Georgia Tech | Institute for Electronics and Nanotechnology

2018-2019 Georgia Tech Institute for Electronics and Nanotechnology (IEN) Core Facilities Seed Grant Program

Information and Request for Applications

Program Description

The Georgia Tech IEN is an Interdisciplinary Research Institute (IRI) comprised of faculty and students interested in using the most advanced fabrication and characterization tools, and cleanroom infrastructure, to facilitate research in micro- and nano-scale materials, devices, and systems. Applications of this research span all disciplines in science and engineering with particular emphasis on biomedicine, electronics, optoelectronics and photonics, and energy applications. As there can be a learning curve associated with initial proof-of-concept development and testing using cleanroom tools, this seed grant program was developed to expedite the initiation of new graduate students and new research projects into productive activity. Successful proposals to this program will identify **a new, currently-unfunded research idea** that requires core facility access to generate preliminary data necessary to pursue other funding avenues.

Program Eligibility

Georgia Tech Applicants
This program is open to any current Georgia Tech or GTRI faculty member as project PI. The graduate student performing the research should be in the first 2 years of his/her graduate studies, and preference will be given to students who are new users of the IEN facilities. The student's research advisor (project PI) does not need to be a current user of the IEN cleanroom/lab facilities.

External (non-Georgia Tech) Applicants
Funding from the NSF to create the Southeastern Nanotechnology Infrastructure Corridor (SENIC, http://senic.gatech.edu/) as part of the NNCI has allowed IEN to open this program to external (not affiliated with Georgia Tech) users currently at an academic institution in the southeastern US. The graduate student performing the proposed research cannot be a current user of the IEN facilities. The student's research advisor (project PI) may have a current project in place for use of the IEN cleanroom/lab facilities, but this is not a requirement. If awarded, a specialized service agreement will need to be arranged with the user's home institution.

Past awardees of a seed grant may submit additional proposals for different students/projects, but not in consecutive funding cycles. **It is the responsibility of the project PI and student to determine their ability to make use of the awarded time during the grant period. Extensions requested once the project has begun will not be granted.**

Award Information

Each seed grant award will consist of free cleanroom access to the student identified in the proposal for 2 (consecutive) billing quarters. Based on current access rates and the academic cap on hourly charges (https://cleanroom.gatech.edu/articles/68), this comprises a maximum award of $6000 for the 6 month period. This maximum award amount is still in effect even if IEN non-cleanroom (lab) equipment, electron beam lithography (EBL), or tools in the Materials Characterization Facility (MCF) are required.

External projects may elect to use part of the award for travel support, up to a maximum of $1500. If you are requesting this support you will need to supply a brief budget and justification as an addendum to the proposal.

The designated student user is expected to only utilize the cleanroom/tool access while working with the PI on the proposed project. Members of the IEN processing staff will be available to consult during the project period. The number of awards for each proposal submission date will depend on the number and quality of the proposals. A short report describing the research activities is required midway and at the completion of the award period.

Submission Schedule

This Seed Grant program is offered in two competitions each year with due dates on **October 1, 2018** and **April 1, 2019**. While it is expected that research activity will begin on December 1, 2018 and June 1, 2019, respectively, there is flexibility in scheduling the 2 quarters of research work, as long as they conform to the IEN billing quarters.

Proposal Requirements (2 pages max)

The proposal (submitted as a PDF file of no more than 2 pages) should do the following:

1. Provide a project title. List name of PI and student at the top of the proposal.
2. Identify the research problem and specify the proposed methods.
3. Indicate the IEN research tools necessary to conduct the research. It is recommended that you obtain assistance with this component from members of the IEN processing staff.
4. Describe the relationship of this research to the PI's other research activity.
5. Identify the PI and the graduate student involved (including year of graduate work), and if there will be a mentoring relationship with the PI's other students. Note if there are collaborative relationships with Georgia Tech faculty that bear on this research project.
6. Specify the potential for follow-on funding based on the results of this initial work.

7. Optional: Travel support budget and justification for external user (does not count in 2 page maximum).

Submit the PDF file by the specified due date to Ms. Amy Duke (amy.duke@ien.gatech.edu).

Review Criteria

Proposals will initially be reviewed by IEN staff for technical feasibility within the 6-month time frame. Rating of proposals will be done by a review committee of Georgia Tech faculty, with final selection of awardees by IEN staff. Review criteria include novelty of the research, clarity of the proposed work, work that is technically achievable within the time constraints, and likelihood of positive outcomes (funding).

For more information, please contact Dr. David Gottfried, dsgottfried@gatech.edu, (404) 894-0479.