

Lucian Evdochim

Bucharest, Romania • ResearchGate: <https://www.researchgate.net/profile/Lucian-Evdochim>

PROFESSIONAL EXPERIENCE

- ◆ INFINEON TECHNOLOGIES, Bucharest, Romania *April 2020–Present*
Requirement and Verification Manager
 - Manage and optimize resource allocation such time, tools, involved team members for planning of integrated circuit verification.
 - Collaborate and guide team members to fulfil product requirements according to ISO-26262.
 - Conduct risk analysis matrix for mitigation plan.
- ◆ INFINEON TECHNOLOGIES, Bucharest, Romania *June 2017–April 2020*
Analog Designer
 - Designed, simulated and tested analogue blocks in order to meet the product requirements.
 - Partnered with cross-functional teams in deciding the best circuit architecture.
 - Conducted a trade-off analysis for prioritization of product feature.

EDUCATION

- ◆ POLYTECHNIC UNIVERSITY OF BUCHAREST *June 2021–Present*
PhD in Biomedical Signal Processing
 - Investigation of photoplethysmography technique (PPG) for extracting cardiovascular key metrics such blood pressure trend and blood flow performance.
 - Developing mechanical models for blood flow and optical models for origin of photoplethysmography signal.
 - Investigation of various biomedical databases for proper PPG signal analysis and interpretation.
 - Developing signal processing and feature extraction custom algorithms.
 - Using Machine Learning techniques for detecting hypertension target group.
 - Written conferences papers and Q2 Journal article which summed up to a total of 20.
 - Developing an Android platform for signal acquisition.
- ◆ POLYTECHNIC UNIVERSITY OF BUCHAREST *October 2018 – June 2020*
Master in Micro and Nanoelectronics
Master Thesis – “Medical device with advanced PPG analysis”
 - Starting to investigate photoplethysmography technique.
 - Became familiar with newer technologies and trends for noninvasive monitoring and telemedicine.
 - Developing a concept device for signal acquisition with associated User Interface in Windows.
 - Starting to learning medical topics in area of cardiovascular domain.

Bachelor Thesis – “Medical data extraction from PPG signal”

- Developing projects from hardware stage until software interface.
- Leading small teams (2-5 persons) in developing electronics projects.

SKILLS

- Analog Design
- Machine Learning
- Semiconductors
- Applied Physics
- Matlab
- Laboratory Measurement
- Scientific Write
- Experiments Planning
- Team Planning

RELEVANT PUBLICATIONS

[1] Hypertension Detection Based on Photoplethysmography Signal Morphology and Machine Learning Techniques. *Appl. Sci.* 2022, 12, 8380.

[2] Blood Pressure and Photoplethysmography Signal Pairs Characterization by Dicrotic Notch, 2022 *IEEE 23rd International Conference of Young Professionals in Electron Devices and Materials (EDM)*

[3] Photoplethysmography Signal Behavior in Relation with External Stimuli: Temperature and Compression Force, 2022 *IEEE 23rd International Conference of Young Professionals in Electron Devices and Materials (EDM)*

[4] Data Analytics of BP-PPG Dataset: Noninvasive Blood Pressure Assessment by Using Photoplethysmography Fiducial Points, 2022 *International Conference on Business Analytics for Technology and Security (ICBATS)*

[5] Reflection Coefficient in Pressure Pulse of Human Blood Flow, 2020 *13th International Conference on Communications (COMM)*

[6] Transmural Pressure Evaluation from Blood Volume Optical Analysis, 2019 *E-Health and Bioengineering Conference (EHB)*

[7] Advanced Electro-Optical Analysis of Photoplethysmogram Signal, 2019 *IEEE 31st International Conference on Microelectronics (MIEL)*