

**Thesis Topic**

**Evaluation of the eARF Analytical Framework**

**Degree level**

Bachelor/Master

**Company**

None

**Description**

Software architects face a daunting task of architectural analysis and reasoning while designing systems with rapidly changing requirements and environments. extended Architectural Reasoning Framework (eARF) assists architects in architectural analysis and reasoning by providing them with proven best practices and knowledge in the form of tactics and patterns. The eARF also includes an analytical framework that enables architects to get verified architectural models. Verified architectural models are those that are tested and verified to provide assurances for required properties such as performance, availability, self-healing, etc. The eARF and its analytical framework lack comprehensive evaluation. This project aims to enhance reasoning support offered by the eARF and the analytical framework, and evaluate both these frameworks by comparing them with one or more competing approaches.

**Objectives**

Main objectives of the project are as follows:

- Enhance reasoning support provided by the eARF by adding more rigor and formalization
- Evaluate the eARF and its analytical framework by making a comparison with one or more competing approaches.

**Requirements**

- 2DV603, 2DV604, 4DV608, or other similar courses
- Good knowledge of Software Architecture and Design

**Contact Person**

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