



PERSONAL INFORMATION	<p>Birthday: 8-Jul-1984 Address: Aramén # 313 Postal (ZIP) Code: 58070 Morelia, Mexico</p> <p>e-mail: rodrigo.lopez@alumni.imtlucca.it ORCID ID: 0000-0003-2772-0051 Cellular: +52 443 155 5416 Skype ID: rdglpz</p>
INTERESTS & SKILLS	<p><b>Programming Languages</b> MATLAB, MATHEMATICA, R, Java, C/C++, PHP-HTML-MySQL, Python, LISP.</p> <p><b>Research</b> Machine learning, data mining, dimensionality reduction, time series, nonlinear dynamical systems, global optimization, evolutionary computing.</p> <p><b>Research groups and projects</b> Mexican Center of Energy Innovation Project. Applied Computational Intelligence Network.</p> <p><b>Languages</b> English: 550 ITP TOEFL points. Italian: B1 Common CEFRL Level.</p>
ACADEMIC DEGREE	<p><b>Ph.D in Computer Science and Engineering.</b> (W. European Doctorate mention). IMT School of Advanced Studies Lucca. Lucca, Italy. <i>(Feb-2012 Jan-2016)</i>. Thesis: Time Series Forecasting Based on Classification of Dynamic Patterns. Advisors: Dr. Alberto Bemporad. Dr. Pantelis Sopasakis. Field of study: Time series analysis.</p> <p><b>MSc in Electrical Engineering (Computer Systems Group).</b> Univesidad Michoacana de San Nicolas de Hidalgo. Morelia, Mexico. <i>(Mar-2008 Aug-2010)</i>. Thesis: Bifurcation Diagrams for Discontinuous or Non-differentiable Equations. Advisors: Dr. Juan Jose Flores Romero, Dr. Claudio Fuerte E. Field of study: Evolutionary computing, nonlinear dynamical systems, stability analysis and optimization.</p> <p><b>B.Eng. in Computer Systems.</b> Instituto Tecnológico de Morelia. Morelia, México. <i>(2002 2007)</i>. Thesis: Implementation and performance analysis of “Linux Terminal Server Project” for educational purposes. Field of Study: Applications of distributed operative systems.</p>
ACADEMIC EXPERIENCE	<p><b>Teaching.</b> <b>Instituto Tecnológico de Morelia.</b> Morelia, Mexico.</p> <ul style="list-style-type: none"><li>• Structured programming and object oriented programming (Electronic and Industrial Engineering), Research Methodology (Computational Systems Engineering). <i>(Aug-2011 Jan-2012)</i>.</li><li>• Database Fundamentals (Computational Systems Engineering), Structures and organization of data. (Technology Information Engineering) and Evaluation of software projects. <i>(Jan-2011 Jul-2011)</i>.</li><li>• Operative systems, selected topics in programming and research fundamentals. <i>(Aug-2010 Dec-2010)</i>.</li></ul> <p><b>Universidad de Morelia.</b> Morelia, Mexico.</p> <ul style="list-style-type: none"><li>• Web programming with PHP. <i>(Aug-2009 Dec-2009)</i>.</li></ul>

- PROFESSIONAL EXPERIENCE    **State Center for Information and Communications Technologies (CETIC).** (Mar-2007 Jun-2007). Morelia, Mexico.  
Resident in physical infrastructure department.  
Project: Performance analysis of **Linux Terminal Server Project** applied to basic education.
- Instituto Tecnológico de Morelia.** Morelia, Mexico. (Feb-2007)  
Social Service Project: Develop of a PHP Web catalog for Social Service.
- IMPULSA**  
Participation in the young entrepreneurs program: IMPULSA.
- PUBLICATIONS    **Journal Articles in JCR**  
**Accepted**
- *Hector Rodriguez Rangel, Vicenç Puig, Rodrigo López Farías, Juan J. Flores . Short-Term Demand Forecast using Bank of Neural Network Models Trained using Genetic Algorithms for the Optimal Management of Drinking Water Networks. Journal of Engineering Applications of Artificial Intelligence.*(2016)
- Refereed Conference Papers**  
**Accepted**
- *Juan J. Flores, Felix Calderon Solorio, Jose Rafael Cedeño Gonzalez, Jose Ortiz Bejar and Rodrigo Lopez Farias.* Comparison of Time Series Forecasting Techniques with respect to Tolerance to Noise *IEEE Autumn Meeting on Power, Electronics and Computing, Ixtapa México, November 2016*
  - *Hector Rodriguez-Rangel, Vicenç Puig, Juan J. Flores and , Rodrigo López Farías.* Flow meter Data Validation and Reconstruction using Neural Networks: Application to the Barcelona Water Network **3rd International Conference on Control and Fault-Tolerant Systems, Barcelona, Spain. 2016.**
  - *Hector Rodriguez Rangel, Vicenç Puig, Juan J. Flores and , Rodrigo López Farías.* Flow meter Data Validation and Reconstruction using Neural Networks: Application to the Barcelona Water Network **2016 European Control Conference, Aalborg, Denmark. June 2016.**
  - *Rodrigo López Farías, Juan J. Flores and Vicenç Puig.* Qualitative and Quantitative Multi-Model Forecasting with Nonlinear Noise Filter Applied to Water Demand *IEEE Autumn Meeting on Power, Electronics and Computing.* DOI: 10.1109/ROPEC.2015.7395122. **Ixtapa México, November 2015.**
  - *Juan J. Flores, Jose Ortiz Bejar, Jose Rafael Cedeno, Carlos Lara-Alvarez and Rodrigo López Farías* FNN a Fuzzy Version of the Nearest Neighbour Time Series Forecasting Technique *IEEE Autumn Meeting on Power, Electronics and Computing Ixtapa México, November 2015 .*
  - *Rodrigo López Farías, Vicenç Puig* A Multiple-Model Predictor Approach Based on an On-Line Mode Recognition with Application to Water Demand Forecasting *International work-conference on Time Series 1 Granada Spain, July 2015.*
  - *Rodrigo. López, Vicenç Puig, Hector Rodriguez* An implementation of a multi-model predictor based on the qualitative and quantitative decomposition of the time-series *International work-conference on Time Series 1 Granada Spain, July 2015.*
  - *Dr, Juan Flores, Rodrigo López, Julio Barrera.* Optimization with gravitational Interactions *ROPEC XIII: Autumn Meeting of Electric power systems, electronic and computation ( Reunión de Otoño de Potencia, Electrónica y Computación) Morelia México, November 2011.*
  - *Juan Flores, Rodrigo Lopez, Julio Barrera.* Gravitational Interactions Optimization. In *Learning and Intelligent OptimizatioN (LION 5) Rome, Italy - January 2011.*
  - *Juan J. Flores, Rodrigo Lopez and Julio Barrera.* Particle swarm optimization with gravitational interactions for multimodal and unimodal problems. In *Proceedings of the 9th Mexican International Conference on Artificial Intelligence (MICA I 2010)*, pages 3361-370. Springer-Verlag. **Pachuca, México. November 2010.**
- CONFERENCES, SEMINARS & WORKSHOPS    **Given**
- IV National Seminar of computer learning and intelligence (SNAIC). Water demand prediction with Genetic Algorithms for the optimum optimization of a Drinking Water Distribution

System. Instituto Nacional de Astrofísica, Óptica y Electrónica. Universidad Michoacana de San Nicolás de Hidalgo. (Morelia, México. September 2016).

- 10mo Congreso Estatal de Ciencia, Tecnología e Innovación, en Ciencias de la Ingeniería y Tecnología. PSO con Nichos Interactivos y Búsquedas locales con Quasi-Newton (Morelia, México. September 2015 )
- Activities of X Anniversary of the Instituto Tecnológico Superior de Ciudad Hidalgo - ' Evolutionary computing applied to dynamical systems'.(Ciudad Hidalgo, México. October 2010).
- Week of Research Projects FIE of the UMSNH - 'Gravitational Interactions Optimization ' ( Morelia, México. June 2010 ).
- Week of Research Projects FIE of the UMSNH - 'Bifurcations Diagrams using Artificial Intelligence Tools'(Morelia, México. June 2009).

#### **Attended**

- 5th HYCON2 Ph.D. School on Control of Networked and Large-Scale Systems and the EFFINET Ph.D. School on Control of Drinking Water Networks (Lucca Italy, 1-5 of July 2013)
- Java workshop in the 2nd Week of Computation and Systems. *Morelia, Mexico (2006)*.
- Analysis and Object Oriented Design using UML (Morelia Mexico, 8-12 of August 2011)