Software Verification Course

Be sure before testing

By Dr. Leah Goldin

Introduction:

It is not enough just to produce software; one needs to produce software with the appropriate product characteristics such as reliability, efficiency, usability, flexibility, etc. To achieve the demands of constructing such a product demands a disciplined engineering process along with associated software verification.

This course introduces the concepts and methods required for software verification during the development lifecycle before having the product code ready for running actual testing. It aims to develop a broad understanding of software development lifecycle verification from requirements definition until product delivery, and complements this with a detailed knowledge of techniques in an appropriate engineering and management context.

Objectives:

At the end of this course attendees will be able to:

- Understand verification tasks according to software verification levels
- Develop sosftware in light of verification
- Improve software reviews
- Understand Verification & Validation (V&V) concepts as well as software integrity levels

Audience:

System and Software Engineers, R&D Managers, SQA & Test Engineers, V&V Managers

Challenges & Methods:

- Software development context and concepts

  How to establish a disciplined software engineering process, necessary to develop a desirable product.

- Verification and Validation (V&V) Processes

  V&V is the name given to the checking and analysis processes that ensure software conforms to its specification and meets customers need.

- Software Reviews & Checklists

  How to establish a disciplined review based on effective checklists

Agenda:

- Software Lifecycle and Verification
- V-Model and Software Testing in Context
- Verification & Validation (V&V) concepts principles
- Reviews work products & checklists
- Software Integrity Levels
- Software V&V Models and Standards (IEEE, FDA,CMMI)
- Independent V&V (IV&V)

About the Instructor:

Leah Goldin, CEO of Golden Solutions http://thegoldensolution.com/

Dr. Goldin is an independent consultant specializing in Requirements Engineering, System Engineering and Software Engineering, Process and Quality.

In her career, Dr. Leah Goldin developed embedded systems, and filled various management and technical roles, including development, verification and integration, SQA and process improvement. The companies she has worked for include Rafael, IAI, MBT, Comverse, NICE Systems, NDS, Sapiens, Mercury/HP, Given Imaging, Orbotech, etc.

Dr. Goldin divides her time between consulting to high-tech companies and teaching; she is a senior lecturer in Afeka College at the Software Engineering and System Engineering departments, and was the Head of the Software Engineering Department at Shenkar College.

Dr. Goldin received her Ph.D. from the Technion Computer Science department, where her research focused on Requirements Engineering. She is a senior member of IEEE, and currently serves as the Chair of the Israeli Chapter of the IEEE Computer Society