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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 the University of Texas at Austin**

**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
* Up to $1,000 living expense support from the University of Texas at Austin based on the availability of funds.
* 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 \_\_\_\_\_\_\_\_\_\_\_

Given the constraints on Antarctic field work imposed by the global pandemic, The University of Texas at Austin have taken the opportunity to both invest in the future of their core Antarctic Aerogeophysics program and further its leverage for understanding atmospheric forcing on the Antarctic ice sheet’s contribution to rapid global sea-level rise. In parallel, they also used this opportunity to extend the knowledge of Antarctica’s subglacial environment to the Arctic and beyond to better understand the role of ice-covered worlds in sustaining evolution both on Earth and across the Solar System.

**Five different opportunities are available as below. 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: Enter Your Rank of Project #1 here: \_\_\_\_\_**

Developing new aerogeophysical techniques to better understand the boundary conditions (e.g., hydrology, lithology and geothermal flux as well as englacial and near-surface properties) controlling the evolution of both the East and West Antarctic ice sheets. (For example, new projects looking at geological influence on Pope Glacier, West Antarctica and the geomorphic evolution of the Aurora Subglacial Basin, in East Antarctica, as well as ongoing projects examining Thwaites Glacier)

**Project #2: Enter Your Rank of Project #2 here: \_\_\_\_\_**

Extend our understanding of ice sheet evolution back through many glacial cycles by targeting aerogeophysical experiments over potential “oldest ice” sites bounding the glacial catchments covering East (and West) Antarctica’s subglacial basins. (Ongoing projects examining the context for a subglacial lake in Princesse Elizabeth Land, East Antarctica)

**Project #3: Enter Your Rank of Project #3 here: \_\_\_\_\_**

Develop new airborne geophysical techniques to understand ocean influences causing the changes we are observing on the ice shelves fringing the Antarctic ice sheet (New projects looking at characterizing the basal interface of Nansen Ice Shelf and West Ice Shelf, East Antarctica)

**Project #4: Enter Your Rank of Project #4 here: \_\_\_\_\_**

Extend our ability to understand Antarctic ice-ocean interactions and basal controls on ice sheet evolution by fielding the UTIG aerogeophysical platform over carefully chosen targets around the globe.

(Preparation for upcoming helicopter and fixed wing aerogeophysical surveys in Antarctica)

**Project #5: Enter Your Rank of Project #5 here: \_\_\_\_\_**

Develop new aerogeophysical techniques to investigate terrestrial analogs in the Arctic and Antarctic for understanding both the exchange processes and potential habitability of ice-covered worlds across the solar system. (Ongoing projects looking at the geology of Devon Ice Cap in the Canadian Arctic, as well as a significant subglacial lake in Greenland)

**Signature of Applicant Date**