Sherif Abdelwahed, Ph.D.

Professor, Department of Electrical and Computer Engineering at VCU College of Engineering
Richmond, VA, US

Dr. Abdelwahed is a professor in the Department of Electrical and Computer Engineering

Biography

Sherif Abdelwahed is a Professor of Electrical and Computer Engineering (ECE) at Virginia Commonwealth University (VCU), where he teaches and conducts research in the area of computer engineering, with specific interests in autonomic computing, cyber-physical systems, formal verification and cyber-security. Before joining VCU in August 2017, he served as the associate director of the Distributed Analytics and Security Institute at Mississippi State University (MSU). He was also is also an Associate Professor in the ECE Department at MSU. He received his Ph.D in 2002 from the Department of Electrical and Computer Engineering at the University of Toronto under the supervision of Professor W. M. Wonham. Prior to joining Mississippi State University, he was a research assistant professor at the Department of Electrical Engineering and Computer Science and senior research scientist at the Institute for Software Integrated Systems, Vanderbilt University, from 2001-2007. From 2000-2001 he worked as a research scientist with the system diagnosis group at the Rockwell Scientific Company. Throughout his academic tenure Dr. Abdelwahed attracted research funding from industrial and government agencies including NSF, NASA, Boeing, ONR, PNNL, ERDC DARPA, Microsoft, and Qatar Foundation, with more than 12 million dollars awarded covering 20 major projects. He also established the first NSF I/UCRC center at Mississippi State University, the Center for Autonomic Computing (CAC). Dr. Abdelwahed has chaired several international conferences and conference tracks, and has served as technical committee member at various national and international conferences. He received the StatePride Faculty award for 2010 and 2011, the Bagley College of Engineering Hearin Faculty Excellence award in 2010, and recently the 2016 Faculty Research Award from the Bagley College of Engineering at MSU. He gas more than 140 publications and is a senior member of the IEEE.

Industry Expertise

Computer Software, Electrical Engineering, Information Technology and Services

Areas of Expertise

Autonomic Computing, Model based Design and Analysis of Cyber-phyiscal Systems, Formal Verification, System Diagnosis and Fault Analysis, Model-integrated Computing

Affiliations

Virginia Commonwealth University

Education

University of Toronto
PhD Electrical and Computer Engineering

Accomplishments

R&D Lead
Served as associate director for the Distribute Analytics and Security Institute at Mississippi State University (MSU). Established the first NSF funded I/UCRC Center, the Center for Autonomic Computing at MSU. Initiated novel research on model-based design of autonomic computing systems. Developed a diagnosis and prognosis system for a major avionic company. Led the development of a fault management tool suite licensed to NASA.

Research Funding
More than $11.5 Million awarded in research grants covering 20 major projects ($9.6 Million at Mississippi State University and $1.9 Million at Vanderbilt University). These projects were funded by industrial research institutes, foundations, and government agencies incluing NSF, NASA, Boeing, ONR, DARPA, ERDC, Northrop-Grumman, Microsoft, and Qatar Foundation.

Publications
Peer-reviewed journal papers: 30 published/accepted, 6 under review, and 5 in preparation. Other publications: 8 book chapters, more than 100 peer-reviewed conf. papers, 10 tech. reports, 7 posters, and 14 presentations.

Student Advising
Graduated 8 PhD students and 5 Masters (thesis) students. Currently advising 5 Doctoral and 3 Masters students . Advised two award winning senior design teams at MSU. Advised several undergraduate and graduate research interns. Participated as graduate committee member for more than 50 Masters and Doctoral students.

Honors and Awards
Faculty Research Award at MSU, 2016. StatePride Faculty award for two consecutive years 2010 and 2011. Bagley College of Engineering Hearin Faculty Excellence award, 2010. Collaborative research won ACM SIGBED Frank Anger best research award, 2007. Nominated for best paper award, IEEE Real-Time Systems Symposium, 2004. Three invited papers. 12 invited talks. Graduation research project won second place in an international scientificc creativity contest.

Collaborations
Collaborated with numerous industrial research centers and government labs including; Boeing, BBN, Raytheon, IBM Research, NEC Labs, Google, US Army Engineer Research and Development Center (ERDC), Pacific Northwest National Lab, Oak Ridge National Lab, and NASA. National and international collaboration with prominent universities and research institutes.

Professional Services

Co-chaired two international conferences. Vice chair of the cyber-security track in the ACM CAC 2013. Editorial board member of three International Journals. Program committee member of numerous conferences and workshops. Served on NSF, NASA, ASEE, NSERC (Canada), and DoE review panels.
