Pérez-Xochicale Miguel Angel

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Personal Information

Place and Date of Birth: Puebla, México. 29th of September, 1981.
Address: 5 de Mayo #18, Xicohtzinco, Tlaxcala. México. Zipcode: 90780.
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Research Goals

I am very insterested in gaining a deeper understanding and building Human-Computer Interaction Systems.

Education

- **National Institute of Astrophysic, Optic and Electronic (INAOE)** Puebla, Pue.
  Master Degree in Electronics; 8.5/10 *Sep. 2004 – Sep. 2006*
  - Thesis document: Digital Filter FIR with less multipliers. PDF
  - Professional license: 6294064.
  - Key Courses: Electromagnetic Theory, Circuit Theory, Introduction to Communications, Digital Signal Processing, Introduction to Fiber Optical Communications, and Adaptive Signal Processing.
- **Puebla Institute of Technology(ITP)** Puebla, Pue.
  Bachelor degree in Electronic Engineering; 8.7/10 *Aug. 1999 – Sep. 2004*
  - Residence Memory Project document: A robot speed control with two degrees of freedom. PDF
  - Professional license: 4907567.
  - Key Courses: Communications, Programmer Logic Controllers, Electronic I-III, Industrial Electronic I-II, Mathematics I-V, Microcontrollers, and Optoelectronics.

Teaching Experience

- **At Puebla's TECMilenio University (UTM)** Puebla, Pue.
  Bilingual High School Courses *Autumn 2013*
  - Information Technology – Euclidian Geometry – Microsoft Office Access
- **At Madero's University (UMAD)** Puebla, Pue.
  Bachelor Degree Courses in Mechatronic Engineering *Spring 2012 – Autumn 2012*
  - Fundamentals of Automation – Industrial Electronics – Power Electronics
  - Research Projects II – Metrology – Physics – Computer Integrating Manufacturing
- **At University Iberoamericana Puebla (UIA-P)** Puebla, Pue.
  Bachelor Degree Courses in Electronics Engineering *Spring 2007 – Spring 2012*
  - Stochastic Processes Course – Digital Signal Processing
  - Noise and Stochastic Processes – Analog Filters
- **At Technological Institute Superior of Atlixco (ITSA)** Atlixco, Pue.
  Bachelor Degree Courses in Mechatronic and Electric Engineering *August 2006 – June 2007*
  - Electronic I, Numerical Methods, and Electricity and Magnetism. — January-June 2007.
  - Electricity and Magnetism, and Electricity and Industrial Electronics— August-December 2006.

Professional Experience

- **Robotics Laboratory at INAOE** — Puebla, Pue.
  A Robot-Human Interaction Demo Dance — *February 2013 – August 2013*

  This work presents a Robot-Human Interaction Demo Dance, which is based on a ZSTAR3 Radio Frequency single three-axis accelerometer and a Patrolbot mobile robot. The ZSTAR3 sensor board is located in the position of the left wrist. With the wereable accelerometer, we explores four movements of the arm in order to control the mobile robot.

- **UMAD** — Puebla, Pue.
  Mechatronic Laboratory Proposal — *2012*

  A Design of a Mechatronic Laboratory was elaborated as a proposal project for the Mechatronic engineering career at Madero University in order to offer adequate facilities to students, professors and researchers.

- **INAOE** — Puebla, Pue.
  Professional Resident — *Aug. 2003 – March 2004*
  - Programming a Microcontroller PIC 16F84 and 16F877.
  - Programming Virtual Instruments with LabVIEW
  - Serial Communication RS-232.

Publications

- L. Enrique Sucar, Eduardo Morales, Miguel Palacios, Patrick Heyer, Dulce Navarrete, Miguel Perez, Harold Vasquez, Irving Vasquez, Maria Rosas, David Carrillo, *Markovito Team Description Poster TMR @HOME*, TMR 2013, ITESM Puebla México 2013. PDF
- M. A. Perez-Xochicale and G. Jovanovic-Dolecek, *A New Method for Design Narrow Band Lowpass FIR Filters Using a Scale Function*, ICED 2006, Veracruz November 2006. PDF
- Jovanovic-Dolecek Gordana and Perez-Xochicale Miguel Angel, *One Efficient Design of Frequency Masking Filters*, ELECTRO 2006, Chihuahua October 2006. PDF
- G. Jovanovic-Dolecek and M. A. Perez-Xochicale, *One Method for Design of Wideband FIR Filters Without Multipliers*, International Conference CONIELECOMP 2006, Puebla February 2006. (Proc. Published by IEEE Computer Society, N0.0-7695-2505-9/06.2006 IEEE). PDF
- M. A. Perez-Xochicale, G. Jovanovic-Dolecek, *Diseño de filtros FIR con el Método Máscara en las Técnicas de Redondeo y Sharpening*, Memorias del Sexto Encuentro de Investigacion INAOE 2005, pp. 127 - 130. PDF

Awards and Honours

First place at the 2013 Mexican Tournament of Robotics in the cathegory at HOME.
National Council on Science and Technology (CONACYT) Master Degree Scholarship from 2004-2006.

Foreign Language

Spanish Language as Native tongue.
Test of English as a Foreign Language (TOEFL) ITP Record: 543 points. (06/21/2013)
IELTS. Overall Band Score 6.0: Listening 6.0, Reading 7.0, Writing 6.0, Speaking 5.5. (11/01/2014)

Computer Skills

Operative Systems: Six years of experience with GNU-Linux.

Programing and markup languages: GNU-Octave, GNU-emacs, MATLAB, C++, Kdevelop, Code Composer Studio, ng-spice, LabVIEW, Arduino, Processing, LaTeX, and beginner at Robot Operating System (ROS).

Extracurricular Activities

- I have recently founded LibrE Robotics, a non-profit organization for learning and sharing knowledge to build conditions for a better world.
- Creating of a Interactive Planetary Motion Application with the Kinect Sensor.
- Workshop for building a Light-Tracking Mini Robots with Vibrator Motors
- Giving advice on student projects such as Haptic Referee Glove Lightmetre and Pychometre using Arduino, Smart Irrigation, Persistent Of Vision Bicycle Wheel, a Delta Robot Structure , and A word speech recognition using detection theory with GNU-Octave Poster PDF.