10TH INTERNATIONAL WORKSHOP ON
SEARCH-BASED SOFTWARE TESTING

Buenos Aires, Argentina - May 22-23, 2017
Held in conjunction with ICSE 2017 - ACM/IEEE International Conference on Software Engineering

About the Workshop

Search-Based Software Testing (SBST) is the application of optimizing search techniques (for example, Genetic Algorithms) to solve problems in software testing. SBST is used to generate test data, prioritize test cases, minimize test suites, optimize software test oracles, reduce human oracle cost, verify software models, test service-orientated architectures, construct test suites for interaction testing, and validate real-time properties (among others).

The objectives of this workshop are to bring together researchers and industrial practitioners both from SBST and the wider software engineering community to collaborate, to share experience, to provide directions for future research, and to encourage the use of search techniques in novel aspects of software testing in combination with other aspects of the software engineering lifecycle.

Keynote Speakers

- Tanja Vos (Universidad Politécnica de Valencia, Spain)
- Mark Harman (University College London, UK)

Tutorial

- Lionel Briand (University of Luxembourg) on Search-based Testing for Cyberphysical Systems

Workshop Organizers

- Juan P. Galeotti, Program Co-Chair (Universidad de Buenos Aires, Argentina)
- Justyna Petke, Program Co-Chair (University College London, UK)
- Annibale Panicella, Competition Chair (Delft University of Technology, Netherlands)

Important Dates

- Paper Submission Deadline: January 20, 2017
- Competition Report Deadline: February 16, 2017
- Author Notification: February 17, 2017
- Camera-Ready: February 27, 2017
- Dates of Workshop: May 22-23, 2017

Submission Format All submissions must be anonymised and in PDF format, following the ICSE 2017 formatting guidelines and should be submitted electronically to: https://easychair.org/conferences/?conf=sbst2017

Call for Papers

Researchers and practitioners are invited to submit:

- Full papers (maximum of 7 pages) to the workshop on original research, either empirical or theoretical, in SBST, practical experience of using SBST techniques and/or SBST tools.
- Short papers (maximum of 4 pages) that describe novel techniques, ideas and positions that have yet to be fully developed; or are a discussion of the importance of a recently published SBST result by another author in setting a direction for the SBST community, and/or the potential applicability (or not) of the result in an industrial context.
- Position papers (maximum of 2 pages) that analyze trends in SBST and raise issues of importance. Position papers are intended to seed discussion and debate at the workshop, and thus will be reviewed with respect to relevance and their ability to spark discussions.
- Tool Competition entries (maximum of 4 pages). We invite researchers, students, and tool developers to design innovative new approaches to software test generation. More information will be available soon on the workshop website.

In all cases, papers should address a problem in the software testing/verification/validation domain or combine elements of those domains with other concerns in the software engineering lifecycle. Examples of problems in the software testing/verification/validation domain include (but are not limited to) generating testing data, prioritizing test cases, constructing test oracles, minimizing test suites, verifying software models, testing service-orientated architectures, constructing test suites for interaction testing, and validating real-time properties.

The solution should apply a metaheuristic search strategy such as (but not limited to) random search, local search (e.g. hill climbing, simulated annealing, and tabu search), evolutionary algorithms (e.g. genetic algorithms, evolution strategies, and genetic programming), ant colony optimization, and particle swarm optimization.

Workshop: http://sbst2017.lafhis.dc.uba.ar
Tool Competition: http://sbstcontest.dsic.upv.es
Twitter: https://twitter.com/sbstworkshop