The 13th International Workshop on Mutation Analysis

Mutation 2019

Mutation is acknowledged as an important way to assess the fault-finding effectiveness of test 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 used with requirements, formal specifications, architectural design notations, informal descriptions (e.g. use cases) and hardware. Mutation is now established as a major concept in software and systems V&V and uses of mutation are increasing. The goal of the Mutation workshop is to provide a forum for researchers and practitioners to discuss new and emerging trends in mutation analysis. We invite submissions of both full-length and short-length research papers as well as industry practice papers. Please visit the website for more information: `http://mutation-workshop.github.io/2019`.

Topics of Interest

- Mutation-based test adequacy criteria (theory or practical application).
- Mutation-based test data generation.
- Higher order mutation testing.
- Novel mutation testing paradigms and applications.
- Empirical studies of mutation testing.
- Formal theoretical analysis of mutation testing.
- Comparative studies (i.e., studies that compare mutation with other techniques).
- Mutation testing tools.
- Industrial experience with mutation testing.
- New mutation systems for programming languages and for higher-level representations.
- Increasing the efficiency of mutation.
- Mutation for mobile, internet and cloud based systems.
- Mutation for security and reliability.

Submissions and Publication

Three types of papers can be submitted to the workshop:

- Full papers (10 pages): Research, case studies
- Short papers (6 pages): Research in progress, tools, experience reports, problem descriptions, new ideas
- Industrial papers (6 pages).

Each paper must conform to the two-column IEEE conference publication format (`https://www.ieee.org/conferences_events/conferences/publishing/templates.html`) and must be submitted in PDF format via EasyChair (`https://easychair.org/conferences/?conf=mutation2019`). Submissions will be evaluated according to the relevance and originality of the work and to their ability to generate discussions between the participants of the workshop. Three reviewers will review each paper and all accepted papers will be published as part of the ICST proceedings.

Important Dates (TBD)

Organizers

- Rahul Gopinath CISPA, Saarland University, Germany
- Marinos Kintis University of Luxembourg, Luxembourg

Program Committee

- Paul Ammann, *George Mason University, USA*
- Lin Deng, *Towson University (USA)*
- Vinicius H. S. Durelli, *University of São Paulo, Brazil*
- Gordon Fraser, *University of Sheffield, UK*
- Sudipto Ghosh, *Colorado State University, USA*
- Milos Gligoric, *University of Texas Austin, USA*
- Rahul Gopinath, *Oregon State University, USA*
- Yue Jia, *University College London, UK*
- René Just, *University of Washington, USA*
- Gregory Kapfhammer, *Allegheny College, USA*
- Marinos Kintis, *University of Luxembourg, Luxembourg*
- Jens Krinke, *University College London, UK*
- Yves Le Traon, *University of Luxembourg, Luxembourg*
- Nan Li, *Medidata Solutions, USA*
- Birgitta Lindström, *University of Skövde (Sweden)*
- Lech Madeyski, *Wroclaw University of Technology, Poland*
- Nicos Malevris, *Athens University of Economics and Business, Greece*
- Mike Papadakis, *University of Luxembourg, Luxembourg*
- Goran Petrovic, *Google Switzerland GmbH (Switzerland)*
- Josè Miguel Rojas *University of Leicester (UK)*
- Sina Shamshiri *The University of Sheffield (UK)*
- Jie Zhang *Peking University (China)*