# 2017 International Summer School Activities

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## Biography

Hakan Erdogmus is an Associate Teaching Professor at Carnegie Mellon University’s Department of Electrical and Computer Engineering. He joined CMU’s Silicon Valley campus in 2013 and is one of the founding faculty of ECE’s Master of Science in Software Engineering program. His research and teaching focus on software quality, testing, modern development practices, software process, measurement, empirical studies, and software engineering economics. He published and lectured extensively on these topics. Hakan is a past Editor in Chief of IEEE Software and co-editor of two Springer volumes on software engineering. He has a PhD in Telecommunications from University of Quebec and an MS in Computer Science from McGill University, Canada. He is a recipient of Eugene L. Grant Award in Engineering Economics awarded by the American Society for Engineering Education.

## Workshop 1: Unit Testing and Test-Driven Development with Java and JUnit

**Format**: Lectures and hands-on activities

**Duration**: Full day

**Description**: This workshop will cover the principles of unit testing using test-driven development (TDD), a popular approach that integrates unit testing with development. TDD is central technical practice that enforces writing tests before production code in an incremental manner, providing the developer with a safety net for implementing new functionality and refactoring code. It makes developers directly responsible for the quality of the code that they write. By the end of the workshop, students will be able to write unit tests using Java and Junit following a small set of principles, express requirements and design decisions in the form of tests, and develop testable code by applying TDD. Students will practice theory by applying the material covered in the context of small examples, both individually and as a group.

**Prerequisites**: (1) intermediate knowledge of Java; (2) familiarity with object-oriented programming; (3) basic knowledge of git.

**Level**: all levels

Notes to self:

* Inquire about using web-cat automated grading for this course - get permission
* Individual exercises: Social Network example
* Group exercise: BSK using Randori style

## Workshop 2: Making a Good First Impression with Your Paper

**Format**: Workshop style with lecture and group activity

**Duration**: 1 day

**Description**: To cope with the ever growing population of authors who wish to get their

## work accepted to quality venues, top-end publications have been becoming more and more

## selective. This workshop aims to help prospective authors produce technical and scientific articles that stand a better chance of surviving the peer review process and are succinct, properly structured, readable, and relevant to their target audience. We will start the day with a tutorial on some central elements of writing a paper, followed by an introduction to Quick Round-Robin Reviews (QR3). We will conduct the QR3 activity in the afternoon, during which students will peer-review each other’s work using a fun and light-hearted format. By the end of the workshop, students will develop a concrete sense of how to make a good first impression to pass an initial review.

**Prerequisite**: (1) sufficient proficiency in English (oral and written) demonstrated by presentations and reports that meet graduate-level requirements; (2) a draft paper authored or co-authored by student; (3) materials required for QR3: blank white paper, glue, scissors, index cards

**Level**: graduate students only; doctoral and master’s students who need to write and publish technical and research papers