University Academic Curriculum Vitae

Personal information

Name: Hofer Florian

Education since leaving school

- 2015 B.eng Computer Engineering L-8
  Università degli Studi G. Marconi, Roma
- 2017 M.sc. Software Engineering and IT management LM18
  Free University of Bolzano-Bozen
- 2022, Ph.D in Computer Science
  Cyber-physical Systems in Industry 4.0
  «Resilience and Weaknesses of Smart Systems' Architectures»
  Free University of Bolzano-Bozen

Present appointment

- PostDoc (AR)
- 01/2024, 16 Months
- Università degli Studi di Bologna

Professional experience

From / to	Job title	Name of academic Institution	Academic level	responsibilities
2000/ 2008	Automation/ Maintenanc e Engineer	MEMC		Hardware maintenance, Industrial automation Development
2008/ 2010	Software Engineer	TechnoAlpin		Industrial automation Development
2010/ 2015	Sr. Software Engineer	BTS Biogas		Industrial automation Development
2016/ 2017	Project Assistant	Free University of Bolzano-Bozen	Collaboratio n contract	SERG system design and development
2017	Test Engineer	Danfoss Drives s.r.l.		Test of Prototype drives for motion control
2005/ current	Freelance	Freelance	Contract Lecturer/TA	Industrial automation Dev & contract teaching
2022/2 023	PostDoc	Free University of Bolzano-Bozen	Research Assistant	Research in LoRaWan resilience models

Experience in academic teaching

- Computer Networks, Full course, 2 years, Undergraduate ING-INF/05 Free University of Bolzano-Bozen, Undergraduate
- Introduction to Microcontroller Programming, 2 years ING-INF/04 Free University of Bolzano-Bozen, Undergraduate
- Tools and Techniques for Software testing, 3 years with Prof. Russo INF/01 Free University of Bolzano-Bozen, Undergraduate
- EMSE Summer School, Application containerization INF/01 Universidad Politecnica de Madrid, Graduate
- Introduction to Information science, with Prof. von Ellenrieder INF/01 Free University of Bolzano-Bozen, Undergraduate

Research and scholarships

Date granted	Award Holder(s)	Funding Body	Title	
11/2018	Prof. Barbara Russo	systems s.r.l.	I4S* (Ph.D. thesis project)	
09/2018	Prof. Alberto Sangiovanni-Vincentelli	Siemens Corporate Technologies USA	Real-Time Control Containers (Ph.D. thesis project)	
07/2018	*Self*	Province of	Special merit	

		Bolzano	scholarship	
07/2017	*Self*	Province of Bolzano	Special merit scholarship	
06/2016	*Self*	European Union	Erasmus+	
07/2013	*Self*	Shanghai Open University	Exchange Scholarship	

Publications

F. Hofer. Architecture, technologies and challenges for cyber-physical systems in industry 4.0. In 12th ACM / IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM), 2018a. doi: 10.1145/3239235.3239242.

F. Hofer. Enhancing Security and Reliability for Smart-* Systems' Architectures. In 2018 IEEE International Symposium on Software Reliability Engineering Workshops, pages 150–153, 2018b. doi: 10.1109/ISSREW.2018.000-8.

* *F. Hofer* and B. Russo. IEC 61131-3 software testing: A portable solution for native applications. IEEE Transactions on Industrial Informatics, 16(6):3942–3951, jun 2020. doi: 10.1109/tii.2019.2941584.

F. Hofer, M. Sehr, A. Iannopollo, I. Ugalde, A. Sangiovanni-Vincentelli, and B. Russo. Industrial control via application containers: Migrating from bare-metal to IAAS. In 2019 IEEE 11th International Conference on Cloud Computing Technology and Science (CloudCom), pages 62–69. IEEE, Dec. 2019. doi: 10.1109/CloudCom.2019.00021.

F. Hofer, M. Sehr, A. Sangiovanni-Vincentelli, and B. Russo. Probabilistic dynamic hard real-time scheduling in HPC. In 2020 IEEE 23rd International Symposium on Real-Time Distributed Computing (ISORC), 2020. doi: 10.1109/ISORC49007.2020.00043.

* *F. Hofer*, M. Sehr, A. Sangiovanni-Vincentelli, and B. Russo. Industrial control via application containers: Maintaining determinism in IAAS. Journal of Systems Engineering, 2021. doi:10.1002/sys.21590.

F. Hofer and B. Russo. Technologies for Smart Cities, chapter Architecture and Its Vulnerabilities in Smart-Lighting Systems. Springer Nature, Sept. 2022. doi: 10.1007/978-3-031-05516-4_10.

F. Hofer and C. Kuen. Off-the-shelf LoRaWan: Experimenting on the prospect of a rapid proto- typing solution. In 2022 IEEE 46th Annual Computers, Software, and Applications Conference (COMPSAC), 2022. doi: 10.1109/COMPSAC54236.2022.00159.

F. Hofer. IEC 61131-3 software testing – automatic test generation for native applications. In Proceedings of the ACM/IEEE 13th International Conference on Cyber-Physical Systems, 2022. doi: 10.1109/ICCPS54341.2022.00032.

Language competence

Mother tongue: German-Italian (Bilingual)

	Listening	Reading	Spoken interaction	Spoken production	Writing	Cert.
English	C2	C2	C2	C2	C1	CAE
Spanish	B1	B1	B1	B1	B1	UBZ DC

Date Signature