Instructors

Louis Y. Ungar, A.T.E. Solutions, Inc.

Mr. Ungar has taught ATE, Testability and Built-In Self Test courses at the University of California at Los Angeles (UCLA) and throughout industry and governments. He is the founding President of the Testability Management Action Group (TMAG), a consultant to The American Society of Test Engineers (ASTE), has served as Testability Chair for the Surface Mount Technology Association (SMTA) and has served on committees for various IEEE standards. He has widely published on Design for Testability and Diagnosability topics and obtained patents for Built-In Self Test circuits. He holds a B.S.E.E. and Computer Science degree from UCLA and has completed course work towards a M.A. in Management.

Scott Davidson, PhD, Sun Microsystems

Scott Davidson has been involved in testing and DFT for 28 years, at Bell Laboratories, Intel, and Sun Microsystems. He has published more than 20 papers in areas including fault simulation, sequential test generation, Iddq and test economics. He has been involved with researching and managing fault simulation, test generation, BIST, test translation, DFT implementation, and now monitors and analyzes processor field returns. He has been program chair and general chair of the International Test Conference, the co-founder of three workshops, and the program chair of six. He has been the editor of the Last Byte column in IEEE Design & Test of Computers for 13 years. He has a B.S. from MIT, an M.S. from the University of Illinois, and a PhD from the University of Louisiana, all in Computer Science.

Helen Colby, Rutgers University

Helen Colby is a graduate student in Psychology at Rutgers University, where she was has been awarded a Presidential Fellowship for the 2008-09 and 2009-10 academic years. Her research is in the area of economic decision making, with specific interest in improving increasing economic efficiently through behavioral interventions. She has presented her research at the Society for Judgment and Decision Making Annual Conference, and co-authored two papers on the economics and psychology of test. She has degrees in economics and psychology from the University of Chicago, where she worked in Richard Thaler's Decision Research Lab at the University of Chicago Graduate School of Business Center for Decision Research. In addition to her studies, she has taught the LSAT for several years, taught macroeconomics as a graduate assistant, and has been a professional actor, with commercial and television credits.

A. T. E. SOLUTIONS, INC.

The Economics of Test and Testability

March 11, 2010, San Jose, CA

Learn to make test profitable

- Test Economics Explored
- Return on Investment Calculations
- Test Cost/Benefit Models
- How Design for Testability Helps
- Profiting from Built-In Self Test
- Behavior Economics Models
- Behavioral Economics Applied to Test and Testability

A.T.E. Solutions, Inc.
Test, ATE and Testability Consultants and Educators

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The Economics of Test and Testability

Part 1

Introduction (All Instructors)

- The need to economically justify test of components, boards and systems
- What classical test economics have achieved
- What behavioral economics can bring to test

Part 2

Classical Test Economics (Louis Y. Ungar)

- Test Economic Decision Making
- Traditional Economic Principles
- Introduction to Microeconomics and Behavioral Economics
- Why Test and Perform Design for Testability?
  - Economic Benefits from Test
    - *Equipment Reduction*
    - *Faster Test Programming*
    - *Improving Fault Coverage*
    - *Reduce Test Times*
    - *Better Diagnoses*
  - Economic Costs of Test
    - *Equipment and Personnel*
    - *Penalty Cost of Escapes*
    - *Time to Market Model*
  - Express Savings in Terms of ROI
- Test Economics Formulas
  - IC Test and DFT Economics
  - Board Test and DFT Economics
  - System Test and DFT Economics
  - Field Support Test/DFT Economics

Course sponsored by:

- Testability Management Action Group (TMAG)
- American Society of Test Engineers (ASTE)
- Global Semiconductor Alliance (GSA)
- Surface Mount Technology Association (SMTA)

The Economics of Test and Testability

Part 3

Test Microeconomics & Behavioral Economics

(Scott Davidson and Helen Colby)

Format: Helen presents an economic principle, Scott explains its application to test and Design for Testability (DFT)

- Microeconomics
  - Rationality, Optimization and Utility Theory
- Behavioral Economics
  - Bounded Rationality to Improve Decision Making
- Inter-temporal Choice Application
  - Making Test Investment Decisions
- The Insurance Model
  - Availability Heuristics
- Anchoring
  - The perils of estimation.
  - Experiment on anchoring
- Case study
  - History of DFT adoption, and a behavioral economics explanation.
- The Endowment Effect
  - Applied to DFT Overhead
- Data Collection
  - Validating Test Economics Models and Decisions

Part 4

Where do we go from here?

(All Instructors and Students)

- Summary and takeaways.

Course Location:

Local Hotel
TBD
San Jose, CA 95112

Why, When, Where and How Much Does it Cost?

Attendees will Learn:

- Why test is a solution to an economic problem
- How non-technical management views return on investment (ROI) and how to translate technical benefits to these terms
- Existing formulas for the cost and benefits of IC, board, and system tests
- How behavioral economics applies to test and what we can learn from it.

When: March 11, 2010
Where: San Jose, CA

	Single Attendee	2 or More Attendees
Price Per Person	$ 695.00	$ 595.00

Pricing includes all Course Material.

Course Material: (if not attending) $299.50

Course At Your Site: $15,995

- Includes up to 20 attendees & course material
- Includes all travel related costs for 3 instructors (anywhere in North America)
- Additional attendees $495 starting with the 21st attendee

Register:
BestTest.com/courses/00001-EconomicsofTest.cfm
Questions: Education@BestTest.com

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