

MIT Open Access Articles

*The Challenges and Rewards of Industry/
University Collaborative Research*

The MIT Faculty has made this article openly available. **Please share** how this access benefits you. Your story matters.

Citation: Palacios, T. "The challenges and rewards of Industry/University collaborative research." Microwave Symposium Digest, 2009. MTT '09. IEEE MTT-S International. 2009. 239-240. © 2009 IEEE.

As Published: <http://dx.doi.org/10.1109/MWSYM.2009.5165677>

Publisher: Institute of Electrical and Electronics Engineers

Persistent URL: <http://hdl.handle.net/1721.1/59984>

Version: Final published version: final published article, as it appeared in a journal, conference proceedings, or other formally published context

Terms of Use: Article is made available in accordance with the publisher's policy and may be subject to US copyright law. Please refer to the publisher's site for terms of use.



The Challenges and Rewards of Industry/University Collaborative Research

Tomás Palacios

Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology
77 Massachusetts Ave., Bldg. 39-567B, Cambridge, MA 02139, USA

Abstract — This talk describes some successful Industry/University collaboration models currently being used at the Massachusetts Institute of Technology.

Index Terms — Collaborative Research, Industry, University.

benefit. It is a key resource to redirect member companies to relevant faculty and research groups working in the area of interest for the company.

I. INTRODUCTION

Collaborative research between university groups and industry is becoming a necessity for both companies and universities. On one hand, companies face the challenge of how to keep track of the fast pace research of modern day semiconductor technology at the same time that R&D groups are too expensive to maintain in most companies. On the other hand, university research groups need to team up with companies to be able to apply for large government projects and, in many cases, have access to state-of-the-art resources that are unavailable at the university level.

How to foster collaborative research is a complex problem that has to be tackled at multiple levels. In this talk we will describe some of the approaches followed at the Massachusetts Institute of Technology (MIT) to assure a productive collaboration with industrial partners. Three different examples will be analyzed in this talk: the MIT Industrial Liaison Program, the Microsystems Industrial Group (MIG) of the Microsystems Technology Laboratories (MTL) and direct faculty/industry collaboration.

II. THE MIT INDUSTRIAL LIAISON PROGRAM

The Office of Corporate Relations' Industrial Liaison Program (ILP) promotes MIT/Industry collaboration, encouraging the flow of knowledge and resources between the Institute and innovation-driven companies for their mutual

III. THE MTL MICROSYSTEMS INDUSTRIAL GROUP

The Microsystems Technology Laboratories is an interdepartmental laboratory that supports Microsystems research at the Massachusetts Institute of Technology. It encompasses work in circuits and systems, MEMS, electronic and photonic devices, and molecular and nanotechnology. The Microsystems Industrial Group (MIG) is an association of corporate members of the MIT MTL. Founded during the early eighties, the MIG played a prominent role in the creation of the MTL, and in providing critical insight into the programmatic directions of the MTL. Today, MIG member companies provide significant support for MTL infrastructure and programs and continue in their provision of crucial feedback regarding the programs and overall direction of the MTL.

IV. DIRECT FACULTY/INDUSTRY COLLABORATIONS

Direct faculty/industry programs are currently the most common form of collaboration and a very important resource for innovation and research development. However, the last few years have witnessed an increasing difficulty for establishing these collaborations. Both universities and companies impose increasingly stricter regulations on intellectual property, non-disclosure agreements, publications and research personnel which are seriously jeopardizing these important collaborations. In this talk, we will review some of these challenges as well as proposed solutions.

