

# Keynote Speakers

## **Evidence Based Software Engineering: Pre-Requisite for Useful Research and Technology Transfer**

Dieter Rombach

### *Abstract*

Exploitation of software engineering results are frequently hampered by lack of evidence regarding their potential or proven benefits. This affects researchers who cannot reuse each others' results as well as practitioners who cannot judge the risk and potential return on investment from Using new technologies.

Lots of lip service has been given to providing more such evidence in the form of empirical data or references. But still today it is not widely accepted as a necessity and acted accordingly. In recent years more activities aimed at pushing the provision of testable evidence are being performed: books and publications on empirical results, conferences such as this one, projects such as the NSF impact project, and networks and portals such as ISERN, ESERNET, ViSEK and others.

This talk will summarize some of the requirements for “usable” evidence, give some examples, and provide a vision for “software engineering 2010”.

## **Metrics Based Project Governance**

Pam Morris

### *Abstract*

The 2003 Chaos report by the Standish Group found that only 34 percent of projects could be classified as having completed successfully – that is they finished on time and on budget with required features and functions. Of the \$382 billion spent in the USA last year on software development it is estimated that \$82 billion was wasted through bad planning and mismanagement. Anecdotal evidence has shown that Australian projects are no different. IT budget restrictions are forcing project boards to introduce better Project Governance to avoid costly schedule over-runs and budget blowouts.

The Victorian government has adopted a rigorous approach to project control and recommends that its projects use an independent Scope Manager to introduce measurement at the planning stage and objectively quantify the status and scope of the project throughout its lifecycle. The Scope Manager acts in an independent capacity, reporting to the project board. They have a dual role of ‘quantity surveyor’ and project auditor. The paper describes the role of the Scope Manager in the project, their activities and responsibilities and identifies the costs and the benefits they bring to a project. Industry case studies demonstrate the effectiveness of this governance strategy for ensuring successful projects or providing early warning of projects in trouble.

## **May the Force Be With You: The Role of Evidential Force in Empirical Software Engineering**

Shari Lawrence Pfleeger

### *Abstract*

In this talk, I examine how to develop a body of evidence for hypothesis generation and hypothesis testing. That is, we want to conduct a series of studies that, when examined whole, help us to derive and confirm theories about software processes, products and resources. What happens when we confront missing evidence? ambiguous evidence? conflicting evidence?

How do we deal with varying degrees of confidence in a study's design, a study's results, or a study's investigator? The ideas presented in this talk, extracted from results and methods used in other disciplines, will help us transform the field of empirical software engineering from a disparate collection of interesting results to a discipline rich with theory and theory-testing.