

**Presenter: Prof. Josee Tasse**

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**Title: Using code change types in an analogy-based classifier for short-term defect prediction**

**Abstract:**

Current approaches for defect prediction usually analyze files (or modules) and their development as work is done on a given release, to predict post-release defects. What is missing is an approach for predicting bugs to be detected in a more short-term interval, even within the development of a particular version. In this presentation, we propose a defect predictor that looks into change bursts in a given file, analyzing the number of changes and their types, and then predict whether the file is likely to have a bug found within the next 3 months after that change burst. An analogy-based classifier is used for this task: the prediction is made based on comparisons with similar change bursts that occurred in other files. New metrics are described to capture the change type of a file (e.g., small local change, massive change all in one place, multiple changes scattered throughout the file).

Date : October 24, 2013

Time: 10AM - 11AM

Place: Hazen Hall 127