

**2022 IEEE International Conference on
Engineering Veracruz (IEEE ICEV 2022®)
24 to 27 octubre 2022
Papers Presentation
Unidad de Servicios Bibliotecarios y de Información
USBI Veracruz
Boca del Río, Veracruz**

Monday, October 24th	Explanada Principal (Patio Central) USBI	Session 1A
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13:00- 13:30	Paper presentation 12icev2022	Distribution of Microwave Signals Using Space Division Multiplexing Technique	José Roberto Warnes-Lora, Blaise Tshibangu-Mbuebue, Jorge Rodríguez- Asozoza, Alejandro García-Juárez, Ignacio Enrique Zaldívar-Huerta
13:30- 14:00	Paper presentation 1icev2022	A First-Order All-Pass Filter Based on the Current Differential Amplifier	Ricardo M. Rocha-Torres, Alejandro Diaz- Sanchez, Jose M. Rocha-Perez, and Gregorio Zamora-Mejia
14:00- 14:30	Paper presentation 33icev2022	A $\sigma = 0.66$ LSB 8-bit Time-to-Digital Converter with Variable Resolution in a 180nm CMOS Technology	Jonathan Santiago-Fernandez, Alejandro Diaz-Sanchez, Jose M. Rocha-Perez, Victor Hugo Carbajal-Gomez and Gregorio Zamora-Mejia
14:30- 15:00	Paper presentation 7icev2022	Analysis and implementation of a car-type mobile robot for semi-planned trajectory tracking using hybrid control	M. A. Hernandez-Perez, K. Perez-Daniel, G. Delgado-Reyes, P. García-Ramírez, L. Morales-Layja

Monday, October 24th	Sala de Videoconferencias USBI	Session 1B
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17:00- 17:30	Paper presentation 14icev2022	An adaptation of FABRIK algorithm for serial robot's inverse kinematics	Luis Antonio Orbegoso Moreno, Josmell Henry Alva Alcántara
17:30- 18:00	Paper presentation 16icev2022	Experimental research of the operational characteristics and control study of a high-flow proportional valve	Nilton Ramos Esteban, Abraham Caso Torres, Ronaldo Vicente Lima Aroni, Jose Luis Mantari Laureano, German Yuri Comina Bellido
18:00- 18:30	Paper presentation 19icev2022	Portable low-cost spectrophotometer for trace detection of cadmium ions in cocoa crops	Rafael A. Núñez R., Carlos I. Nova P., Cristhiam J. Gutierrez L., Daniel A. Velasco C. Jhonny M. Ceron Cifuentes, Daniel A. Amaya, Marianny Y. Combariza, Cristian B. Tirado
18:30- 19:00	Paper presentation 28icev2022	EEG Signal-Based Eye Blink Classifier using Random Forest for BCI Systems	David Manuel Carmona Peña, Mireille Valencia Miranda, Luis Villaseñor Pineda, Carlos Alberto Reyes García, and Alina Santillán Guzmán
19:00- 19:30	Paper presentation 30icev2022	Filtering of photoplethysmographic pulse signals with downward gradient algorithms	Minerva Vázquez, J. Carlos Sánchez, Gerardo Avalos, and Brayans Becerra
19:30- 20:00	Paper presentation 20icev2022	Reengineering of a dedicated microcontroller for the technological improvement of an industrial CNC stone cutter	Martín Hernández Ordoñez, Damaris Francela Villalvazo Quintero, Jose Luis Fernando Palomeque Loyo, Jorge Arturo Mendoza Sosa, Isaac Alemán Cruz, José Camargo Méndez, Evelyn Villalobos Antonio

Tuesday, October 25th	Sala de Videoconferencias USBI	Session 2A
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8:00-8:30	Paper presentation 4icev2022	Optimization of photovoltaic systems applying linear programming	Adrián Alberto Sampieri Morán, Jorge Arturo Mendoza Sosa, Francisco Javier Gómez González
8:30-9:00	Paper presentation 5icev2022	Biodigesters and their use for the generation of clean energy	Victor M. De la Fuente Garcia Peña
9:00-9:30	Paper presentation 10icev2022	Evaluation of motivation, compromise and knowledge, implementing an educational material printed in 3D in bioengineering	Irma Cruz-Solisa, Cynthia La. González-Trevizo, David Gutiérrez-Franco, Carmen G. Matamoros-Oliverab, Martha Y. Díaz-Gallardo, Alma Cuellar-Sánchez, Silvia E. Estrada-Díaz, Alexander K. Alcántara-Contreras, Julián A. Yunes-Rojas
9:30-10:00	Paper presentation 21icev2022	Discontinuous Active Disturbance Rejection Control of an Inverted Pendulum on a Quadrotor UAV	Adrian H Martínez-Vásquez, Rafael Castro-Linares, H Sira-Ramírez
10:00-10:30	Paper presentation 27icev2022	A Blockchain Solution for Universal Electronic Health Record: Mexican Healthcare System Case	A. F. Jaramillo-Alvarado, G. Diaz-Arango, J. R. Garcia-Baez, C. Gamino-Aparicio, J. Hernandez-Capistran, O. J. Velandia-Caballero, J. Huerta-Chua, H. Vazquez-Leal
10:30-11:00	Paper presentation 29icev2022	A Novel Obstacle Bitmap Formulation for Homotopic Path Planning Method Applied to Terrestrial Mobile Robot	G. Diaz-Arango, A. F. Jaramillo-Alvarado, J. Huerta-Chua, J. R. Garcia-Baez, J. Hernández-Capistran, O. J. Velandia-Caballero, A. Diaz-Hernandez H. Vazquez-Leal, V. M. Jimenez-Fernandez, C. A. Gamino-Aparicio

Tuesday, October 25th	Sala de Videoconferencias USBI	Session 2B
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13:00- 13:30	Paper presentation 26icev2022	Vanadium oxide thin films fabricated by magnetron sputtering from V and V2O5 targets	C.A. Florian-Aguilar, D. Guzmán-Castillo, L. García-González, L. Zamora-Peredo, M.A. Vidales-Hurtado, C. Zúñiga-Islasc y J. HernándezTorres
13:30- 14:00	Paper presentation 15icev2022	Microwave Resonant Sensors for Liquid Samples Detection	Gabriela Méndez-Jerónimo, Humberto Lobato-Morales
14:00- 14:30	Paper presentation 22icev2022	Simulation of reflection phenomenon of an Electromagnetic Wave using The Finite-Difference Time-Domain (FDTD)	María Inés Cruz Orduña, Celia María Calderón Ramón, Alberto Manuel Benavides Cruz, Wilbert Vivas Torres, Juan Rodrigo Laguna Camacho, Héctor Daniel López Calderón, Jesús Enrique Escalante Martínez, Cristóbal Cortez Domínguez, Jaime Martínez Castillo, Héctor Manuel Pérez Meana
14:30- 15:00	Paper presentation 3icev2022	Aplicación de Técnicas de Aprendizaje no Supervisado en Bases de Datos de Microarreglos de ADN: Un Caso de Estudio Comparativo	Judith E. Gómez-Cuervo, Arturo Chavoya

Tuesday, October 25th	Sala de Videoconferencias USBI	Session 2C
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17:00- 17:30	Paper presentation 9icev2022	Correlational analysis of the learning process of higher-level students in times of covid-19	Mejia Gracia César, Gazca Herrera Luis, Culebro Castillo Karina, Sánchez Hernández Suri
17:30- 18:00	Paper presentation 11icev2022	Development of a DAPP (decentralized application) on Rinkeby Network for the registration of Sensors of an Internet of Things IoT Environment	Soto-Ortiz, S. I, Salazar-Pérez, P. J., Guadalupe-Gallardo K. L
18:00- 18:30	Paper presentation 13icev2022	Electrical Engineer performance competencies from the Faculty of Mechanical and Electrical Engineering: Result of self-assessment exercise for accreditation	Morales Martínez Martha Edith, Camarillo Montero Jesús Antonio, Ricaño Herrera Francisco, Cruz Capitaine Roberto, Hernández García Cristián Dumay, Espinosa Arroyo Francisco
18:30- 19:00	Paper presentation 17icev2022	Experiential Learning: Impacts on the Relational and Support Skills of Higher Education Students in Engineering and Science	Yasmany Mancilla, Hugo Aldana, Carlos Ortiz-Alvarado, Maria Gabriela Ortiz, Marcel Hernández
19:00- 19:30	Paper presentation 32icev2022	Development of a Communication Platform through Embedded Systems for Telecontrol of Dynamic Systems	G. Delgado Reyes, M. Á. Hernández Pérez, E. Montes Carmona, P. García Ramírez, G. Hermida-Saba, J. A. Salgado-Fernández
19:30- 20:00	Paper presentation 34icev2022	Assessment of Distance Learning/Teaching Techniques in Engineering (Virtual Laboratory to Boost Education in Engineering)	Nereyda Castro-Gutiérrez and Irwin A. Díaz-Díaz

Thursday, October 27th	Sala de Usos Múltiples USBI	Session 3A
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8:00-8:30	Paper presentation 35icev2022	Changes in Measurement of Direct Current Photoplethysmography signals with a Wireless Transillumination System	D. A. Lara-López, J. Martinez-Castillo, E. Delgado-Alvarado, E. A. Morales-Gonzalez, J. J. Espinoza-Maza, G. Mendoza-Barron, Josué Domínguez-Márquez, P. Mabil- Espinosa, Elías Manjarrez
8:30-9:00	Paper presentation 18icev2022	Analysis of electrical performance of a-SiGe:H Thin Film Transistors by numerical simulations	Silvestre Salas-Rodríguez, Joel Molina- Reyes, and Jaime Martínez-Castillo
9:00-9:30	Paper presentation 36icev2022	Comparative of performance and delays between topologies cells 2T1C, 3T1C, and 4T2C for DRAM	I. Rodríguez -Ibarra, R. M. Woo-Garcia, I. Alfredo-Badillo, F. López-Huerta
9:30-10:00	Paper presentation 2icev2022	Atomic-layer deposition for development of advanced electron devices	Joel Molina-Reyes
10:00- 10:30	Paper presentation 24icev2022	Temperature dependence of electrical characteristics of Al/p- Si(100) and Ti/p-Si(100) Schottky barrier diodes	Arely Vazquez, Joel Molina
10:30- 11:00	Paper presentation 23icev2022	Superconducting qubits based on Al Josephson junctions and coplanar waveguide resonators	Daniel Rocha-Aguilera, Joel Molina-Reyes, and Gabriela Méndez-Jerónimo

Thursday, October 27th	Sala de Usos Múltiples USBI	Session 3B
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13:00- 13:30	Paper presentation 6icev2022	Hydrodynamic Study of a Wave Energy Converter (Wec) for the Area with the Greatest Potential in Mexican Coasts	Mariano Azzur Hernández Contreras, Mariana Silva-Ortega, Verónica García Valenzuela and Teresita de Jesús Olivares
13:30- 14:00	Paper presentation 31icev2022	Assessment of potential and temperature differential for an ocean thermal energy conversion plant. Case study: Cozumel, Mexico	Emmanuel Mendoza Bernal, Dario Colorado Garrido, Gerardo Alcala Perea, Beatris A. Escobedo Trujillo