



Curriculum vitae Europass

Personal Information



Name / Surname **Bogdan Groza**
Address Universitatea Politehnica Timisoara, Bd. V. Parvan, nr. 10, Timisoara, Romania
Phone
E-mail bogdan.groza@aut.upt.ro
Nationality
Date of birth

Work Experience

- Research field** ▪ Information security, embedded systems security, in-vehicle network security, cryptography
- Publication summary** ▪ Over 80 research papers: over 20 in journals out of which 18 in Q1/Q2 journals, 60 papers in international conference proceedings

Research projects

Director (selected):

- PRESENCE - Privacy-enabled, secured interactions between vehicles and smart electronic devices, PN-III-P1-1.1-TE-2016-1317, 2018-2020 (buget 100.000 Euro)
- CSEAMAN - Cryptographic security for automotive embedded devices and networks, PN-II-RU-TE-2014-4-1501, 2015-2017 (buget 125.000 Euro)

Member (selected):

- SEVEN - Security enhancements and vulnerability assessment for industry-standard networks (UEFISCDI, PD-2018-2020, mentor),
- COST Action IC1306 Cryptography for secure digital interaction (COST 2014-2018, management committee RO)
- AVANTSSAR - Automated validation of trust and security of service-oriented architectures (EU FP7 2007-2010)

Employment:

Period 2017-present
Position **Professor**
Period 2014-2017
Position **Associate professor**
Period 2009-2014
Position **Lecturer**
Period 2004-2008
Position **PhD Student**
Employer's name **Universitatea Politehnica Timisoara, Blvd. V. Parvan, nr. 10, room A304, Timisoara, Romania**

Period 2008-2011
Position **Researcher**
Employer's name **Institutul e-Austria Timisoara**, Blvd. Vasile Parvan, nr. 4, room 045B
Other activities **Journal reviewer** (Q1/Q2 including): Transactions on Vehicular Technology (IEEE), Vehicular Technology Magazine (IEEE), Transactions on Information Forensics and Security (IEEE), Transactions on Dependable and Secure Computing (IEEE), Transactions on Neural Networks and Learning Systems (IEEE), Transactions on Intelligent Transportation Systems (IEEE), Transactions on Industrial Informatics (IEEE), Wireless Communications (IEEE), Communication Letters (IEEE), Telecommunication Systems (Springer), Designs Codes and Cryptography (Springer), Journal of Computer and System Sciences (Elsevier) Journal of Systems and Software (Elsevier), Information Security Technical Report (Elsevier), Computer Standards & Interfaces (Elsevier), Security and Communication Networks (Wiley), etc.
Other activities **International program committee member** (conferences or workshops): ARES'21, CRiSIS'21, ARES'20, AdHoc-Now'20, CRiSIS'20, AQTR'20, STRIVE'20, ITCVT'19, STRIVE'19, SIOT'19, A3S'19, ARES'19, CRiSIS'19, ARES'18, CRiSIS'18, SloT'18, BalkanCryptSec'18, AQTR'18, ARES'17, CRiSIS'17, SloT'17, ARES'16, CRiSIS'16, BalkanCryptSec'16, SloT'16, AQTR'16, RCD'15, BalkanCryptSec'15, SloT'15, ARES'15, SloT'14, ARES'14, BalkanCryptSec'14, ARES'13, ARES'12, CRiSIS'12, CRiSIS'11, SECURWARE'10, ICIMP'10, CRiSIS'10, ICIMP'09, IWSSI'07, etc.

Education and training

Period 2016
Qualification **Habilitation** (Computer science and Information Technology)
Thesis title Cryptographic security for automotive systems
Institution **Universitatea Politehnica Timișoara**
Period 2004-2008
Qualification **PhD**
Institution **Universitatea Politehnica Timișoara, Faculty of Automatics and Computers**
Period 1999-2004
Qualification **Engineer**
Institution **Universitatea Politehnica Timișoara, Faculty of Automatics and Computers**
Other activities: Attendance to various trainings: 24-28 September 2007, 2nd Cryptography Summer School, Inst. b-it, Bonn, Germany; 28 July – 1 August 2008, 3rd Cryptography Summer School, Inst. b-it, Bonn, Germany; 7-11 September 2009, Summer school on Provable-security, Univ. Barcelona, Spain; 4-8 July 2011, Summer School on Software Security (ACM), Univ. of Ghent, Belgium; 13-17 October 2014, School on Cryptographic Attacks, Porto, Portugal.

Representative publications (Q1/Q2)

- Bogdan Groza, Lucian Popa, Pal-Stefan Murvay, CANTO - Covert Authentication with Timing channels over Optimized traffic flows for CAN, IEEE Transactions on Information Forensics and Security, vol. 16, pp. 601-616, 2021.
- Musuroi, Adrian, Bogdan Groza, Lucian Popa, and Pal-Stefan Murvay. Fast and Efficient Group Key Exchange in Controller Area Networks (CAN). IEEE Transactions on Vehicular Technology, 2021.
- Pal-Stefan Murvay, Lucian Popa, Bogdan Groza, Securing the controller area network with covert voltage channels, International Journal of Information Security, accepted 2020.
- Bogdan Groza, Lucian Popa, Pal-Stefan Murvay, Highly Efficient Authentication for CAN by Identifier Reallocation with Ordered CMAcs, IEEE Transactions on Vehicular Technology, vol. 69 , issue 6, pp. 6129-6140, 2020.
- Pal-Stefan Murvay, Bogdan Groza, Efficient Physical Layer Key Agreement for FlexRay Networks, IEEE Transactions on Vehicular Technology, 14 pages, 2020.
- Bogdan Groza, Tudor Andreica, Adriana Berdich, Pal-Stefan Murvay, Horatiu Gurban, PRESTvO: PRivacy Enabled Smartphone-based access To vehicle On-board units, IEEE Access, vol. 8, pp. 119105-119122, 2020.
- Bogdan Groza, Adriana Berdich, Camil Jichici, Rene Mayrhofer, Secure Accelerometer-Based Pairing of Mobile Devices in Multi-Modal Transport, IEEE Access, vol. 8, pp. 9246-9259, 2020.
- Pal-Stefan Murvay, Bogdan Groza, TIDAL-CAN: differential Timing based Intrusion Detection And Localization for Controller Area Network, IEEE Access, vol. 8, pp. 68895-68912, 2020.
- Bogdan Groza, Pal-Stefan Murvay, Identity-Based Key Exchange on In-Vehicle Networks: CAN-FD & FlexRay, Sensors, 19(22), 17 pages, 2019.
- Bogdan Groza, Lucian Popa, Pal-Stefan Murvay, TRICKS - time TRiggered Covert Key Sharing for Controller Area Networks, IEEE Access, vol. 7, pp. 104294-104307, 2019.
- Bogdan Groza, Pal-Stefan Murvay, Efficient Intrusion Detection With Bloom Filtering in Controller Area Networks, IEEE Transactions on Information Forensics and Security, vol. 14, issue 4, pp. 1037-1051, 2019.
- Pal-Stefan Murvay, Bogdan Groza, Security shortcomings and countermeasures for the SAE J1939 commercial vehicle bus protocol, IEEE Transactions on Vehicular Technology, vol. 67, issue 5, pp. 4325-4339, 2018.
- Bogdan Groza, Pal-Stefan Murvay, Security solutions for the CAN bus - bringing authentication to in-vehicle networks, IEEE Vehicular Technology Magazine, vol. 13, issue 1, pp. 40-47, 2018.
- Bogdan Groza, Bogdan Warinschi, Client puzzles and DoS resilience, Revisited, Designs Codes and Cryptography, 73, pp. 177-207, Springer-Verlag, 2014.
- Pal-Stefan Murvay, Bogdan Groza, Source Identification Using Signal Characteristics in Controller Area Networks, IEEE Signal Processing Letters, vol. 21, issue 4, pp. 395-399, 2014.
- Bogdan Groza, Pal-Stefan Murvay, Efficient protocols for secure broadcast in Controller Area Networks, IEEE Transactions on Industrial Informatics, vol. 9, issue 4, pp. 2034-2042, 2013.
- Marius Cristea, Bogdan Groza, Fingerprinting Smartphones Remotely via ICMP Timestamps, IEEE Communication Letters, vol. 17, issue 6, pp. 1081-1083, 2013.

Personal skills

Mother tongue **Romanian**

Other language(s) **English**

Additional information <http://www.aut.upt.ro/~bgroza/>