



ONR Scholar Program

Energy Systems Laboratory

Electrical & Computer Engineering

Florida International University



The ONR Scholar Program at FIU

This refers to the Office of Naval Research scholar and summer research internship program at NSWCCD (Naval Surface Warfare Center-Caderock Division) for undergraduate students in electrical and computer engineering at Florida International University. This is a highly prestigious program aimed at involving students in practical research projects and prepares them for careers in industry and future graduate study

Program Summary

Each year, Office of Naval Research (ONR) scholars will be selected from among bright undergraduate students from a pool of qualified applicants. Each ONR Scholar will receive a scholarship. Selected ONR Scholars must participate in a 10-week summer research internship at NSWCCD-Philadelphia. Applicants for this educational/research-centered program will be solicited from students who have completed their sophomore or junior years and who may be interested in graduate studies. The ten-week program will begin in early June and finish by mid August and is funded through the Office of Naval Research. This program is for all students who are United States citizens or permanent residents. Women and underrepresented minorities are highly encouraged to apply.

Program Overview

The summer ten-week research program will give you the opportunity to:

- Explore what engineering research is about
- Interact with world renowned electrical and computer engineering faculty & staff
- Work with state-of-the-art research equipment and facilities
- Learn about the roll of graduate education in your career decisions
- Improve your interpersonal and communications skills
- Meet other professionals from across the United States at conferences and symposia.

Eligibility

- This program is for all students who are US citizens or permanent residents. Women and underrepresented minorities are highly encouraged to apply.
- Students who will have completed their sophomore or junior year in electrical and computer engineering, or related fields

Possible research areas include:

- Numerical Simulation and Computation of Electromagnetic Fields in electrical Machines and Drives
- Shipboard Power systems
- Power System operations under normal and abnormal conditions
- Power System Dynamic Simulation and Hardware-in-the-Loop Concepts
- Power Electronics
- Software development tools
- Advance Signal processing and control techniques

Activities during the academic year

The activities include:

1. Mentoring by faculty and graduate students at the Energy Systems Laboratory, FIU
2. Weekly seminars with student and faculty research presentations, discussions, etc.
3. Workshops on issues related to graduate school and the Graduate Record Exam
4. Workshops on preparing professional quality oral and poster presentations
5. Evening/weekend social activities - Organized group trips for canoeing, biking, theater, etc.
6. Undergraduate Research Showcase with oral and/or poster presentations and attending conferences

Mentoring of Participating Students

Participating students will be mentored by faculty on; course selection, progress, career path, involvement oral and written communication skills, research issues, research performance, laboratory experience, building circuits and setups for experimentation, computer skills, preparation for graduate study and engineering ethics and practice.

All participants in the Summer Internship Program will receive:

- Weekly stipend
- Partial/Full Tuition support during the academic year (up to 15 credits for Fall and Spring, In-State Portion)
- Travel expenses from within the continental United States.
- Living and relocation allowance

Eligibility

The program is open to full-time students at FIU who will **have** completed **their** sophomore **or** junior **year** by **June** each year, and who expect to obtain their bachelor's degree in electrical engineering, computer engineering, or related fields. Applicants are expected to have a GPA of 3.3 or higher and **must** be **citizens** or **permanent** residents of the United **States** or **its** possessions. Women, underrepresented minorities are strongly encouraged to apply.

Location and Housing during summer

The 10-week summer internship will be conducted at NSWCCD-Philadelphia. Research projects will be coordinated between Dr. Mohammed and the research laboratory technical contact. The 10-week summer research program provides a weekly stipend, travel expenses, living and relocation allowance. Housing will be coordinated with the naval laboratory staff.

Application Deadline for the 2008 Program March 1, 2008

Applicants should submit five (5) stapled copies of the following:

1. **Completed** copy of the **Two-Page Application Form**.
2. Short PERSONAL NARRATIVE STATEMENT, MAXIMUM LENGTH OF ONE TYPED PAGE. The statement should include your relevant background, career goals, and interest in pursuing graduate or professional level work in a particular area and the science questions that most interest you.
3. Copy of your **Current Transcript**. You **must submit a transcript issued by the university**, (official or unofficial). You **should** also include a past transcript if you are a transfer student and have completed one or more years of course work at an institution other than FIU. You may include a transcript of short-term undergraduate work completed at other institutions, but this is not required.

In addition, applicants should arrange to have two letters of recommendation from faculty or other individuals familiar with your science and engineering course work and/or research potential sent directly to the address below. A copy of the Two-Page Letter of Recommendation Form should be included with each. This form is available in the ECE office. **All of the above should be sent to:**

Professor Osama A. Mohammed
Energy Systems Laboratory, Room EC-3960
Department of Electrical and Computer Engineering
Florida International University
10555 W. Flagler Street
Miami, Florida 33174
Tel: (305) 348-3040
e-mail: mohammed@fiu.edu

Have you previously conducted research with a faculty member at FIU? Yes No
If yes, Faculty member's name _____ Department _____

Are there any other factors that should be considered during the academic year or during the summer research internship, e.g., allergies, disability, etc.? _____

Additional Information Related to Funding

1. Portions of funding for ONR Scholars and the associated 10 week Summer Undergraduate Research Internship Program are open to all students who are citizens or permanent residents of the united states. Underrepresented minorities are highly encouraged to apply. Please check all appropriate items that apply to you.

_____ African American _____ Chicano/Latin/Hispanic _____ Asian
_____ Native American _____ White/Caucasian _____ Native Pacific Islander
_____ Female _____ disabled _____ other ethnic group

2. Do you have other grants, scholarship or fellowships for research during the summer of 2008?
No _____ Yes _____ if yes, please give the source and amount _____

Required Application Materials

1. Submit five (5) stapled packets that include one copy of each of the following:

- This two-page Application Form completed and signed.
- A typed one-page Personal Narrative Statement which describes your interest in being selected as an ONR Scholar and your participation in the 10-week Summer Research Internship Program at NSWCCD-Philadelphia, your current goals, and the Engineering/Science questions that most interest you.
- A current school issued Transcript (official or unofficial).

2. Two letters of recommendation

Complete the Applicant's Section on two (two-page) Letter of Recommendation Forms available from the ECE office and give both to faculty members, or one to a faculty member and the other to another individual familiar with your work. Both persons should be familiar with your science and engineering course work and/or research potential. Give the names, addresses and telephone numbers of these individuals below.

Name _____	Name _____
Address _____	Address _____
_____	_____
City State Zip Code	City State Zip Code
Telephone (____) _____	Telephone (____) _____

Signature:

Applicant's Signature _____ Date _____

Send all application materials by mail (FAXED MATERIALS WILL NOT BE PROCESSED) to:

Prof. Osama A. Mohammed
Department of Electrical and Computer Engineering
Florida International University
10555 W. Flagler Street, Room EC-3960
Miami, FL 33174

THE DEADLINE FOR APPLICATIONS IS March 1, 2008