# ICTSS 2025

## 37th International Conference on Testing Software and Systems

**17-19 September, 2025 - Limassol, Cyprus**

# Call For Papers

IFIP-ICTSS is a well-established conference where researchers, developers, testers, and users from industry get together to present and discuss the most recent innovations, experiences and open challenges related to testing software and systems and measuring software quality.

**Topics of interest include, but are not limited to:**

- **Aspects of testing:** test derivation, test selection, test generation, test coverage, test concretization, test implementation and execution, test result analysis, test oracle, verdict computation, test management, active testing and passive testing, monitoring and runtime verification.

- **Testing new technologies:** this year we encourage submissions focused on testing Large Language Models (LLMs), audit machine learning systems (especially for applications to health) and Quantum systems (programs, computers, and simulators).

- **Diversity on testing:** diverse generation, selecting diverse test suites, foundations of testing and diversity, applications of entropy and Kolmogorov complexity on test suite diversity.

- **Theoretical approaches:** formalisms (such as automata, state machines, process algebra, logics, Markov-chains…), testing frameworks, results for compositionality, refinement, soundness and completeness, addressing complex systems, heterogeneous or hybrid systems.

- **Modelling languages (such as UML, MATLAB, Simulink, Modelica…) and associated tooling for model-based testing:** test generation from models, model-based oracles. Scalability, traceability, quantification issues. Automated support of any parts of the testing activities, testing processes, test-driven development, sound metrics and measurements.

- **Testing of quality aspects:** Functional, interoperability, unit, integration, performance, load, conformance, non-regression, reliability, robustness.

- **Security Testing:** methodologies and techniques for continuous security assessment, security monitoring, security review, penetration testing, verification of certification compliance; automation of security testing processes.

- **Cross domains and combination of techniques:** using other techniques such as proof, model-checking, symbolic execution, abstract interpretation, static analysis, simulation, model learning, machine learning, expert systems, neural networks, genetic algorithms… to improve quality and reduce the effort in testing processes.

- **Application aspects and case studies:** Communicating systems such as cyberphysical systems, systems of systems, embedded systems, web services systems, smart grids, cloud computing systems, business information systems, real-time systems, distributed and concurrent systems. Case studies and industrial applications involving qualified empirical evaluations.

**IFIP-ICTSS invites:**

**Full papers** (12 to 15 pages plus at most 2 extra pages for references in the one-column Springer LNCS format) describing original research contributions with sufficient evidence for the interest of the proposed approach.

**Industry papers** (12 to 15 pages plus at most 2 extra pages for references in the one-column Springer LNCS format) describing original research or experience report conducted within an industrial environment or in collaboration with an industry partner.

**Short papers or work-in-progress papers** (up to 6 pages plus at most 1 extra page for references in the one-column Springer LNCS format) describing academic work in progress or tool implementations, as well as testing processes, achievements and feedback on testing methods for industrial case studies.

**Journal-First** The aim of the Journal-First (JF) submission category is to further enrich the program of ICTSS, as well as to provide an overall more flexible path to publication and dissemination of original research that is within the scope of ICTSS. A submission in this category must adhere to the following criteria:
- It should be clearly within the scope of the conference.
- It should be recent: it should have been accepted and made publicly available in a journal (online or in print) by January 1, 2023 or more recently.
- It has not been presented at, and is not under consideration for, Journal- First tracks of other conferences or workshops.
- The submission has to be in the form of a 4-page extended abstract and has to provide a concise summary of the published journal paper.
- Journal-First submissions must be marked as such in the submission's, and must explicitly include full bibliographic details (including a DOI) of the journal publication they are based on. Since the referenced journal papers have already been reviewed and accepted by the corresponding journals, submissions in the JF category will not be reviewed again for technical content. Submissions will be judged on the basis of the above criteria, but also considering how well they would complement the conference's technical program. Accepted submissions in this category will be part of the proceedings of ICTSS 2025, with the title equal to the original title of the article with the prefix.

The submission link is: https://easychair.org/conferences/?conf=ictss2025

The papers will be published by Springer in the LNCS volume.

Authors should consult Springer's Instructions for Authors of Proceedings and use either the LaTeX or the Word templates provided on the authors' page. Springer's proceedings LaTeX templates are available in Overleaf.

Authors are encouraged to include their **ORCIDs** in their papers.

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For more information about the conference series,
see https://sites.google.com/site/ictssmain/



## About Cyprus

Cyprus, the third-largest island in the Mediterranean, covers an area of 9,251 sq. km and is located in the northeastern corner of the Mediterranean Sea, 300 km north of Egypt and 360 km southeast of Rhodes. The island features a varied coastline, rocky and indented in the north with sandy beaches in the south, and is home to the Pentadaktylos and Troodos mountain ranges, with fertile plains in between. As of 2012, Cyprus had a population of 952,100, predominantly Greek Cypriots, alongside Turkish Cypriots and foreign residents. With a history dating back to the ninth millennium B.C., Cyprus has seen the influence of multiple civilizations, including the Phoenicians, Greeks, Romans, Byzantines, and Ottomans, before gaining independence from British rule in 1960. The island's flag, featuring a copper-colored map and olive branches on a white background, symbolizes peace and its historical ties to copper. Cyprus enjoys a Mediterranean climate with hot, dry summers and mild, wet winters, and its cuisine reflects its rich cultural history, combining elements from the Middle East, Asia Minor, and Venetian traditions. The island also boasts a long tradition of winemaking, with Commandaria being one of the oldest wines in the world, renowned since ancient times and enjoyed by figures such as Richard the Lionheart and the Crusaders.

## The Venue

**St. Raphael Resort** is located on one of the most renowned beaches in Limassol, only a short coastal drive from the lively centre of town, approximately 10 minutes away. The Larnaca International Airport is 35 minutes away, and Paphos International Airport is 55 minutes away. There are shops, restaurants and bars within walking distance and a bus stop exactly outside the hotel.

This carefully chosen, tranquil location with the calm sea at your doorstep and the town only a few moments away; has convenient access to the island's motorway. Any other coastal town, mountain village or tourist attraction is hardly more than an hour's drive away.





**For further information:**
**https://cyprusconferences.org/ictss2025/**

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