Dr. Rodrigo López Farías (Updated: *23/Feb/2016*)

PERSONAL
INFORMATION

Birthday: 8/Jul/1984
Address: Aramen # 313
Zip Code: 58070
Morelia, Mexico

e-mail: rodrigo.lopez@alumni.imtlucca.it

Skype Id: rdglpz

INTERESTS &
SKILLS

Programming Lenguages
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

0.1. Studies

PhD in Computer Science and Engineering (with European Doctorate mention).
Lucca, Toscana, Italy. (February 2012 - January 2016)

IMT 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 (Option: Computational Systems). Morelia, Michoacan Mexico. (March 2008 - August 2010)

Universidad Michoacana de San Nicolas de Hidalgo.

Thesis: Bifurcation Diagrams for Discontinuous or Nondifferentiable Equations.
- Advisors: Dr. Juan Jose Flores Romero, Dr. Claudio Fuerte Esquivel.
- Related research topics: Evolutionary computing, nonlinear dynamical systems, stability analysis and optimization.

Engineer in Computational Systems. - Morelia, Michoacan Mexico.(August 2002 - December 2007)

Instituto Tecnologico de Morelia.

- Thesis Project: Implementation and performance analysis of **"Linux Terminal Server Project"** for educational purposes.

ACADEMIC
EXPERIENCE

0.2. Courses Taught

Instituto Tecnológico de Morelia. Morelia, Mexico.

Teaching

August 2011 - January 2012

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

January 2011 - July 2011

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

August 2010 - December 2010

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

Universidad de Morelia. Morelia, Mexico.

Teaching   **August 2009 - December 2009**

- Web programming with PHP

0.3. Participation in Research Projects

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**

Instituto Tecnologico de Morelia. Morelia, Mexico.

Social Service Project   **February 2007**

- Develop of a web catalog for Social Service.

IMPULSA   **May 2005**

- Program encourages young entrepreneurs IMPULSA.

0.4. Peer Reviewed 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 Neighbor Time Series Forecasting Technique *IEEE Autumn Meeting on Power, Electronics and Computing* **Ixtapa México, November 2015** .

- *Rodrigo Lópea 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 Electic power systems, electronic and computation (Reunión de Otoño de Potencia, Electróinca 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 2010**.
- 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

- Invited to the 10 Congreso Estatal de Ciencia, Tecnología e Innovación, en la Mesa 2.- Ciencias de la Ingeniería y Tecnología, modalidad
- 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).

0.5.   Courses, Workshops or Seminars Taken

- "5th HYCON2 (Taming Heterogeneity and Complexity) PhD School on Control of Networked and Large-Scale Systems and the EFFINET PhD School on Control of Drinking Water Networks (Lucca Italy, 1 to 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, From 8 to 12 of August 2011)
- Week of Systems and computation in the Instituto Tecnológico de Morelia. *Morelia, México (2006).*
- Week of Systems and computation in the Instituto Tecnológico de Morelia. *Morelia, México (2005).*