

**SPI MEETS IN SOFIA**  
**Joint Conference: EuroMed SPI & CEE SPI**  
**18<sup>th</sup> - 19<sup>th</sup> October 2010**  
**Sofia, Bulgaria**

**Title of the presentation /Tutorial**

**Application of Six Sigma and Psychometric studies to requirement specifications**

---

**Speaker(s)**

Radouane Oudrhiri

---

**Category**

- Getting Started       Intermediate       High Maturity  
 Presentation       Tutorial

---

**Target Audience**

- Senior Management       IT Managers  
 Project Leaders       SEPG Leaders  
 Practitioners       Others: Six Sigma Expert

---

**Key Words**

Lean, Six Sigma, DMAIC, Experimental, psychometric studies, Requirements Engineering

---

**Abstract (maximum 250 Words)**

No other aspect of system development is more critical - and no aspect more difficult - than establishing clear and unambiguous requirements that are fit for purpose. Requirements Engineering plays an important role within the Software Quality Engineering process. It is widely accepted that late correction of requirement defects can increase the cost of correction many-fold than compared to the cost if they were corrected during the requirements phase! But, at the same time, we know that many requirements are in fact *created* and not only *found*, *elicited* or *captured*. It is an area where inconsistency must be tolerated for a while. It is a fact: requirements will always change and will always be misunderstood; this makes the definition of a "defect" related to requirements very difficult.

This presentation will explain how Six Sigma, as a problem solving and process improvement methodology, has been applied to the requirement specification activities to increase their effectiveness and to reduce ambiguity.

The presentation will walk through the entire DMAIC process: Define-Measure-Analyze-Improve-Control. For each phase, we will stress the important techniques and tools used as well as lessons learned from the phase. The presentation shows how experimental software engineering and psychometric studies were integrated and used, on large scale projects, as statistical analysis tools and how to generalise this approach to other software activities.

The presentation will also demonstrate how to build an economic model to link the derived specifications of quality attributes to risks and cost of poor quality in relation to requirements development.

---

---

**CV (200 words)****Photo****Radouane Oudrhiri**

Radouane Oudrhiri has more than 20 years of teaching and consulting experience in software quality engineering, Lean Six Sigma and DFSS for Software and maturity-based models

He implemented SPI initiatives within large and small organisations. He is a Six Sigma MBB trained by GE Medical Systems. Radouane is conducting research works on Information Systems Evolution and integration of practices such as: CMMI, SPC, Lean, Six Sigma, Structural Design, TRIZ, Axiomatic Design and Reliability Engineering.

Radouane has an M.S. in Operations Research, MBA and PhD in Information Systems. He is a Lecturer at La Sorbonne Paris, Telecom Paris and an evaluator at the European Commission.



---

**Contact Data**

**radouane@systonomy.com**

---