



Microelectronic Engineering

2006 Fall Kick-off

Santosh K. Kurinec

**Department Head
Microelectronic Engineering
Rochester Institute of Technology**

September 21, 2006



Agenda

- ❖ Welcome
- ❖ Brief Overview
- ❖ Keynote Address:
- ❖ Western NY IEEE EDS Distinguished Speaker Presentation

Nanotechnology Opportunities in the Silicon CMOS World

Tak H. Ning

IBM Thomas J. Watson Research Center
Yorktown Heights, NY



Welcome

- ❖ Freshmen: Class of 2011
- ❖ Graduate Students
- ❖ Online Students
- ❖ Students returning from Co-ops
- ❖ All students, faculty and staff
- ❖ SMFL Staff



Academic Programs

- ❖ BS (Microelectronic Engineering)
- ❖ MS (Microelectronic Engineering)
- ❖ ME (Microelectronics Manufacturing Eng)
- ❖ BS (MicroE)-MS (Materials Science and Engineering)
- ❖ Minor in Semiconductor Processing



Industrial Affiliates

ROHM HAAS Electronic Materials
Microelectronic Technologies



National Semiconductor
The Sight & Sound of Information

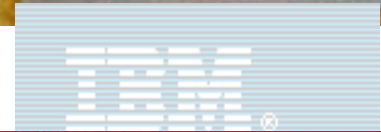


Industrial Affiliates		
Advanced Micro Devices	Intersil Corporation	Motorola, Inc.
Analog Devices, Inc.	Hughes Electronics Corp.	National Semiconductor
Air Products	Integrated Solutions	Conexant
Eastman Kodak Company	Intel Corporation	Texas Instruments, Inc.
ETEC	IBM Corporation	Xerox Corporation
NEC Electronics Roseville	Canon U.S.A., Inc.	Nikon Precision Inc.
Photronics	Micron Technology, Inc.	ASML

NEC

Canon

HARRIS



SILVACO EDA Software Connecting TCAD to Tapeout



electronics and communications



SYNOPSYS

TEXAS INSTRUMENTS



Department Vision

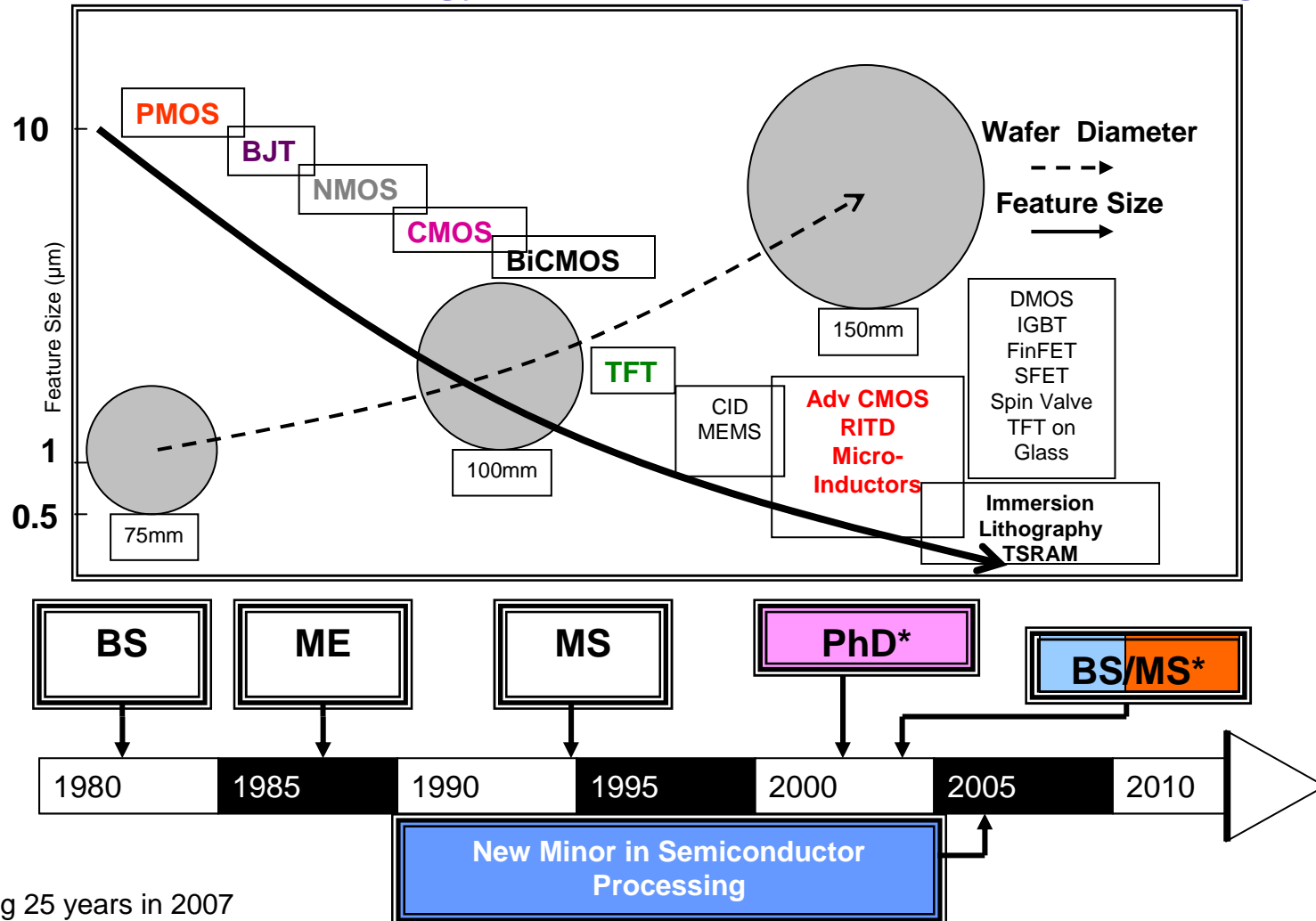
- ▷ **Graduate Top of the Line Engineers**
 - For Semiconductor Industry
 - To go in for Higher Education in Engineering/Science

- ▷ **Provide Catalyst for Research/Development in Emerging Technologies**
 - Advanced CMOS
 - Electronic, Optical Devices, Photonic
 - Nanotechnology
 - MEMs, Microsystems



25 Years of RIT Microelectronic Engineering

Curricula and technology Developments at Microelectronic Engineering



Celebrating 25 years in 2007



*COE-COS Joint Program

Top 12 Employers of MicroE Grads

	2005 (cumulative)
Motorola	110
Intel	76
IBM	56
National Semiconductors	38
AMD	35
Micron	25
Infineon	20
Texas Instruments	16
Cypress Semiconductor	15
Analog Devices	12
Eastman Kodak	12
Xerox	8
HP	7
Graduate Schools	60



Research Areas

- ❖ Semiconductor Process Engineering
- ❖ Nanolithography
- ❖ Device Engineering
- ❖ Microelectronic Circuits
- ❖ Quantum Devices
- ❖ MEMS
- ❖ Sensors
- ❖ Microsystems
- ❖ Advanced Materials



Celebrating 25 Years of Microelectronic Engineering

May 14, 2007



All Alumni, Affiliates, Collaborators, Friends Invited

