

## MANCEF COMS 2009 CoventorWare Training September 3<sup>rd</sup> 2009

### 8.30 - Welcome and Registration

### 9.00 - Introduction to CoventorWare

MEMS Design Challenges: An introduction to Architect3D, Designer and Analyzer.

### 9.30 - Learning CoventorWare Exercise 1: Variable Capacitor Design in Architect3D

The first of 4 “hands-on” exercises to learn about Coventor tools by running a short tutorial on one of a work stations. Exercise 1 covers Architect3D for MEMS design. Construct a system level schematic, view the 3D model, run a simulation and view the 3D result directly in Scene3D. Extract and view GDS layout.

### 12.00 – Lunch (provided)

### 13.00 - Learning CoventorWare Exercise 2: MEMS design with Designer

Learn about Designer for creating GDS layout Editor, building process descriptions and creating models for meshing prior to FEA simulation.

### 14.15 - Learning CoventorWare Exercise 3: Simulate with Analyzer

Learn about simulating models in our FEA suite, Analyzer. Set-up and run analysis and view 3D results: Residual stress analysis in MemMech, capacitance calculation in MemElectro and pull-in voltage calculation in CoSolve.

### 15.00 - Break

### 15.30 – CoventorWare Design Kits

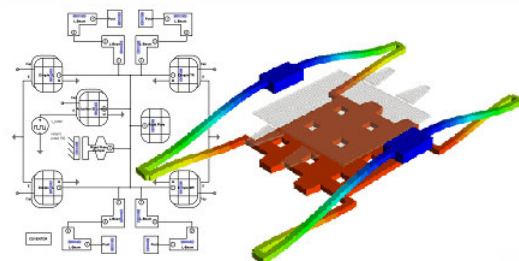
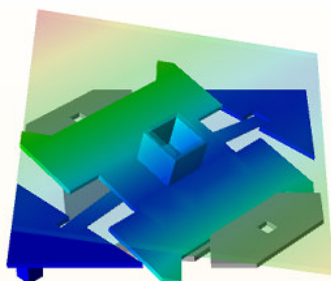
How to use the Foundry Design Kits available for multi-project wafers. Foundries and processes supported, design case studies to design for multi-project wafer.

### 16.00 - Exercise 4: Process Emulation with SEMulator3D/MEMulator

Efficient MEMS development requires being able to quickly and accurately create and modify fabrication processes. The design-fabricate-test cycle is costly. Learn in this exercise how to use SEMulator3D/MEMulator to build highly accurate virtual prototypes and mesh them for simulation.

### 17.15 - Consulting and Closing Discussion

### 17.30 - Close



**MANCEF COMS 2009 CoventorWare Training  
September 3<sup>rd</sup> 2009**

Benjamin Blackwell  
Director, Asia-Pacific Sales  
Coventor, Inc.

benjamin.blackwell@coventor.com  
Phone: **919.854.7500 ext 155**  
Fax: **919.854.7501**

Please copy if required, to return one form per attendee.

If demand and causes an over-subscription, it may be necessary to limit the number of attendees from individual member institutions. You will be advised in good time before the event if this is the case.

**I would like to attend the training**

Information on how to reach the COMS 2009 location be found on the COMS2009 web site at <http://www.mancef-COMS2009.org>. The training will be from 8:30 to 17:30.

Name .....

Position .....

Institute .....

.....

Address .....

.....

.....

Telephone ..... Fax .....

Email.....

Please complete clearly in block capitals or use a typewriter

FAX BACK to: **919.854.7501**