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**National Aeronautics and Space Administration (NASA) MUREP INCLUDES**

**Proactive Pathways of Excellence to Engage Minority Students in Aerospace Engineering**

**(PEMS)**

**Summer 2022 Training Opportunity at Southwest Research Institute**

**Application Deadline: April 17, 2022**

* **You have to be a U.S. Citizen or Permanent Resident**
* The Summer Training will be between June 13, 2022 to August 5, 2022 for 8 weeks (The final dates are subject to change)
* $5,000 stipends paid by TAMUK NASA PEMS grant
* Virtual Training workshops before the Summer Training Opportunities starts
* **Email this application form, your resume, and your unofficial transcripts to Ms. Chengcheng Gu at** **Chengcheng.Gu@tamuk.edu** **no later than 11 pm on April 17, 2022.**

***Please Print or Type. Complete all items, if not applicable then please write ‘NA’ in the space.***

**Full Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date of Birth: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Cell #**:**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Email Address:\*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Current Major: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Current GPA: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Your Current College/University:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Are you a U.S. Citizen or permanent resident? Yes\_\_\_ No \_\_\_**

**If you are a TAMUK student, are you taking or planning to take Aerospace Engineering Minor?** Yes\_\_\_\_\_ No\_\_\_\_\_

**If you are a TAMUK student, what is your K#? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

***Please provide the following demographic information as part of the application form.***

**Ethnicity:** □ Hispanic or Latino □ Not Hispanic or Latino

**Race: *(Choose one or more response)*** □ American Indian or Alaskan Native □ Asian

 □ Black or African American □ White

 □ Native Hawaiian or Other Pacific Islander

**Gender:**  □ Male □ Female

**Disability:** □ Hearing □ Visual □ Mobility/Orthopedic □ None

 □ Other \_\_\_\_\_\_\_\_\_\_\_

**Please rank the following project based on your preference. Please use 1 for the project you like the best, and 5 for the project you like the least.**

**Project #1: (Site: San Antonio) Enter Your Rank of Project #1 here: \_\_\_\_\_**

The Computational Mechanics Section, within the Engineering Dynamics Department at SwRI, is looking for a student who will be involved in collecting and analyzing data from experiments measuring material properties and impact effects. A background in solid mechanics would be helpful.  Knowledge of photography and/or lasers also helpful.  There is mechanical work involved (experimental setup, measurements), some potentially outdoors, and usage of computers for data analysis and reporting.

**Project #2: (Site: San Antonio) Enter Your Rank of Project #2 here: \_\_\_\_\_**

The Propulsion and Energy Section, within the Machinery Department at SwRI, is looking for students with a fluid dynamics and/or thermodynamics background (or in Mechanical or Aerospace Engineering major) to work on a project related to propellant dynamics of launch vehicles.

**Project #3: (Site: San Antonio) Enter Your Rank of Project #3 here: \_\_\_\_\_**

The Aerospace Structures Section, within the Structural Engineering Department at SwRI, is looking for a student interested in aircraft structures and or fracture mechanics.  The students would be involved with a variety of activities supporting A-10 and T-38 aircraft structural integrity projects. Work could include correlation of coupon test data to analytical predictions, full scale aircraft testing support, finite element analysis, test data reduction and computer-aided design. Students that have completed a Solid Mechanics, Mechanics of Materials or Design & Analysis of Aircraft Structures courses preferred.

**Project #2: (Site: Hill Air Force Base in Ogden, Utah) Enter Your Rank of Project #2 here: \_\_\_\_**

The Aerospace Structures Section, within the Structural Engineering Department at SwRI, is looking for a student interested in learning and assisting with tasks associated with aircraft structural engineering.  This could be anything from supporting database entry to finite element modeling and structural stress analysis. Basic stress analysis skills, computer knowledge, and programming skills are necessary.

**Project #5: (Site: San Antonio) Enter Your Rank of Project #5 here: \_\_\_\_\_**

The Fluids Engineering Department at SwRI is looking for a student to support various programs associated with cryogenic propellant management and fluid movement (e.g., sloshing) in low-gravity environments.

**Signature of Applicant Date**