Thesis Title:
Generating Integration Test Cases for Object-Oriented Applications

Description: An application typically consists of several units and components. In integration testing the interface and interactions of different units and components are tested. Considering an existing .NET application (e.g., C#) that is made of several classes, the goal in the thesis is to automatically detect the dependencies and interactions among different classes in order to derive integration test specifications.

Expected Outcome: 1) algorithm(s) and tool(s) to analyze and detect dependencies of different application units in terms of class coupling, and 2) generating appropriate integration test cases

This thesis is defined as part of the PiiATest project which is an ongoing research project on integration testing with ABB Process Automation in Västerås.

Competence: C# programming skills and knowledge of software testing.

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Misc: The thesis may also be taken as a joint work by 2 students.

Application: To apply please send your CV along with the list of courses you have taken and their grades to mehrdad@sics.se. In your CV provide a short description of previous projects that you have done.

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