

Silvia Cecilia Tapia Siles

Resume

Cochabamba-Bolivia
Email: ceciliatapia@upb.edu

EDUCATION & TRAINING

2011	PhD in Robotics Italian Institute of Technology & Pierre and Marie Curie University. Bio-inspired robotic locomotion in turbulent flows Genoa - Italy & Paris - France
2007	International MBA European Business School Cochabamba – Bolivia
2006	MSc. Robotics IRCCYN - Ecole Centrale de Nantes Nantes – France
2003	Bachelor's Degree in Electromechanical Engineering Bolivian Private University Cochabamba – Bolivia
1996	Bachelor of Arts Col. Alemán Federico Froebel Cochabamba - Bolivia

ACADEMIC AND INDUSTRIAL EXPERIENCE

Universidad Privada Boliviana – Cochabamba, Bolivia:

Research Lecturer – of the LITIR Research Laboratory
Cochabamba-Bolivia, June 2023 to date

Universidad Privada Boliviana – Cochabamba, Bolivia:

Research Lecturer – Robotics and Industrial Automation Group – CIPI

- Research and development projects in the area of Control, instrumentation and design of robotic and industrial platforms.
- Supervision of undergraduate students.
- Teaching of Logic Control Systems and Robotics.

Career Manager – Electromechanical engineering

- Administrative and academic management of the degree
Cochabamba and La Paz – Bolivia, November 2015 – March 2022

IMSAT "Institute for Medical Science and Technology – Dundee, Scotland:

Postdoctoral Researcher – Surgical and Robotic Technology Group

- Control, instrumentation and design of robotic platforms for hydro-colonoscopy.
- Co-Supervision of Undergraduate, Master's and PhD Students

Dundee – United Kingdom, October 2011 – September 2015

IIT "Italian Institute of Technology" – Genoa, Italy:

Junior Postdoctoral Researcher – Telerobotics Laboratory and
Applications & Robotics and Cognitive Sciences Laboratory

- Locomotion Control and Motion Generation for Aquatic Robots
- Adaptation and application of crawling algorithms for humanoid robot "I-cub"

Genoa – Italy, May – August 2011

UPB "Universidad Privada Boliviana" - Cochabamba, Bolivia:

Teacher of the module "Introduction to robotics"

Cochabamba – Bolivia, 2006

ABB (Asea Brown Boveri) – Bolivia:

Project Engineer

SCADA systems, automation, control and industrial instrumentation.

Bolivia, 2003 - 2005

CABLEBOL S.A. -Bolivia:

Engineer in charge of Quality Control and Maintenance.

Cochabamba- Bolivia, 2003

UPB – Cochabamba, Bolivia:

LANGUAGES

Spanish	Native
French	Advanced level (CEFRL level C1)
English	Advanced level (CEFRL level C1)
Italian	Fluid

JOURNAL ARTICLES AND CONFERENCES

- **Silvia C. Tapia-Siles**, O Urquidi-Gandarillas, M Pakleppa, "Variable Stiffness Hand Prostheses: A Systematic Review of the State of the Art," Research & Development 1(17), 99-108, 2017.
- **Silvia C. Tapia-Siles**, Ryad Chellali, "Swimming Against the Current: A Context of Robotic Simulation" Research & Development, 2016.
- **Silvia C. Tapia-Siles**, S. Coleman, A. Cuschieri, "Current state of micro-robots/devices as substitutes for screening colonoscopy: assessment based on technology readiness levels" Surgical Endoscopy Journal, 2015.
- K. **Johnston**, **C. Tapia-Siles**, B. Gerold, M. Postema, S. Cochran, A. Cuschieri, P. Prentice, "Periodic shock-emission from acoustically driven cavitation clouds: a source of the subharmonic signal". Ultrasonics, vol 54, no. 8, 2014.
- **Silvia C. Tapia**, S. Coleman, A. Cuschieri, "Pipeline Inspection Gauge (PIG) device for negotiation of flexures for robotic hydro-colonoscopy". EAES 2013 congress, Vienna-Austria, June 2013.
- M. **Pakleppa**, **S. C. Tapia-Siles**, S. Coleman, J. Bernd Vorstius, R. Keatch, A. Cuschieri, "Dempster-Shafer theory applied in state estimation of a pressure driven Endoscope for Hydro-Colonoscopy". The 16th International Conference on Information FUSION, Istanbul-Turkey, July 2013.
- **C. Tapia-Siles**, R. Chellali, "Simulation of an under-actuated fish-like robot controlled by an adaptive frequency oscillator inside a Karman Vortex Street", NGCUV 2012, Portugal, April 2012.
- T. **Hoinville**, **C. Tapia**, P. Hénaff. "Flexible and Stable Pattern Generation by Evolving Constrained Plastic Neurocontrollers". Adaptive Behavior, May 2011.
- **C. Tapia**, R. Chellali. "Simple Karman Street model". IEEE Oceans 2010, Sydney-Australia, 2010
- **C. Tapia**, Th. Hoinville, R. Chellali. "Locomotion through Karman Street using adaptive oscillator". Proc. of 1st Int. Conf. on Adaptive and Self-adaptive Systems and Applications (Adaptive 2009), Athens-Greece, November 2009
- J. Ortiz, **C. Tapia**, L. Rossi, J-G. Fontaine and M. Maza. "Description and tests of a Multisensorial Driving Interface". The 11th International IEEE Conference on Intelligent Transportation Systems (ITSC'08), Beijing-China, October 12-15, 2008

WORKSHOPS, POSTERS

- **Cecilia Tapia-Siles**, Oscar Urquidi-Gandarillas, Markus Pakleppa, "Prosthetic Hands in Developing Countries: A Simple Manufacturing Procedure", Sustainable Humanitarian Technologies Forum, International Conference on Robotics and Automation, ICRA 2018, Brisbane - Australia, May 2018
- L. Manfredi, **S. Tapia-Siles**, A. Cuschieri, "Relevance of sensory system selection and integration on actuators performance and mechatronics design" ACTUATOR 2012 International Conference on New Actuators and Drive Systems, Bremen-Germany, June 2012.
- **C. Tapia**, R. Chellali. "Simulation of semi-passive underwater locomotion with a CPG based controller". International Workshop on Bio-Inspired Robots, France - April 2011.
- **C. Tapia**, R. Chellali. "Karman gait with a robot fish". Embodied intelligence summer school, Italy - September 2010.
- **C. Tapia**, R. Chellali, J. G. Fontaine. "Fish Control. Overview of the ideas and results gained for the time being on fish locomotion control with CPG" FILOSE workshop on biomimetics, Estonia - June 2009

November, 2024