

Juan Luis ROSENDO
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Education and qualifications

2013-2019	National University of La Plata (UNLP) – ENSTA Bretagne <ul style="list-style-type: none"> PhD diploma. Thesis: "Robust techniques of automatic control for mobile robotic systems" 	Argentina-France
2007-2013	National University of La Plata (UNLP) <ul style="list-style-type: none"> Electronic Engineer degree diploma. 	Argentina
2018-2019	Universidad del Este <ul style="list-style-type: none"> Pedagogical training for high school level. 	Argentina
2004-2006	EET N°6 Albert Thomas (Technical College) <ul style="list-style-type: none"> Electronic Technician diploma with distinction. 	Argentina

Post grade courses

2018	UNLP Posgrado Facultad de Informática <ul style="list-style-type: none"> Cloud robotics. 	Argentina
2016	University of Oulu <ul style="list-style-type: none"> ERL Emergency/ TRADR Summer School on Heterogeneity in Robotic Systems. 	Finland
2015	UNLP School of Postgraduate and Continuing Education (Escuela de Posgrado y Educación Continua EPEC) <ul style="list-style-type: none"> Advanced automatic control systems 	Argentina
2014	UNLP School of Postgraduate and Continuing Education (Escuela de Posgrado y Educación Continua EPEC) <ul style="list-style-type: none"> Non linear Systems Introductory Course to Design of Power Electronic Converters Scientific Communication in English 	Argentina
2014	University of Buenos Aires (UBA) <ul style="list-style-type: none"> Advanced Mobile Robotics Principles of integrated navigation 	Argentina
2014	School of computer science (ECI) 2014, UBA <ul style="list-style-type: none"> Mobile AD-HOC Networks Robotic Vision: Geometry and understanding Big Data, Architecture: Compute, Storage, Networking Challenges 	Argentina

2013-2014
Argentina

UNLP School of Postgraduate and Continuing Education
(Escuela de Posgrado y Educación Continua EPEC)

- Introduction to Functional Analysis.
- Linear Algebra
- Linear Systems
- Sliding Modes and their Application to Control Systems
- Modern Control

Other courses

2020	IXIBOT	Argentina
	<ul style="list-style-type: none">• ABB ICR5 robot operation and programming course.	
2011	EEST N°6 Albert Thomas (Technical College)	Argentina
	<ul style="list-style-type: none">• Course in numerical control (CNC)	
2009	National University of La Plata (UNLP)	Argentina
	<ul style="list-style-type: none">• Mathematics assisted course.	
2005	Argentinean Welding Institute	Argentina
	<ul style="list-style-type: none">• Welding inspector qualification.	

Scholarships

2019	Post-Doctoral Scholarship CONICET (Consejo Nacional de Investigaciones Científicas y Técnicas)	Argentina
	<ul style="list-style-type: none">• Scholarship for postgraduate formation.	
2015-2016	Eiffel Scholarship	France
	<ul style="list-style-type: none">• Scholarship for postgraduate training from the French Ministry Foreign Affairs and International Development.• Responsibilities: experimentation and validation techniques control based on sliding mode on various robotic platforms.	
2014	Internal Doctoral Scholarship Type I CONICET	Argentina
	<ul style="list-style-type: none">• Scholarship for postgraduate formation.	
2013-2014	Training Scholarship provided by CIC (Comisión de Investigaciones Científicas)	Argentina
	<ul style="list-style-type: none">• Responsibilities: Introductory studies in the robotics area, design and work on a robotic platform	
2013	UNLP FI	Argentina
	<ul style="list-style-type: none">• Scholarship for research initiation.• Responsibilities: Design and construction of a mobile robot, applying modern control techniques.	
2010-2011	ENSIETA (Superior National School of Engineers)	France
	<ul style="list-style-type: none">• Six month scholarship.	
2009-2012	Scholarship from Foundation YPF	Argentina
	<ul style="list-style-type: none">• Scholarship for graduate formation.	
2007-2009	National Scholarship PNBU	Argentina
	<ul style="list-style-type: none">• Scholarship for graduate formation.	

Teaching experience

2021-Continued	UNLP <ul style="list-style-type: none">Associate Professor in Industrial instrumentation and communications / Introduction to robotics.Responsibilities: Responsible for the development of theoretical classes and supervision of laboratory practices.	Argentina
2021-Continued	UNLP <ul style="list-style-type: none">Coordinating Professor of the Robotics Club.Responsibilities: Resource management and request for funds, student monitoring, complementary training and promotion of engineering careers.	Argentina
2020-2021	UNLP <ul style="list-style-type: none">Chief of practical applications in Industrial instrumentation and communications.Responsibilities: Laboratory design and monitoring of students.	Argentina
2018-Continued	UNLP - Coordinator of the project "Robótica en las aulas" <ul style="list-style-type: none">Responsibilities: Coordination of students and planning of extracurricular activities for the promotion of robotics in the pre-university and university environment.	Argentina
2015-Continued	UNLP – Direction of graduate thesis. <ul style="list-style-type: none">Gustavo Schmidt, "Técnicas de barrido en vehículo autónomo de superficie" (Coverage techniques in autonomous surface vehicle).2023 (in progress)Francina Carron, "Mapeo de puntos de interés con vehículo aéreo no tripulado" (Mapping of points of interest with an unmanned aerial vehicle).2021Giacobini Lisandro y Figliozzi Justo, "Diseño de sistema Multi Robot para Investigación" (Multi Robot System Design for Research).2021Nicolas Francinelli. "Robot seguidor utilizando aprendizaje automatizado" (Follower robot using machine learning). 2021Juan Scatuerhio. "Robot de inspección de coronas geológicas." (Geological crown inspection robot). 2020Nicolás Lagioia y Matías Rivera. "Robot móvil instrumentado para mapeo y planificación de trayectorias" (Mobile instrumented robot for mapping and trajectory planning). 2018Ing. Ignaci Viso (Univ. Rovira I Virgili, Tarragona). "Control y comunicación inalámbrica para robot de medio porte" (Control and wireless communication for medium-sized robot). 2015	Argentina
2015-2020	UNLP <ul style="list-style-type: none">Teaching assistant in Power Electronics.Responsibilities: Laboratory preparation and monitoring of students.	Argentina
2011- Continued	EET N°6 Albert Thomas (Escuela Técnica) <ul style="list-style-type: none">Professor of programming and basic robotics.	Argentina
2010-2011	UNLP <ul style="list-style-type: none">Teaching assistant in Electromagnetism I.Responsibilities: Laboratory preparation and monitoring of students.	Argentina

Publication in journals and conferences

2023

- JUAN LUIS ROSENDO, GUSTAVO SCHMIDT, FABRICIO GARELLI. Desarrollo y validación de electrónica modular para el control y la navegación de un robot acuático de superficie. Séptimas Jornadas de Investigación, Transferencia y Extensión de la Facultad de Ingeniería. UNLP. Facultad de Ingeniería, Universidad Nacional de La Plata. Argentina. La Plata. 2023.
URL:<https://www1.ing.unlp.edu.ar/sitio/investigacion/Jornadas-ITEE-2023/Libro-actas-jornadas-itee-2023.pdf>

2021

- MARTIN FLEMING, JUAN LUIS ROSENDO. Análisis de tráfico utilizando redes neuronales para reconocimiento de vehículos y peatones. XIX Workshop on Information Processing and Control (RPIC). Argentina, San Juan. 2021. URL: <http://www.rpic.com.ar/memorias.php> ISBN: 978-987-88-2891-6
- NICOLAS FRANCINELLI, JUAN LUIS ROSENDO. Implementación de sistema de navegación autónoma utilizando reconocimiento de imágenes basado en red neuronal convolucional. XIX Workshop on Information Processing and Control (RPIC). Argentina, San Juan. 2021. URL: <http://www.rpic.com.ar/memorias.php> ISBN: 978-987-88-2891-6

2020

- JUAN LUIS ROSENDO, DOMINIQUE MONNET, HERNAN DE BATTISTA, JORDAN NININ, BENOIT CLEMENT, FABRICIO GARELLI. A global optimization approach for sliding mode tuning and existence maps generation. International Journal of Dynamics and Control. 2020 (DOI: 10.1007/s40435-020-00702-2)
- JUAN LUIS ROSENDO, FERNANDO VALENCIAGA, FABRICIO GARELLI. Sistemas Multi-Robot: etapas de diseño, aplicaciones y problemas abiertos. AADECA 2020 - Semana del Control Automático - 27° Congreso Argentino de Control Automático. Asociación Argentina de Control Automático (AADECA). Buenos Aires, Argentina.

2018

- JUAN LUIS ROSENDO, FABRICIO GARELLI, HERNAN DE BATTISTA. Obstacle avoidance with path restrictions in autonomous underwater vehicles. AADECA 2018 - Semana del Control Automático - 26° Congreso Argentino de Control Automático. Asociación Argentina de Control Automático (AADECA). Buenos Aires, Argentina.
- JUAN LUIS ROSENDO, BENOIT CLEMENT, FABRICIO GARELLI. Experimental validation of constraint mitigation algorithm in underwater robot depth control. Part I: Journal of Systems and Control Engineering. 2018 (DOI: 10.1177/0959651818791399)
- DOMINIQUE MONNET, JUAN LUIS ROSENDO, HERNAN DE BATTISTA, BENOIT CLEMENT, JORDAN NININ, FABRICIO GARELLI. A global optimization approach for non-linear sliding mode control analysis and design. 9th IFAC Symposium on Robust Control Design (ROCOND'18). Florianopolis, Brazil.
- JUAN LUIS ROSENDO, DOMINIQUE MONNET, BENOIT CLEMENT, FABRICIO GARELLI, JORDAN NININ. Control of an Autonomous Underwater Vehicle subject to robustness constraints. 9th IFAC Symposium on Robust Control Design (ROCOND'18). Florianopolis, Brazil.

2017

- JUAN LUIS ROSENDO, FABRICIO GARELLI, HERNAN DE BATTISTA, FERNANDO VALENCIAGA. Obstacle avoidance under strict path following. XVII Workshop on Information Processing and Control (RPIC). Argentina, Mar del Plata. 2017. DOI: 10.23919/RPIC.2017.8214344
- JUAN LUIS ROSENDO, BENOÎT CLEMENT, FABRICIO GARELLI. Acondicionamiento de la referencia utilizando modos deslizantes en aplicaciones de seguimiento de camino en AUV. Cuartas Jornadas de Investigación, Transferencia y Extensión de la Facultad de Ingeniería. UNLP. Facultad de Ingeniería, Universidad Nacional de La Plata. Argentina. La Plata.

2016

- JUAN LUIS ROSENDO, DOMINIQUE MONNET, BENOÎT CLEMENT, FABRICIO GARELLI. Control of an Autonomous Underwater Vehicle under robustness constraints. Workshop. SWIM 2016 (Summer Workshop on Interval Methods). École Normale Supérieure de Lyon (ENS de Lyon). Francia. Lyon.
- JUAN LUIS ROSENDO, BENOÎT CLEMENT, FABRICIO GARELLI. Sliding mode reference conditioning for path following applied to an AUV. 10th IFAC Conference on Control Applications in Marine Systems (CAMS 2016). International Federation of Automatic Control (IFAC). Noruega. Trondheim. 2016. IFAC-PapersOnLine 49-23 (2016) 008–013

- JUAN LUIS ROSENDO, FABRICIO GARELLI, BENOÎT CLEMENT, HERNAN DE BATTISTA. Mitigation of the saturation effect in AUV path following applications. AADECA 2016 - Semana del Control Automático - 25° Congreso Argentino de Control Automático. Asociación Argentina de Control Automático (AADECA). Argentina. Buenos Aires. 2016. ISBN 978-950-99994-9-7

Professional Experience

2021 – Continued	UNLP – Recyclamer Innovation	Argentina - France
	<ul style="list-style-type: none"> • Project Technical Manager Engineer • ASV development project for commercial use. Development of electronics and on-board programming. 	
2019 – 2020	UNLP – YTEC	Argentina
	<ul style="list-style-type: none"> • Project Technical Manager Engineer • Advice for the automated measurement of geological samples in the laboratory. Design of a robot prototype to carry out automated measurements. 	
2012	INVAP S.E	Argentina
	<ul style="list-style-type: none"> • Electronic Engineer in the area of telecommunications • Responsibilities: Documentation, implementation, integration, and troubleshooting in communications equipment. 	
2005-2008	Coop. Fabril La Plata	Argentina
	<ul style="list-style-type: none"> • Design Assistant • Responsibilities: Work with 3D CAD design. 	

Skills

Languages

- Spanish fluent
- English: competent working knowledge. First Certificate Diploma
- French: good working knowledge.

Computer

- Computer literate in multiple operating systems and software applications
- Language C, Language C++, ROS, python, Matlab, development knowledge on FPGA.
- Application management and development with: microcontrollers (Arduino, Atmel, Microchip), ABB RobotStudio, PLC (Siemens, Schneider, etc.), 3D printer, CNC and mechanical design 3D (Solidworks, Catia, Autocad).

Interests

- Computer science, robotics and education.

References

- UNLP Tel: (54)(221) 4258911
- Coop. Fabril La Plata Mail: coopfabril@gmail.com
- References available upon request