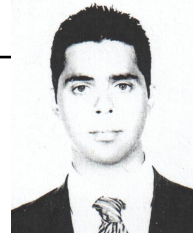


Dr. Rodrigo López Farías (Updated: 18 / Mar / 2016)



PERSONAL INFORMATION

Birthday: 8 / Jul / 1984
Address: Aramén # 313
CP: 58070
Morelia, Mexico

e-mail: rodrigo.lopez@alumni.imtlucca.it
Skype ID: rdglpz
Cellular: +52 4431555416

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	<p>State Center for Information and Communications Technologies (CETIC). Morelia, Mexico.</p> <p><i>Resident in physical infrastructure</i> March 2007 - June 2007</p> <ul style="list-style-type: none"> • Performance analysis of Linux Terminal Server Project applied to basic education. <p>Instituto Tecnológico de Morelia. Morelia, Mexico.</p> <p><i>Social Service Project</i> February 2007</p> <ul style="list-style-type: none"> • Develop of a PHP Web catalog for Social Service. <p><i>IMPULSA</i> May 2005</p> <ul style="list-style-type: none"> • Young entrepreneurs program: IMPULSA.
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PUBLICATIONS **Journal Articles**

Under review

- *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*.
- *Juan J. Flores, Rodrigo López Farías, Julio Barrera, Carlos Coello* Performance of Gravitational Interaction Optimization Metaheuristics on High Dimensional Problems. *Journal Optimization and Engineering*.

Peer Reviewed Accepted Conference Articles

- *Hector Rodriguez Rangel, Vicenc 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 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)