Dániel Varró

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Education and Degrees

2013	Doctor of Science (DSc); Hungarian Academy of Sciences
2011	Habilitation; Budapest University of Technology and Economics (shortly BME)
2004	PhD in Software Engineering (official name: Technical Informatics); BME
2000	MSc in Software Engineering (official name: Technical Informatics); BME

Academic Positions

2016 -	Professor (tenure track), ECE Department, McGill University
2014 -	Professor (tenured), Dept. of Measurement and Information Systems, BME
2014	Visiting Professor , Dept. of Computer Science, McGill University, Canada
2014	Visiting Professor , DIRO, Université de Montréal, Canada
2009 - 2014	Associate Professor (tenured) , Dept. of Measurement and Inf. Systems, BME
2005 - 2009	Assistant Professor, Dept. of Measurement and Information Systems, BME
2003 - 2005	Lecturer, Dept. of Measurement and Information Systems, BME

Research Interests

Model based software and systems engineering, Cyber-physical systems, Formal methods, Critical embedded systems, Service-oriented applications

Publication highlights

Total number of papers: 142
Books and book chapters: 8
Peer reviewed journal papers (incl. peer reviewed electronic journals): 24 (35)
Peer reviewed conference papers: 56
Number of citations: 5039 (as of August 22nd, 2016 by Google Scholar)
h-index (by Google Scholar): 38
Source: http://scholar.google.pt/citations?user=4Ya6dVoAAAAJ

Research Visits

2014	Université de Montréal (Prof. Houari Sahraoui) and McGill University (Prof. Hans Vangheluwe), 6 months
2004, 2005	TU Berlin, Germany (2x 1 month, with Prof. Hartmut Ehrig, SEGRAVIS Grant)
2003	Univ. Paderborn, Germany (3 months, with Prof. Gregor Engels, SEGRAVIS)
2001	SRI International, US (4 months, with Dr. John Rushby)

Projects and Grants

Canadian National Projects (as PI or co-PI)

2016 - 2021	**NSERC-DG**: Model-based Design and Validation Techniques for Smart and Safe Cyber-Physical Systems (RGPIN-2016-04573), funding: 215,000 CAD

Collaborative European Projects (as Site Leader or Research Coordinator at our site)

2013 - 2016	**MONDO**: Scalable Modelling and Model Management on the Cloud (EU-FP7-ICT-STREP, own funding: 420,000 EUR)
2010 - 2013	**E-Freight**: European e-Freight Capabilities for Co-modal Transport (EU-FP7-SST-IP, funding: 260,000 EUR)
2009 - 2012	**SecureChange**: Security Engineering for Lifelong Evolvable Systems (EU-FP7-FET-IP, 231101-2009, funding: 250,000 EUR)
2006 - 2010	**DIANA**: Distributed, equipment Independent environment for Advanced avioNic Applications (EU-STREP, FP6-2005-Aero-1, funding: 410,000 EUR)
2005 - 2010	**SENSORIA**: Software Engineering for Service Oriented Overlay Computers (FP6 European IP, IST-016004, funding: 300,000 EUR)

Hungarian National Projects (as PI)

2015-2020	MTA-BME Lendület Research Group on Cyber-Physical Systems, 520 000 EUR
2010-2014	**CERTIMOT**: Design and Analysis Techniques for Certifiable Model Transformations (ERC-HU-09: Starting Grant[1], 370 000 EUR)

Industrial Research Grants and Projects

2012-2014	**TRANS-IMA**: collaborative project with **Embraer** on model-driven avionic design tools (total funding: 200 000 EUR)
2013-2014	Collaborative project with **Ericsson** on modeling and verification of statecharts (total funding: 20 000 USD)
2007	**IBM Faculty Award**: A framework for the model-driven design and analysis of standards-compliant IT infrastructure management (by IBM TJ Watson Research Centre, total funding: 20,000 USD)
2006	**IBM Faculty Award**: Model based deployment of services to standards-compliant reliable IBM middleware (by IBM TJ Watson, funding: 10,000 USD)
2005	**IBM Faculty Award**: Model Transformation Engineering as a complement to IBM Process Modeling Technologies (by IBM TJ Watson, funding: 6,000 USD)
2006-2010	Two collaborative projects with **Nokia Research Centre** on high-availability service platforms, and on MDDtechniques (funding: 40 000 EUR)
	Total acquired funding: approx. 2.6 million EUR

Further Project Participation

[1] My Starting Grant proposal went to the final round at EC with a score of 7/8; finally it was partially funded by the Hungarian Research Agency

Collaborative Research Projects (as Contributor)

2014	**NECSIS**: (An Automotive Partnership Canada project)
2009-2011	**INDEXYS**: INDustrial EXploitation of the genesYS cross-domain architecture (ARTEMIS-2008-1-100021)
2006-2008	**RESIST**: Resilience for Survivability in IST (EU-FP6 Network of Excellence)
2004-2007	**DECOS**: Dependable Embedded Components and Systems (FP6 European IP)
2002-2006	**SEGRAVIS**: Syntactic and Semantic Integration of Visual Modelling Techniques (Research Training Network)

National Research Projects (as Contributor)

2005-2006	EC-Conforming Certification of Safety Equipments for Hungarian Railways (GVOP-2004-3.1.1)
2001-2003	Operation Research Methods for the Analysis and Verification of IT Systems (OTKA T038027)
2000-2002	Framework for the Development and Testing of Dependable, Safety-Critical Systems (IKTA-00065/2000)
2000-2001	Formal Methods in Informatics (MEH 96/2000)
1999-2001	Automated Verification and Validation of UML Models for IT Systems (OTKA T030804)

National Projects on innovative exploitation of academic results (as Major Contributor)

2005-2007	An MDA based product family for service dependability and optimization (GVOP-2005-3.3.1, in Hungarian)

Awards

2016	IEEE **10-Year Most Influential Paper Award** (IEEE VL/HCC 2016 for a paper presented at VL/HCC 2005 conference)
2014	Springer **10-Year Most Influential Paper Award** (IEEE/ACM MODELS 2014 for a paper presented at UML2004 conference)
2014	ACM **Distinguished Paper Award** (IEEE CSMR-WCRE 2014 Software Evolution Week)
2014	**STEM Award** by Tempus Foundation for innovative education methods (introducing VCL cloud based labs)
2013	Springer **Best Paper Award** (MODELS 2013: The 16th IEEE/ACM International Conference on Model Driven Engineering Languages and Systems)
2011	ACM **Distinguished Paper Award** (ASE 2011: 26th IEEE/ACM International Conference on Automated Software Engineering)
2010-2013	**János Bolyai Scholarship** (Design and Analysis Techniques for the Certification of Model Transformations): A national award of the Hungarian Academy of Sciences for young scholars. It can be awarded at most twice.
2009	**Distinguished Tutor**: Bi-annual award for the supervision of MSc students carrying out early research with 3 awardees in Computer Science biannually. It requires 10 years of successful tutoring (I became the youngest ever awardee).
2009	Springer **Best Paper Award** and ACM **Distinguished Paper Award** (MODELS 2009: The 12th IEEE/ACM International Conference on Model Driven Engineering Languages and Systems)
2005-2008	**János Bolyai Scholarship** (Design and Analysis Techniques for Automated Model Transformations)
2003	**János Kemény Prize** (An annual award in Hungary for young scholars issued by John von Neumann Computer Society)