Alexandru Dinu

Date of birth: ✕✕✕✕✕ | **Nationality:** Romanian | **Gender:** Male

WORK EXPERIENCE

20/02/2023 – CURRENT Brasov, Romania
LECTURER TRANSILVANIA UNIVERSITY OF BRASOV

Taught courses:
- Embedded Programming
- Functional Verification
- Communication Protocols
- Interfaces and peripherals

01/08/2022 – CURRENT Brasov, Romania
ENGINEER NOBUG CONSULTING, AN INFINEON COMPANY

01/10/2021 – 19/02/2023 Brasov, Romania
ASSOCIATE TEACHER TRANSILVANIA UNIVERSITY OF BRASOV

Taught courses:
- Embedded Programming
- Functional Verification
- Communication Protocols
- Interfaces and peripherals

08/08/2016 – 30/09/2021 Bucharest, Romania
VERIFICATION ENGINEER SIEMENS S.R.L.

The working period is divided in two parts that overlapped for a period:
1. Contributions at verification process of electronic circuits using UVM methodology
2. Development of means of automating the functional verification process using artificial intelligence techniques (supervised learning, reinforcement learning, genetic algorithms) - as part of my PhD thesis

25/08/2015 – 05/08/2016 Bucharest, Romania
INTERN SIEMENS S.R.L.

Developed Bachelor's Degree Thesis named *Hardware Implementation of JPEG Algorithm using Partial Reconfigurability* using VHDL

06/07/2015 – 17/07/2015 Brasov, Romania
SUMMER INTERN SC EASIC CORPORATION SRL, TRANSILVANIEI 28

Improved FPGA Design basic skills using Verilog HDL

EDUCATION AND TRAINING

01/10/2018 – 30/09/2022 Brasov, Romania
PHD STUDENT Transilvania University of Brasov

Functional Verification

Artificial Intelligence

Address Bulevardul Eroilor 29, Brașov, 500036, Brasov, Romania │ **Website** https://www.unitbv.ro/en/ │

Field of study Electronic Engineering, Telecommunications and Information Technology │ **Final grade** PhD │

Thesis Efficientization of generation,execution and debug of structures used in digital systems functional

26/07/2022 – 29/07/2022 BRASOV, Romania
STUDENT AT MACHINE LEARNING AND APPLICATIONS SUMMER SCHOOL Transilvania University of Brasov

Acquired information about machine learning and deep learning.

Address Eroilor 29, BRASOV, Romania │ **Field of study** Artificial Intelligence

01/10/2016 – 29/06/2018 Brasov, Romania
MASTER'S DEGREE DIPLOMA Transilvania University of Brașov, Faculty of Electrical Engineering and Computer Science

Address Bulevardul Eroilor 29, Brașov, 500036, Brasov, Romania │ **Website** https://www.unitbv.ro/en/ │

Field of study Embedded Systems Branch │ **Thesis** Hardware reconfiguration of a SoC

01/10/2016 – 20/06/2017 BRASOV, Romania
PEDAGOGICAL MODULE (LEVEL 2) Transilvania University of Brasov

The second module of psycho-pedagogical module give the right to take teaching positions in all levels of education.

Studied objects:
Psycho-pedagogy of Teenagers, Youth and Adults
Design and Management of Educational Programs
Developments in the Didactics of the Specialization
Educational Research Methodology
Critical Thinking
Psycho-pedagogy of Creativity
Management of extracurricular activities

Address B-dul Eroilor, 29, BRASOV, Romania │ **Website** www.unitbv.ro/en │ **Type of credits** ECTS │

Number of credits 30

01/10/2013 – 07/07/2016 BRASOV, Romania
PEDAGOGICAL MODULE (LEVEL 1) Transilvania University of Brasov

The first module of psycho-pedagogical module give the right to take teaching positions in compulsory pre-university education.

Studied objects:
Educational Psychology
The Fundamentals of Pedagogy
Curriculum Theory and Methodology
Instruction Theory and Methodology
Assessment Theory and Methodology
Classroom management
Didactics of the specialization

Address B-dul Eroilor, 29, BRASOV, Romania │ **Website** www.unitbv.ro/en │ **Type of credits** ECTS │

Number of credits 30

20/07/2015 – 31/07/2015
STUDENT AT SUMMER SCHOOL International School on Image Processing – ISIP 2015, 7th edition

Acquired knowledges about black and white image processing, including:
· creating basic analysis tools for image processing
· doing operations in spatial domain (with implementation of some filters)
· using morphologic operators (erosion and dilation for binary and grey value images, opening, closing).

Field of study Image processing

01/10/2012 – 29/06/2016 Brasov, Romania
BACHELOR OF SCIENCE IN APPLIED ELECTRONICS Transilvania University of Brașov, Faculty of Electrical Engineering and Computer Science

Analog and digital electronics
Mathematics
Signal Processing
Hardware Description Languages
Embedded Systems

I attended two times *Student Scientific Presentation Meeting* organized in faculty, and in 4th year of studies, I obtained at this contest a prize with thesis *Operating with Integer Values in Hardware*

Address Bulevardul Eroilor 29, Brașov, 500036, Brasov, Romania ⎸ **Website** https://www.unitbv.ro/en/ ⎸

Field of study Applied Electronics ⎸

Thesis Hardware Implementation of JPEG Algorithm using Partial Reconfigurability

15/09/2008 – 15/09/2012 Brasov, Romania
HIGH SCHOOL DIPLOMA National College of Computer Science "Grigore Moisil", Brașov

Being at high-school, I attended three times the Religion(Orthodox) Olympiad and in 2nd year of study I obtained first prize in county competition and I was qualified to participate at the national Olympiad held in Suceava.

Address Calea București 75, 500326, Brasov, Romania ⎸ **Website** https://www.moisilbrasov.ro/ ⎸

Field of study Mathematics-Computer Science Profile

LANGUAGE SKILLS

Mother tongue(s): **ROMANIAN**

Other language(s):

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

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

DIGITAL SKILLS

Microsoft office(WordExcel Powerpoint Outlook) ⎸ Video Conferencing (Zoom Skype Google Hangout) ⎸ Hardware description languages (VHDL Verilog) ⎸ Programming (C C++ Java HTML Python Perl) ⎸ LabView Graphical Programming Language ⎸ Working with databases

ADDITIONAL INFORMATION

COMMUNICATION AND INTERPERSONAL SKILLS

Team work If I work on a big project, I prefer teamwork, because I know that, in this way, the results will be better.

VOLUNTEERING

Brasov, Romania
Together for everybody I participated at some volunteer programs. One of them, called "Together for everybody", funded by Rompetrol, had as target, one hand, to endow the County Hospital with modern beds, and, on the other hand, to alert the teenagers about harmful effects of the excess of alcohol consumption.

DRIVING LICENCE

Driving Licence: B

Driving Licence: BE

HOBBIES AND INTERESTS

Hobbies Driving the car
Riding the bike
Reading

PUBLICATIONS

Opportunities of using artificial intelligence in hardware verification – 2019
Presented at 2019 IEEE 25th International Symposium for Design and Technology in Electronic Packaging (SIITME)

A Dinu, PL Ogrutan

Cost-efficient approaches for fulfillment of functional coverage during verification of digital designs – 2022
Published in Micromachines, an MDPI Journal

Alexandru Dinu, Gabriel Mihail Danciu, Petre Lucian Ogrutan

Hardware reconfiguration of a SoC – 2018
Published in Journal "Review of the Air Force Academy"

Alexandru Dinu, Adrian Crăciun, Marian Alexandru

Coverage fulfillment methods as key points in functional verification of integrated circuits – 2019
Presented at 2019 International Semiconductor Conference (CAS)

Alexandru Dinu, Petre Lucian Ogruţan

Is There a Link Between Creativity and Multiculturalism in Education? – 2019
Published in TEM Journal

Petre Lucian Ogrutan, Alina Luminita Machidon, Alexandru Dinu

Coverage fulfillment automation in hardware functional verification using genetic algorithms – 2022
Published in Applied Sciences, an MDPI Journal.

Gabriel Mihail Danciu, Alexandru Dinu