Welcome!
9th International Workshop on Combinatorial Testing (IWCT 2020)

24 October 2020, Porto, Portugal (Virtual Online)

IWCT previous editions

1. Montreal (2012),
2. Luxembourg (2013),
3. Cleveland (2014),
4. Graz (2015),
5. Chicago (2016),
6. Tokyo (2017),
7. Vasteras (2018),
8. Xian (2019),
9. This year, Porto [online]
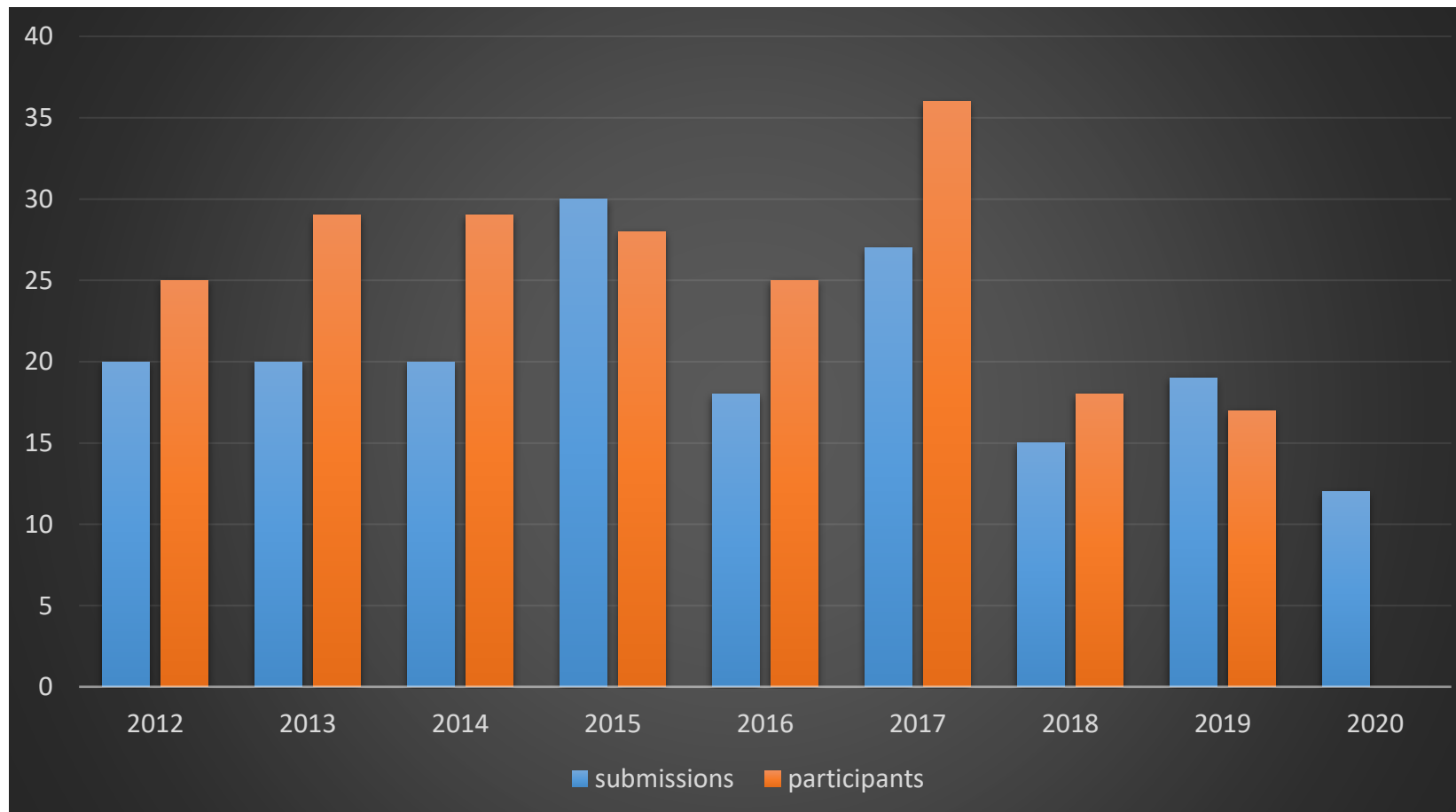
Number submissions and reviews

- This year we received 12 submissions, from which 8 papers (5 full, 2 short ones) + 1 extended abstract were accepted for publication.

Submissions	12 (-7)
Accepted	8 (-6)
Acceptance rate	0.67 (-0.07)
Reviews	40 (-14)
External reviewers	4 (-1)
External reviews	5 (-2)

Reviewing

reviews for a paper	number of papers
2	1
3	7
4	3
5	1

IWCT in these years

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- Changhai Nie, Nanjing University China

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- Tatsuhiro Tsuchiya, Osaka University, Japan

- Huayao Wu Dprt. of Computer Science and Technology, Nanjing University, China

- Bestoun S. Ahmed, Karlstad University, Sweden

- Yvan Labiche, Carleton University, Canada

- Violet Syrotiuk, Arizona State University, USA

- Xintao Niu, Nanjing University, China

- Horst Lichter, RWTH Aachen University, Germany

Countries

pc members **accepted** **submitted** **authors**

Program (GMT+01:00) Grenwich Mean Time

- **Opening Session: Welcome to IWCT, Keynote** 13:00 – 14:00

- Online Coffee break 14:00 – 14:15

- **Poster Presentation Session** 14:15 – 14:20, starting on coffee break

- **Test Generation and CT Applications Session** 14:20 - 15:10

- Online Coffee break 15:10 – 15:30

- **Combinatorial Testing Tools Session** 15:30-16:40

- Online Coffee break 16:40 – 16:55

- **Feedback and Planning** 16:55 – 17:55

Keynote

Franz Wotawa
Graz University of Technology, Austria

Verifying autonomous systems using ontology-based testing

With the increase use of artificial intelligence methodologies even in safety-critical systems for implementing automated and autonomous functionality, there is a need for coming up with verification and certification methodologies allowing to justify the degree of verification at least to a certain extent. Combinatorial testing makes use of the combinatorial strength for this purpose. In recent work, we reported on an extension of combinatorial testing, i.e., ontology-based testing, where we utilize ontologies for describing environmental models that can be mapped to combinatorial testing input models. In my talk, I introduce the basic ideas, discuss the foundations, and present results obtained when using combinatorial testing from various domains, including autonomous and automated driving functions and security testing.

Speaker Bio: Franz Wotawa received a M.Sc. in Computer Science (1994) and a PhD in 1996 both from the Vienna University of Technology. He is currently a professor of software engineering at the Graz University of Technology and the head of the Institute for Software Technology. His research interests include model-based and qualitative reasoning, theorem proving, mobile robots, verification and validation, and software testing and debugging. Since October 2017 Franz Wotawa has been the head of the Christian Doppler Laboratory for Quality Assurance Methodologies for Autonomous Cyber-Physical Systems. During his career, Franz Wotawa has written more than 380 peer-reviewed papers for journals, books, conferences, and workshops. He supervised 90 master and 36 PhD students. For his work on diagnosis, he received the Lifetime Achievement Award of the Intl. Diagnosis Community in 2016. Franz Wotawa has been member of a various number of program committees and organized several workshops and special issues of journals. He is a member of the Academia Europaea, the IEEE Computer Society, ACM, the Austrian Computer Society (OCG), and the Austrian Society for Artificial Intelligence and a Senior Member of the AAAI.

Thank you for making this workshop a success

Dimitris Simos
- SBA Research, Austria

Jeff Yu Lei
University of Texas at Arlington, USA

Changhai Nie
Nanjing University, China