

I. GENERAL GUIDELINES

1. Introduction

The MICRO program was established in 1981 by the State of California. Its purpose is to support "innovative research in microelectronics technology, its applications in computer and information sciences, and its necessary antecedents in other physical science disciplines." The objective is to help the California electronics and computer industries maintain their leadership by expanding relevant research and graduate student training and education at the University of California (UC). Under the research part of the program, UC faculty may submit proposals for cost-sharing by the University of research projects that will be at the cutting edge of technology, which may lead to future products. *Short-term product development and basic research unrelated to applications in the microelectronics and computer industries are ineligible for MICRO awards.* The MICRO program is meant to seed an active collaboration between UC researchers and their industrial counterparts. State and industry jointly fund the research projects. Each faculty member is responsible for obtaining a prior commitment from an industrial company to support part of the cost of the project. The State, through UC, makes a cash contribution of its own, and the University, in addition, waives all overhead on both the industrial and the State cash contribution. The research is carried out at UC by faculty and their students. Graduate student education is supported both through research assistantships funded by the projects and through fellowships granted directly to students in the fields covered by MICRO.

An important objective of MICRO is to train graduate students in microelectronics and computer science who, by being involved in the research, will upon graduation help to transfer the research results to California industry, become leaders in established companies, and become the entrepreneurs who form new companies that stimulate the economy of the State.

The MICRO program is administered by an *Executive Committee* comprised of one UC faculty member from each of the participating UC campuses, appointed by the President of the University for a three year term, and collectively representing the various technical areas of the MICRO program. The Executive Committee is responsible for all technical matters, for the implementation of MICRO policies as set by the MICRO Policy Board (see below), for the distribution of State funds under those policies, and for making policy recommendations to the Policy Board. The Program Coordinator, resides at the UC Office of Research, and is responsible for the day-to-day operations of the MICRO . The Coordinator also staffs the Executive Committee.

The Executive Committee reports to the *MICRO Policy Board*, which consists of three representatives each from UC, Industry, and State government, also appointed by the President of the University. The Policy Board sets and interprets MICRO policies. It has interpreted the intent of the Legislature by specifying that cooperating companies must have relevant

manufacturing and/or research facilities in California or that sponsorship by cooperating companies must benefit California industry. The Policy Board has also specified that the program stimulate and cooperate with small businesses in the fields covered by MICRO.

All MICRO projects are funded for a one or two year period, and the proposals and budgets should reflect a 12-month or a 24-month period. Unless an extension is approved in writing by November 15, 2008 by the UC Office of Research, all funds must be expended by the project end date of either December 31, 2008 or December 31, 2009, depending on whether the project spans one or two years.

2. AREAS OF RESEARCH

It is anticipated that the research can be categorized into one of the following areas. Closely related areas may also qualify.

Coding and Modulation	Circuit Design Simulation	Software
Electronic Devices	Signal Processing	Computer Science
Optoelectronics	CAD/CAM	Information Technology
Materials and Processing	Networking	Hardware/Software Collaboration
Micro Mechanical Devices	Computer Systems & Architecture	Internet Computing

Relevance to industrial activities in microelectronics, computer science, and their applications is the primary criterion for eligibility. While applications of microelectronics and computer science may have a substantial impact in fields such as medicine, biology, mechanical engineering, space science, etc., they are not directly relevant to the goals of MICRO. The program is NOT meant to support short-term product development.

3. MECHANISMS FOR UNIVERSITY INDUSTRY COOPERATION

- A. PRINCIPAL INVESTIGATORS:** MICRO research proposals must originate from UC Faculty Senate members as Principal Investigators. The Principal Investigators are responsible for preparing their proposals, arranging in advance for industrial support, procuring the Letters of Intent (see below), and informing the cooperating companies of MICRO policies, particularly those concerning binding letters, deliverables, termination, and intellectual property matters.

Principal Investigators who have been funded through the MICRO Program in previous years must be current in their Project Report obligations to qualify for funding consideration. Further, Principal Investigators are requested to participate in the review process of their peers' MICRO proposals if requested. Failure to comply may result in their elimination from the award process. Reinstatement in the program will require Executive Committee approval.

- B. QUALIFYING COMPANIES:** A cooperating industrial company must have a relevant research or manufacturing division in California, or the sponsorship of the research by the cooperating company must demonstrably benefit California industry. Foreign companies must have a California subsidiary to qualify, the company's Letter of Intent must originate from the California subsidiary and the technical liaison named therein must be located at that facility.
- C. COMPANY TECHNICAL AND FINANCIAL LIAISONS:** The cooperating company must designate a technical and a financial representative to act as liaisons between the company and UC researchers.
- D. INDUSTRIAL CONTRIBUTION:** The total industrial contribution from all sponsors participating on a MICRO project shall include a minimum cash component of \$10,000. Non-cash components are allowed as outlined in Sections I.3.F, I.3.G, and I.3.H below but only in combination with the minimum cash component. The industrial contribution may be in the form of a gift or grant.

A gift implies no contractual or intellectual property obligations to the industrial sponsor(s), and are subject to UC gift polices (see *Contract and Grant Manual*, Chapters 9-200 thru 9-600) and conformance with campus-based procedures. PI must request an extension from the campus Contracts and Grants office to expend industry funds beyond two years after the project initial end date of December 31, 2008. Upon approval of the extension, the outstanding funds must be transferred to a gift account which is subject to the campus gift tax. Unexpended industry funds may not be rolled over into a successor project account.

A grant may be in the form of a contract, but for a MICRO contract no deliverables shall be required by the sponsoring company other than a project report, nor may the company terminate the contract prior to project end date. Unexpended industry grants beyond two years from the project end date are subject to the same extension and account transfer rules as those for gifts, except the extension requests needs to have industry sponsor's approval prior to submission to the campus contracts and grants office.

- E. UNIVERSITY CONTRIBUTION:** The University's contribution is two-fold: (a) the University provides supplemental State funds based on the merits of the proposal, the amount of the industrial contribution, and the amount of funds available (details are given in Section 11.3 *Budget Guidelines*) and (b) the University waives overhead on industry contributions and State funds.
- F. NON-CASH CONTRIBUTIONS - EQUIPMENT:** In combination with a minimum \$10,000 cash contribution, the MICRO Executive Committee will also consider industrial contributions in the form of state-of-the-art equipment that is integral and essential to the proposed research, provided the equipment is new, "off-the-shelf," and is part of or closely related to the

sponsor's *current* product line. To qualify, the equipment and its role in the proposed research must be fully described and justified in the proposal. Cash provides more flexibility to carry out the research and is ultimately more valuable than non-cash contributions. The latter are valued as a certain percentage of the lowest cost at maximum academic discounts. (Details are given in Section II.3.8 *Cash Equivalents for Non-Cash Contributions*.)

- G. NON-CASH CONTRIBUTIONS - SOFTWARE:** Non-cash contributions in the form of software will be treated either as a service or as equipment, depending on the term of the software license and the functionality period of the software. One-year software licenses that expire at the end of the MICRO project are treated as a service, which normally does not qualify for a cash equivalent (see below). To qualify, a software license and the functionality of the software must extend *at least* two years beyond the end of the MICRO project. (For details see Part II (*Software*) of the questionnaire "Non-Cash Contributions" attached to this document). As with all non-cash contributions, the role of the contributed software in the proposed research must be fully described and justified in the proposal, including justification for the number of copies of donated software. For software to qualify, the project must also have a minimum \$10,000 cash contribution.
- H. NON-CASH CONTRIBUTIONS - SMALL BUSINESSES:** Other types of industrial contributions (e.g., facilities usage, samples, services, etc.) normally do not qualify for having a cash equivalent. Such contributions may be considered only if they are made by small businesses (50 employees or less), and it is clear that they are essential to the project, uniquely available from the cooperating company, and are properly valued. The usage of such services must be carefully justified in the proposal.
- I. LETTERS OF INTENT AND COMMITMENT:** Each proposal must include documentation of support from the cooperating companies, signed by authorized company representatives. These letters should declare the intent or commitment of the company to provide support specifically for the approved project, and that the funds are for the 2007-08 MICRO program and do not represent funds that would have come to the University under other programs or for other purposes. For example, funds awarded to UC for membership in an industrial affiliate or liaison program for research centers cannot be used as industrial contributions for MICRO projects. MICRO's new online proposal system allows industrial sponsors to submit authorization directly online.

- J. BINDING LETTERS AND DELIVERY OF INDUSTRIAL CONTRIBUTION:** Upon notification of project approval by the MICRO Executive Committee, the company will be required either to deliver the support promised in the Letter of Intent to the PI's Contract and Grants Office, or to submit an irrevocable Binding Letter of Delivery by an authorized individual before January 15, 2008. The binding letter must acknowledge receipt and acceptance of the Guidelines for MICRO projects, and must indicate the delivery schedule for the industrial contributions. The delivery must be completed by April 15, 2008.

Industrial funds and/or non-cash contributions delivered *before* the Executive Committee has approved a MICRO project will count as contributions to that project *only* if: (a) the funds/equipment were received by the University after December 1, 2006; (b) the delivery is accompanied by a cover letter of commitment stating explicitly that the funds/equipment are for a forthcoming or pending MICRO project, including the name of the PI, the subject matter of the project, and a designated technical liaison, and (c) the funds are held unspent until after approval of the project by the Executive Committee, and for non-cash contributions, the equipment will be held by the PI who takes responsibility until the project is approved. The cover letter should be in lieu of the Letter of Intent. If a purchase order or contractual agreement will be issued by the company to make its contribution, such award documents should accompany the binding letter for review and acceptance on behalf of UC.

- K. UNIVERSITY RELEASE OF FUNDS:** Following the approval of a project, the University will release 20 percent of its anticipated cash contribution. The remaining 80 percent will be released only upon receipt by the campus Contracts and Grants Office of either the full contribution, or an irrevocable binding letter, or other appropriate irrevocable award documents from the industrial sponsor. An annual Budget Report will be required.

The total University cash contribution allocated to a project is based on the assumption that the amount of industrial contribution actually delivered is equal to that promised in the Letter of Intent. If the amount actually delivered is less than the amount initially promised, the University cash contribution will be scaled back proportionately and recalculated. Any surplus University funds resulting from the recalculation must be returned to the MICRO program.

- L. INTELLECTUAL PROPERTY RIGHTS:** Any patent or copyrighted work resulting from a MICRO project shall be subject to the campus IP Policies.
- M. CO-SPONSORSHIP WITH OTHER AGENCIES:** MICRO does not co-sponsor research projects with other industrial funding agencies such as SRC and Sematech. Government laboratories such as JPL, LLNL, or FFRDC do not qualify as industry sponsors.

4. MULTIPLE PROPOSALS AND MULTIPLE PIs

Multiple, separate proposals by the same PI will be considered if there is clearly no or very limited overlap between the proposed projects. If the range of topics demands it, additional reviewers will be assigned to unusually broad proposals. Because of limited support funds, there will be funding restrictions per PI:

- (a) The University funds awarded to a PI are calculated according to a regressive formula applied to his/her total industry support. This total is obtained by summing the industrial portion across all the PI's proposals weighted by the percentage of effort on each.
- (b) To compensate for budgetary duplications usually present in separate proposals, the budgets of overlapping proposals involving the same PI may be subjected to more severe limitations than a single proposal of the same magnitude.

Support from different industrial sponsors is not a justification for splitting similar work over several proposals. The PI should try to persuade the supporting companies to accept a proposal involving several sponsors.

Proposals with two or more PIs must specify the role of each PI and percentage of the proposed effort. In reviewing proposals, reviewers will be asked to assess the role of each PI. Incomplete descriptions may be interpreted as an attempt to dilute the limitation on support per PI by attributing part of the program to another PI.

5. CAMPUS RESPONSIBILITIES

Each campus's Contracts and Grants Office is responsible for reviewing proposals in accordance with applicable UC policies. The Contracts and Grants Office may assist in obtaining binding letters from the cooperating companies for the industrial contributions. The Contracts and Grants Office will process the binding letters and/or award documents and distribute copies to the appropriate offices. When the matching support is a gift, the campus' Contracts and Grants Office will arrange for its acceptance by the appropriate office. The Contracts and Grants Office is also responsible for holding funds received prior to project approval.

6. PERFORMANCE AND REPORT DELIVERY

Performance shall conform to the objectives and budget details provided in the proposal. The period of performance shall be from the date of the approval notice through December 31, 2008. Expenditure of State funds shall be in accordance with University policy. Note that the *University* funding is for the *fiscal* year 2007-08 and *must* be expended (or encumbered in the case of equipment or supplies) by June 30, 2008 unless explicitly extended. Requests for extensions must be submitted in writing to the MICRO Program Coordinator (micro@ucop.edu) by November 15th, 2008. All University funding not expended or encumbered by the extended deadline must be returned to the MICRO Program. A Project Report is required and must be submitted to the MICRO Program Coordinator by February 1,

2009. Failure to submit a Project Report will result in the withholding of funding on future MICRO projects. In addition, an annual one page Budget Report showing expenditures of both Industry and University funds is required.

Unexpended industry grants beyond two years from the project end date of December 31, 2008 can only be extended upon approval from the campus Contracts and Grants office. If the industry sponsorship is in the form of a grant, the extension needs to be approved by the industry sponsor first.

7. EXCEPTIONS

Any requests for exceptions to these Guidelines and the Call for Proposal must be submitted in writing to the MICRO .