



University of Campinas - UNICAMP (<http://www.unicamp.br>)

Faculty of Mechanical Engineering (FEM) (<http://www.fem.unicamp.br>)

Department of Integrated Systems (DSI)

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Link to the complete Curriculum Vitae → <http://www.fem.unicamp.br/~elypaiva/>

1. Education

Ph.D. in Electrical Engineering, Faculty of Electrical and Computing Engineering, University of Campinas, Campinas, Brazil, April 1997.

M.Sc. in Electrical Engineering, Faculty of Electrical and Computing Engineering, University of Campinas, Campinas, Brazil, May 1993.

B.Sc. in Electrical Engineering, Faculty of Electrical Engineering, Federal University of Uberlândia, Uberlândia, Brazil, January 1990.

2. Research Interests

- Guidance, navigation, and control of autonomous aerial and terrestrial vehicles.
- Modelling, identification and simulation of dynamic systems.
- Robust and Nonlinear control (backstepping, sliding modes, feedback linearization, nonlinear incremental dynamics-INDI).
- Neuro-fuzzy control, process control and PID controllers.

3. Professional History

- Currently Professor at the University of Campinas (UNICAMP), at Faculty of Mechanical Engineering in the course of Control and Automation Engineering, since 2010 (top 1 course and top 1 university in Brazil)¹.

- Associate Coordinator of the graduate course of Control and Automation Engineering of the Faculty of Mechanical Engineering (FEM-UNICAMP) (2011-2012).

- Post-Doctorate in the Information Technology Center Renato Archer (CTI-Campinas), Federal Research Center in Campinas, Brazil, 2005.

- Research Scientist of the Information Technology Center Renato Archer (CTI-Campinas), in the area of Autonomous Mobile Robotics (1997-2009). (<http://www.cti.gov.br>)

- Co-responsible for the **first autonomous flight of an unmanned airship of the scientific literature**, registered in year 2000 in Campinas, Brazil, through AURORA Project.

- Advisor of 2 Robotic teams of undergraduate students of the Control and Automation Engineering courses (FEM-UNICAMP), since 2012.

- Coordinator of 2 Educational Projects (funded by Faepex-UNICAMP) related to the improvement of the undergraduate “Laboratory of Mechatronics” of the Faculty of Mechanical Engineering (FEM), during 2012-2014.

- Lecturer at University São Francisco, SP, during 1996-2009 teaching Electronics and Control courses for Computer, Mechanical and Electrical Engineering.

- Member of IEEE Control System Society.

- Member of ISA International Society of Automation.

¹ <http://www.unicamp.br/unicamp/noticias/2015/12/22/melhor-do-brasil>

4. Research projects with grants awarded by national scientific agencies.

- Project VERDE - *Electric Robotic Vehicle with Electronic Differential* (2014-2016), under Fapesp funding, grant n. 2014/02672-9. Coordinator.
- Project DRONI – *Robotic Airship with Innovative Conception* (2014-2017), under CNPq funding, grant n. 402112/2013-0. Conducted by CTI-Campinas, with Prof. Ely Paiva as a collaborator. Project DRONI aims at designing, constructing and automation of an autonomous airship (10 meters long) powered by 4 electric engines to be used in a pilot flight over Mamirauá reserve in Amazon.
- Project VERO – *Outdoor Robotic Vehicle* conducted by CTI-Campinas, since 2009, with Prof. Ely Paiva as a collaborator.

5. International Research Cooperation Projects

- Project SAS-ROGE - *Smart Airships Swarm and Robotic Ground Electrical Vehicles for Environmental Monitoring and Surveillance* (2016-2017), a project between FEM-UNICAMP and Heriot-Watt University (Edinburgh, UK), through Fapesp-SPRINT grant. Coordinator in Brazil side.
- Project NAGUIVA – *Navigation and Guidance in Autonomous Vehicles* (2011-2013), a project with IDMEC-IST, Lisbon-Portugal, with funding from CNPq/GRICES. Coordinator in Brazil side.
- Project MuNAVe - *Multisensor-based Navigation and Control for Autonomous Vehicles* (CNPq-CNRS, 2010-2013), a collaboration between CTI-Campinas and *Projet Advanced Robotics and Autonomous System* from *Institut National de Recherche en Informatique et en Automatique* (Arobas-INRIA) in Sophia Antipolis, France. Participation: collaborator.
- Project SISROB – *Information System Architecture and Autonomy in Aerial Robotics* (2006-2009), a cooperation with IDMEC-IST, Lisbon-Portugal conducted by CTI-Campinas. Funding agencies : CNPq / GRICES. Participation: collaborator.
- Project VISCORA – *Vision for Control in Aerial Robotics (Vision pour la Commande en Robotique Aérienne)*, a bilateral cooperation project between CTI-Campinas and the ICARE-INRIA Sophia Antipolis, France, (1999-2004). Participation: collaborator.
- Project ICONAR – *Multisensor Integration, Control and Navigation of Robotic Aircrafts*, a collaboration between CTI-Campinas and the ARMOR - SARA at Instituto Superior Técnico (IDMEC-IST) of Lisbon-Portugal, (1998-2000). Participation: collaborator.

6. Academic/research quantitative indicators

Books chapters: 1

Journal Publications: 8

Conference Papers: 57

Supervised and concluded Masters' dissertations: 2

Ph.D. orientations undergoing: 3

Masters orientations undergoing: 2

Coordination of research projects: 4

Participation in international cooperation programs: 6

Number of citations received according to Google Scholar (by Feb/15/2016): 633

Link to MyCitations (Google Scholar)

<https://scholar.google.com/citations?user=6WL2QdcAAAAJ&hl=en>