

**Meeting Minutes**  
**IEEE EDS VLSI Technology and Circuits Committee**  
**December 7, 2003**

**A. Attendees:** Joe Brewer (U. Florida), Jamal Deen (McMaster U.), Jim Hutchby (SRC), Jason Jenq (UMC), Lalita Manchanda (SRC/Agere), Huiling Shang (IBM), S. C. Sun (Chartered Semiconductor), Albert Wang (Illinois Inst. of Tech.), Jeff Welser (IBM), Reinout Woltjer (Philips), Xing Zhou (Nanyang Tech U.)

**B. Agenda:**

- ◆ Annual report (Jim Hutchby)
- ◆ Outstanding Action Items
- ◆ Ideas for future activities
  - Specific ideas
  - Responsible committee member
- ◆ Identify new candidate members for the committee
- ◆ Elect New Chair (Bin Zhao)

**C. 2003 Accomplishments**

#	Accomplishments	Next Steps and Information
1.	Added 3 new members to the committee <ul style="list-style-type: none"> <li>◆ <b>Prof. Yanhe Li</b>, Tsinghua University Peoples Republic of China</li> <li>◆ <b>Prof. Joe Brewer</b> University of Florida U.S.A.</li> <li>◆ <b>Prof. Jamel Deen</b> McMaster University Canada</li> </ul>	Provide updated member list to IEEE EDS for their approval, information and use. Contact people are: <ul style="list-style-type: none"> <li>◆ Bill Vandervort w.vandervort@ieee.org</li> <li>◆ Stacey Waters s.waters@ieee.org</li> </ul>
2.	Sponsored two workshops <ul style="list-style-type: none"> <li>◆ Compact Modeling – Xing Zhou</li> <li>◆ International Workshop for Future Information Processing Technologies – Lalita Manchanda</li> </ul>	February 2003  Collaborated with Japanese colleagues to conduct workshop in Japan in November 2003
3.	2003 ITRS Work <ul style="list-style-type: none"> <li>◆ Chaired the ITRS Working Group on Emerging Research Devices and produced the new 2003 ITRS Section on ERD – Jim Hutchby</li> <li>◆ Organized the new ITRS Working Group on “RF and AMS Technologies for Wireless Communications”. This WG produced a substantial new Section for the 2003 ITRS – Jim Hutchby and Bin Zhao</li> </ul>	December 2003  December 2003
4.	Proposal for Special Issue to the EDS – TED <ul style="list-style-type: none"> <li>◆ Submitted proposal for a EDS TED Special Issue on “Integrated Circuits Technologies for RF Circuit Applications” – Albert Wang, S. C. Sun, Bin Zhao and Jim Hutchby</li> </ul>	

#### D. Key Decisions Made:

#	Decisions Made	Next Steps
1.	Add 3 new members to the committee beginning in 2004 <ul style="list-style-type: none"> <li>◆ <b>Prof. Yanhe Li</b>, Tsinghua University Peoples Republic of China</li> <li>◆ <b>Prof. Joe Brewer</b> University of Florida U.S.A.</li> <li>◆ <b>Prof. Jamal Deen</b> McMaster University Canada</li> </ul>	Provide updated member list to IEEE EDS for their approval, information and use. Contact people are: <ul style="list-style-type: none"> <li>◆ Bill Vandervort w.vandervort@ieee.org</li> <li>◆ Stacey Waters s.waters@ieee.org</li> </ul>
2.	Sponsor three ITRS ERD Technology Meetings on Emerging Research Devices to engage and interact with the relevant research communities	◆ Jim Hutchby
3.	Submit a proposal to the EDS TED for: <ul style="list-style-type: none"> <li>◆ Non-classical CMOS devices and technologies: Extending the Roadmap Part 1 - New Materials and Process Technologies</li> <li>◆ Advanced non-volatile memory technologies (FeRAM, MRAM, Phase Change Memory, Flash, etc.) for Embedded Memories</li> <li>◆ Organic Electronics – Explore possible Proposal</li> <li>◆ Integration of Heterogeneous Technologies – Explore possibility (Technologies and Systems)</li> </ul>	<ul style="list-style-type: none"> <li>◆ Huiling Shang</li> <li>◆ Joe Brewer</li> <li>◆ Philips Co-Editor</li> <li>◆ Lalita Manchanda (Rajinda Khosla and Usha Varshney of NSF)</li> <li>◆ Jamal Deen</li> <li>◆ Kwyro Lee</li> <li>◆ Reinout Woltjer</li> <li>◆ Dan Radick (DARPA?)</li> </ul>
4.	Remove the following topics as possible candidates for TED Special Issues: <ul style="list-style-type: none"> <li>◆ Precise Electrical Measurement Techniques - Nanometer technologies</li> <li>◆ Examination of Silicon/Dielectric Interface</li> </ul>	
5.	Elected Bin Zhao as the new Chair for 2004 of the Committee	

#### D. Action (AI) Items:

#	Action Item Description	Owner
1.	Contact the following individuals to explore their joining the VLSI Technology and Circuits Committee: <ul style="list-style-type: none"> <li>◆ Roland Thewes (Infineon)</li> <li>◆ Sanford Chu (Chartered Semiconductor)</li> </ul>	<ul style="list-style-type: none"> <li>◆ Reinout Woltjer</li> <li>◆ S. C. Sun</li> </ul>

2.	<p>Prepare Proposal for Special Issues of the TED: Submit a proposal to the EDS TED for:</p> <ul style="list-style-type: none"> <li>◆ Non-classical CMOS devices and technologies: Extending the Roadmap Part 1 - New Materials and Process Technologies</li> <li>◆ Advanced non-volatile memory technologies (FeRAM, MRAM, Phase Change Memory, Flash, etc.) for Embedded Memories</li> <li>◆ Organic Electronics – Explore possible Proposal</li> <li>◆ Integration of Heterogeneous Technologies – Explore possibility (Technologies and Systems)</li> </ul>	<ul style="list-style-type: none"> <li>◆ Huiling Shang and others</li> <li>◆ Joe Brewer</li> <li>◆ Philips Co-Editor</li> <li>◆ Lalita Manchanda (Rajinda Khosla and Usha Varshney of NSF)</li> <li>◆ Jamal Deen</li> <li>◆ Kwiro Lee</li> <li>◆ Reinout Woltjer</li> <li>◆ Dan Radick (DARPA?)</li> </ul>
3.	Present the review of the VLSI Tech & Ckts Committee to the EDS	Jim Hutchby
4.	Contact the IEEE EDS with the names of the new Committee Members for EDS Approval and Invitation	Bin Zhao