IEEE

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San Francisco Bay Area Council   **www.e-grid.net**

**Networking Opportunities at local Chapter Meetings, Tutorials, Workshops, PACE, Consultants Network
Conferences, Career Enhancement**   Please **Post and Circulate** within your Company/Lab   June 12, 2005

Serving the San Francisco, Oakland-East Bay, and Santa Clara Valley Sections of the IEEE
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below: **Advanced CMOS Symp,
Skills Development Courses** | **Annual Magnetic
Recording** conference | **Pkgng of MEMS/NEMS,
Manuf Technology** Confs | **Plastic Optical Fiber,
Optical Communications** Confs | **Subscribe**

Download the **June GRID.pdf** (900 kB) -- 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.   See our **QuickRef Calendar** for a more detailed listing of Chapter meetings.

Chapter Meetings for June, July:

SCV-SP - 6/13 | **Using Technology to Keep Other Countries Honest** - how signal processing technology has been used to provide the intelligence needed to protect nations ... [more]

SCV-EDS - 6/14 | **Carbon Nanotubes and Nanofibers as On-chip Interconnects** - electrical and thermal characterization for next-generation back-end IC processing ... [more]

all-GOLD - 6/15 | **GOLD Outreach Event 2005 (for Bay Area Grads of the Last Decade)** - presentations and discussions about actions for younger IEEE members in the Bay Area, at PES Meeting in SF ... [more]

SCV-EMB - 6/15 | **A Pendant-Geometry CT Scanner for Breast Cancer Detection: Design, Characterization and Initial Clinical Assessment** - ... [more]

SCV-IM - 6/15 | **Overview of Changes and Tackling Challenges of High Speed Digital Interfaces** - breakthroughs in semiconductor test equipment for ICs ... [more]

SCV-SSC - 6/16 | **Design Challenges for a UWB Radio** - a design implementation based on the MBOA approach ... [more]

OEB-Comm - 6/16 | **IEEE 802.11 Wireless LAN Architecture: New Protocols and New Deployment Strategies** - Task Group N: a new PHY with 100 Mbps throughput ... [more]

SCV-AP - 6/21 | **Ultrawideband Radar Methods and Techniques of Through-Barrier Imaging** - enabling real-time multi sensor imaging and monitoring objects through barriers ... [more]

SCV-Mag - 6/21 | **Disk drives -- A Hard Life, but Never Boring** - milestones and major trends in the industry ... [more]

SCV-PACE - 6/21 | **Engineering Licensure - Why is Engineering Licensure important?** - how to get your Engineering License ... [more]

SCV-Nano - 6/21 | **Nanotechnology at Chevron** - diamondoids and other activities in nanotechnology for the energy industry ... [more]

SF-Comm - 6/21 | **Technology Policy Roundtable** - get involved: bring your ideas for networking and interesting industry discussions ... [more]

SCV-EDS - 6/24 | **Mobility Enhancement for Advanced CMOS Devices** - half-day seminar with 6 speakers ... [more]

SCV-CE - 6/28 | **Embedding Small-Form-Factor Hard Disk Drives with CE-ATA** - 3 speakers on new disk drive interface standard for consumer electronics applications ... [more]

SCV-EMS - 6/29 | **Management Tools for Mining Knowledge Retention** - two talks on managing knowledge web services, and on knowledge-mining tools ... [more]

SCV-IM - 7/6 | **FemLab for Instrumentation and Measurement** - ... [more]

SCV-EDS - 7/12 | **Dielectric Scaling Challenges And Approaches In Floating Gate Non-Volatile Memories** - new approaches to meet reliability and performance requirements ... [more]

SCV-LEOS - 7/12 | **Making a Many-Colored Processing Engine: Signal Processing with Optical Filters** - ... [more]

SCV-CPMT - 7/21 | **Reliability of Lead-free Solder Joints: Intermetallic Reactions** - solder reaction, spalling, and Kirkendall void formation ... [more]

The Council Marketplace
Do you require someone with special skills -- DSP design, RF, reliability, project planning, communications, Windows drivers, patent consultations? ... Reference designs, PCB layout, thermal measurements, VHDL, ANSYS, Verilog? See our **Council Marketplace** page. Thank you for supporting our advertisers.

Electron Devices Chapter half-day Summer Symposium
Mobility Enhancement for Advanced CMOS Devices [more]
- Friday, June 24, at National Semiconductor, Sunnyvale
- 12:30 PM - 5:15 PM
- IEEE Member: $50; Nonmember: $60; Unemployed/Student: $20

   Mobility enhancement techniques were first introduced at the 90nm CMOS technology node and are expected to see widespread use at the 65nm node. The most common form of mobility enhancement in use today is locally strained silicon. The introduction of strained silicon has delayed the need to introduce high-K gate dielectrics and metal gates to achieve improved device performance. Further advances in mobility enhancement techniques are expected through the 45nm technology node.
   This symposium includes **6 presentations** from local distinguished speakers covering a variety of topics in the area of mobility enhancement for CMOS devices. Topics include optimization of local strain techniques, wafer level strain options, heteroepitaxial growth of Ge on Si, TCAD modeling of stress-enhanced mobility and stress effects on mobility in bulk and ultrathin-body MOSFETs.
   Download the **Symposium Flyer**; bring a team!

IEEE Magnetics Society
16th Annual Magnetic Recording Conference:
"Heads and Systems"   [more]
- August 15-17 - Held at Stanford University in Palo Alto
- Early-bird discount through July 18th
- Join leading experts in the magnetic recording field
   Main topics: Read heads, Write heads, Perpendicular recording heads and systems, Recording systems, Advanced coding/detection and Reliability/Mechanics.
   The oral sessions will be held at the Hewlett Teaching Center Auditorium, and Stone Pine Plaza will be used for Posters and Bierstube. There is free on-campus parking.
Download the **one-page flyer**
Get complete information at **tmrc.nanointernational.org**

Professional Skills Courses in the SF Bay Area
Improve your On-the-Job Skills
Choose from an array of skills-development classes, from Effective Training Associates and the Engineering Management and CPMT Chapters

Finance for Non-Finance Professionals [more]
- July 21 at Exar Corp, Fremont
This half-day course provides non-finance professionals with an understanding of basic financial terms and concepts to enable them to connect their activities and work products with the company's bottom line. The class focuses in three basic areas:
- The Income Statement and Balance Sheet
- Investment financials
- Trends in a company's quarterly report
See the website for more details

Other summer classes:
Speed Reading [more]
- June 14 at EMC Software, Pleasanton
- June 16 at Cypress Semiconductor, San Jose
Memory Power [more]
- June 17 at Cypress Semiconductor, San Jose
Collaborative Negotiating for Engineers [more]
- July 12 at EMC Software, Pleasanton

Need consulting or outsourcing services?
Check out the **GRID Marketplace**.

ASME Pacific Rim Technical Conference and Exhibition
Integration and Packaging of MEMS, NEMS, and Electronic Systems [more]
- San Francisco Westin St. Francis Hotel
- July 17-22 (Tutorials July 17, sessions/exhibits July 18-22)
   Being held for the first time in the SF Bay Area, the **InterPACK'05** Conference is an international forum for exchange of state-of-the-art knowledge in research, development,

July 11-12: **IEEE Int'l Electronics Manufacturing Technology (IEMT) Symposium**, SF Moscone Convention Center - in conjunction with SEMICON/West.
[more]
The IEEE forum for research, development, and applications of manufacturing technology for components, assemblies, and systems, with 9 invited talks by industry experts on "Manufacturing at the Wafer Level." Early registration discount through July 1st.

manufacturing, and application in the integration and packaging of MEMS, NEMS, and electronic systems. It covers the disciplines of microelectronics, photonics, microwave, MEMS and NEMS. Emerging knowledge, research results, new developments, and novel thermal, mechanical, electrical, and materials packaging product concepts are being presented.
Download the **one-page flyer**
Review the program at **www.asme.org/events/**

... held concurrently with the
ASME Summer Heat Transfer Conference [more]
  A forum for the exchange of state-of-the-art knowledge in research and application of heat, mass and momentum transfer in all fields of mechanical engineering, chemical engineering, nuclear engineering and related technologies.
Visit the website: **www.asmeconferences.org/HT05/**

IEMT Professional Development Courses [more]
- Half-day courses
- All on Monday, July 11, 2005
- At SF Marriott Hotel
Introduction to Nanotechnology: Tools, Processes and Applications
  Florin Ciontu and Bernard Courtois, TIMA Laboratories, Grenoble, France
Introduction to Flip Chip Technology: A User's Guide
  Dr. Dev Gupta, Chief Technical Officer, APSTL, Scottsdale, AZ
Design, Materials, Processes, and Reliability of Lead-Free Packaging and Assembly
  Dr. John Lau, Lead-Free Technical Program Manager, Agilent Technologies, Santa Clara
Advanced Packaging Technology Solutions for Today's Leading-Edge Microelectronics
  Ray Fillion, manager of Advanced Pkgng Programs, GE Global Research, New York
Failure Mode Analysis of Flip Chip in Package and Board Assemblies
  Dr. Daniel Baldwin, Georgia Institute of Technology

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

  This year, POFWord 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
  10% IEEE Member discount. To register (and for exhibit and sponsorship information) please visit **www.pofworld.com**

June 29-30: **Optical Communications Workshop**, Hyatt Regency San Francisco Airport - Burlingame [**more**]

Sponsored by DARPA and the Optical Industry Development Association (OIDA), this Workshop addresses critical challenges facing core and access networks over the next decade -- and applications and services driving the evolution of such networks. Experts from industry, academia, and government are invited to participate.
Download the **Advance Program and registration information**

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Technologists who are not members of IEEE are **encouraged to subscribe, at no cost, to this bi-monthly e-GRID Newsletter**, to find opportunities to "network" with the electrical engineering community and hear about Chapter events through our twice-monthly emails. This is a controlled list (ie, no spam) -- get more information. You provide your own subscribe/unsubscribe services and can join and leave this IEEE DList when desired. To update the list, send an email message to:
      listserv@listserv.ieee.org

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Or, to receive a text-only notification email, use the following in the BODY (not Subject) of the message:

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    subscribe e-GRID-text FirstName LastName

to UNSUBSCRIBE:
    unsubscribe e-GRID-text

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You may need to "whitelist" our email addresses in your spam filter to allow our Council news to reach you; I suggest whitelisting my email address (editor@e-grid.net), plus that of the DLIST: e-GRID@listserv.ieee.org.

Please invite other non-Member technologists in the Bay Area to join this list, to receive notification of Chapter meetings, tutorials, workshops, conferences, and other news within the San Francisco Bay Area Council, IEEE. See **http://www.e-grid.net/**

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