:30	New Agile Enterprise Architecture Methodology for Small Latin American Organizations <u>Heber Ivan Mejia Cabrera</u> , Victor Alexci Tuesta Monteza, Alberto Enrique Samillan Ayala and Manuel Guillermo Forero Vargas

Publication:

- International Journal on Advanced Science, Engineering and Information Technology – ISSN: 2088-5334, Scopus indexed, SJR (Q2)
- Periodicals of Engineering and Natural Sciences (PEN) – ISSN: 2303-4521, Scopus indexed, SJR (Q2)
- Advances in Intelligent Systems and Computing – ISSN: 2194-5357, Scopus indexed, SJR (Q3)

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It might be updated at any moment. Please be informed yourself by checking the program