**NSF Research Experience for Undergraduates**

# NSF REU-MASS Application

**Multi-physics of Active Systems and Structures (MASS)**

**Dept. of Mechanical Engineering**

[**www.eng.fsu.edu/reu-mass**](http://www.eng.fsu.edu/reu-mass)

## Application Form

## Program Information

## The REU program goal is to provide undergraduate students in mechanical engineering and related fields an opportunity to participate in ongoing active research programs including development of *micro air vehicles, multi-modal robots, active flow control, sensors and actuators, smart materials, energy harvesting and storage*, etc.. The multidisciplinary nature of these projects will engage students in cross-cutting technologies by inspiring the integration and synthesis of original ideas and facilitating a better understanding of engineering design at the system level. Working closely with faculty and graduate students, the participants will gain hands-on experience and higher level learning skills through other educational and professional development activities.

## The program is designed for students who have completed their sophomore or junior year in engineering or related fields. Women, underrepresented minorities, and students from colleges and universities without significant research opportunities are encouraged to apply. Applicants are expected to have a GPA of 3.0 or higher and must be citizens or permanent residents of the US. We are currently accepting applications for summer 2019. Applications are due March 1, 2019. Prospective students should download and complete the REU-MASS Application. Applicants must also provide a resume, a statement of purpose (500 words max), one letter of recommendation and a copy of their official transcripts (electronic version from the school is fine) by:

**Mailing:** REU-MASS Summer Program

Aeropropulsion, Mechatronics and Energy Center

[www.ame.fsu.edu](http://www.ame.fsu.edu)

Room 104, 2003 Levy Ave.

Tallahassee, FL 32310

**OR email**: [shih@eng.famu.fsu.edu](mailto:shih@eng.famu.fsu.edu)

### Important Dates

**March 1:** Application deadline. Applications must be postmarked by this date to be considered. Late application will be considered if there is space available.

**March 15:** Initial acceptance notifications to be sent.

**Program Period:** 10 weeks starting June 3 until August 9.

## 

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Applicant Information | | | | | | | | | | | | | | | | | | | | | | |
| Full Name: | |  | | | |  | | | | | | |  | | | | Date: | | |  | | |
| Last | | | | | | First | | | | | | | M.I. | | | | | | | | | |
| Address: | |  | | | | | | | | | | |  | | | | | | | | | |
| Street Address | | | | | | | | | | | | | Apartment/Unit # | | | | | | | | | |
|  | |  | | | | | | | | | | |  | | | | | |  | | | |
| City | | | | | | | | | | | | | State | | | | | | ZIP Code | | | |
| Phone: | (     ) | | | | | | E-mail Address: | | | |  | | | | | | | | | | | |
| Are you a citizen of the United States? | | | | | YES | NO | If no, are you a permanent resident of U.S.? | | | | | | | | | | | | | | YES | NO |
| Note: The following demographic questions are optional for program tracking purpose | | | | | | | | | | | | | | | | | | | | | | |
| M F White African American Hispanic/Latino Asian-Pacific Islander Native American  Gender:             Ethnicity/Race: | | | | | | | | | | | | | | | | | | | | | | |
| Education | | | | | | | | | | | | | | | | | | | | | | |
| Present College/University: | | |  | | | | | | | | | | | | | | | | | | | |
| Major Field: | | |  | | | | | | | | | | | | | | | | | | | |
| Academic Year: | | |  | | | | Expected graduation date | | | | | | |  | | | | | | | | |
| Overall GPA | | |  | | | | Major GPA (Math, Science & Engineering courses) | | | | | | |  | | | | | | | | |
| Academic/Career Objectives: | | |  | | | | | | | | | | | | | | | | | | | |
| Plan after graduation (industry, research labs, graduate school, etc..) | | |  | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | |
| References | | | | | | | | | | | | | | | | | | | | | | |
| Please list two professional references while asking one to prepare the statement (use the attached reference form) | | | | | | | | | | | | | | | | | | | | | | |
| Full Name: | | |  | | | | | | | Relationship: | | | | |  | | | | | | | |
| Affiliation: | | |  | | | | | | | Phone: | | | | | (     ) | | | | | | | |
| Email Address: | | |  | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | |
| Full Name: | | |  | | | | | | | Relationship: | | | | |  | | | | | | | |
| Affiliation: | | |  | | | | | | | Phone: | | | | | (     ) | | | | | | | |
| Email Address: | | |  | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | |
| Research/Professional Experience | | | | | | | | | | | | | | | | | | | | | | |
| Have you participated in research program(s) in the past? (list all) | | | | | | | | | | | | | | | | | | | | | | |
| When: | | |  | | | | | | | | | | | | | | | | | | | |
| Where: | | |  | | | | | | | | | | | | | | | | | | | |
| Topics/Activities: | | |  | | | | | | | | | | | | | | | | | | | |
| List all other relevant professional activities (organization leadership, teaching assistantship, competition events, co-authorship of scientific articles, honors/awards, etc.. | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | |
| Research Interests | | | | | | | | | | | | | | | | | | | | | | |
| Topics (Check up to three interested topics) | | | | | | | | | | | | | | | | | | | | | | |
| **Supersonic Flows** | | | | Aeroacoustics | | | | **Flow Control** | | | | | | | | | Instrumentation | | | | | |
| **Robotics** | | | | Active Materials | | | | Model/Simulation | | | | | | | | | Thermal/Fluids | | | | | |
| **Fuel Cells** | | | | Micro Air Vehicles | | | | | Autonomous Control | | | | | | | | Flow Visualization | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | |
| Statement of Purpose | | | | | | | | | | | | | | | | | | | | | | |
| **Please describe your academic and career goals and how the REU-MASS program will help you to achieve these goals (NO LONGER THAN ONE PAGE OR 500 WORDS)** | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | |
| Housing Information | | | | | | | | | | | | | | | | | | | | | | |
| Do you need FSU housing? (Only available for non-FAMU/FSU students)? | | | | | | | | | | | | Yes  No | | | |  | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | |
| Disclaimer and Agreement | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | |
| **Disclaimer:** I certify that my answers are true and complete to the best of my knowledge and that I have not falsified any information on any part of the application (transcript, letters of recommendations, statement purpose, etc.)  **Agreement:** I understand that I am required to participate full time (40 hours per week) during the 10-week program and cannot hold outside jobs or enroll in class without prior approval from the program director. I agree to obey all rules and regulations guiding the REU-MASS program and will diligently undertake all assigned tasks, including participation in arranged social and professional activities, program-related surveys/questionnaires. Failure to do so may result in disqualification and/or termination from the program. I also agree for the use of media resources such as presentation slides, reports, photos and videos that may be produced by the program organizers for promotional, educational and dissemination purposes. | | | | | | | | | | | | | | | | | | | | | | |
| Signature: | | |  | | | | | | | | Date: | | | | | | |  | | | | |

**NSF Research Experience for Undergraduates**

**Multi-physics of Active Systems and Structures (MASS)**

**Dept. of Mechanical Engineering**

**FAMU-FSU College of Engineering**

**Letter of Reference Form**

**To the applicant:**

You will need to submit one letter of reference together with your application to the REU MASS program. Please provide this reference form to your referee and ask her/him to either submit through email or in a sealed envelope back to you to be included in your application package. Your application need to be postmarked by March 1, 2019. Please fill in your name on the top of the form and provide your referee with the reference letter form (and a stamped, self-addressed envelope should you prefer to mail the reference with your application).

**To the referee:**

Please return your reference letter EITHER directly to the applicant in a sealed envelope with your signature across the seal OR electronically through email to: [shih@eng.famu.fsu.edu](mailto:shih@eng.famu.fsu.edu)

For more information on the NSF REU-MASS program, or questions concerning the application process, please contact

Professor Chiang Shih

Aeropropulsion, Mechatronics and Energy Center

2003 Levy Ave. Room 104

Tallahassee, Florida 32310

(850) 645-0102

Email: [shih@eng.famu.fsu.edu](mailto:shih@eng.famu.fsu.edu)

**Applicant’s Name:**

**Referee’s information:**

|  |  |
| --- | --- |
| Name: | Title : |
| Email: | Phone: |
| University/Institution/Company: | |
| Address: | |
|  | |

**How long and in what capacity have you known the applicant?**

Years/Months:

Capacity:

**How would you rate the applicant in overall ability and potential in comparison to others at the same academic level with respect to pursuing undergraduate research? (double click the box to check)**

Top 5%  Top 10%  Top 25%  Top 50%  Below 50%

**Please provide your opinion on the applicant’s academic performance, research aptitude and other factors that you consider relevant for the applicant to be successful in this program and his/her future career including advanced degrees. Provide examples where appropriate.**

|  |
| --- |
|  |