## **Futorials**

The 31st Annual International



# Monday, 23 July, 2007

Friday, 27 July, 2007

Tutorial 1: Service-Oriented Architectures (SOA): The Missing Link between Business and Technology Monday, 23 July, 200 9:00 am - 16:00 pm

#### Instructor: M.E. Fayad

Abstract: A Pattern Topology for SOA is proposed to be developed as a system of patterns including the core knowledge of SOA. It will be prepared in a cognitive process of understanding and generalizing the main concepts associated with SOAs that are independent from any particular application and

will serve as a strong backbone design for any related applications. **About the instructor:** M.E. Fayad is a Full Professor of Computer Engineering at San Jose State University. He has given seminars on SE Technologies at many conferences and countries. He is the lead author of several Wiley books.

**Tutorial 2: Setting a Software Test Management Environment** Monday, 23 July, 2007 13:00 pm - 16:30 pm

### Instructor: Rajesh Subramanyan

Abstract: Test Management helps testers of large projects to coordinate together their activities, track progress and handle changes. Commercial test management tools are available to assist testers. This tutorial covers basics and necessary activities in test management, executing testing activities with test management tools, providing traceability between requirements-test cases-test results-defects, defect tracking, reporting and analysis. Exercises on formulating test management requirements for a sample project, planning, determining type of reporting required and how to use the information to control testing activities will be conducted in this 3 hour tutorial.

About the instructor: Rajesh Subramanyan is with Software Engineering department at Siemens Corporate Research, Princeton, NJ, USA. He is University between the years 2003-2005. He developed and ran a software development lifecycle program in collaboration with several large companies. He was also the department coordinator and team advisor for an interdisciplinary program called engineering projects in community service (EPICS).

His technical interests include software engineering and performance management. He received a PhD in ECE from Purdue and MS in EE from the University of Houston.



Dr. M.E. Fayad



Dr. Rajesh Subramanyan



Dr. Alan M. Davis



Dr. Ivica Cmkovic

**Tutorial 3: Just Enough Requirements Management** Friday, 27 July, 2007 10:00 am - 17:00 pm

Instructor: Alan M. Davis

Abstract: Requirements management (RM) needs to be made simpler, not more complex. And in today's world, where you need to accelerate development dramatically, RM must reduce, not extend, the total development effort. This tutorial will expose participants to easy-to-follow simple procedures that enable projects to start development quickly. It will increase the likelihood that systems will satisfy real user needs when delivered. Participants will learn the roles of systems and software requirements in system development, appreciate differences between elicitation, triage, and requirements specification, and be capable of selecting and using requirements techniques. The tutorial will cover a subset of the many principles put forth in the speaker's latest book, Just Enough Requirements Management (Dorset House).

About the instructor: Al Davis is a professor at U. Colorado at Colorado Springs. He was a member of the board of directors of Requisite, CEO of Omni-Vista, VP at BTG, and Director of the Software Technology Center at GTE Laboratories. He has held academic positions at George Mason U.; U. Tennessee; U Western Cape, South Africa; U. Jos, Nigeria; U. Technology, Sydney, Australia; and U. Illinois at Urbana. He was EIC of IEEE Software 1994-1998. He is an editor for Journal of Systems and Software. He is the author of Software Requirements, 201 Principles of Software Development, Great Software Debates, and Just Enough Requirements Management. He has published 100+ articles and lectured 500+ times in over 20 countries. He is a fellow of IEEE and earned his Ph.D. (Computer Science) from U. Illinois

#### Tutorial 4: Emerging Technologies in Industrial Context: Component-Based and Service-Based Software Engineering Friday, 27 July, 2007 13:00 pm - 16:30 pm

#### Instructor: Ivica Crnkovic

Abstract: Component-based software engineering (CBSE) and service-oriented software engineering (SOSE) are two similar but distinguished approaches in software engineering. In this tutorial, we compare CBSE and SOSE and analyze them from different perspectives. We discuss the ssibility of combining the strengths of the two paradigms.

About the instructor: Ivica Crnkovic is professor in Software Engineering at Malardalen University, Sweden. He has been co-organizer of CBSE symposium in last six years and has written a book and many papers in this area.