IEEE Industry Applications Society and the IEEE Foundation

Guidelines for the Myron Zucker Student-Faculty Grant Program

These Guidelines were first assembled for the Executive Board of the IEEE Industry Applications Society by the Ad Hoc Committee on EE Student Support Alternatives:

Baldwin Bridger, Jr.;
James H. Burghart;
Thomas A. Lipo; and
Lloyd A. Morley, Chairman.

Following review, the Guidelines were originally approved by the IEEE-IAS Executive Board on October 12, 1987 by letter ballot.

Improvements to the program resulted in the current revised document by the Zucker Grant Committee. The revisions were approved and the program was reaffirmed by the IEEE-IAS Executive Board on October 8, 1991.

Relaunching of the program resulted in the current revised document by the Zucker Grant Committee. The revisions were approved and the program was reaffirmed by the IEEE-IAS Executive Board on June 2016

Copies of this guide are available upon request from the IEEE Technical Activities Department,
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Guidelines for the Myron Zucker Student-Faculty Grant Program of the IEEE Industry Applications Society and the IEEE Foundation

Introduction

The Myron Zucker Student-Faculty Grant Program was established within the IEEE Foundation by the IEEE Awards Board in 1987. The Program resulted from Mr. Myron Zucker's desire to invest in the promotion of industry applications among electrical engineering students. An investigation by the Executive Board of the IEEE Industry Applications Society determined that the most effective way to facilitate this promotion was a faculty grant program which combined faculty and student support. To establish the program, Mr. Zucker contributed a considerable sum of money to the IEEE Foundation for an endowment. The funding is such that approximately two grants, not exceeding $25,000 each, can be awarded during each annual proposal cycle. This endowment is the program's only funding source; no other sources, including IEEE membership dues, are used.

Adhering to Mr. Zucker's goal, the principal objectives of the Student-Faculty Grant Program are:

1. to interest students and faculty in industry applications of electrical engineering;
2. to involve students and faculty in engineering problems related to the Scope of the IEEE Industry Applications Society;
3. to provide financial assistance to students for their education; and
4. to provide seed money to allow faculty members to commence or expand teaching, research, or academic concentrations in industry applications of electrical engineering.

In general, the Program functions much like a research support agency. It is administered by the IEEE Industry Applications Society through its Zucker Grant Committee with the consent of the IEEE Foundation. These Guidelines have been established to define the procedures and policies concerning the Program, thereby pro viding a uniform basis for proposal solicitation, review, evaluation, and funding.

Any interested faculty member, who is an IEEE member and holds a full-time academic appointment at an institution of higher education, are encouraged to submit proposals to the Myron Zucker Student-Faculty Grant Program. Each proposal must follow the rules and format presented in these Guidelines. The final report for the grant consists of a technical research paper of refereed publishable quality, co-authored by faculty and student participants. After review and acceptance, this paper may be published in the IEEE Transactions on Industry Applications.

Summary of Rules

The following is a summary of the rules that apply to all proposals submitted and grants funded through the Myron Zucker Student-Faculty Grant Program of the IEEE Industry Applications Society.

1. The project must not duplicate work funded by another source.
2. Each project must be under the primary direction of a person who holds a full-time regular academic appointment on the engineering teaching faculty of an institution of higher education. This individual must be a member of IEEE.
3. Each proposal must directly involve graduate and/or undergraduate student(s) in significant activities. The significance of the involvement will be judged by the Zucker Grant Committee.

4. The proposed research must cover an area within the Scope of the IEEE Industry Applications Society, which is

   "the development and application of electrical systems, apparatus, devices, and controls to the processes and equipment of industry and commerce; the promotion of safe, reliable, and economic installations; the encouragement of energy conservation; and the creation of voluntary engineering standards and recommended practices." Specific examples of work within the Society's Scope can be found in IEEE Transactions on Industry Applications

5. Industry co-sponsorship or cost sharing of proposals will be looked upon favorably during the review process.
6. The project must be designed to produce publishable results in one year (12 months). The preferred period of performance (for these 12 months) is September 1st through August 31st of the following year.
7. Grants are not renewable. However, a past recipient may submit a proposal for a new project, and such submissions will be considered equally with all other proposals received during a review cycle.
8. Each proposal must follow the outline given in the section "Instructions for Submitting Proposals."
9. Quarterly technical progress letters are due to the Grant Monitor, normally on December 15th, March 15th, and June 15th during the performance period.
10. The final report for the grant consists of a technical research paper of refereed publishable quality. The student project participants shall be involved in the authorship of the paper and given appropriate credit. The draft manuscript for the paper is normally due on July 31st (one month before the end of the performance period).
11. The draft manuscript will be reviewed by the Zucker Grant Committee, and comments and suggestions for change will be provided. The corrected manuscript in acceptable final form is due to the technical program chair of the IAS Annual meeting.
12. At least one of the student paper co-authors will be expected to attend the Fall Annual Meeting of the IEEE Industry Applications Society immediately following the grant period of performance to deliver the paper.

Instructions for Submitting Proposals

To facilitate the review and evaluation process, all proposals must be submitted in accordance with these instructions as well as the other general rules listed in this document. Failure to do so may result in rejection of the proposal without any detailed review and evaluation.

The standard outline, as presented below, divides the document into eight sections. All sections of the proposal must be single spaced. Under no circumstances shall the total document (excluding attachments) exceed 15 single-spaced pages, including the cover page. The main body (Section 4) must not exceed nine (9) single-spaced pages. Parts considered as attachments include budget explanations (as required by the submitter's institution), reports, papers published, and conference papers. References, the one-page vita, the proposed budget, funding justifications, and the evaluation consultant’s sections are considered parts of the proposal body and are not considered attachments. It is recommended that submitters consult the current IEEE Industry Applications Society's Author' s Guide and Guide to Procedure for Processing Technical Papers as a guide for the proposal.

A copy of the proposal must be received by the due date by the Chairman of the Society's Zucker Grant Committee, as specified in the Society's Call for Proposals for this program. The due date will normally be January 31st of each year. Under no circumstances will late proposals be accepted for review for the current grant year.

Proposal Format

Section 1- Cover Page. The first page must adhere to the standard format for the Cover Page included in Appendix A. The submitter should be the research principal investigator, and the proposal should be limited to one principal investigator. Only one copy must be signed by the submitting faculty member and the appropriate officials authorized to commit the submitting institution in business and financial affairs. A proposal is incomplete if endorsement signatures are omitted.

Section 2 -Table of Contents. The Table of Contents should show the location of each section of the proposal as well as major subdivisions of the project description.

Section 3 -Project Summary. The Project Summary should include a summary of the problem to be investigated, its significance, the research objectives, methods to be employed, and the proposed student involvement. The description should be informative to other engineers and, insofar as possible, understandable by literate nontechnical readers. This summary must be limited to one single-spaced page, and be of a style suitable for direct insertion into a technical journal.

Section 4 -Project Description. The main body of the proposal should be a detailed description of the proposed research in sufficient detail to allow evaluation of its technical merit. This section should be subdivided into the following five areas, and the total length must not exceed nine (9) single-spaced pages.

a) Research Objectives and Significance. The research problem and objectives should be clearly stated, and an explanation should be given about the benefits that should be gained by successful completion of the work.

b) Current State of Knowledge. Present a concise description of the current status of work in the proposed research area, emphasizing how current and past efforts are incomplete or inadequate relative to the research proposed. References
should be critical and highly selective rather than exhaustive.

c) Research Plan. Describe the plan of research in detail, including a description of methods and procedures to be used. If possible, the effort should be divided into several tasks that can be used to measure research progress readily.

d) Student Involvement. Describe how graduate and/or undergraduate student(s) will be involved in significant activities of the research.

e) References. Include all references that are pertinent to the Project Description.

Section 5 -Evaluation Consultants. List on a separate page at least two recognized authorities in the research area, who can be contacted by the Zucker Grant Committee to serve as consultants for proposal review. Describe briefly the qualifications of each consultant, and give the full mailing address and telephone number for each. These individuals should not be directly affiliated with the submitting institution.

Section 6 -Qualifications of the Principal Investigator. Provide on a separate page, a biographical sketch of the principal investigator, including the faculty rank, education, employment record, and relevant professional publications and accomplishments. This biography must not exceed one page in length.

Section 7 -Proposed Budget. Total costs of the proposed research must be limited to not more than $25,000 for a duration of 12 months. The period of performance should be from September 1st through August 31st of the following year. A detailed budget must be presented showing the proposed expenditures of project funding. Travel costs to attend the IEEE Industry Applications Society Annual Meeting for presentation of the research paper should be included. Other typical budget categories include (but are not limited to) the principal investigator's salary, student stipends and tuition, fringe benefits, equipment, expendable supplies, computer time, and indirect costs. Indirect costs cannot exceed 10 percent of total direct costs. A brief justification of each item should be provided. The Zucker Grant Committee reserves the right to make adjustments to budget categories.

Section 8 -Attachments. Include any supporting material for the proposal in this section.

Proposal Submission

All proposals should be forwarded to the Chairman, Zucker Grant Committee. The name and email address of the Chairman appears on the Call-for-Proposals brochure.

Selection of Proposals

All proposals submitted under this program will be subject to a standard review based on a set of criteria. The review will be conducted by the Zucker Grant Committee, whose membership is described in this document. At the discretion of the Committee Chairman, a proposal may be sent to an outside reviewer. Deadlines for the review process are given in these guidelines.

Selection Procedure

1) Proposal Check. As each proposal is received
but prior to its review, the Chairman of the Zucker Grant Committee checks for the following before acceptance.

a) All required signatures are present.
b) Total length, excluding appendices, is not more than 15 single-spaced pages.
c) The Project Description section does not exceed nine (9) singled-spaced pages.
d) A complete detailed budget is present.
e) At least two evaluation consultants have been listed.

Any proposal not containing these basic requirements will be disqualified.

2) Proposal Review. Each proposal, which is accepted for the review process, is retained by the Committee Chairman in a permanent file. Proposal Evaluation Forms (see Appendix B) are attached to each proposal prior to sending all proposals to each Committee member. This form provides the general proposal review criteria. The formal review process is composed of three parts:

a) a comprehensive evaluation of each proposal by a single Primary Reviewer,
b) a general evaluation of each proposal by the entire Committee, and
c) Committee voting and compilation of the review results.

Each proposal is assigned to one Committee member who serves as the Primary Reviewer. This person is selected by the Committee Chairman on the basis of technical competence relative to the proposal subject. Under special circumstances, the Chairman may appoint an individual outside the Committee membership as a Primary Reviewer. The Primary Reviewer is responsible for obtaining the best technical

evaluation possible within the time constraints. Every effort should be made to obtain the best unbiased technical evaluation possible, and the primary reviewer can use any source, including evaluation by other Committee members or outside consultants. However, there is no obligation to · use the recommended or other outside consultants. The Primary Reviewer is responsible for providing a detailed review of the overall Project Description, correctness of the budget, compliance with the Program rules and guidelines, and so forth.

After adequate time is allowed for review by the Primary Reviewers, the Chairman calls a meeting for discussion and evaluation all assigned proposals by the entire Zucker Grant Committee. Primary Reviewers present each proposal and the results of their evaluations. In cases where the Chairman has appointed a Primary Reviewer outside the Committee membership, either that reviewer may attend the meeting for the presentation, or the Chairman will present that evaluation. Each proposal is considered separately and evaluated against the criteria listed on the Proposal Evaluation Form and the questions given in Appendix C. Following the discussion of each proposal, each Committee member provides an overall evaluation score for the proposal. Scoring is done confidentially and written on the Proposal Evaluation Form. The Committee members should provide appropriate notes and comments on the evaluation form which might be useful for the compilation of results.

Each Proposal Evaluation Form constitutes one vote on a specific proposal, each member of the Zucker Grant Committee, including Members, the Ex Officio Member, and the Chairman, is given one vote on each proposal. Only the regular membership of the Committee is eligible to vote.

Each Proposal Evaluation Form (vote) is returned by the Committee members to the Committee Chairman on or before a deadline specified by the Chairman. At least two weeks must exist between the review meeting and this deadline. A summary is made by the Chairman, and the overall score for each proposal is the average of all scores submitted. The three (3) higher scores constitute the Committee's recommendation to the Executive Board of the IEEE Industry Applications Society. When there is no clear indication of a recommendation, the Chairman should poll the committee with another vote. Upon a Committee recommendation decision, the Chairman prepares a report on the review process, which is to be delivered as specified in the next guideline section.

Proposal and Grant Timetable

Call for Proposals

During the President's Luncheon at the Fall Annual Meeting of IEEE Industry Applications Society, the Society President will announce the Myron Zucker Student-Faculty Grant Program for the following year, give credit to the endowment source and the IEEE Foundation, and solicit submission of proposals.

A Call for Proposals, including the name of the Program contact person, will be published in the issue of the IEEE Industry Applications Newsletter associated with the Annual Meeting (usually the September/ October issue). The contact person is normally the Chairman of the Zucker Grant Committee. Publicity in other IEEE publications should also be pursued. The Grant Administrator of the Program will arrange the Call-for-Proposals publicity in consultation with the Committee Chairman.

Preferably before November 30th after the Annual Meeting, copies of these Guidelines will be sent to all IAS members with a cover letter asking them to forward copies to interested faculty members and post the announcements. The Grant Administrator will arrange this distribution in consultation with the Society President.

Proposal Review

Proposals will normally be due on January 31st of each year. However, the Call for Proposals for a specific grant cycle may specify another date. The Zucker Grant Committee will provide a report of the program solicitation to the IEEE Industry Applications Society Executive Board at their first meeting during the calendar year. The report will then be forwarded to the IEEE Foundation.

The Zucker Grant Committee will review the proposals, with the decision deadline normally April 30th in the year in which the grants are to start (or before the spring meeting of IAS).

Recommended recipients will be announced by the Chairman of the Zucker Grant Committee at the Spring meeting of the IEEE Industry Applications Society Executive Board, and their approval will be requested. The Society Executive Board is responsible for making the final Society recommendations. These will be forwarded by the Society President to the IEEE Foundation for their final approval.

Grant Execution

The Committee Chairman will forward copies of successful proposals to the Society President, the IEEE Foundation, and the Grant Administrator (IAS Administrative Staff).

The President of the IEEE Industry Applications Society will notify the recipients of the Grants. New recipients should also be announced, preferably by the Chairman of the Zucker Grant Committee, at the Zucker Luncheon of the Fall Annual Meeting of IEEE Industry Applications Society. The Committee Chairman will contact the submitters of the unsuccessful proposals, notifying them of the review results.

The Grant recipients will be publicized in an issue of the Society Newsletter following IEEE Foundation approval. The Zucker Grant Committee should also prepare a news release about the recipients and funded research program for inclusion in other IEEE publications.

The Grant Administrator of the Program will contact officials in each recipient's institution and arrange final terms and conditions for the Grant including the dispensation of any Intellectual Property that resulted from the research. A signed agreement to these terms and conditions will be maintained by the Grant Administrator, and copies will be forwarded to the Society President and the IEEE Foundation.

The Grants are then awarded with a period of performance of 12 months, normally September 1st through August 31st of the following year.

A Grant Monitor is assigned to each project by the Chairman of the Zucker Grant Committee.

Any change in scope or alteration in the research plan must be submitted to the Grant Monitor for approval prior to proceeding.

Grant payments will be on a quarterly basis, upon receipt of the statement from the principal investigator's institution. The final grant payment shall not be made until after receipt of the grant paper in final form. Provisions should be made by the institution to maintain enough funds to support the principal investigator and student travel to the Fall Annual Meeting of the IEEE Industry Applications Society. Statements from the principal investigator's institution should be forwarded to the Grant Administrator of the Program with a copy to the Chairman of the Zucker Grant Committee. Upon approval, the Grant Administrator will forward the statement to the IEEE Foundation for payment.

Grant Deliverables

During the period of performance, quarterly technical progress reports must be submitted by the principal investigator to the Grant Monitor normally on December 15th, March 15th, and June 15th.

The final report for the grant consists of a technical research paper of refereed publishable quality. The paper must be co-authored by the student project participants. The paper manuscript is normally due July 31st to the Grant Monitor. Paper style must adhere to the current IEEE Industry Applications Society's Author' s Guide and Guide to Procedure for Processing Technical Papers.

The draft manuscript will be reviewed by the Zucker Grant Committee and comments will be returned by August 30th.

The manuscript in final form is due to the Technical Program Chair of the IAS Annual meeting on the annual meeting timeline. Copies of the manuscript shall also be sent to the Chairman of the Zucker Grant Committee, the President of the IEEE Industry Applications society, and the Director of the IEEE Foundation.

The papers will be delivered at the Fall Annual Meeting. The student participants should be the presenters. It is recommended that the students give a "dry-run" presentation at their school prior to their delivery at the Annual Meeting.

Timeline:

Date	**Action**
January 31	Grant proposal due to Zucker Grant Committee Chair
April 30	Proposal recommendations by Zucker Grant Committee to ExecBoard
June	ExecBoard votes on recommendation of Zucker Grant Committee
September 1	Start of Grant
December 15	Quarterly technical Progress letter
March 15	Quarterly technical Progress letter
June 15	Quarterly technical Progress letter
July 31	Draft paper manuscript to Zucker Grant Committee
August 31	End of Grant

Annual Meeting Arrangements

The Annual Meeting presentation for the paper presentations will be arranged by the Vice President of the IEEE Industry Applications Society in consultation with the Annual Meeting Committee and the Chairman of the Zucker Grant Committee.

Appropriate notation of this event should be included in the Final Program for the Annual Meeting.

Zucker Grant Committee

Committee Duties and Membership

The Zucker Grant Committee of the IEEE Industry Applications Society has the responsibility to receive and review research proposals, recommend recipients, monitor publicity, monitor research progress,

and review the final research paper. In cases where any person on the Committee is associated with the submitting institution for a specific proposal, or in situations where the proposal creates a conflict of interest for the Committee member, that person cannot be part to the review of the proposal.

The membership of the Zucker Grant Committee shall consist of a Chairman, at least four Members, and one Ex Officio Member. The Chairman and Committee Members are appointed by the current President of the IEEE Industry Applications Society. One Member should be from various of the Operating Departments of the IEEE Industry Applications Society. The appointees shall be approved by the Executive Board of the IEEE Industry Applications Society then by the Board of the IEEE Foundation. The Ex Officio Member is appointed by the Current Director of the IEEE Foundation. Appointments shall be on an annual basis, but Committee members can be reappointed.

Grant Monitors

Each awarded grant is assigned a Grant Monitor, who is appointed by the Chairman of the Zucker Grant Committee. Grant Monitors should be members of the Zucker Grant Committee but, under special circumstances, another IEEE member may be appointed. The Grant Monitor has the responsibility to review quarterly technical progress reports, interact with the principal investigator of the grant to insure grant-rule adherence, adequate progress, and timely reporting. Each Grant Monitor will provide a periodic report about grant status to the Chairman of the Zucker Grant Committee.

Grant Administrator

The Grant Administrator of the Myron Zucker Student-Faculty Grant Program has the responsibility to arrange Grant terms and conditions with submitter's institutions, receive grant statements, recommend payment of statements to the IEEE Foundation, maintain Program records, and facilitate the Call for Proposals for each Program cycle. The Grant Administrator role is filled by the IAS Administrative staff.

Persons Excluded from the Program

Current members on the Zucker Grant Committee, the current Grant Administrator, and current members of Executive Board of the IEEE Industry Applications Society cannot submit a proposal for the Program.

PROPOSAL

for the

Myron Zucker Student-Faculty Grant Program of the IEEE Industry Applications Society

(Title of the Proposal in Full Caps}

Submitted by

The Submitter's Institution
Institution Address
City, State, Zip Code
Country

Prepared by

Submitter's Name
Submitter's Title
The Submitter's Department
The Submitter's Division

Approved by

_____
Submitter's Signature

_____
Appropriate Institution Signature, Title

_____
Appropriate Institution Signature, Title

_____
Appropriate Institution Signature, Title

Total Cost of Project: $_____

Proposed Period of Performance:
September 1, 20_ through August 31, 20_

Appendix B -Proposal Evaluation Form

IEEE Industry Applications Society Myron Zucker Student-Faculty Grant Program Proposal Evaluation Form

Proposal No._____ Proposal Title:_____

Research Area: _____

Principal Investigator: _____ Submitter's Institution:_____

I. Rating Scale: 0-2 = poor, 3-5 = average, 6-8 = good, 9-10 = excellent

II. General Evaluation:

	Score	Comments
a) Adherence to Program Rules and Guidelines:		_____ _____
b) Problem Significance:		_____ _____
c) Relevance to IEEE-IAS Scope:		_____ _____
d) Value as a Technical Endeavor:		_____ _____
e) Objectives Consistent and Realistic:		_____ _____
f) Background and Current Knowledge:		_____ _____
g) Research Plan Adequate and Feasible:		_____ _____
h) Student Involvement:		_____ _____ _____ _____
i) Investigator Qualifications:		_____
j) Budget Realism:		_____

III. General Quality Score:
(Sum of items II.a to II.j)

IV. Other Comments (if necessary, continue on back):

Reviewer's Signature _____ Date_____

Appendix C-Reviewer General Questions

Myron Zucker Student-Faculty Grant Program Comprehensive Proposal Review Sheet

General Questions for the Primary Reviewer

1. Is it obvious that the submitter has adhered to the guidelines and rules for proposal preparation?

2. Does the stated problem exist, and is it in need of research?

3. Is the proposed research relevant to the Scope of the IEEE Industry Applications Society? Is it related to Scope of one of the Society's Technical Committees?

4. Are the project objectives consistent with the problem addressed, and are they realistic for a one-year effort?

5. Is the background presented complete and up-to-date? Please list any critical information not included.

6. Is the proposed research plan adequate and feasible? Can the research be completed in the amount of time proposed?

7. Does the submitter intend to involve students in the research in a significant manner? Does the project appear to be primarily for the benefit of the principal investigator or the student(s)?

8. Is the investigator competent to carry out this project?

9. Is the proposed budget realistic and reasonable, given the objectives and methodology of the project? Are all budget items clearly justified? Please recommend reductions or increases for specific budget items.

10. What is the overall merit of the proposed research? Is it worth funding?