

## Doug Smith

D.C. Smith Consultants



Mr. Doug Smith held an FCC First Class Radiotelephone license by age 16 and a General Class amateur radio license at age 12. He received a B.E.E.E. degree from Vanderbilt University in 1969 and an M.S.E.E. degree from the California Institute of Technology in 1970. In 1970, he joined AT&T Bell Laboratories as a Member of Technical Staff. He retired in

1996 as a Distinguished Member of Technical Staff. From February 1996 to April 2000 he was Manager of EMC Development and Test at Auspex Systems in Santa Clara, CA. Mr. Smith currently is an independent consultant specializing in high frequency measurements, circuit/system design and verification, switching power supply noise and specifications, EMC, and immunity to transient noise. He is a Senior Member of the IEEE and a former member of the IEEE EMC Society Board of Directors.

## Prof. Ege Engin

San Diego State University



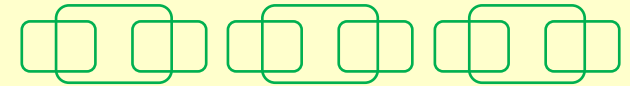
Dr. Ege Engin received his Ph.D from the University of Hannover, Germany. From 2005 to 2008, Dr. Engin was with the Packaging Research Center at Georgia Tech, where he was an Assistant Director of Research. Previously, he

was with the Fraunhofer-Institute for Reliability and Microintegration (IZM), Berlin. Since 2008, he is an Assistant Professor in the Electrical and Computer Engineering Department of San Diego State University. He has more than 80 publications in journals and conferences in the areas of signal and power integrity modeling and simulation and three patents. He is the co-author of the book "Power Integrity Modeling and Design for Semiconductors and Systems," published by Prentice Hall in 2007. Dr. Engin is the recipient of the Semiconductor Research Corporation Inventor Recognition Award in 2009.

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Morgan Hill, CA 95037



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# SCV EMC 2012 Mini Symposium October 11

*featuring*

**Doug Smith**  
*and*  
**Dr. Ege Engin**



**Santa Clara Valley**

**Biltmore Hotel**  
**2151 Laurelwood Road**  
**Santa Clara, CA 95054**

Web: [www.scvemc.org](http://www.scvemc.org)





**Morning Session: ESD Troubleshooting Techniques for Electronic Designs by Doug Smith**  
**Afternoon Session: Fundamentals of Signal and Power Integrity by Ege Engin**

**Registration, Breakfast & Vendor Exhibits: 7:30 - 8:30 AM**

**First Morning Session: 8:30 - 10:00 AM**

**ESD Troubleshooting Techniques for Electronic Designs**  
Presenter: Doug Smith, D. C. Smith Consultants

Tracking down the sources of ESD problems in equipment can be difficult in modern electronic designs. After a brief overview of the characteristics of ESD and its effects on equipment, simple and effective troubleshooting techniques will be discussed that Mr. Smith has developed over many years of solving ESD problems. Live demonstrations will be used to illustrate some of the techniques.

**Morning Break & Vendor Exhibits: 10:00 - 10:30 AM**

**Second Morning Session: 10:30 - 12:00 PM**

**Power Integrity Modeling and Design**  
Presenter: Prof. Ege Engin, San Diego State University

As the clock frequencies for off-chip signals approach 20 GHz and beyond, maintaining signal and power integrity are becoming major issues to design a computer system that can actually support such speed. This mini-symposium will cover fundamentals of modeling, simulation, and characterization techniques to ensure signal and power integrity. The following topics will be covered in this tutorial:

- Session 1: Power integrity modeling and design
- Session 2: Signal integrity modeling of losses
- Session 3: Advanced topics: Modeling of through silicon vias for 3D ICs; power plane filtering using electromagnetic bandgap structures.

**Lunch and Vendor Exhibits: 12:00 - 1:30 PM**

**First Afternoon Session: 1:30 - 3:00 PM**

**Signal Integrity Modeling of Losses**  
Presenter: Prof. Ege Engin, San Diego State University

**Afternoon Break & Vendor Exhibits: 3:00 - 3:30 PM**

**Second Afternoon Session: 3:30 - 5:00 PM**

**Advanced topics: Modeling of Through Silicon Vias for 3D ICs; Power Plane Filtering Using Electromagnetic Bandgap Structures**  
Presenter: Prof. Ege Engin, San Diego State University

**Reception, Vendor Exhibits & Raffle:**  
**5:00 PM - 6:00 PM**

For those of you traveling from out of town, you can get a discounted rate at the Biltmore Hotel & Suites Santa Clara. It will be \$149.00 in a standard garden room or \$156.00 in a tower suite, with wireless internet access included. You may make reservations at 800-255-9925, and refer to "IEEE SCVEMC Mini Symposium 2012," or follow the link:

[https://reservations.ihotelier.com/crs/g\\_reservation.cfm?groupID=777468&hotelID=13370](https://reservations.ihotelier.com/crs/g_reservation.cfm?groupID=777468&hotelID=13370)

**NOTE:** The registration fee includes one copy of the technical program, continental breakfast, lunch, refreshment breaks, and the reception at the conclusion of the event. The organizing committee reserves the right to substitute speakers, restrict size, or to cancel the event and exhibition. In the event the organizing committee cancels this event, registration fees will be fully refunded. Individuals canceling their registration prior to September 27 will receive a full refund. No refunds will be made to individuals who cancel their registration after September 27, 2012. Substitutions are allowed. Attendance is limited. Registration will be confirmed on a first come, first served basis.



**Registration Form**

| Registration Rates:                           | Before 9/20 | 9/20-10/11 |
|---|-------------|------------|
| <input type="checkbox"/> IEEE Member          | \$250       | \$275      |
| <input type="checkbox"/> Non-Member           | \$275       | \$300      |
| <input type="checkbox"/> Student/Un-Employed* | \$100       | \$125      |

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**\$250 for group registration rate (5 or more)**

\*Full time students only with valid student ID presented on site

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