

**Thesis Topic****Relationships between QoS and software Adaptability****Motivation**

Modern software operates in highly dynamic and often unpredictable environments that can degrade its quality of service. Providing software with adaptation capabilities is a manner to cope with changes and unpredictable environment. However, the achievement of software adaptability can influence other software quality attributes, such as availability, performance or cost.

This thesis will help measuring the adaptability of software systems by proposing novel metrics and will study the tradeoffs between system adaptability and its Quality of Service

**Tasks**

Develop a framework where adaptability capabilities of software systems can be measured and, using the adaptability measurements, guiding software engineers decisions for fulfilling the quality requirements.

**Prerequisites \***

- Software Engineering and Software Architecture
- Performance Engineering
- Software Metrics

**We offer you****Time frame****Supervisor(s)**

- Diego Perez
- Mauro Caporuscio

\* All the course codes, like e.g. 1DV101, refer to courses here at DFM. Similar documented experience from other places will do just as well.