

**Twelfth Latin American Workshop on New Methods of Reasoning 2019**  
**Logic / Languages, Algorithms, New Methods of Reasoning Program**  
**November 15th, 2019**

9:20-9:30	<i>Opening</i>
<i>Chair session</i>	<i>Dra. Verónica Borja Macias</i>
9:30-9:50	<i>Deep learning: concepts and implementation tools</i> Eddy Sánchez-De la Cruz, David Lara-Alabazares and Sidney R. Toledo Martínez
9:50-10:10	<i>Tableaux for Murphree's Numerical Term Logic</i> José Martín Castro-Manzano
10:10-10:30	<i>A DBSCAN-based Under-sampling Algorithm for Imbalanced Data</i> Angélica Guzmán Ponce, Rosa María Valdovinos Rosas and José Salvador Sánchez Garreta
10:30-10:50	<i>An extension of the stable semantics via Lukasiewicz logic</i> Mauricio Osorio and José Luis Carballido
10:50-11:10	<i>A new 5 valued genuine logic</i> Mauricio Osorio and Claudia Zepeda.
11:10-11:30	<i>Towards an Answer Set Programming methodology for constructing programs following a semi-automatic approach.</i> Flavio Everardo and Mauricio Osorio
11:30-11:40	<b>Coffee Break</b>
<i>Chair session:</i>	<i>Dr. José Raymundo Marcial Romero</i>
	<b>Invited Speaker</b> <b>Non-standard Utility Functions</b> <b>Prof. Dr. Adolfo García de la Sienna Guajardo</b> Director del Instituto de Filosofía de la Universidad Veracruzana
11:40-12:30	
12:30-12:50	<i>Methodology to represent functions in logic <math>\\$BL_{\{\supset\}}\\$</math></i> Mauricio Osorio, Daniela Hernández Grijalva and Jesús Alejandro Hernández Tello
12:50-13:10	<i>Paracomplete logics which are duals of the paraconsistent logics <math>\\$L3A\\$</math> and <math>\\$L3B\\$</math></i> Jesús Alejandro Hernández Tello, Verónica Borja Macias and Marcelo E. Coniglio
13:10-13:30	<i>Gradual typing using union typing with records</i> Karla Ramírez Pulido, Jorge Luis Ortega Arjona and Lourdes Del Carmen González Huesca
13:30-13:50	<i>On Interactive Proof-Search in Constructive Modal Necessity</i> Favio E. Miranda-Perea, Lourdes Del Carmen González Huesca and Pilar Selene Linares
13:50-14:10	<i>Building a maximal independent set for the vertex-coloring problem on planar graphs</i> Cristina López-Ramírez, Jorge Eduardo Gutiérrez Gómez, Guillermo De Ita Luna
14:10-14:30	<i>An ontology-based approach to describe collaborative work by reusing and enriching data from an institutional repository</i> María Auxilio Medina Nieto, Delia Arrieta Díaz, Jorge De la Calleja Mora, Laura Zacatzontetl Hernández and Marilú Zacatelco Pérez
14:30-15:00	<b>Poster session</b>

**LANMR 2019 is taking place at Sala Sor Juana, UPAEP Campus Central, 21 Sur 1103**  
(<https://es.foursquare.com/v/sala-sor-juana-ines-de-la-cruz/4f3eca9de4b0d8d383601d4a>)