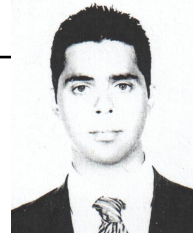


## Dr. Rodrigo López Farías (Updated: 29 / Feb / 2016 )

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PERSONAL INFORMATION	Birthday: 8 / Jul / 1984	Cellular: +52 4431555416
	Address: Aramén # 313	e-mail: rodrigo.lopez@alumni.imtlucca.it
	CP: 58070	Skype ID: rdglpz
	Morelia, Mexico	

**INTERESTS & SKILLS**      **Programming Languages**  
Matlab, MATHEMATICA, R, Java, C/C++, PHP, HTML, MySQL, Python, LISP.

### Research

Machine learning Data mining, Dimensionality reduction, Machine Learning, Time series, Nonlinear dynamical systems, Global optimization, Evolutionary computing.

### Languages

English: 550 TOEFL points. Italian: B1 Common CEFRL Level

**ACADEMIC DEGREE**      **PhD in Computer Science and Engineering** (W. European Doctorate mention). Lucca, Italy.  
(February 2012 - January 2016)

### Institute of Advanced Studies Lucca

- Thesis: Time Series Forecasting Based on Classification of Dynamic Patterns.
  - Advisors: Dr. Alberto Bemporad. Dr. Pantelis Sopasakis
  - Study field: Time series analysis.

**MSc in Electrical Engineering (Branch: Computational Systems).** *Morelia, Mexico.* (March 2008 - August 2010)

### Univesidad Michoacana de San Nicolas de Hidalgo

- Thesis: Bifurcation Diagrams for Discontinuous or Non-differentiable Equations.
  - Advisors: Dr. Juan Jose Flores Romero, Dr. Claudio Fuerte E.
  - Keywords: Evolutionary computing, nonlinear dynamical systems, stability analysis and optimization.

**Engineer in Computational Systems.** *Morelia, Mexico (2002-2007)*

### Instituto Tecnológico de Morelia

- Thesis: Implementation and performance analysis of “Linux Terminal Server Project” for educational purposes.
  - Topic: Distributed operative Systems.

**ACADEMIC EXPERIENCE**      **Instituto Tecnológico de Morelia.** Morelia, Mexico.

### Teaching

**August 2011 - January 2012**

- Structured and Object Oriented Computer programming (In Electronic and Industrial Engineering), Research Methodology (In Computational Systems Engineering).

**January 2011 - July 2011**

- Database Fundamentals (Computational Systems Engineering), Structures and organization of data. (Technology Information Engineering) and Evaluation of software projects.

**August 2010 - December 2010**

- Operative systems, selected topics of programming and research fundamentals.

**Universidad de Morelia.** Morelia, Mexico.

### Teaching

**August 2009 - December 2009**

- Web programming with PHP

PROFESSIONAL EXPERIENCE    **State Center for Information and Communications Technologies (CETIC).** Morelia, Mexico.

*Resident in physical infrastructure*

**March 2007 - June 2007**

- Performance analysis of **Linux Terminal Server Project** applied to basic education.

**Instituto Tecnológico de Morelia.** Morelia, Mexico.

*Social Service Project*

**February 2007**

- Develop of a PHP Web catalog for Social Service.

*IMPULSA*

**May 2005**

- Young entrepreneurs program: IMPULSA.

PUBLICATIONS    **Journal Articles**

- *Hector Rodriguez Rangel, Vicenc 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. *Engineering Applications of Artificial Intelligence. Under review.*

**Peer Reviewed Accepted Conference Articles**

- *Rodrigo López Farías, Juan J. Flores and Vicenc Puig.* Qualitative and Quantitative Multi-Model Forecasting with Nonlinear Noise Filter Applied to Water Demand *IEEE Autumn Meeting on Power, Electronics and Computing 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, Vicenc 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 España, July 2015.*
- *Rodrigo. López, V. Puig, H. 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 España, 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, Noviembre 2011.*
- *Juan Flores, Rodrigo Lopez, Julio Barrera.* Gravitational Interactions Optimization. In *Learning and Intelligent OptimizatioN (LION 5) Roma, 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 (MICAI 2010)*, pages 361–370. Springer-Verlag. **Pachuca, México. November 2010.**

CONFERENCES, SEMINARS & WORKSHOPS    **Given**

- 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'. (Morelia, 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)