

MICROSYSTEMS TECHNOLOGY LABORATORIES

The Microsystems Technology Laboratories (MTL) (<http://www-mtl.mit.edu>) provide modern fabrication facilities to enable research and education in nano- and micro-technologies.

The MTL facilities consist of fully equipped cleanroom laboratories and associated design, simulation, testing, and characterization infrastructure, as well as an extensive computational network, supporting wide array of design and layout tools. These facilities are available to the entire MIT community as well as to researchers from other universities or government laboratories. MTL labs are also available for limited industrial participation.

Research at MTL is conducted in four separate spaces: the Integrated Circuits Laboratory (ICL), the Technology Research Laboratory (TRL), the Exploratory Materials Laboratory (EML), and the Electron Beam Lithography Laboratory (EBL). ICL has been designed and equipped to serve as a highly advanced integrated circuit, device, structures, and process research facility. TRL supports the development of new process technologies by providing facilities for the fabrication of novel micro- and nano-structures. EML is a highly flexible lab with all basic fabrication capabilities and almost no restrictions on materials. The EBL provides advanced electron beam lithography using a high-resolution, fast through-put Elionix F-125 e-beam writer; it is jointly managed by MTL and the Research Laboratory of Electronics.

More than 130 MIT faculty and senior research staff, 550 graduate students and postdoctoral associates, and 14 undergraduates are involved in shared-facilities activities at MTL. Approximately 38 PhD and 20 SM and MEng degrees whose primary area of research is strongly coupled to MTL facilities are awarded each academic year in more than 10 academic departments.

For information regarding MTL's technical operations and capabilities, contact Dr. Vicky Diadiuk (diadiuk@mit.edu), associate director for operations, 617-253-0731. For information regarding MTL programs and other general information, contact Sherene Aram (smaram@mit.edu), administrative officer, 617-253-0151.