Mutation 2007

Mutation is acknowledged as an important way to assess the fault-finding effectiveness of tests sets. Mutation testing has mostly been applied at the source code level, but more recently, related ideas have also been used to test artefacts described in a considerable variety of notations and at different levels of abstraction. Mutation ideas are now used in requirements validation (where distinguishing test cases can be used to challenge users about what they really want), with formal specifications (to assess resilience of specification properties to deviations), architectural design notations, and informal descriptions such as use cases. Data mutation has also been investigated for critical systems and web services. Mutation is now established as a major concept in software and systems V&V and uses of mutation are increasing.

Mutation Analysis 2007 (Mutation 2007) is the third in the series of international workshops focusing on mutation. It will take place over 10-11 September 2007 in conjunction with TAIC PART 2007 (http://www.taicpart.org) (12-14 September 2007) in the superb settings of the Cumberland Lodge, Windsor, UK. Cumberland Lodge is a former royal residence given to the nation in 1946 by the late Queen Mother. It is an ideal setting for a productive and enjoyable workshop, providing world-class conference facilities in an ideal location, which resonates with centuries of historical significance, dating back to the mid 17th century. Richard DeMillo (Georgia Institute of Technology, USA) will be a keynote speaker at the event.

Cumberland Lodge, Windsor, UK

Researchers and practitioners are invited to submit original short (max. 5 pages) or full papers (max. 10 pages) in any area of mutation. Topics include but are not limited to:

- Mutation-based test adequacy criteria (theory or practical application).
- Comparison of mutation with other testing techniques.
- Using mutation in empirical studies.
- Industrial experience with mutation
- New mutation systems for programming languages (e.g. for languages not yet addressed, or offering improvements on existing ones).
- Mutation systems for higher-level descriptive notations (e.g. formal specification notations and architectural design notations).
- Increasing the efficiency of mutation (e.g. selective mutation or automated test data generation for mutation testing).
- Mutation for QoS properties (security, performance, etc.)
- Novel applications of mutation.

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The full proceedings will be published by the IEEE Computer Society, complete with those of TAIC PART 2007. Materials for the proceedings should be typeset to conform to IEEE conference style guidelines. These are described and mirrored on the Mutation 2007 website: http://www.ise.gmu.edu/mutation2007/ Paper submission will be via the website. The important dates are as follows:

Important Dates

Deadline for submission of papers:
Friday 13th April 2007

Workshop:
Monday 10th - Tuesday 11th September 2007

Program Committee

- Roger Alexander, USA
- Paul Ammann, USA
- Jamie Andrews, Canada
- Benoit Baudry, France
- Leonardo (Len) Bottaci, UK
- Byoungju Choi, Korea
- James Cordy, Canada
- Rich DeMillo, USA
- Sudipto Ghosh, USA
- Rob Hierons, UK
- Bill Howden, USA
- Yong-Rae Kwon, Korea
- Yves Le Traon, France
- Ling Liu, China / Europe
- YuSeung Ma, Korea
- Jose' Carlos Maldonado, Brazil
- Aditya Mathur, USA
- Phil McMinn, UK
- Eric Wong, USA
- Tao Xie, USA
- Lu Zhang, China

In conjunction with

TAIC PART

http://www.taicpart.org