



below: Wescon, RFID, EMC, uWave ICs, Conrol Sys.

Tech Review, Sensor Networks courses

Machine Vision, Noise Reduction, Aeroacoustics Conf

Plastic Optical Fiber, SOP vs SOC Systems

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new! Download the April GRID.pdf (1.1 MB) -- details on upcoming Chapter meetings, classes, conferences on a wide variety of topics. Select one of the Chapter events to learn about new developments and to network with fellow professionals -- choose a meeting, course or conference to master new skills. Check for updated information during the month at our GRID website: www.e-grid.net/

Chapter Meetings for April:

SCV-Mag - 3/29 | Origin of Tunneling Spin Polarization - spin polarization and magnetization of current tunneling from a ferromagnetic material through a tunnel barrier ... [more]

SCV-EMS - 3/30 | Career Checkpoints and Introducing Technology to Make Everyday Devices See - check pointing your career, followed by time-of-flight 3D sensor chips for computer imaging, vision, distance measurement ... [more]

SCV-LEOS - 4/5 | Semiconductor Ultraviolet Optical Sources: Status, Challenges, and Applications - operation of AlGaInN materials system down to 340 nm and LEDs operating below 280 nm ... [more]

SCV-ED - 4/12 | VLSI Devices for Analog and Mixed-Signal Applications - state-of-the-art in carrier-tunneling studies in deep-submicron MOSFETs with ultrathin gate dielectrics ... [more]

SCV-EMC - 4/12 | EMI Analysis of complex systems; and Electrostatic Discharge - It failed! How to find the root cause - different data analysis techniques for complex systems; and ESD failure diagnosis ... [more]

SCV-Comm - 4/13 | Where is the RFID Puck Going Next? - Wal-Mart, Target, Albertsons, Best Buy, Department of Defense, casinos, passports: where next? ... [more], How will they be made and tested? [more]

SCV-AP - 4/13 | A Spatial Channel Model for Multiple-Antenna Systems - assessing the optimal number of antennas for given transmit and receive areas ... [more]

SCV-EMB - 4/20 | Tactile Pressure Imaging: A New Tool For In Vivo Physiological Assessment for Gastroenterology - portable advanced pressure imaging system with high fidelity pressure maps of the gastrointestinal tract ... [more]

SCV-IM - 4/20 | ISO13485: A PDL and QSR Not Just for Medical Devices - a Product Development Lifecycle standard that can make the job of a product or program manager easier ... [more]

OEB-IAS - 4/21 | Electrical Power Generation, Distribution, and Plant Automation on Modern Marine Vessels - electrical distribution systems have to be as specialized as the vessel to meet modern cargo demands ... [more]

SCV-SSC - 4/21 | Power-aware and Temperature-aware Circuit Design - maximizing performance under power consumption constraints ... [more]

OEB-Comm - 4/21 | Evolution of Mobile Wireless Technologies to the Year 2008 - new products and services, and how China will influence them ... [more]

SCV-PACE - 4/26 | Resume-writing Clinic - review the structure of a good resume, and bring your own for critique ... [more]

SCV-CNSV - 4/26 | Who Owns Your Brain? A Consultant's Guide to Patents - a consultant's guide to patents and intellectual property ... [more]

SCV-ReI - 4/27 | When to use HALT and when to use ALT - predicting or characterizing a wearout mechanism, with case studies ... [more]

SCV-CPMT - 5/4 | US Electronics Industry Competitiveness in View of Globalization and Changing Technologies - IC and systems packaging; competitiveness of US industry ... [more]

SCV-CS - 5/7 | Sensor Networks - The New Environment - Saturday seminar, at Stanford ... [more]

Wescon no-cost Events & Registration Form -- see attached PDF, or see page 3 of the Wescon Preview.

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The Silicon Valley Capital Club is on the top floor of the Knight Ridder building in downtown San Jose, next to the Fairmont Hotel. It has outdoor balconies for dining with a great view of downtown San Jose. Capital Club Membership Director Suzee Sturn offers a preferred membership invitation to all IEEE Members.

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April 12-14, Santa Clara Convention Center

Wescon Previews [more]

Welcome to the exciting world of IEEE's Wescon, and its new location in the Santa Clara Valley. Plan to spend a full day at the exhibits and programs. Most of the program is at no cost -- use the one-page Registration Form (attached) to select from dozens of talks, panels, and seminars. Included with complimentary admission: talks by eight Presidents/CEOs, 2 VP's of Engineering, two CTO's from IBM Research, and much more.

Download the full 8-page Wescon Preview (650kB PDF) or the one-page Complimentary-Event Registration Form (25kB PDF).

Microwave Theory & Techniques Chapter, SCV

Designs for the High-Speed, Broadband Information Age [more]

- 8:00 AM - Noon, Wednesday April 13, 2005
- In conjunction with IEEE Wescon'05
- Four Presentations: 100GHz CMOS - SiGe and RFCMOS - InP HBTs - SiC and GaN
Register by April 9th to get discount rate (\$50 for Members)
Access the Advance Program and registration form

Components, Packaging & Mfg Technology Chapter, SCV

Packaging Technology for RF and RFID [more]

- 1:00 PM - 5:30 PM, Wednesday April 13, 2005
- In conjunction with IEEE Wescon'05
Register by April 4th to get discount rate (\$75 for Members)
Full Details and Registration Information

Control Systems Chapter, SCV

Control Systems Technology Seminars [more]

- Wednesday, April 13
- In conjunction with IEEE Wescon'05
Motor Control Fundamentals - Understanding Robotic System Control - Control System Design: A Refresher
More Information and Registration Details

Lead-Free Soldering Implementation Tutorials [more, page 8]

- Conversion to Lead-Free, and its Impact on Your Business
- Impact of Lead-free Solder on Board Assembly, and the Successful Lead-Free Implementation Strategy
Additional details (650kB PDF - see last page)

Electromagnetic Compatibility Chapter, SCV

Electromagnetic Compatibility Courses

- Four Half-Day Tutorials (choose one, or all four)
- In conjunction with IEEE Wescon'05
Fundamentals of Electromagnetic Compatibility - Fundamental Concepts of Signal Integrity for PC Boards - Testing for EMC Compliance - Approaches and Techniques - Fundamentals of Grounding, Shielding for Noise Reduction
Register on the Wescon website

A Short Course for Technical Personnel and Decision Makers

Technology Review and Update [more]

- Five Days of instruction
- April 25 through April 29

IEEE Computer Society, SCV Chapter, and the North America Taiwanese Engineers' Association

SENSOR NETWORKS - The New Environment

- 7th IEEE/NATEA Annual Conference

- Held at the Naval Postgraduate School (NPS), Monterey

This annual 5-day short course is designed for civilian, military, and government technical personnel and decision makers interested in refreshing and updating their knowledge in important technical areas. It provides an excellent overview and stresses the more practical aspects of the topics discussed.

Topical Areas for 2005: - Internet Security (Opportunity or Oxymoron) - Integrated Circuits - Information Systems, Operations and Strategies - Microelectromechanical Systems (MEMS): An Introduction and 5-Year Vision - Electro-Optical and Infrared Systems - Bioengineering and Biotechnology - Military Satellite Communications Technology - Commercial Satellite Communication Technologies and Trends - Tour of Selected NPS Laboratories (Space Systems, Fiber-optics, Radar, Virtual Reality Labs)

Fee: Only \$800, includes refreshments and one dinner
Register on-line through April 20: www.sp.nps.navy.mil/trau/

- Place: Braun Auditorium, Stanford University

- Date: Saturday, May 7th

This one-day conference focuses on emerging Sensor Networks technologies. Sensor Networks move computing from being a distinct entity within an environment to becoming a seamless part of the environment. This profound change touches both computing and the way we operate in daily life.

Program: - Keynote: Sensor Network Overview - Hardware Design in Integration of Sensor Networks - Wireless Networking - Distributed Algorithms - System Design including Transceivers, Transmitters and Receivers - Applications of Sensor Networks

Fee (through April 30): \$50 IEEE Member; \$60 non-Member; \$25 student & unemployed

More information, and to register on-line: www.natea.org/NFIC

The Vision Show & Conference West [\[more\]](#)

- May 17-19
- San Jose Convention Center
- Exhibits, sessions, tutorials

The Vision Show West is North America's leading showcase of machine vision components, systems and solutions. Held in the heart of Silicon Valley, the Show is the perfect venue for suppliers and system integrators to meet with system designers and users to share information on new products and real-world solutions.

Half-day Tutorials (Monday, May 16): - How to Select Machine Vision Components - Lighting & Optics: The Basics - Integrating Machine Vision Systems: From Basic Concepts to Systems Integration - Advanced Lighting & Optics

Technical Sessions (Tues-Wed AM/PM, Thurs AM): - Machine Vision S/W for Part Identification - Non-Visible Imaging - Advances in Camera Technology - Advances in Vision Guidance - Advances in Smart Cameras and Sensors - Successful Machine Vision Applications - Selecting the Right Camera Interface - Gigabit Ethernet for Machine Vision - 3-D Machine Vision Technology

Get complete information: www.machinevisiononline.org.

11th AIAA/CEAS 2005 Aeroacoustics Conference 23-25 May [\[more\]](#)

An international forum for scientists and engineers from industry, government, and universities to exchange knowledge and results in the fields of generation, propagation, measurement, modeling, and control of vehicle noise, as well as the effect of noise on structures and individuals.

- Two-day short course (21-22 May), two keynote talks
- 30 sessions in 7 tracks
- At the Hyatt Regency Monterey

For more information: www.e-grid.net/conf/aero-aners.html

Co-located with the

AIAA/AAAF Aircraft Noise and Emissions Reduction Symposium

24-26 May [\[more\]](#)

A high-level, multidisciplinary technical symposium bringing together leading engineers, scientists, researchers, government and civil aviation officials, industry, and policy makers to discuss the topics and issues of aircraft noise and emissions reduction.

- invited talks in a single-session, panel format
- Half-day tutorial (23 May): an overview of air traffic topics
- At the Hyatt Regency Monterey

For more information: www.e-grid.net/conf/aero-aners.html

POFWorld, June 21-23, Santa Clara Convention Center

The only trade show for **Plastic Optical Fibers** that covers all aspects of the business - technology, markets and applications. [\[more\]](#)

- June 21 - Tutorials
- June 22-23 - Conference & Exhibits

The market for POF in data communications is finally starting to take off, driven by the automotive market: - Over 40 European car models have MOST Networks - The MOST automobile manufacturers installed 30 Million POF nodes in 2005 - Byteflight by BMW installed 11 million nodes in 2004 - Forecasts are for over 120 million nodes in autos by 2010 - 1394B and IDB-1394 Standards for autos have been approved - Component prices have plummeted - The MOST Standard is being adopted for consumer electronics

POFWorld 2005 focuses on applications of POF across a broad spectrum of industries, to show the breadth of POF applications, from very-low-speed data links to multi-gigabit distribution systems for structured wiring. This year POFWorld features **6 half-day tutorials**: - POF Markets and Applications - Designing with POF - Designing with POF for the Home - Automotive and Consumer Applications using the MOST Standard - Hands-on Connector Standards for Installers - Optical Sources for POF Links
Fees -- Early Registration (before May 31st):
- \$495 - Conference and Exhibition (both days)
- \$245 - Conference and Exhibition (one day)
- \$295 each - Tutorials
- 10% IEEE Member Discount
To register (and for exhibit and sponsorship information) please visit www.pofworld.com

SCV Chapter, Components, Packaging & Mfg Technology:

SOP vs SiP, vs SOC: Technology Directions for Systems

Implementation -- Emerging and Disruptive Packaging Technologies for the Next Decade [\[more\]](#)

7 Speakers from Georgia Tech's Packaging Research Center

- Date: Wednesday, May 4, 8 AM - 5 PM
- Location: Ramada Inn, Sunnyvale
- Cost: only \$95 for IEEE Members (thru April 25)
- Web: www.cpmt.org/scv/

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Correspondence to [Paul Wesling](mailto:Paul.Wesling), Council Communications Director