

Panel: How Should Software Reliability Engineering Be Taught?

John Musa and Laurie Williams
musa@ieee.org, williams@csc.ncsu.edu

Purpose

The purpose of the panel is to provide an open exchange of how software reliability engineering is taught in universities and professional courses and how practitioners think it should be taught. Through the panel, educators can learn more about what other educators teach, how they teach it, and what resources they have to share. Practitioners (both panelists and audience) can provide insight into what they feel should be taught based upon practical application of software reliability concepts for product development.

1. Panelists

Moderator: Michael Lyu, Professor, The Chinese University of Hong Kong

Panelists:

- Mario Garzia, Director, Windows Reliability, Microsoft Corporation
- John Musa, SRE Author and Consultant
- Carol Smidts, Associate Professor of Reliability Engineering, University of Maryland
- Will Snipes, Software Dependability Design Technical Leader, Nortel Networks
- Laurie Williams, Assistant Professor, North Carolina State University

2. Key Questions

- What is the present course content and what should it be?
- What teaching methods work best?
- What teaching materials are useful?
- What, if anything, is or should be different in teaching industrial practitioners?
- What are the differences in teaching short intensive vs semester courses?
- How effective is distance learning for SRE, and what special factors need to be considered?
- What aspects of SRE do practitioners actually apply and how should this influence teaching?
- How should practical experience in using SRE influence how SRE should be taught?

- How do you persuade people to use SRE?
- How should you handle cultural differences of different audiences or in the same audience?
- What are the most frequent questions and challenges from the audience?
- How should you motivate the novice and comfort the skeptics?

3. Position Statements

Position statement by panelists appear on the following five pages of the proceedings.