

All presentations are of 30 minutes including questions

DETAILED PROGRAM

October 29, Tuesday Morning

08:00-17:30 **Registration**

08:30-09:00 **Opening Ceremony**

Keynote talk: Seth Hutchinson, IRIM-Georgia Institute of Technology, USA

09:00-10:00 **Design, Modeling and Control of a Robot Bat: From Bio-inspiration to Engineering Solutions**

Building: Tlaqná, Room: Annexed Room


10:00-10:30 *Break*

Parallel Session 29-1: Fuzzy Systems, Reasoning and Intelligent Applications 1

Building: USBI, Room: Videoconference 1

10:30-12:00 **Session Chair: Roberto Vazquez**

*** If a talk is cancelled, other talks will be moved up.**

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| 10:30-11:00 | 8 | José Daniel Vargas Proa, Carlos Fabian García Martínez, Miroslava Cano Lara and Horacio Rostro González | Application of Fuzzy Logic in the Edge Detection of Real Pieces in  Controlled Scenarios |
| 11:00-11:30 | 9 | José Solis-Cordova, Sandra Roblero-Aguilar, Nelva Almaza-Ortega and José Solis-Romero | Grey-fuzzy Approach to Support the Optimisation of the Shot Peening Process |
| 11:30-12:00 | 22 | Antoni Perello-Moragues and Pablo Noriega | A Playground for the Value Alignment Problem |

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10:30-12:00 **Parallel Session 29-2: Optimization and Planning 1**
Building: USBI, Room: Videoconference 2
Session Chair: Marcela Quiroz
*** If a talk is cancelled, other talks will be moved up.**

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| 10:30-11:00 | 18 | Harry Oviedo and Oscar Dalmau | A Scaled Gradient Projection Method for Minimization over the Stiefel Manifold |
| 11:00-11:30 | 105 | Karina Figueroa, Antonio Camarena-Ibarrola and Luis Valero-Elizondo | Local Sensitive Hashing for Proximity Searching |
| 11:30-12:00 | 112 | Apolinar Velarde Martinez | Parallel Task Graphs Scheduling Based on the Internal Structure |

10:30-12:00 **Parallel Session 29-3: Machine Learning 1**
Building: Tlaqná, Room: Annexed Room
Session Chair: Yasmín Hernández
*** If a talk is cancelled, other talks will be moved up.**

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| 10:30-11:00 | 100 | Humberto Sossa-Azuela, Elsa Rubio, Victor Ponce and Hermilo Sánchez | Vertex Codification Applied to 3-D Binary Image Euler Number Computation |
| 11:00-11:30 | 58 | Diego G. Alonso, Alfredo Teyseyre, Luis Berdun and Silvia Schiaffino | A Deep Learning Approach for Hybrid Hand Gesture Recognition |
| 11:30-12:00 | 75 | Andrés Rico and Leonardo Garrido | Feed Forward Classification Neural Network for Prediction of Human Affective States using Continuous Multi Sensory Data Acquisition |

10:30-12:00 **Parallel Session 29-4: Doctoral Consortium 1**
Building: USBI, Room: Videoconference 3
Session Chair: Miguel González
*** If a talk is cancelled, other talks will be moved up.**

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10:30-11:00	NA	Juan C. Olivares-Rojas (Instituto Tecnológico de Morelia)	Cyber Security on Transactions in Smart Metering Systems Using Blockchain
11:00-11:30	NA	Mario Ezra Aragón Saenzpardo (INAOE)	Detecting Mental Disorders in Social Media using a Multichannel Representation
11:30-12:00	NA	Tonatiuh Hernández-del-Toro (INAOE)	Incremental learning models for identifying imagined words in continuous EEG signals

12:00-13:00 Lunch

October 29, Tuesday Afternoon

13:00-14:00 *Keynote talk: Pablo Noriega, Artificial Intelligence Research Institute of the Spanish Scientific Research Council, Spain*
Misbehaving and AI: the challenge of autonomy in artificial intelligent systems
Building: Tlaqná, Room: Annexed Room

14:00-14:15 *Break*

14:15-15:45 **Parallel Session 29-5: Fuzzy Systems, Reasoning and Intelligent Applications 2**
Building: USBI, Room: Videoconference 1
Session Chair: Hiram Ponce
*** If a talk is cancelled, other talks will be moved up.**

14:15-14:45	17	Francisco G. Salas, Raymundo Juarez del Toro, Rafael Espin and Juan Manuel Jimenez	An Approach to Knowledge Discovery for Fault Detection by using Compensatory Fuzzy Logic
14:45-15:15	21	José Luis Vilchis Medina, Pierre Siegel, Vincent Risch and Andrei Doncescu	A Resilient Behavior Approach Based on Non-monotonic Logic
15:15-15:45	33	Omar Mata, Pedro Ponce, Isabel Méndez, Arturo Molina, Alan Meier and Therese Peter	A Model using Artificial Neural Networks and Fuzzy Logic for Knowing the Consumer on Smart Thermostats as a S3 Product

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15:45-16:00

Break

14:15-15:45	Parallel Session 29-6: Optimization and Planning 2 Building: USBI, Room: Videoconference 2 Session Chair: Oscar Herrera		
14:15-14:45	48	Juan Roberto López Gutiérrez, Pedro Ponce and Arturo Molina	Bounded Region Optimization of PID Gains for Grid Forming Inverters with Genetic Algorithms
14:45-15:15	118	Esteban Morales, Cristina Juárez, Edgar García and José Sánchez	Differential Evolution Based on Learnable Evolution Model for Function Optimization
15:15-15:45	146	Magda López-López, Axel Zamora and Roberto A. Vazquez	Automatic Diet Generation by Particle Swarm Optimization Algorithm
15:45-16:00			Break

14:15-15:45	Parallel Session 29-7: Machine Learning 2 Building: Tlaqná, Room: Annexed Room Session Chair: María de Lourdes Martínez * If a talk is cancelled, other talks will be moved up.		
14:15-14:45	16	Felipe de la Rosa-Rivera and Jose I. Nunez-Varela	Implementation of Algorithm Recommendation Models for Timetabling Instances
14:45-15:15	19	Rogelio Bautista-Sánchez, Liliana Ibeth Barbosa-Santillán and Juan Jaime Sánchez-Escobar	Statistical Approach in Data Filtering for Prediction Vessel Movements Through Time and Estimation Route using Historical AIS Data
15:15-15:45	123	Erick Lara-Cárdenas, Xavier Sánchez-Díaz, Ivan Amaya and José Carlos Ortiz-Bayliss	Improving Hyper-Heuristic Performance for Job Shop Scheduling Problems using Neural Networks
15:45-16:00			Break

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Parallel Session: Doctoral Consortium 2

Building: USBI, Room: Videoconference 3

**14:15-
15:45**

Session Chair: Miguel González

*** If a talk is cancelled, other talks will be moved up.**

14:15-14:45	NA	Omar Guzmán Ruiz (CENIDET)	Supervised Classification Algorithm that considers Inter- Dependencies of features
14:45-15:15	NA	Kevin Salvador Aguilar Domínguez (CENIDET)	Semantic Improvements to MPEG-7 Descriptors for Content-Based Image Retrieval
15:15-15:45	NA	Antonieta Martínez Velasco (Universidad Panamericana)	Methodology to determine the risk factors associated with complex diseases through the Machine Learning approach
15:45-16:00			Break

October 29, Tuesday Evening

**16:00-
17:30**

Panel: México frente a los Retos y Oportunidades de la Inteligencia Artificial: Implicaciones Técnicas y Éticas

Building: Tlaqná, Room: Annexed Room

17:30-17:45

Break

17:45-19:00 Special session: short oral presentations (All papers accepted as a Poster presentation)

19:00-21:30 Special session: poster presentations & welcome party

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