

# VLSI Circuits and Technology Committee

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# Overview

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- Operation and membership
- Workshop organized
- Trans. Electron Devices Special Issues
- Misc.

# Objectives

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- Initiate topical workshops of current interest (attached to existing conferences or start new ones)
- Special Issues for major publications (e.g. T-ED)
- Panel session topics for major conferences
- Special Sessions for major conferences

# Operation and Membership

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- Added 2 new members
  - Atsushi Hori (Matsushita) - Japan and Far East
  - Werner Weber (Seimens) - Europe
- Members from 1998
  - Jim Clemens (Lucent)
  - Jack Lau (Hong Kong University of Science and Technology)
  - John Lowell (Oracle)
  - Eric Mair (National Semiconductor)
  - Kevin O'Connor (Lucent)
  - Dennis Polla (University of Minnesota)
  - H.-S. Philip Wong (IBM) - Chair
- Limit membership to 3 years to promote new ideas
- All 1998 members will depart after 2000
- Operate entirely by email, meet prior to the IEDM

# Workshop Organization

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- RF Passive Components Workshop - **completed**
  - held before 1999 ISSCC, sponsored by EDS and Solid State Circuits Council
  - over 75 attended (filled to capacity)
  - highly successful
  - organized by committee member Jack Lau
- 300 mm Manufacturing Tutorial Workshop - **completed**
  - held in Oct. 1999 with the IEEE Semiconductor Manufacturing Conference (see <http://www.issm.com/workshop%20agenda.html>)
  - 200 attended, standing-room only, very successful
  - co-organized by committee member John Lowell
- Emerging Memory and Storage Technologies
  - being conceived - looking for organizers (W. Weber, P. Wong)
  - no concrete plans so far

# Trans. Electron Devices Special Issues

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- Computational Electronics: New Challenges and Directions
  - Call for Papers appeared in June 99 T-ED
    - ↓ deadline for paper submission: November 1999
    - ↓ publication date: October, 2000
  - Guest Editors: Mark Lundstrom (Purdue), Bob Dutton (Stanford), Karl Hess (Illinois), Dave Ferry (U. Arizona)
  - proposal from Philip Wong

# Trans. Electron Devices Special Issues

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## ■ Interconnect Systems

- proposed to T-ED editor-in-chief
- this committee supplied list of potential guest editors with biographies
- proposal on hold since T-ED special issue is booked through 2001
- proposal from Atsushi Hori and Eric Mair

## ■ Proposed topics:

- Low resistance and low-k materials and their impact on LSI performance
- Design strategy of interconnect such as hierarchal structure and novel structure
- Novel simulation method to predict performance such as delay time and crosstalk
- Fabrication and technology integration

# Miscellaneous

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- Book proposal review for the IEEE Press
- Article on Committee activities appeared in the October issue of the Electron Devices Society Newsletter



# Looking Ahead

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- Look for organizers of the Emerging Memory and Storage Technologies Workshop
- Follow up on T-ED special issue on Interconnect Systems
- Look for new members for 2000, prepare for transition to entirely new committee in 2001
- Generate more ideas for execution

# Attachments

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- Newsletter article
- T-ED call for paper