

# Curriculum vitae

## Personal information

First name / Surname **Dobra Ionut Marian**  
Address City Cluj-Napoca, str. Sobarilor Nr.38A, Bl.C3, ap.6 Postal code 400270  
Telephone 0757212880  
E-mail lonut1008@yahoo.com  
Nationality Romanian  
Date of birth 10 august 1990

## Education and training

**Dates** Oct.2018 – Oct.2023  
Title of qualification PHD degree  
University Technical University of Cluj Napoca  
Master Automation  
Thesis Energy Harvesting and Air quality sensors  
**Dates** Oct.2013 – Iun. 2015  
Title of qualification awarded Master's degree  
University Technical University of Cluj Napoca  
Master Advanced Process Control  
Thesis „Localizarea Wireless in interiorul unei cladiri”  
**Dates** Oct. 2009 – Iun.2013  
Title of qualification awarded Engineer Diploma  
Principal subjects Automatic control engineering and science  
University Technical University Cluj Napoca  
Faculty Automation Engineering  
Thesis Wi-Fi based objects localization in multipath environment  
**Dates** Sept. 2005 – Jun. 2009  
Title of qualification awarded High school diploma  
Certificate Certificate of professional competence - Competent computer literacy  
Principal subjects Mathematics and Computer science  
High school Emil Racovita Baia Mare theoretical high school

## Published documents

- Vladut-Alexandru Dobra, Ionut-Marian Dobra and Silviu Folea „Real-Time Paddle Stroke Classification and Wireless Monitoring in Open Water Using Wearable Inertial Nodes”, (This article belongs to the Special Issue Sensors for Human Activity Recognition: 3rd Edition), *Sensors* 2025, 25(17), 5307; <https://doi.org/10.3390/s25175307>
- Dobra, Vladut-Alexandru, Ionut-Marian Dobra, Silviu Folea, and Radu Sabau. 2025. "Real-Time Feedback in Swimming Exercises Using Embedded Devices in Water" *Applied Sciences* 15, no. 12: 6771. <https://doi.org/10.3390/app15126771>
- Dobra, Vladut-Alexandru, Ionut-Marian Dobra, and Silviu Folea. 2025. "Learning Swimming Techniques by Means of Real-Time Monitoring with Embedded Devices" *Applied Sciences* 15, no. 5: 2724. <https://doi.org/10.3390/app15052724>
- Ionut-Marian Dobra, Vladut-Alexandru Dobra, Adina-Alexandra Dobra, Gabriel Harja, Silviu Folea, Vlad Gavra, „Long-Range Network of Air Quality Index Sensors in an Urban Area”, This article belongs to the Topic Nanomaterial Based Gas Sensors for Environmental Air Pollutant Detection, 19 September 2023 *Sensors* 2023, 23, 9001. <https://doi.org/10.3390/s23219001>
- Vlad Gavra, Ovidiu A. Pop, Ionut Dobra „A Comprehensive Analysis: Evaluating security characteristics of Xbee”, 7 Sep 2023 - *Sensors*, 23, 8736, This article belongs to the Special Issue Communication, Security, and Privacy in IoT, MDPI – Sensors, <https://doi.org/10.3390/s23218736>
- Ionut Marian DOBRA, Adina Alexandra DOBRA, Vladut Alexandru DOBRA, Vlad Dacian GAVRA, Silviu FOLEA, Air Quality Analysis in the Surrounding Environments Using a Lora Network, Series: APPLIED MATHEMATICS, MECHANICS, AND ENGINEERING, September 2023, Vol. 66, Issue Special I, pg. 39-46.
- Vlad-Dacian Gavra\*, Ovidiu Aurel Pop\*, Ionut-Marian Dobra\*\* - \* ETTI Department, \*\* Automation Department at Technical University of Cluj-Napoca. Performance analysis of XBee modules in a Mesh Network, in 2023 46th International Spring Seminar on Electronics Technology (ISSE)
- Vlad-Dacian Gavra\*, Ionut-Marian Dobra\*\*, Ovidiu Aurel Pop\* - \* ETTI Department, \*\* Automation Department at Technical University of Cluj-Napoca. A survey on threats and security solutions for IoT, in 2020 43rd International Spring Seminar on Electronics Technology (ISSE)
- Ionut Marian Dobra\*, Vladut Alexandru Dobra\*, Vlad Dacian Gavra\*\*, Silviu Folea\* - \*Automation Department, \*\*ETTI Department at Technical University of Cluj-Napoca. LoRa propagation test in an urban environment and office buildings, at the International IEEE AQTR Conference in 2020
- Ionut Marian Dobra\*, Ionut Muntean\* and Sergiu-Dan Stan\*\* \*Department of Automation, \*\*Department of Mechatronics and Machine Dynamics Technical University of Cluj-Napoca, Romania, A Service Oriented Architecture Approach to Remanufacturing Processes, at the International IEEE AQTR Conference in 2014
- Ionut Marian Dobra, *Wi-Fi based objects localization in multipath environment*, 4th Computer Science Students Conference ISSN 2285 – 2166, Cluj-Napoca, June 2013, Technical University of Cluj Napoca
- <https://scholar.google.com/citations?user=PWW83sMAAAAJ&hl=en>

## Experience

<b>Practice</b>	02.07.2012 – 10.08.2012
Company	Universal Alloy Corporation Europe
Field of activity	Extrusion of aluminium and alloys
Department	Maintenance / Service
Responsibilities	Maintenance of production equipment
Achievements	Creating automation programs using RS Logix 500 Rockwell Software, for Allen-Bradley PLC's Three phase motor control using a frequency converter Calibration of aging oven
<b>Research</b>	Oct. 2013 – Dec. 2013
Institute	RCEES – Research Centre for Eco-Environmental Science, Beijing Chinese Academy of Sciences
Project name	Greenet Project
Achievements	Making a scientific paper entitled: „Service oriented architecture: case study on remanufacturing”

## Work

<b>Dates</b>	Ian 2025 – present
Company	Robert Bosch
Position	Group Leader
Achievements	Development and coordination of communication and diagnostic teams
<b>Dates</b>	Ian 2023 – present
Company	Robert Bosch
Position	Team Leader for the Software System Designer team
Achievements	Coordinate the SWSD team Analysing and clarifying the requirements, received from the OEM. Planning the tasks for the team. Planning discussions with the projects from the platform
<b>Dates</b>	Sep 2020 – Dec 2022
Company	Robert Bosch
Position	Software System Designer
Achievements	Analysing the requirements, received from the OEM. Clarifying the requirements with the OEM Planning the tasks for the team. Planning discussions with the projects from the platform

**Dates** Jan 2017 – Sep 2020  
**Company** FreeLancer  
**Position** Software Project Manager, Team Leader, Embedded Developer  
**Achievements** Analysing the requirements, received from the client.  
 Planning the tasks for the team.  
 Provide support for all the team members with all the topics.  
 Discutients with the client about the specifications.  
 Suggesting solutions for the client for unseen conflicts between requirements

**Dates** Oct 2015 – Dec 2016  
**Company** NTT Data Romania  
**Position** Software Project Manager  
**Achievements** Analysing the requirements, received from the client.  
 Planning the tasks for the team.  
 Provide support for all the team members with all the topics.  
 Discutients with the client about the specifications.  
 Suggesting solutions for the client for unseen conflicts between requirements.

**Dates** May 2014 – Oct 2015  
**Company** EBS Romania (Actual NTT Data Romania)  
**Position** Embedded Developer  
**Achievements** Designing and implementing features and functionalities on the HMI part.  
 Integrating new functionalities into the system  
 Check and test the implemented changes of requirements in software  
 Working with versioning tools (SVN, MKS)  
 Performing code and documents reviews  
 Writing documentation for the implemented code (Module Specifications, Module Test Specification)

**Personal skills and competences**

**Mother tongue** Romanian

		Understanding		Speaking		Writing	
		Listening	Reading	Spoken interaction		Spoken production	
<b>English</b>	C2 Proficient User	C2 Proficient User	C2 Proficient User	C2 Proficient User	C2 Proficient User	C1 Proficient user	C1 Proficient user
<b>Italian</b>	B2 Independent user	B1 Independent user	A2 Basic user	A2 Basic user	A2 Basic user	A1 Basic user	A1 Basic user

**Conference** Nürnberg Embedded World 2017, 2018, 2019,2020, 2023

**Organisational skills and competences** Team spirit, adaptable, persistent, ambitious, communication skills, persuasive

<p>Technical skills and competences</p>	<p>A good knowledge about the following programmes:  Microsoft Visual studio, Multi (Used for debugging, with the mini Cube and E1 from Renesas) , CANoe, Beyond Compare, Cinema 4D, SVN, MKS, VMware Horizon, Jira, Git, Doors, CTC, QAC.  C , C # and Visual C++  A good understanding of XML files for creating them or using them with Altova or other software.  Average knowledge about the following programming languages:  WebDeveloping – Average knowledge about : HTML,PHP  Basic knowledge about the following programming languages:  Microsoft SQL Server  Other languages used: Matlab, Labview, AutoCAD, Step7, Assembly language  Photo editing programs: CorelDraw, Corel Photo-Paint , Adobe Photoshop, Adobe Illustrator  MS-OFFICE</p>
<p>Computer skills and competences</p>	<p>Operation and advance knowledge for applications in operating environments: windows and linux.</p>
<p>Driving licence</p>	<p>Categories A ,B</p>