



# Fourth IEEE International Contest on Software Testing

in conjunction with the 20th IEEE International Conference on Software Quality, Reliability, and Security (QRS 2020)

July 28, Vilnius, Lithuania



## INTRODUCTION

Software plays an integral part in our everyday lives because of its near ubiquitous influence in our increasingly technological society. Therefore, taking appropriate steps to applying software testing techniques is of paramount importance. To promote advanced software testing theory, techniques, and tools, IEEE Reliability Society, collaborating with IEEE International Conference on Software Quality, Reliability, and Security as well as other sponsors will host the Fourth IEEE International Contest on Software Testing on July 28 in Vilnius, Lithuania. Through this contest, we bring real-world testing and tool experience to the contestants and provide excellent opportunities for them to practice their learned testing techniques to overcome industry-testing challenges. We cordially invite you to participate in the contest and win a CASH prize!

## REGISTRATION

All interested contestants must register online at <https://qrs20.techconf.org/track/contest> before July 20. The content must include the *first name, last name, and affiliation*.

## FORMAT & EVALUATION

All contestants must bring their own laptops. The contest has two parts:

- The first part is a 2-hour tutorial (10:00 – 12:00). We will help contestants properly configure their laptops, and explain how to use JUnit & Mootest.net platform. Each contestant is required to have basic knowledge about Java programming and JUnit.
- The second part is the contest (14:00 – 17:00). It is individual based. Each contestant will design test cases with specific input values based on the given source code and specification to test a few Java programs. The quality of test cases will be measured by the code coverage (statement and branch) and mutation score achieved. If test cases from multiple contestants achieve the same coverage, contestants with fewer test cases have a higher ranking than those with more test cases.

The ranking of all the contestants is based on the quality of test cases they generate, which is measured in terms of a combination of the statement and branch coverage, and the mutation score achieved. If test cases from multiple contestants achieve the same coverage, contestants with fewer test cases have a higher ranking than those with more test cases.

## RUNNING ENVIRONMENT

All contestants must bring their own laptops with Chrome browser installed. We will help contestants configure their laptops during the Tutorial session.

## AWARDS

The first place receives a cash prize of \$300 USD, followed by the 2nd for \$200 USD, and five 3rd places each for \$100 USD. Every contestant will receive a certificate of completion from the IEEE Reliability Society and the QRS conference.

## CONTEST VENUE

The Contest will be held at ISM University of Management and Economics Campus in Vilnius Old Town, Lithuania.

## IMPORTANT DATES

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|------------------|----------------------|------------------|----------------------------|
| ◆ July 20, 2020: | Application deadline | ◆ July 28, 2020: | Award Ceremony (Reception) |
| ◆ July 28, 2020: | Tutorial & Contest   |                  |                            |

## SPONSORS

