

Virtual Concepts Workshop

Smart 4.0: Technology and Innovation Disruption.

28th February Agenda

SCHEDULE		ROOM 4	
09:00	09:20	WELCOME	Dr. RICARDO RAMÍREZ
09:20	10:20	KEY NOTE	Dr. SERGIO SAVARESSI
10:20	10:30	BREAK	
10:30	16:00	Workshop presentations in rooms 3,4, and 5	
16:00	16:15	BREAK	
16:15	16:45	CLOSURE	Dr. AZAEL CAPETILLO

		Room 3	
Schedule		Smart Factory	
10:30	10:45	Armando Elizondo-Noriega	A System Dynamics Study of the Effects of RFID Implementation on Operational Productivity.
10:45	11:00	Edwin C. Montiel-Vázquez	Use of virtual reality and gesture tracking for robotic manipulators.
11:00	11:15	Alberto Hernández	Methodology to define value propositions for manufacturing companies implementing Industry 4.0.
11:15	11:30	Pedro Orta	Health monitor System for Smart Factory Based on Vibration, Current and Temperature.
11:30	11:45	BREAK	
		Smart Factory	
11:45	12:00	Pedro Urbina	Towards a Digital Twin by Merging Discrete Event Simulations and the Internet of Things.
12:00	12:15	Sergio Uribe	Continuous gas level monitoring using a machine learning algorithm for image interpretation of gas pressure gauge readings.
12:15	12:30	Sergio Uribe	Application of Machine Learning for automatic classification of Scrap Metal in a steel factory.
12:30	12:45	Armando Román	Towards a Learning Cyber-Physical-Factory within the Industry 4.0 paradigm.
13:30	14:00	LUNCH	
		Smart Health	
14:00	14:15	Doménica Luzuriaga	INSAVIT: a new app to nutritional-anthropological-health survey integration.
14:15	14:30	Hugo G. González-Hernández	Computerized measurement method of blood glucose levels through the analysis of photo-plethysmographic signals.
14:30	14:45	Javier A. de la Tejera-de la Peña	Smart Health: The use of lower limb exoskeletons in patients with sarcopenia.
14:45	15:15	BREAK	
		Smart Innovation	
15:15	15:30	Ruth E. Cano	Multi-criteria analysis to improve the market position of a technological commercial organization based on the loyalty level.
15:30	15:45	Sebastián Negrete	Designing connected services for the automotive business in Latin America.
15:45	16:00	Azael Capetillo	The Innovation Pentad Strategy for the creation of a Smart Industry ecosystem: The case of Nuevo Leon 4.0.

		Room 4	
Schedule		Smart Mobility	
10:30	10:45	Pedro Ponce	Extended Electric Vehicles Life Time in Power Electronic Stage Using an Optimized Fuzzy Logic Controller.
10:45	11:00	José Ignacio Huertas	Vehicle Air Conditioning Fuel Consumption under Real-world Conditions - Monterrey as a Case Study.
11:00	11:15	Leonardo Israel Farfan-Cabrera	Development of a simple and efficient electric vehicle for testing and teaching of navigation algorithms.
11:15	11:30	Jorge Lozoya	Design, Development, and Implementation of an Electric Quarter of Vehicle for the Noise Vibration Harshness Data Acquisition.
11:30	11:45	BREAK	
		Smart Mobility	
11:45	12:00	Jorge A. Reyes-Avendaño.	Autonomous industrial tow-tractor system for delivering materials in predefined routes.
12:00	12:15	E. Mauricio Martínez	Smart electric drive in the framework of industry 4.0.
12:15	12:30	Julio Ruiz-Carrizal	Smart AGV development and testing.
12:30	12:45	Jorge Lozoya	ADAS application development for energy, gas emission and driving style using the cloud and CAN network.
13:30	14:00	LUNCH	
		Smart Mobility	
14:00	14:15	Ricardo Ramírez	Adaptive predictive control for active suspension system and electric power steering system.
14:15	14:30	Luis Alberto Curiel Ramírez	Intelligent urban route evaluation system for the redesign towards smart electromobility.
14:30	14:45	Rolando Bautista	Path Planning Recommender System Based on Fuzzy Inference Logic.
14:45	15:15	BREAK	
		Smart Cities	
15:15	15:30	David Ibarra	Soundscapes and noise pollution based on sensorial perception in big cities.
15:30	15:45	Juana Isabel Méndez	Framework for developing a gamified community of Smart Homes by Social Products interaction.
15:45	16:00	Jose Alfredo Galván	What skills predict an intern's ability to innovate new products? A quantitative study of innovation capability of Mexican college interns.

		Room 5	
Schedule		Smart Education	
10:30	10:45	Jaime Castells	Automatic Analysis of Features extracted from PowerPoint Slides.
10:45	11:00	Ramón Brena	Automated evaluation of foreign language speaking performance with Machine Learning.
11:00	11:15	Mauricio Hincapié	The Design and Implementation of a Smart classroom.
11:15	11:30	Noé Abraham	FabLabs in vulnerable communities: STEM education opportunities for everyone.
11:30	11:45	BREAK	
		Smart Education	
11:45	12:00	Fernando Campaña	Proposal of a PM measurement device and AR visualization as an educational tool.
12:00	12:15	Sergio Kenji Moriguchi	Global Education competencies for Industry 4.0.
12:15	12:30	Hafiz M. N. Iqbal	Smart educational tools and learning management systems: Supportive framework.
12:30	12:45	Azael Capetillo	Universal Design for Extreme Users: Lessons from designing tactile three-dimensional representations to foster STEM education in visually impaired students.
13:30	14:00	BREAK	
		Emerging Technology	
14:00	14:15	Armando Elizondo-Noriega	Techno-Economic Analysis of RFID Implementation via System Dynamics Simulation.
14:15	14:30	Luis H. Fierro	Design of a distributed architecture for a supply chain integrating a multi-agent approach using Coloured Petri Nets.
14:30	14:45	Héctor Esponda	An efficient differential protection algorithm for power transformers.
14:45	15:15	LUNCH	
		Emerging Technology	
15:15	15:30	Jorge Antonio Reyes-Avenidaño.	A Wideband Double-Negative Metamaterial Based on Multi-Resonant Cut Wires.
15:30	15:45	Javier Izquierdo-Reyes	Multivariable Agriculture Based on Acoustic Treatment.
15:45	16:00	Marcela Hernández	Competencies for industry 4.0.