Keynote Speakers

Mark Harman

The Law of Tendency to Executability and Its Implications

The Law of Tendency to Executability states that all useful descriptions of processes have a tendency towards executability. Attempts to rise above the perceived low abstraction level of executable code can produce increased expressive power, but the notations they engender have a tendency to become executable. This has many consequences for software; its creation, evolution and deployment. It also has wider implications. The automation that drives this tendency also raises fundamental questions about how human decision making can remain inside the execution loop.

About the speaker
Mark Harman is professor of Software Engineering in the Department of Computer Science at University College London where he directs the CREST centre. He is widely known for work on source code analysis and testing and was instrumental in the founding of the field of Search Based Software Engineering, a field that currently has active researchers in 24 countries and for which he has given 16 keynote talks.

Tsong Yueh Chen

Metamorphic Testing: A Simple Approach to Alleviate the Oracle Problem

Metamorphic testing has been proposed to alleviate the oracle problem in software testing. Though the concept of metamorphic testing is very simple, its scope of applicability is quite extensive. This talk will cover the state of the art in metamorphic testing. We will discuss the role and impact of metamorphic testing in areas such as software analysis, fault localisation, program proving, property-based testing, end-user software engineering, and the selection of test cases.

About the speaker
Tsong Yueh Chen is currently holding a Professorship of Software Engineering at Swinburne University of Technology, Australia. He is also the Leader of the Software Analysis and Testing Group at Swinburne. Prior to joining Swinburne, he has taught at The University of Hong Kong and The University of Melbourne. His main research interests include software testing, debugging and software maintenance.