CURRICULUM VITAE

Name: POZNA;

First name: Claudiu Radu;

Professional address: Transilvania University of Brasov; Electrical Engineering Faculty;
Automation Department;
B-dul Eroilor nr. 29 Brasov; Phone:0040268 412921

Universities studies: 1990 Engineer diploma, from Transilvania University of Brasov;
Technological specialty; marks average 9.57 (1 to 10);

Professional activity:

- 1990 engineer at S.C. IMASA S.A. Sf. Gheorghe;
- 1992 Technical Head of Department at S.C. IMASA S.A. Sf. Gheorghe
- 1994 Professor Assistant at Transilvania University of Brasov, Machine Elements and Robotics department;
- 1998 Lecturer at Transilvania University of Brasov, Machine Elements and Robotics department;
- 1998-2001 Manager consultant at S.C. Subansamble Auto S.A. Sf.Gheorghe
- 2000 Senior Lecturer at Transilvania University of Brasov, Industrial Design and Robotics department;
- 2004-2006 Doctor Engineer at University of Applied Science from Heilbronn, Germany, Automotive Systems department;
- 2006-2010 Senior Lecturer at Transilvania University of Brasov, Industrial Design and Robotics department;
- 2010 Visiting professor at Széchenyi István University Faculty of Engineering Sciences, Department of Automation Gyor Hungary;
- 2010-2013 Head of Informatics Department at Széchenyi István University Faculty of Engineering Sciences Gyor Hungary;
- 2012-2019 Head of Robotics Study Program at Transilvania University Brasov Romania;
- 2013 Professor at Transilvania University from Brasov Romania;
- 2013 Professor at Szechenyi Istvan University from Gyor Hungary

Scientific activity:

- **Doctoral Thesis**: Contributions on Analysis and Synthesis of Biped Robots Locomotion, 1998, Robotics field;
- **Habilitation Thesis** at Széchenyi István University Gyor Hungary, Informatics field;
- **Habilitation Thesis** at Transilvania University of Brasov, Informatics field (equivalent to the Hungarian diploma);
- **Habilitation Thesis** at Universitatea din Craiova . Mechatronic and, Robotic field

- **Competence fields**:
  - Control Engineering;
  - Robotics;
  - Dynamic Analysis and Simulation Techniques;
  - Artificial Intelligence, Machine Learning
  - Programming in MATLAB.

- **Scientific papers**: 168 scientific papers, 1620 citations;
  The most important publications:
  - C. POZNA, R. -E. Precup, E. Horvath and E. M. Petriu, "Hybrid Particle Filter-Particle Swarm Optimization Algorithm and Application to Fuzzy Controlled Servo Systems," in *IEEE Transactions on Fuzzy Systems*, doi: 10.1109/TFUZZ.2022.3146986, 2022, 2022 IF=12.029
  - Horváth E. POZNA C, Unger M. Real-Time LIDAR-Based Urban Road and Sidewalk Detection for Autonomous Vehicles. Sensors. 2022; 22(1):194. https://doi.org/10.3390/s22010194, IF= 3.576, 2021
  - Trăsnea B, Ginerică C, Zaha M, Măceşanu G, POZNA C, Grigorescu S. OctoPath: An OcTree-Based Self-Supervised Learning Approach to Local Trajectory Planning for Mobile Robots. Sensors. 2021; 21(11):3606. https://doi.org/10.3390/s2111360, IF= 3.576, 2021
  - E. Horvath, POZNA C R.-E. Precup, Robot Coverage Path Planning Based on Iterative Structured Orientation, Acta Polytechnica Hungarica, vol. 15, no. 2, pp. 231-249, DOI: 10.12700/APH.15.1.2018.2.12, 2016 IF= 1.219;
  - POZNA C., Precup, R-E., An approach to the design of nonlinear state-space control Studies in Informatics and Control. Open Access Volume 27, Issue 1, 2018, Pages 5-14 IF= 2.102;
  - POZNA C and R.-E. Precup, On a translated frame-based approach to geometric modeling of robots, Robotics and Autonomous Systems, vol. 91, pp. 49-58, , ISSN: 0921-8890 May 2017, IF = 2.825
  - POZNA C., Precup, R., Foldesi, P A novel pose estimation algorithm for robotic navigation. Robotics and Autonomous Systems vol 63 (2015) pp.10–21, ISSN: 0921-8890 IF= 2.825 ;
  - POZNA C., Precup, R., Applications of Signatures to Expert Systems Modelling. In Acta Polytechnica Hungarica vol 11, no.2, ISSN 1785-8860, pp.21-39, IF.=1.219 ;
  - Grigorescu, S., POZNA. C., Towards a Stable Robotic Object Manipulation Through 2D-3D Features Tracking, Int J Adv Robotic Vol. 10, ISSN 1729-8806; pp. 45-55; IF= 0.952;
  - POZNA, C., Minculete, N., Precup, R.-E., Kóczy, L. T. and Ballagi, Á. Signatures: Definitions, operators and applications to fuzzy modeling. Fuzzy Sets and Systems (Elsevier Science), pp. 1-19, , ISSN 0165-0114; IF = 3.305;

- POZNA, C., Precup, R.-E., Tar, J. K., Škrjanc, I., Preitl, S.: New results in modelling derived from Bayesian filtering, Knowledge-Based Systems Volume 23, Issue 2, pp. 182-194, ISSN: 0950-7051 (2010); IF=1.574, SCR IF=5.921;
- POZNA, C., Troester, F., Precup, R.-E., Tar, J. K., Preitl, S.: On the design of an obstacle avoiding trajectory: Method and simulation, Mathematics and Computers in Simulation, Vol. 79, Issue 7, pp. 2211-2226, ISSN: 0378-4754, (2009); IF=1.620
- Precup, R.-E., Preitl, S., Petriu, E. M., Tar, J. K., Tomescu, M. L., POZNA, C.: Generic two-degree-of-freedom linear and fuzzy controllers for integral processes, Journal of the Franklin Institute, Volume 346, Issue 10, pp. 980-1003, 2009, IF 4.036

- **H_index**: 12 Web of Science; 15 Scopus; 19 Google Scolaris

- **Books** 14; the most important publications:

  - Pozna, C., The Manipulators Simulation (Simularea robotilor cu post fix). MatrixRom Bucharest 2023;
  - Pozna, C., Dynamic Synthesis of Systems with the Hamiltonian Method, Matrix Rom Bucharest 2021;
  - Pozna C. The Mobile Robots Model (Modelarea robotilor mobili). MatrixRom Bucharest 2020
  - Pozna C. , Dynamic Systems (Sisteme Dinamice), MatrixRom Bucharest 2019
  - L.T. Koczy, C. Pozna, C. Issues and Challenges of Intelligent Systems and Computational Intelligence ISBN 978-3-319-03206-1 Springer 2014
  - Pozna C. The Manipulators Model (Modelarea robotilor cu post fix). MatrixRom Bucharest 2015;
  - Pozna, C. The Autonomous Car (Autovehiculul autonom). Ed. Univ. Transilvania din Brasov 2006;
  - Pozna, C. Control Engineering (Teoria Sistemelor). MatrixRom Bucharest 2004;
  - Pozna, C. The Robots Control Engineering. CIT Brasov 2000;

- **Scientific grants-projects**:
  - in Romania like project manager:
    - "New design methodology on modular robots" (2007-2008; 70.000 EUR)
    - "Research on new cognition systems based on experimenting the causal relations" (2009-2010-2011; 254.847 EUR);
  - in Germany at University of Applied Science Hochschule Heilbronn:
    - "ACC Fahrautomat" (1.000.000 EUR)
  - Interreg AT-HU cross-border European Driving License for Robots and Intelligent Systems EDLRIS 825.433,91 EUR.

- **Editor at**:
  - Journal of Advanced Computational Intelligence and Intelligent Informatics Fuji Technology Press; ISSN: 1343-0130(Print) / 1883-8014(Online)

Didactically activity (teaching) and invited professor:

- in Romania, at Transilvania University of Brasov:
  - Control Engineering;
  - System Dynamics;
  - Robots Control;
  - Mobile Robots;
- in Hungary
  - Robots Control;
  - Soft design;
  - Simulations
- in Germany at Hochschule Heilbronn (2004-2005):
  - Simulationstechnik ;
- in Scotland at Herriot-Watt University Edinburgh (2002):
  - Control Engineering;
- in France at IUT Metz (2001):
  - Control Engineering in Robotics;

Brasov:08.03.2024

Claudiu POZNA