

Date	UTC		Track Name	Titles
	Start Time	End Time		
13-Jul	13:00	14:50	Opening, Keynote and Award	Keynote: Comprehension Challenges at the Level of Software Ecosystems and Global Software Engineering
	15:00	16:00	Session 1: Tests	Testing of Mobile Applications in the Wild: A Large-Scale Empirical Study on Android Apps
				UI Screens Identification and Extraction from Mobile Programming Screencasts
				Measuring Software Testability Modulo Test Quality
				Program Slicing and Execution Tracing for Differential Testing at Adobe Analytics
				Just-In-Time Test Smell Detection and Refactoring: The DARTS Project
16:30	17:30	Session 2: Quality	How Does Incomplete Composite Refactoring Affect Internal Quality Attributes?	
			An Empirical Study of Quick Remedy Commits	
			When Are Smells Indicators of Architectural Refactoring Opportunities? A Study of 50 Software Projects	
			Refactoring Android-specific Energy Smells: A Plugin for Android Studio	
14-Jul	0:00	1:00	Session 3: Faults	Exploiting Code Knowledge Graph for Bug Localization via Bi-directional Attention
				On Combining IR Methods to Improve Bug Localization
				An Empirical Study on Critical Blocking Bugs
				Improving the Accuracy of Spectrum-based Fault Localization for Automated Program Repair
	1:30	2:30	Session 4: Summalization	Automatic Android Deprecated-API Usage Update by Learning from Single Updated Example
				Improved Code Summarization via a Graph Neural Network
				BugSum: Deep Context Understanding for Bug Report Summarization
				A Human Study of Comprehension and Code Summarization
	7:00	8:00	Session 5: For Researchers	Linguistic Documentation of Software History
				A Literature Review of Automatic Traceability Links Recovery for Software Change Impact Analysis
				Improving Code Search with Co-Attentive Representation Learning
				OpenSZZ: A Free, Open-Source, Web-Accessible Implementation of the SZZ Algorithm
	8:30	9:30	Session 6: Artifacts	Staged Tree Matching for Detecting Code Move across Files
				A Self-Attentional Neural Architecture for Code Completion with Multi-Task Learning
Knowledge Transfer in Modern Code Review				
How are Deep Learning Models Similar? An Empirical Study on Clone Analysis of Deep Learning Software				
15-Jul	13:00	14:50	Keynote and Open SC Meeting	Unified Configuration Setting Access in Configuration Management Systems
				Inheritance based software metrics on smart contracts
				Keynote: Software Engineering for Industrial AI: A Key Enabler of Digital Transformation
				How Graduate Computing Students Search When Using an Unfamiliar Programming Language
	15:00	16:00	Session 7: About Developers	What Drives the Reading Order of Programmers? An Eye Tracking Study
				Evaluating a Visual Approach for Understanding JavaScript Source Code
16:30	17:30	Session 8: Analysis	How do Students Experience and Judge Software Comprehension Techniques?	
			Understanding What Software Engineers Are Working on — The Work-Item Prediction Challenge	
			srcClone: Detecting Code Clones via Decompositional Slicing	
			Investigating Near-Miss Micro-Clones in Evolving Software	
0:00	1:00	Session 9: For Developers	A Model to Detect Readability Improvements in Incremental Changes	
			Supporting Program Comprehension through Fast Query Response in Large-Scale Systems	
			An Empirical Study on Dynamic Typing Related Practices in Python Systems	
			Performing Tasks Do Improve Program Comprehension of Novice Developers	
1:30	2:30	Session 10: Documentation	SimplyHover: Improving Comprehension of else Statements	
			Combining biometric data with focused document types classifies a success of program comprehension	
			Program Comprehension in Virtual Reality	
			Deep-Diving into Documentation to Develop Improved Java-to-Swift API Mapping	
8:30	9:30	Session 11: Search	The Secret Life of Commented-Out Source Code	
			Ownership at Large — Open Problems and Challenges in Ownership Management	
			Detecting Code Comment Inconsistency using Siamese Recurrent Network	
13:00	14:00	MIP Award Talk and Closing	GGF: A Graph-based Method for Programming Language Syntax Error Correction	
			Adaptive Deep Code Search	
			Duplicate Bug Report Detection Using Dual-Channel Convolutional Neural Networks	
			MiP Award talk : On the Equivalence of Information Retrieval Methods for Automated Traceability Link Recovery: A Ten-Year Retrospective	