CALL FOR PAPERS

3rd International Workshop on Combinatorial Testing (IWCT 2014)
March 31, 2014, Cleveland, Ohio USA
In conjunction with ICST 2014
7th IEEE International Conference on Software Testing, Verification and Validation, Mar 31-Apr 4, 2014

Combinatorial Testing (CT) is a widely applicable generic method for software verification and validation. In a combinatorial test plan, all interactions between parameters up to a certain level are covered. Studies show that CT can significantly reduce the number of test cases while remaining very effective for fault detection. This workshop aims to bring together researchers, developers, users, and practitioners to discuss and exchange ideas and experiences in the development and application of CT methods, techniques, and tools.

We invite submissions of high-quality papers presenting original work on both theoretical and experimental aspects of combinatorial testing. Submissions of full papers of up to 10 pages, as well as short papers of up to 4 pages are welcome.

New this year: We will also have a poster session, for authors to present their work in an informal and interactive setting. Posters are ideal for presenting recent results, or case studies and industry experience. Posters that present work in progress and draw important conclusions from practical experience are especially welcome. A one-page extended abstract of the poster should be submitted for review by the submission deadline. Accepted poster abstracts will be included in the proceedings at author's request. Authors are responsible for formatting abstracts according to the IEEE publication template.

Topics of interest for papers or posters include, but are not limited to:

− Combinatorial testing workflow
  o Modeling the input space for CT
  o Efficient algorithms to generate t-way test suites, especially involving support of constrains
  o Determination of expected system behavior for each test case
  o Executing CT test suites
  o Combinatorial testing based fault localization
  o Implementation of CT with existing testing infrastructures
  o Handling changes in test requirements

− Applicability of combinatorial testing
  o Comparison and combination of CT with other dynamic verification methods
  o Study of failure records to determine the kind of CT which may have detected faults
  o Empirical studies and feedback from practical applications of CT
  o Combinatorial testing for concurrent and real-time systems
  o Cloud computing systems testing and use of combinatorial methods in cloud architecture
  o Application of CT in other domains, e.g., gene regulation or other biotech applications

− Combinatorial and complementing methods
  o Combinatorial analysis of existing test suites
  o Test plan reduction and completeness
  o CT and coverage metrics – combining the two, and studying the relationship between them

Important Dates:

Paper submission (or 1-page extended abstract for posters):   January 15, 2014
Notification: February 7, 2014
Workshop: March 31, 2014

For more information, please refer to the workshop webpage: http://ibm.co/18YxN29