

## PERSONAL INFORMATION



## Radu Emanuil Petrus

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## WORK EXPERIENCE

2006–2016 **Laboratory Assistant**

Lucian Blaga University of Sibiu, Sibiu (Romania)

- computer maintenance
- laboratory resources management

2012–2016 **Assistant (during Ph.D. studies)**

Lucian Blaga University of Sibiu, Sibiu (Romania)

- teach CAD/CAM and Virtual Mechatronic Systems laboratories

2014–2015 **Assistant Lead**

Lucian Blaga University of Sibiu, Sibiu (Romania)

- assistant lead for the POSDRU project: " FORMare profesională inovativă în domeniul INgineriei – FORMING - POSDRU/125/5.1/S/134003 "

09/2016–01/2017 **Project Manager**

Continental Automotive Systems, Sibiu (Romania)

- project manager for the research project no. 4587
- mechanical development researcher in the same project

09/2017–04/2018 **Project Manager**

Continental Automotivew Systems, Sibiu (Romania)

- project manager for the research project no. 1081 " Automatic Motorcycle Transmission Development – AMT 250 "
- mechanical development researcher in the same project

2017–Present **Lecturer**

Lucian Blaga University of Sibiu, Sibiu (Romania)

- teaching courses and laboratories for: CAD, CAM, FEA and Virtual Mechatronic Systems

2017–2017 **Reporting Manager for DiFiCIL project**

Lucian Blaga University of Sibiu, Sibiu (Romania)

- progress reporting manager for DiFiCIL project <http://dificil.grants.ulbsibiu.ro/en/project/activities/>

2016–Present **Researcher**

Lucian Blaga University of Sibiu, Sibiu (Romania)

- researcher in DiFiCIL project <http://dificil.grants.ulbsibiu.ro/en/project/activities/>

## EDUCATION AND TRAINING

- 2006–2010 **Engineer**  
Lucian Blaga university of Sibiu, Sibiu (Romania)  
Bachelor Degree in Mechanical engineering
- 2010–2012 **Dpl. Eng.**  
Lucian Blaga University of Sibiu, Sibiu (Romania)  
Ms.C Digital Factory
- 2012–2016 **Ph.D**  
Lucian Blaga University of Sibiu, Sibiu (Romania)  
Ph.D. in Industrial Engineering. Thesis title: Augmented Reality Applications for the Design and Manufacture of Products

## PERSONAL SKILLS

Mother tongue(s) Romanian

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C1	C2	C2
German	A2	A2	A1	A1	A1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user  
Common European Framework of Reference for Languages

Communication skills - good communication skills gained through my lecturing experience  
- participated and presented my research in international conferences

Organisational / managerial skills - managerial expertise acquired as a project manager for two research projects.  
- organisational skills developed by tutoring students in different research activities  
- leadership abilities gained by coordinating multiple research teams

Job-related skills - Assembly design in CATIA v5, v6, ProE/Creo and NX  
- Kinematics simulations in CATIA v5 and v6  
- Computer Aided Manufacturing (CAM) in CATIA v5, v6 and NX 7.5  
- CAD in CATIA v5, v6, ProE/Creo and NX  
- Sinumerik CNC operate/programming  
- Finite Element Analysis in ABAQUS and CATIA  
- Augmented Reality application development  
- Rapid Prototyping  
- Additive manufacturing  
- 3D scanning  
- Computer network management  
- Web design (HTML)  
- Software and Hardware maintenance

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Digital skills - Self-assessment grid

Driving licence A, B

ADDITIONAL INFORMATION

Publications

1. Ioan Bondrea, Radu Petrus "AUGMENTED REALITY APPLIED IN ASSEMBLY DESIGN" MT&M 2011 - The 10th International Conference Modern Technologies in Manufacturing 6-8 Octombrie 2011 Cluj-Napoca, Romania
2. Ioan Bondrea, Radu Petrus "AUGMENTED REALITY USED FOR QUALITY ASSURANCE IN ASSEMBLY PROCESSES" Modern Technologies, Quality and Innovation - New face of TMCR 24-26 Mai 2012 Sinaia, Romania
3. Paul Dan Brîndasu, Radu Petrus, Daniela Cărutasu, Livia Dana Beju "PRODUCT LIFECYCLE MANAGEMENT FOR A MILITARY MAINTENANCE VEHICLE" Modern Technologies, Quality and Innovation - New face of TMCR 24-26 Mai 2012 Sinaia, Romania
4. Ioan Bondrea, Radu Petrus "AUGMENTED REALITY - AN IMPROVEMENT FOR COMPUTER INTEGRATED MANUFACTURING" 2012 International Conference on Manufacturing Engineering and Technology for Manufacturing Growth METMG 2012", San Diego, CA, USA
5. Ioan Bondrea, Radu Petrus "AUGMENTED REALITY IMPLEMENTED ON A FESTO ASSEMBLY LINE" Acta Universitatis Cibiniensis – Technical Series, Vol. LXIII Sibiu Romania
6. Andreea Angela ȘTEȚIU, Mihaela OLEKSIK, Valentin OLEKSIK, Radu PETRUSE, Mircea ȘTEȚIU "THE MINIMAL BURR DIMENSIONING OF TEETH PREPARATIONS TO BE RESTORED WITH BIOMATERIALS" Romanian Biotechnological Letters Vol. 18, No.3, 2013
7. Dan Paul BRINDASU, Livia Dana BEJU and Radu PETRUSE "DETERMINING THE LIMIT COEFFICIENT OF CIRCULAR HOLES' EDGES BENDING" Academic Journal of Manufacturing Engineering, vol. 11, issue 2/2013
8. Ioan Bondrea, Radu Petrus "DEVELOPMENT OF AN AUGMENTED REALITY AIDED CNC TRAINING SCENARIO" Internationat Engineering and Technology Education Conference IETEC 2013", 2013 Ho Chi Minh, Vietnam
9. Radu Petrus, Ioan Bondrea "AUGMENTED REALITY – A REVIEW ON TECHNOLOGY AND APPLICATIONS" Acta Universitatis Cibiniensis – Technical Series, Vol. LXIV pp 63-68 2014 Sibiu Romania
10. Petrus Radu, Batar Sergiu, Cojan Adela, Manitiu Ioan „APPLIED IMAGISTICS OF ISCHAEMIC HEART A SURVEY. FROM THE EPIDEMIOLOGY OF STABLE ANGINA IN ORDER TO BETTER PREVENT SUDDEN CARDIAC DEATH" Acta Universitatis Cibiniensis – Technical Series, Vol. LXIV pp 57-62 2014 Sibiu Romania
11. Andreea Angela ȘTEȚIU, Valentin OLEKSIK, Mircea ȘTEȚIU, Radu PETRUSE, Mihai BURLIBASA, Mihaela CERNUSCA-MITARIU, Ileana IONESCU "DIMENSIONING INITIAL PREPARATION FOR DENTALINCISAL RECONSTRUCTION WITH BIOMATERIALS" Romanian Biotechnological Letters Vol. 19, No.4, 2014
12. Radu Emanuil Petrus, Ioan Bondrea, Marco Sacco, Stefano Mottura "AUGMENTED REALITY AIDED 3D MODELLING" Periodical of Advanced Materials Research Vol. 1036 in 2014; Modern Technologies in Industrial Engineering II
13. Stefano Mottura, Marco Sacco, Radu Emanuil Petrus, "EXPERIENCING INFRASTRUCTURES SHARING FOR INTERNATIONAL RESEARCH ACTIVITIES" EuroVR 2014 Bremen Germany

14. Radu Petrus, Dan Brindasu "AUGMENTED REALITY APPLIED IN MACHINING PROCESSES AND CUTTING TOOLS MANAGEMENT" Applied Mechanics and Materials Volume 693 pp. 279-284 December 2014
15. Ioan Bondrea, Radu Emanuil Petrus, "AUGMENTED REALITY CAD/CAM TRAINING APPLICATION VERSION 2.0", 11th International Conference on EDUCATIONAL TECHNOLOGIES (EDUTE '15), 22-24 February, Dubai, 2015
16. Radu Emanuil PETRUSE, Brandon JOHNSON and Ioan BONDREA, "A LOW BUDGET, REVERSE ENGINEERING SOLUTION FOR OBTAINING FUNCTIONAL PARTS" Academic Journal of Manufacturing Engineering, vol.13, issue 2/2015 pp. 78-83
17. Radu Emanuil PETRUSE, Ioan BONDREA "AUGMENTED REALITY AIDED PRODUCT LIFE CYCLE MANAGEMENT COLLABORATIVE PLATFORM" IATED Academy, 2016, pp. 4652-4659, ISBN: 978-84-608-5617-7
18. R Diaconu, R Petrus and P D Brindasu "Formwork application optimization by using augmented reality" Materials Science and Engineering, Volume 161, Number 1, 2016 doi:10.1088/1757-899X/161/1/012043
19. Radu Emanuil PETRUSE, Valentin GRECU, Bogdan Marius CHILIBAN „Augmented Reality Applications in the Transition Towards the Sustainable Organization” Computational Science and Its Applications -- ICCSA 2016; Volume 9788 of the series Lecture Notes in Computer Science pp 428-442
20. Radu Emanuil PETRUSE, Ioan BONDREA, Carmen SIMION „Augmented Reality Robot Teaching Application” Proceedings of the 4th IETEC Conference, Hanoi, Vietnam. 2017

#### Certifications

ABAQUS FEA - Training Certificate  
 Catia FEA - Training Certificate  
 Catia CAD - Training Certificate  
 Catia CAM - Training Certificate  
 NX CAM - Training Certificate  
 NX CAD - Training Certificate  
 Siemens Sinumerik ShopTurn, ShopMill - Trainer Certificate  
 FARO - Training Certificate  
 Project Manager Certificate  
 Trainer Certificate

#### Projects

##### **National and international projects involved in :**

- Research contract no. 1081 for Continental Automotive Systems
- Research contract no. 4587 for Continental Automotive Systems
- Dezvoltarea sistemelor socio-fizico-cibernetice pe baza Internetului Lucrurilor în fabrica viitorului – DiFiCIL Actiune 1.1.4: Atragerea de personal cu competente avansate din strainatate pentru consolidarea capacitatii de CD <http://difcil.grants.ulbsibiu.ro/en/>
- Inserție activă pe piața muncii prin FORMare profesională inovativă în domeniul INgineriei – FORMING - POSDRU/125/5.1/S/134003 Funcția- Asistent lider perioada 2014-2015
- Digital Factory: Concepts, Implementations, Present and Future Challenges, Cod: 14-SEE-PC-RO SIBIU01, Programul "Fondul de burse RO15", Finantat prin Mecanismul Financiar SEE 2009 – 2014, Contract nr. 3/22.07.2014 05-06. 2015
- "Augmented Reality - An Improvement for Computer-Integrated Manufacturing" din cadrul European Community's Research Infrastructure Action – grant agreement VISIONAIR 262044 – under the 7<sup>th</sup> Framework Programme (FP7/2007-2013)