



Lucian Busoniu

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● WORK EXPERIENCE

ROMANIAN ACADEMY – BUCHAREST, ROMANIA

CORRESPONDING MEMBER – 2025 – CURRENT

ROBOTICS.AI – CLUJ-NAPOCA, ROMANIA

CO-FOUNDER OF ROBOTICS.AI STARTUP IN ARTIFICIAL INTELLIGENCE FOR ROBOTICS – 03/2020 – CURRENT

TECHNICAL UNIVERSITY OF CLUJ-NAPOCA – CLUJ-NAPOCA, ROMANIA

FOUNDER & LEAD OF THE RESEARCH GROUP IN ROBOTICS AND NONLINEAR CONTROL – 2013 – CURRENT

The group spearheaded reinforcement learning for control in Romania, has 6 permanent members and about 20 research students in employment; it attracted over 5MEUR in funding under my lead.

TECHNICAL UNIVERSITY OF CLUJ-NAPOCA – CLUJ-NAPOCA, ROMANIA

OCT 2011 ASSISTANT, OCT 2014 ASSOCIATE, OCT 2018 FULL PROFESSOR – 01/10/2011 – CURRENT

INRIA – LILLE, FRANCE

POSTDOCTORAL RESEARCHER – 04/2011 – 12/2011

Working with Rémi Munos.

DELFT UNIVERSITY OF TECHNOLOGY – DELFT, NETHERLANDS

POSTDOCTORAL RESEARCHER – 01/2009 – 03/2011

● EDUCATION AND TRAINING

10/2015 Romania

HABILITATION (RIGHT TO INDEPENDENTLY SUPERVISE PHD STUDENTS) Technical University of Cluj-Napoca

Website utcluj.ro | **Field of study** Control engineering

01/2009 Netherlands

PHD Delft University of Technology

Website tudelft.nl | **Field of study** Control engineering

03/2007 Netherlands

DOCTORAL SCHOOL Dutch Institute for Systems and Control

Website <https://disc.tudelft.nl/> | **Field of study** Control engineering

06/2003 Romania

MASTERS (5-YEAR ENGINEERING DEGREE) Technical University of Cluj-Napoca

Website utcluj.ro | **Field of study** Control engineering

● LANGUAGE SKILLS

Mother tongue(s): **ROMANIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C2	C2	C2
FRENCH	B1	B2	B1	B1	B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● PUBLICATIONS

Synthesis

Author of more than **130 scientific publications**, including: 38 articles in journals (most of them in the ISI "red zone" Q1), 78 papers at international conferences, most of them indexed by ISI or IEEE, 7 book chapters, 1 book at the publishing house Taylor & Francis, 1 book edited at Springer. See Google Scholar profile for details.

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

● PROJECTS

Selection

- 2024 – 2025: Unrestricted gift from Google DeepMind for project *Exploring architectural changes to SSM inspired by control theory*, proposed by dr. Răzvan Pașcanu.
- 2023 – 2026: Institution contact person for [*DECIDE: AI Design of Decentralized Coopetitive Control over Networks*](#), PNRR C9 I8, PI C. Morărescu, 1.5MEUR.
- 2023 – 2026: Institution PI and proposal lead for the Horizon Europe Innovation Action project [*SeaClear2.0: Scalable Full-cycle Marine Litter Remediation in the Mediterranean: Robotic and Participatory Solutions*](#), total budget 9 MEUR, UTCluj 600 KEUR.
- 2020 – 2023: Institution PI and proposal lead for the Horizon 2020 Research and Innovation Action [*SeaClear: SSearch, identification and Collection of marine litter with Autonomous Robots*](#), total budget 5 MEUR, UTCluj 555 KEUR. Team of 7 people at UTCluj .
- 2021 – 2023: PI UEFISCDI Premiere Orizont 2020 [*SeaMap*](#), 40KEUR. 4 pers.
- 2018 – 2020: PI UEFISCDI Young Teams [*AIRGUIDE: A Learning Aerial Guide for the Elderly & Disabled*](#), 100KEUR. 6 pers.
- 2013 – 2016 UEFISCDI Young Teams [*Reinforcement Learning & Planning for Large -Scale Systems*](#), 180KEUR. 4 pers.
- 2018 – 2018 : Institution lead of Erasmus+: Co4AIR [*Computers, Cognition and Communication in Control: A strategic partnership*](#), total budget 350 KEUR, UTCluj 32 KEUR, 5 pers.
- 2015 – 2017: PI for **3 international cooperation projects** with France and Hungary: AUF NETASSIST, CNRS PICS, PHC Brâncusi AICONS, 36KEUR in total. Teams of up to 11 people.

● HONOURS AND AWARDS

Selection

- **Highest-cited researcher** from UTCluj (1500+ researchers), see [Google Scholar of UTCluj](#).
- My first journal article, *A Comprehensive Survey of Multi-Agent Reinforcement Learning*, in IEEE Transactions on Systems, Man & Cybernetics Part C, received the 2009 **Andrew Sage Award for Best Article** and the **Highly Cited Paper Award** – top 1% of ISI cited papers. Nearly **3000** Google Scholar citations, the most important reference in the field.
- Monograph *Reinforcement Learning and Dynamic Programming Using Function Approximators*, Taylor & Francis CRC Press, has become a **major reference in the field**, with over 1300 Google Scholar citations.
- *Cum laude* distinction for the PhD thesis – **the highest in the Netherlands**, awarded to ~ 7% of PhD defenses at TU Delft.
- Over **3 million euros** obtained as PI or contact person in international and national funding calls (total value of projects won over 15 million euros).
- **Ranked first** for a faculty position at Université Charles de Gaulle Lille III.
- 21 times awarded PRECISI prize for publication in high-impact journal; one of these for **the top 1 journal** in Measurement & Instrumentation - IEEE Trans. on Industrial Electronics.

- Invited many times by **the media** to discuss research topics in reports on television, radio, and printed media, both international and Romanian.
- Best Presentation in Session, double award received at the 2004 IEEE-TTTC International Conference on Automation, Quality and Testing, Robotics (AQTR-04).

SCIENTOMETRIC INDICATORS

Selection

- Over **10000 citations** and h-index 28 in Google Scholar
- Over 4100 citations and h-index 18 in ISI Web of Knowledge.
- On average over 39 ISI citations / article, **more than 4 times the average** in computer science (approx 8) and engineering (approx. 9) according to InCites.

PLENARIES AND KEYNOTES

Selection

- July 2023: *Reinforcement learning and planning with applications to robotics*, **semi-plenary lecture** at the European Control Conference 2023, Bucharest, Romania.
- June 2018: *AI planning for nonlinear optimal control*, **keynote** at IFAC CESCIT, Faro, Portugal.
- Oct 2022: *RL and planning for robotics*, keynote at Romanian AI Days, Oradea, România.
- Feb 2019: *Overview of RL*, keynote at Timișoara Workshop on Machine Learning, România.
- Nov 2018: *Optimistic planning in MDPs*, keynote at Asian Workshop on ML, Beijing, China.
- Oct 2015: keynote at IROS Workshop on ML in Planning and Control, Hamburg, Germany.
- Dec 2013: keynote at Workshop on Intelligent Planning and Control, IEEE CDC, Florence, Italy.
- Dec 2011: keynote at Workshop on Optimal Adaptive Control, IEEE CDC, Orlando, USA.

EVENT ORGANIZATION AND EDITORIAL ACTIVITY

Selection

- **Co-chair for publicity and special sessions** at the 1st IFAC Joint Conference on Computers, Cognition and Communication, 2025 (Padova, Italy).
- **Organizer** of the 6th IFAC ICONS – International Conference on Intelligent Control and Automation Sciences (Cluj-Napoca, Romania).
- Organizer of the 2015 (Cape Town, South Africa) and 2014 (Orlando, United States) editions of the IEEE Symposium on ADPRL – Adaptive Dynamic Programming and Reinforcement Learning .
- Organizer of *open invited events tracks* on machine learning in control at: iIFAC World Congress 2023 (Yokohama, Japan), i2020 (Berlin, Germany), 2017 (Toulouse, France), iIFAC ICONS 2022 (Cluj-Napoca, Romania).
- Organizer of special sessions on reinforcement learning at: iIEEE CDC 2016 (Las Vegas, United States); iIEEE ADPRL 2013 (Singapore) and i2011 (Paris, France).
- **Associate Editor** for ISI Q1 Engineering Applications of AI journal, 2015-present.
- Associate editor for conferences: IFAC World Congress 2023, 2020, 2017; European Control Conf. 2023; IFAC CESCIT 2021; IROS 2020; IFAC ICONS 2016; IFAC SYROCO 2015, etc.

MEDIA APPEARANCES

Selection

- Television, e.g. ProTV news, in **prime time** – news at 7PM on November 25, 2021: [Robot for underwater waste](#); Antena 1, June 23, 2021, Observator: Robots will clean underwatter litter.
- International print media (e.g. The Times), national (eg MediaFax), and local (eg [Monitorul CJ](#)).
- Radio (e.g. June 9, 2021, Radio Romania).