

Curriculum Vitae et Studiorum

Tullio Vardanega

Latest update: 10 August 2020

1. Personal data

Family name: Vardanega
Given name: Tullio
Citizenship: Italian
Date of birth: 12 January 1963
Birth place: La Spezia (SP), I-19124 Italy
Home address: via G.C. Abba, 24/A, I-35138 Padova (PD)
Current employment: Professor (Associate)
Language abilities: Italian (mother tongue), English (fluent), French (fluent), Spanish (fluent), Dutch (average)
Professional home pages: <https://www.math.unipd.it/~tullio/>
<https://didattica.unipd.it/off/docente/BD33E4F435AC4372A99ED59CDD3FB10A>

2. Education

- PhD in Computer Science, Technical University of Delft, Netherlands, October 1998.
- MSc in Computer Science, University of Pisa, Italy, July 1986.

3. Professional Experience

October 2004 – .

Associate professor, Computer Science, Department of Mathematics, University of Padua, Italy.

<<https://www.math.unipd.it/en/>>.

- See §4-§7, mapped to the relevant time period, for the record of achievements in this position.

December 2001 – September 2004

Assistant professor, Computer Science, Department of Mathematics, University of Padua, Italy.

<<https://www.unipd.it/en/>>, Italy.

- See §4-§7, mapped to the relevant time period, for the record of achievements in this position.

July 1991 – November 2001

Member of technical staff at the European Space Agency Technology and Research Center

<https://www.esa.int/About_Us/ESTEC>, Noordwijk, Netherlands.

- Technical officer, expert in onboard embedded software technologies, development and verification methods for industrial projects and research investigations.
- Author of STR-260 (1999) “**Development of On-Board Embedded Real-Time Systems: An Engineering Approach**”, published by the European Space Agency with ISBN: 90-9092-334-2, 132 pages
<http://www.esa.int/esapub/bulletin/bullet101/bul101_publicat.pdf>.

December 1987 – June 1991

Member of the “Operating Systems Group” at Intecs <<http://www.en.intecs.it/>>, Pisa, Italy.

- Team leader (6 FTE) in EC-funded collaborative project “IOLE”
<<https://cordis.europa.eu/project/rcn/14471/factsheet/en>>, grant R1017, Research and Development in Advanced Communications Technologies (RACE) program, 1988-1992.
- Team leader (3 FTE) in National research project “**General Purpose Distributed Memory Parallel**

Operating System", under grant from National Research Council.

- External lecturer, "Processor Architectures" course, Diploma in Informatics, Department of Computer Science, University of Pisa, Italy.

4. University-level Teaching and Service Duties

Teaching duties

- **Software Engineering**, BSc, 3rd year, 13 credit points. Since 2002.
- **Concurrent and Distributed Systems**, MSc, 1st year, 6 credit points. Since 2004.
- **Real-Time Systems**, MSc, 2nd year, 6 credit points. Since 2004.

See: <<https://www.math.unipd.it/~tullio/#Teaching>>, heading "Teaching Assignments".

Service duties

- Representative of the University of Padua in the Board of Directors of the National Inter-University Consortium on Informatics (CINI) <<https://www.conorzio-cini.it/index.php/en/>>. Since 2014.
- **Coordinator of the internship program** of the BSc curriculum. Since 2004. <<http://informatica.math.unipd.it/organizzazione/index.html>>
- Supervisor of BSc final projects (265 since 2003, 20.8% of the full student cumulative population in the curriculum).
- Supervisor of MSc final projects (46 since 2006, 15.3% of the full student cumulative population in the curriculum).
- Supervisor of PhD students (8 since 2008, 6 national, 2 international; 1 international co-supervision 1999-2002, Spain).
- Member of external PhD Juries (5 since 2007; France, Spain)
- Member of the PhD Course in Brain, Mind and Computer Science <<http://hit.psy.unipd.it/BMCS-Overview>> (2014 - .), University of Padua, Italy; **representative of the "Computer Science and Innovation for Societal Challenges" curriculum** (see <<http://hit.psy.unipd.it/Faculty>>)
- Member of the PhD Course in Computer Science (2012-2016), University of Padua, Italy; **representative of the curriculum** (2014-2016).
- Member of the PhD Course in Computer Science (2006-2011), joint undertaking with the University of Bologna, Italy.

5. University-level Research and Collaboration Work

Real-Time Systems

Group size (PhD students, post-docs, master students), peaking at 10 units.

- Principal Investigator in study projects for the European Space Agency (ESA). **Total volume of funding: 400k euro.**
 - P4S, 2014-2016 (execution-time analysis for multicore processors).
 - DE4FMLC, 2013-2015 (operating systems for multicore processors).
 - PEAL, 2004-2008 (execution-time analysis).
 - COLA, 2009-2010 (execution-time analysis).
- Principal Investigator in collaborative projects funded by the European Commission. **Total volume of funding: 600k euro.**
 - PROXIMA <<http://www.proxima-project.eu/>>, FP7, 2013-2016, grant 611085.
 - PROARTIS <<http://www.proartis-project.eu/>>, FP7, 2010-2012, grant 249100.

- Networking actions
 - Member of the steering group of the COST Action “TACLe” <<http://www.tacle.eu/>>, 2013-2016, grant IC1202.

Software Engineering, Development Processes, and Programming Languages

Group size (PhD students, post-docs, master students), peaking at 5 units.

- Principal Investigator in study projects for the European Space Agency (ESA). **Total volume of funding: 120k euro.**
 - CORDET-2, 2010-2012 (software reference architectures and software reuse).
 - CORDET 2006-2009 (software reference architectures and software reuse)
 - NPI 2008-2010 (software reference architectures)
- Principal Investigator in collaborative projects funded by the European Commission. **Total volume of funding: 500k euro.**
 - CONCERTO <<http://www.concerto-project.org/>>, ARTEMIS, 2013-2016, grant JTI-333053.
 - CHESS <<http://www.chess-project.org/>>, ARTEMIS, 2009-2012, grant 100022.
 - ASSERT <<https://cordis.europa.eu/project/rcn/71564/factsheet/en>>, FP6-IST, 2004-2008, grant 004033.
- National representative (Head of Delegation) for Italy in standardization groups
 - ISO/JTC 1/SC 22/WG 9 <<http://www.open-std.org/jtc1/sc22/wg9/>> (Ada programming language).
 - Co-author of: ISO/IEC TR 24718:2005, **Guide for the Use of the Ada Ravenscar Profile in High Integrity Systems** <[http://standards.iso.org/ittf/PubliclyAvailableStandards/c038828_ISO_IEC_TR_24718_2005\(E\).zip](http://standards.iso.org/ittf/PubliclyAvailableStandards/c038828_ISO_IEC_TR_24718_2005(E).zip)>
 - Co-author of: ISO/IEC TR 15942:2000, **Guide for the Use of the Ada Programming Language in High Integrity Systems** <[http://standards.iso.org/ittf/PubliclyAvailableStandards/c029575_ISO_IEC_TR_15942_2000\(E\).zip](http://standards.iso.org/ittf/PubliclyAvailableStandards/c029575_ISO_IEC_TR_15942_2000(E).zip)>
 - ISO/JTC 1/SC 22/ WG 23 <<http://www.open-std.org/jtc1/sc22/wg23/>> (Programming languages vulnerabilities).
- **President of Ada-Europe** <<http://www.ada-europe.org/info/board/>> since 2007.

High-Performance and Embedded Computing Systems

- Member of the HiPEAC network <<https://www.hipeac.net/>> since 2014.
 - Co-authored the “HiPEAC Vision 2019” on the future of computing systems <<https://www.hipeac.net/vision/#/>>.
 - Invited lecturer at the ACACES Summer School 2015 <<http://acaces.hipeac.net/2015/index.php?page=courseinfo&lecturer=vardanega#bio>>.

Advice and Knowledge Transfer to Industry

- Constant flow of short-term consultancy contracts and on-site coaching to local industry on themes of digital transformation, software development methods, software quality, functional safety (2004 - .).
Total volume of funding: 200k euro.

6. Individual Undertakings

Expert Evaluator for the European Commission

- H2020, call April 2016

- ARTEMIS JU, call December 2009
- FP7, call December 2010, June 2007
- FP6, call October 2003
- FP5, call October 2001, September 2000
- ESPRIT, call May 1997
- ESSI, call March 1995

Expert Reviewer for the European Commission

- IST-2008-214777 IRMOS (Interactive Real-time Multimedia Applications on Service Oriented Infrastructure), 2009-2011.
- IST-2008-216682 JEOPARD (Java Environment for Parallel Real-time Development), 2008-2010.
- IST-2004-511718 HIJA (High Integrity Java), 2005-2007.
- IST-2001-32460 HYBRIDGE (Distributed Control and Stochastic Analysis of Hybrid Systems Supporting Safety Critical Real-Time Systems Design), 2004-2005.
- IST-2001-34140 FIRST (Flexible Integrated Real-Time Systems), 2003-2005.
- IST-2001-37269 FLEXICON (Flexible Control Systems Development and Integration Environment for Distributed Systems), 2003-2005.
- ESPRIT 26456 RAPIER (Rapid Prototyping Environment for Real-Time Distributed Systems), 1998-2000.

Program Committees

Conferences

- ACM Technical Symposium on Computer Science Education (ACM SIGCSE), 2020-2021
- Innovation and Technology in Computer Science Education (ACM ITiCSE), 2018-2020
- Design, Automation and Test in Europe (DATE), 2019-2020
- Computer Communication Networks (IEEE ICCCN), 2011
- Embedded Software and Systems (IEEE ICSS), 2011-2013
- Engineering of Complex Computer Systems (IEEE ICECCS), 2012-2020
- Pervasive Intelligence and Computing (PICom), 2015-2020
- Computer Safety, Reliability & Security (SAFECOMP), 2017, 2019-2020
- Reliable Software Technologies – Ada Europe, 1998-2020; program co-chair 2005, 2008, 2010, 2011, 2014, 2015, 2017, 2019; conference chair 2008
- Software Reuse (ICSR) (2013)
- Euromicro Conference on Real-Time Systems (ECRTS), 2003, 2005-2008, 2012-2013
- IEEE Real-Time Systems Symposium (RTSS), 2011, 2013-2014
- IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS), 2012-2013, 2015
- Int'l Symposium on Industrial Embedded Systems (SIES), 2014-2018
- IEEE Symposium on object/component/service-oriented real-time distributed computing technology (ISORC), 2014-2016, 2019
- Embedded Software (EMSOFT), 2009
- Emerging Technologies and Factory Automation (ETFAs), 2012-2013
- Dependable Systems and Networks (DSN), 2004

Workshops

- Compositional Theory and Technology for Real-Time Embedded Systems (CRTS), 2010-2011, 2013-2017
- Worst-Case Execution Time Analysis (WCET), 2009, 2012 program chair, 2013-2016, 2018
- Analysis Tools and Methodologies for Embedded and Real-Time Systems (WATERS), 2014-2017: program co-chair 2015
- Formal and Model-Driven Techniques for Developing Trustworthy Systems (FMMDD), 2016
- Security and Dependability for Resource Constrained Embedded Systems (S&D4RCES), 2010-2012
- Hands-on Platforms and tools for model-based engineering of Embedded Systems, 2010
- UML and Formal Methods Workshop, 2008-2011
- Java Technologies for Real-Time and Embedded Systems (JTRES), 2006-2009, 2012-2013
- Real-Time Ada Workshop (IRTAW), 1996-2020; program chair 2003, 2020, local chair 2009
- Model Based Architecting and Construction of Embedded Systems (ACES[^]MB @ MODELS), 2008-2016
- Model-Driven Engineering for Component-Based Software Systems (ModComP @ MODELS), 2014-2017, 2019 (keynote speaker), 2020
- Real-Time Software, 2008-2011
- Cyber-Physical Systems, 2012-2017; then Joint IEEE Software Engineering Workshop and International Workshop on Cyber-Physical System, 2018-2020
- Critical Software Component Reusability and Certification across Domains, 2013 (organizer) @ 13th Int'l Conference on Software Reuse (ICSR)
- Exception Handling for a 21st Century Programming Language, 2001.

Editorship and Peer Reviewing

- Associate editor for “Real-Time System”, Springer
<<http://www.springer.com/computer/communication+networks/journal/11241?detailsPage=editorialBoard>>. Since 2013.
- Public record of peer reviewing: <<https://publons.com/researcher/324842/tullio-varданega/metrics/>>. Since 2006.

7. Publications

- Scopus <<https://www.scopus.com/authid/detail.uri?authorId=6701737010>>, H-Index: 15.
- Google Scholar <<https://scholar.google.it/citations?user=arxht7cAAAAJ&hl=en>>, H-Index: 27.
- ResearchGate <https://www.researchgate.net/profile/Tullio_Vardanega>, H-Index: 20.
- ORCID <<http://orcid.org/0000-0002-0089-0889>>.
- DBLP <<http://dblp.uni-trier.de/pers/hd/v/Vardanega:Tullio>>.