Keynote 2

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Model-Based Testing for Web Applications

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Abstract
Web applications have been developing rapidly around the world, many organizations developed high-performance web applications tightly integrated into many business critical systems such as electronic marketplaces, e-banking, e-trading, electronic access to public administration services. It brings new features including dynamic behaviors, heterogeneous representations, uncertainty in execution, and novel data handling mechanism to Web applications and makes Web applications extremely difficult to test. Testing Web applications raises new problems and faces the challenges. In this talk, I survey recent research in Web applications testing, present the approaches to modeling Web application using UML and FSM and generating test cases according to the test coverage criteria. I introduce a tool we have developed for automatically building test model of Web application, generating test cases and executing the test cases.

Biography
Huaikou Miao is a Professor of Computer Science and Deputy Dean of the School of Computer Engineering and Science at Shanghai University. He received his Master’s Degree from Shanghai University of Science and Technology in 1986. He was a Visiting Scholar at the University of York, UK, from October 1992 to January 1995. His interests include formal methods, software testing and verification, software development environments, and automatic reasoning. He has published numerous articles and 4 co-authored books about formal methods and data structures. He was the program chair of ICFEM 2002 held in Shanghai, China in 2002, and the program chair of ICIS 2009 in Shanghai, China in 2009.