

PERSONAL INFORMATION

First name(s) / Surname(s)

Telephone / Fax

E-mail

Date of birth

**CURRENT EMPLOYMENT /
OCCUPATIONAL FIELD**

• Date

• Employer

• Occupation or position held

• Main activities and responsibilities

• PhD Supervisor

• Field

EDUCATION AND TRAINING

• Year

• Name and type of organization providing education and training

• Title of qualification awarded

• Specialization

• Year

• Name and type of organization providing education and training

• Title of qualification awarded

• Specialization

• Year

• Name and type of organization providing education and training

• Title of qualification awarded

• Specialization

TEACHING ACTIVITIES

PROFESSIONAL EXPERIENCE

CRET, OCTAVIAN AUGUSTIN

0264 401477; 0264 401940; 0743 096432 (mobile) / 0264 594491 (fax)

Octavian.Cret@cs.utcluj.ro

August 22, 1971

2011

Computer Science Department; Faculty of Automation and Computer Science

Computer Science Engineer, Professor

Teaching and Research activities

Yes

Computer Science and Information Technology

1995

Technical University of Cluj-Napoca, Faculty of Automation and Computer Science

Engineer

Computer Science

1996

Technical University of Cluj-Napoca, Faculty of Automation and Computer Science

Master

New generation of Computers

2004

Technical University of Cluj-Napoca, Faculty of Automation and Computer Science

Doctor

Computer Science

COURSES HOLDER

Logic Design

Digital Systems Design

Proiectarea sistemelor numerice cu dispozitive FPGA (FPGA-based Digital Systems Design)

SPECIALIZATIONS

Computer Science

Computer Science

Computer Engineering (Master)

YEAR

I

I

I Master

RESEARCH ACTIVITIES

RESEARCH INTEREST

- FPGA-based digital system design
- Reconfigurable computing systems

SCIENTIFIC PAPERS

105 scientific papers published; here is a short selection:

1. Norbert Deak, **Octavian Creț**, Horia Hedeșiu. Efficient FPGA Floorplanning for Partial Reconfiguration-Based Applications. The 27th IEEE International Symposium on Field-Programmable Custom Computing Machines. Location: San Diego, CA, USA, April 28 – May 1, 2019.
2. Norbert Deak, **Octavian Creț**, Marius Echim, Eliza Teodorescu, Cătălin Negrea, Lucia Văcariu, Costel Munteanu, Anca Hângan. Edge Computing for Space Applications: Field Programmable Gate Arrays-Based Implementation of Multiscale Probability Distribution Functions. Review of Scientific Instruments, vol. 89, issue 12, December 2018, ISSN: 0034-6748, <https://doi.org/10.1063/1.5044425>, DOI: 10.1063/1.5044425. **[ISI]**
3. Gheorghe Hăjmășan, Alexandra Mondoc, Radu Portase, **Octavian Creț**. Performance Improvements in Behavior Based Malware Detection Solutions. Proceedings of the IFIP International Conference on ICT Systems Security and Privacy Protection (SEC 2018), pp 370-384, 18-20 September 2018, Poznan, Poland. **[DBLP]**
4. Dan Cristian Turicu, **Octavian Creț**, Lucia Văcariu. High Performance Serial ATA Gen3 Controllers on FPGA Devices. 16th IEEE International Conference on Field-Programmable Technology (ICFPT, December 11-13, 2017, Melbourne, AUSTRALIA, pp. 32-39, ISBN 978-1-5386-2656-6. **[IEEE] [DBLP] [ISI Proceedings]**
5. Gheorghe Hăjmășan, Alexandra Mondoc, **Octavian Creț**. Dynamic behavior evaluation for malware detection. 5th International Symposium on Digital Forensic and Security (ISDFS), pp. 1-6, IEEE, Aprilie 2017. **[ISI Proceedings] [IEEE]**
6. Lucia Văcariu, Anca Hângan, **Octavian Creț**, Andrei Crețu. A Decision Support System on the Cyberwater Platform. Proceedings of the 21st International Conference on Control Systems and Computer Science, CSCS21, 3rd International Workshop on Cyberinfrastructures for Natural Resources Management, CyRM-2017, May 29-31, 2017, Bucharest, Romania, pp. 591-598, ISBN-13: 978-1-5386-1839-4, ISSN: 2379-0482. **[SCOPUS] [ISI Proceedings]**
7. Gheorghe Hăjmășan, Alexandra Mondoc, Radu Portase, **Octavian Creț**. Evasive Malware Detection Using Groups of Processes. ICT Systems Security and Privacy Protection, Proceedings of the 32nd IFIP TC 11 International Conference (SEC 2017), pp. 32-45, Rome, Italy, May 29-31, 2017. **[SCOPUS] [DBLP]**
8. Andrei Luțăș, Daniel Țicle, **Octavian Creț**. Hypervisor based Memory Introspection: Challenges, Problems and Limitations. Proceedings of the 3rd International Conference on Information Systems Security and Privacy – Volume 1: ICISSP, 285-294, 2017, Porto, Portugal. **[DBLP]**
9. Dan Cristian Turicu, **Octavian Creț**, Lucia Văcariu. Serial ATA Commands Logger for Security Monitoring on FPGA Devices. Proceedings of the 2017 IEEE Computer Society Annual Symposium on VLSI (ISVLSI), 397-402, July 3-5, 2017, Bochum, Germany. **[IEEExplore] [DBLP]**
10. Andrei Luțăș, Daniel Țicle, **Octavian Creț**. Hypervisor based Memory Introspection: Challenges, Problems and Limitations. Proceedings of the 3rd International Conference on Information Systems Security and Privacy - Volume 1: ICISSP, 285-294, 2017, Porto, Portugal. **[DBLP]**

23 grants obtained by competition (selection):

INTERNATIONAL GRANTS

1. Contract with National Instruments Romania company, Cluj-Napoca branch, entitled: „Dynamic Partial Reconfiguration for FPGA Devices” – part 1 2009-2010, part 2 2011-2012, part 3 2012-2013, part 4 2013-2014, part 5 2014-2015, part 6 2015-2016, part 7: 2017. **Contract director: prof. dr. eng. Octavian Creț.**
2. Integrated actions programme (PAI) “Brâncuși” Romania–France, “Systèmes reconfigurables pour applications biomédicales”, nr. 14914RL, 2007-2008. **Contract director: Assoc. Prof. dr. eng. Octavian Creț.**

NATIONAL GRANTS

1. Director of the research team working on the PCCDI project, “Extensive valorization of the experience acquired in Space and Security activities” (VESS). **Contract director for partner 4 UTCN: prof. dr. ing. Octavian Creț**, 2018 – 2020, no. 722 / 27.03.2018.
2. Director of the research team working on the PCCDI project, “Onboard nonlinear Analysis of data: a New technology based on Field Programmable Gate Arrays” (OANA). **Contract director for partner 1 UTCN: prof. dr. ing. Octavian Creț**, 2017 – 2019, no. 20594 / 07.09.2017.
3. *Member* of the research team working on the PCCA type 1 project, „Prototype Cyberinfrastructure-based System for Decision-Making in Water Resources Management” (CyberWater). **Contract director for partner 2 UTCN: ș.l. dr. ing. Lucia Văcariu**, 2012 – 2015, nr. 47/2012.
4. *Member* of the research team working on the PN 2 PARTNERSHIPS contract, no.11-020 / sept.2007 „CryptoRand - A High Performance System for Generation and Testing of Random Number Sequences for Cryptographic Applications” (<http://cryptorand.utcluj.ro/>), 2007-2010. Contract director: Assoc. Prof. dr. eng. Alin Dumitru Suciu, Technical University of Cluj-Napoca.
5. **Type A** contract, partner: Romanian Ministry of Research and Education (CNCSIS Department): „Intelligent space of heterogeneous and context aware agents - SmartHouse”, 2007-2008, code 1566,

GRANTS, RESEARCH CONTRACTS

GRANTS, INSTITUTIONAL PROJECTS

- theme A5 no. 24 / 2007. **Contract director: Assoc. Prof. dr. eng. Octavian Creț.**
- Type A** contract, partner: Romanian Ministry of Research and Education (CNCSIS Department): „Intelligent space of heterogeneous and context aware agents - SmartHouse”, **2007-2008**, code 1566, theme A5 no. 24 / 2007. **Contract director: Assoc. Prof. dr. eng. Octavian Creț.**
 - Type AT** contract, partner: Romanian Ministry of Research and Education (CNCSIS Department): “Hardware implementation of a gene sequences alignment device based on the general Smith-Waterman algorithm”, **2005**, nr. 27702 / 2005, theme number 102 / 2005. **Contract director: s. I. dr. eng. Octavian Creț.**

International projects

- ERASMUS program coordinator – partner: Ecole Normale Supérieure de Lyon, France, since 2005.
- ERASMUS program coordinator – partner: Institut de Formation Supérieure en Ingénierie et Communications de Rennes (ESIR since 2010), France, since 2007.
- ERASMUS program coordinator – partner: Institut de National de Science Appliquées (INSA) de Rennes, France, since 2009.
- ERASMUS program coordinator – partner: Universite Paul Sabatier, Toulouse, France, since 2014.
- ERASMUS program coordinator – partner: University of Innsbruck, Austria, since 2014.

PUBLICATIONS

BOOKS, MANUALS

3; first author: 1, unique author: 1, team member: 1.
2 book chapters.

LABORATORY BOOKS

3; first author: 1

PROBLEMS BOOK

1, as a first author

SCIENTIFIC PAPERS PUBLISHED

Over 100

NUMBER OF RESEARCH GRANTS

22; grant director: 14.

MOTHER TONGUE

Romanian

Other language(s)

Self-assessment

European level (*)

French

English

Italian,

German

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
B2	Independent user	B2	Independent user	B2	Independent user	B2	Independent user	B2	Independent user
B2	Independent user	B2	Independent user	B1	Independent user	A2	Basic user	A2	Basic user
A2	Basic user	A2	Basic user	A2	Basic user	A2	Basic user	A2	Basic user

(*)Common European Framework of Reference (CEF) level

Referees

- Prof. Alin Suci, alin.suciu@cs.utcluj.ro
- Assoc. Prof. Christian Săcărea, <https://math.ubbcluj.ro/~csacarea/wordpress/>
- Assoc. Prof. Lucia Văcariu, lucia.vacariu@cs.utcluj.ro

Cluj-Napoca, May 21st, 2025

Prof. dr. eng. Octavian Augustin CREȚ

