

VLAD-GEORGE MOISE

SUMMARY

- Analog Design Engineer with over 6 years of experience in designing integrated analog circuits for motor control and precision sensing applications.
- Award-winning contributor with research and industrial accomplishments, combining academic excellence with a drive for technical innovation.

EXPERIENCE

Analog Design Engineer Jan 2021 - present
Infineon Technologies Romania *Bucuresti, RO*

- Contributed to successful industrial projects by designing analog IPs for motor control and automotive systems.
- Designed gate driver circuits for Electric Power Steering (EPS) in 48V and 12V automotive applications.
- Developed controllers for electrochromic mirrors and mirror heater systems.
- Designed IO port and PMU circuitry; contributed to robust and area-efficient implementations.

Analog Design Engineer Oct 2018 - Dec 2020
onsemi Romania *Bucuresti, RO*

- Developed precision opamps and current sense amplifiers; responsible for schematic design, testbench definition and simulation.

Teaching Assistant – Integrated Analog Circuits Laboratory Sep 2018 - Feb 2019
Faculty of Electronics, University Politehnica of Bucharest *Bucuresti, RO*

- Conducted laboratory sessions and guided undergraduate students through the practical aspects of analog integrated circuit design.

Intern - Analog Design Jun 2017 - Oct 2018
onsemi Romania *Bucuresti, RO*

- Designed and simulated basic analog building blocks.

EDUCATION

PhD candidate in Electronics Oct 2020 - present
University Politehnica of Bucharest – Faculty of Electronics *Bucuresti, RO*

- Research topic: Precision Circuits for Current Measurement and Control.
- Ranked 2nd in PhD admission.

M.Sc. in Microsystems Oct 2018 - Jun 2020
University Politehnica of Bucharest – Faculty of Electronics *Bucuresti, RO*

- Master's degree thesis – "Precision current sense amplifier with extended common mode range and disable function", a project made with the support of onsemi Romania, grade: 10/10;
- First in the faculty admission contest, finished as valedictorian with GPA: 10/10.

B.Sc. in Microelectronics, Optoelectronics and Nanotechnologies Oct 2018 - Jun 2020
University Politehnica of Bucharest – Faculty of Electronics *Bucuresti, RO*

- Graduate thesis – "Comparison between rail-to-rail, high CMRR operational amplifier structures", a project made with the support of onsemi Romania, grade: 10/10;
- First in the faculty admission contest, finished as valedictorian with GPA: 9.65/10.

SKILLS

Technical Skills

- Strong ability to design, analyze and validate complex analog circuits.
- Proficient in Cadence tools for IC design and simulation.
- Capable of developing new circuit techniques and improving existing architectures.
- Deep knowledge of analog design, with focus on creative and results-driven problem solving.
- Experience in successful projects with measurable impact.
- Basic layout design understanding; able to provide layout support.
- Good planning skills, with proactive timeline and area management.

Soft Skills

- Advanced communication skills, developed through teaching experience in analog integrated circuits and mentoring younger colleagues.
- Excellent teamwork and collaboration abilities, with active listening and clear, professional communication.
- Committed to continuous improvement in efficiency, effectiveness and quality of results.
- Fluent in English (C1 – Certificate in Advanced English, CAE, Grade B).

PUBLICATIONS AND PATENTS

First author of the following publications:

- **Circuit Techniques for Enhancing Output Current Accuracy in Floating Gate Drivers**, accepted for publication in Romanian Journal of Information Science and Technology (ROMJIST), expected May/June 2025
- **Methods for Output Current Compensation of Floating Gate Drivers**, 2024 International Semiconductor Conference (CAS), Sinaia, Romania — **Best Paper Award**
- **Intelligent Temperature Sensor with SiC Schottky Diode**, 2022 International Semiconductor Conference (CAS), Poiana Brasov, Romania
- **A Precision Current Sense Amplifier with Disable Function**, 2020 International Semiconductor Conference (CAS), Sinaia, Romania — **Best Student Paper Award**
- **An Amplifier Design for Cosmic Particles Radio Detectors**, 2018 Mediterranean Microwave Symposium (MMS), Istanbul, Turkey
- **Wide Range Temperature Sensor with SiC Schottky Diode – Error Source Analysis**, poster presentation at ICSCRM 2022, Davos, Switzerland

Co-author of the following patents:

- **Patent: Device and method for extended temperature range measurement using a SiC Schottky diode, RO137926A2**, Published January 2024
- **Patent: Controlling a power switching element using a sense switching element**, filed in
 - United States – 18/622369, filing date: March 29, 2024
 - Germany – 102025106114.9, filing date: February 18, 2025
 - China – 202510371261.2, filing date: March 27, 2025

NOTABLE ACHIEVEMENTS

- Valedictorian of middle school, high school, Bachelor's, and Master's graduation classes.
- Won First Prize at the "Tudor Tănăsescu" 2018 professional contest (Analog Integrated Circuits section).
- Strong results at national Physics Olympiads and competitions: Bronze medal and Mention at the National Olympiad, First and Second Prizes at the "Evrika" National Physics Contest, Second Prize at the "Phi" National Physics Contest.

- Received merit-based distinction from the Slobozia City Hall for outstanding academic performance in national competitions.

HOBBIES

- Genuine interest and deep appreciation for music, musicians, the history and philosophy of music — passionate admirer of Wagner, Tchaikovsky, Mozart, Beethoven, Dvořák, and Celibidache.
- Enthusiastic opera lover, with a strong affinity for the works of Verdi, Puccini, Wagner and Enescu
- Avid reader of fiction and fantasy literature — favorite authors include Stephen King, Irvine Welsh, Pascal Bruckner, and George R.R. Martin