

## **MUREP Precollege Summer Institute (PSI) - (MUREP PSI)**

**Title: Exploring the Impact of a NASA Robotics Pre-Engineering Camp on Underrepresented and Underserved High School Students**

**Institution: Prairie View A & M University**

**City/State: Prairie View, TX**

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### **Summary:**

The President's Council of Advisors on Science and Technology predicted that the United States would fall one million people short of the Science, Technology, Engineering and Math (STEM) professionals needed over a 10-year period and many economic forecasts predict a rising shortage of domestic STEM-trained professions in the US for years to come. A week-long residential summer camp focused on robotics in space - NASA Robotics Pre-Engineering Camp - has been designed to encourage interest in engineering careers while developing participant content knowledge in engineering design.

The summer camp will be held on the Prairie View A&M University (PVAMU) campus, a historically black college or university (HBCU) that graduates the most African American engineers annually. The goal of the proposed residential summer camp is to utilize NASA's missions of research, development, and discovery to attract underrepresented/ underserved high school students and equip them with the tools necessary for success in college degree programs leading to STEM careers as well as improve NASA's capability to access this viable pipeline of low representation in the STEM workforce. Based on previous data from residential summer camps hosted at PVAMU, it is hypothesized that the NASA Robotics Pre-Engineering Camp will positively impact the interest, skills, knowledge, and career aspirations of camp participants and motivate them to pursue and stick with STEM majors.