

Modern Computer Integrated Manufacturing (Ramot)

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The Computer Integrated Manufacturing (CIM) Laboratory

serves as a main teaching and research Lab for the Department of Industrial Engineering in the Iby and Aladar Fleischman Faculty of Engineering at Tel Aviv University.

The Lab offers introductory and advanced laboratories in Modern Computer Integrated Manufacturing.

Practical laboratories & projects cover the following concepts & technologies:

- Robotics – including industrial and mobile robots
- Computer Vision and Sensors
- Computer Aided Design (CAD)
- Computer Aided Manufacturing (CAM)
- Computer Aided Process Planning (CAPP)
- Computer Numerically Controlled (CNC) Turning and Milling
- Automated Storage and Retrieval System (ASRS)
- Programmable Logic Controllers (PLC)
- Automated Assembly and Supervisory Control
- Smart Cards and RFID
- Human Machine Interface (HMI)
- Decision Support Systems and advanced algorithms
- CIM in the Internet

Projects

More than 300 projects have been performed by graduate and senior under graduate students. Some of these projects are described in the lab website:

<http://www.eng.tau.ac.il/~iradcim/index.php/>

Robolego: Design of an "artificial bug" that controls the robo-bug movement manually by hand signals

Light chaser: A chase/ Chess game between two robo-legos

Research

Quantum-Controlled Mobile Robots

Design and construction of quantum-controlled mobile robot, based on quantum logic

Internet-based Instruction and Control of Robotic Systems

An innovative system for remotely activating robotic systems, now expanding to include Internet control of small mobile robots. This will enable potential

Users (students in rural areas, pupils at grade schools) to plan and control robotic systems in different environments. This is done by developing and analyzing designated interfaces and user-friendly learning aids such as advanced 3-D simulation tools, image transmission interfaces, Internet-based user interfaces and other similar sophisticated software tools.

Contact Person

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Link to laboratory web site: <http://www.eng.tau.ac.il/~iradcim/index.php/>

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