

WORKSHOP #3

Sunday, May 1, 2005, 1:00 - 5:00 PM

Tuition fee will be covered by CMC
(includes both notes and refreshments during coffee break)

The National Microelectronics and Photonics Testing Collaboratory: Remote Access to Advanced Test Labs

Bob Stevenson, Jeetendar Narsinghani, and James Dietrich

Contents:

1. Introduction to the NMPTC
2. Four Advanced Test Labs: An Overview
3. The Power of Collaboration in Multi-Disciplinary Research
4. The Collaboratory Live Engineering Framework (CLEF)
5. Online Support through the Technology Gateway
6. Accessing the Test Labs by Remote Control
7. Perform Standard Tests by Remote Access –
Examples and Practice
8. Storing Data Locally for Post-Process Analysis
9. Questions, Answers and Discussion
10. Concluding Remarks

Summary

The National Microelectronics and Photonics Testing Collaboratory (NMPTC), proudly led by CMC, enables on-site and remote access to advanced test laboratories through the Internet, bringing world-class microelectronics and photonics test tools and techniques online for researchers at 22 Canadian universities. It provides national access to the best available resources in the world for testing and validation of high-performance microchip designs at the levels of speed and complexity that the technology makes possible. Four specialized test laboratories host the test equipment:

The Advanced Photonics Lab at Queen's University

The Advanced Mixed-Signal Lab at McGill University

The Advanced Digital Systems Lab at the University of Toronto

The Advanced RF Lab at the University of Manitoba

The objectives of the NMPTC are to:

- Create opportunities for leading-edge research and collaboration that may otherwise not be possible.
- To provide Canadian researchers with a competitive edge in the global economy.
- Help to develop highly qualified people with expertise in microsystems that supports economic and social benefit.
- Contribute to the development of new products and services for many areas of microsystems such as health care, the environment, aerospace, and the information and communications technologies sector.

This workshop introduces the NMPTC, delivers insight into the highly specialized test and validation capabilities of each of the advanced labs, outlines the methods of on-site and remote access and then guides the individual through a “hands on” remote testing tutorial as delivered via the Technology Gateway.

Ample time will be available for a question and answer period and focused discussion.

Key words: *Testing Collaboratory; Millimetre-wave; RF; Photonics; Optoelectronics; mixed-signal; Digital testing.*

Links:

CMC Microsystems Website: www.cmc.ca

The Technology Gateway: <https://gateway.cmc.ca:2804> (CMC userid required)

NMPTC Overview: www.cmc.ca/news/releases/cmc_cartledge_test_collaboratory.pdf

BIOGRAPHICAL SKETCHES

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