



IRWIN AND JOAN JACOBS  
CENTER FOR COMMUNICATION AND  
INFORMATION TECHNOLOGIES (CCIT)

## **Multinationals in Israel High-Tech R&D and Manufacturing**



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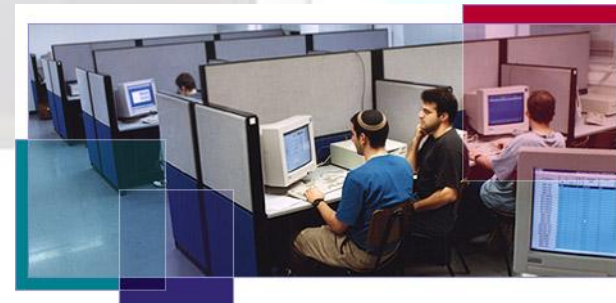


## Overview of the EE Department



## Vital Statistics

- ❖ Faculty members: 45
- ❖ Technical & Administrative Staff: 78
- ❖ Students: > 2000
  - Undergraduate students: > 1550
    - 260 in EE-Physics Program (dual degree)
    - 320 in Computer & Software Eng. + EE-CS Tracks
  - Graduate students: 362
    - 74 PhD (54 full-time)
    - 288 MSc (81 full-time)
- ❖ Research centers: 10
  - Laboratories: 19



## Activity Areas In Research & Education

### • Electronics

- Electronic devices
- MEMS
- OptoElectronics
- Electrooptics
- Electrodynamics
- Organic Electronics
- Microelectronics
- Nanoelectronics
- Advanced Circuits
- Solar cells

### • Computer Engineering

- Networking
- Parallel Systems
- Distributed Systems
- VLSI
- Computer Vision
- Software
- Multi-core
- Network on Chip
- Cloud computing

### • Comm. & Information

- Wireless, satellite
- Information Theory
- Signal Processing
- Wave Propagation
- Control & Robotics
- Machine Learning
- Biological Nets

# Relationship with High-tech Industry

## A Multi-faceted Relationship

- Student Projects
- Research funding
  - Direct funding
  - Government programs (Consortia)
- Infrastructure support
- Teaching and joint graduate-student supervision
- Research collaboration
- **Industrial Liaison Program**



# CCIT – Center for Communications and Information Technologies

## Industrial Liaison Program



*Dr. Yael Ilan  
Manager, ILP*

## **Industrial Liaison Program**

### **Mission**

- Induce **cooperation** and information flow between the academic research staff and the high-tech industry.
- Provide **technological depth** to Industry and produce a competitive edge in global markets.
- Supports the **mutual needs** of industry and academia in development and education.
- Provides mechanisms for **technical exchange**, research collaboration and access to students.
- Provides us some extra funding.

## Industrial Liaison Program

### Activities

- Industrial **Advisory Committee**.
- Workshops, seminars and special lectures.
- Enhancement of Managerial Education
- Special Projects



Electronics  
Computers  
Electronics  
Communications  
Computers  
Communications

# Electrical Engineering Department



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## Industrial Liaison Program Members



Check Point  
SOFTWARE TECHNOLOGIES LTD.

# Multinationals in Israel

## Scientific Potential

- 7 universities and research institutes
- 800 research projects
- 113,000 students in universities and scientific institutes
- 18,000 Scientific studies
- 8,000 Medical and Para Medic studies
- High level Israeli scientists in the U.S. are looking for come back to Israel

# *Electrical Engineering Department*

## Human Resource

- **Highly motivated**
- **Entrepreneurial culture**
- **Informal communication**
- **Strong team work**
- **Innovative & Creative + resourceful!**
- **Multi disciplinary**
- **Loyalty & dedication**

# *Electrical Engineering Department* **Highlights in Israeli Innovation**

- **Pentium and Centrino (Intel)**
- **Call Center Logging (Nice/Verint)**
- **Voice Mail (Comverse)**
- **PC Board Inspection (Orbotech)**
- **Two-bit per cell Flash Memory (Saifun)**
- **Disk on Key (M-systems)**
- **Firewall (Checkpoint)**
- **Virtual Colonoscopy (Given Imaging)**

## **Multinationals in Israel: History and Flavors**

- First major ones in the mid 1970s
- Reasons/purposes:
  - Retain a key Israeli contributor who chose to return home.
  - Gain access to local R&D talent.
  - Benefit from “Israeli thinking”
  - Following acquisitions of an Israeli company.
  - Less expensive workforce.
  - Combinations of the above
- Avenues:
  - Start small (usually research)
  - Acquire and take it on from there





**Haifa: all in one...**





## Local / Global Perspective: Email Address

### Mission

- Some companies: [name@original\\_company.com](#) or .co.il
- Intel, Microsoft, others: [name@multinational.com](#)
- IBM: [name@il.ibm.com](#)



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# Thank you!

