

**REMOVING OBSTACLES FOR STEM EXCELLENCE (ROSE) LAB
COLLEGE OF ENGINEERING AND APPLIED SCIENCE****RESEARCH OPPORTUNITIES FOR UNDERGRADUATE students****APPLICATION DEADLINE: April 29, 2024****PROJECT TITLE: Developing a model to support neurodivergent students in Engineering****Physical Requirement : No physical requirement****Project's Technical Skills Requirement : Proficiency in MS Word, Excel, Outlook, and PowerPoint.****Project's Available Positions : 1**

**Whitney Gaskins
826 Mantei Center
College of Engineering and Applied Science
Cincinnati, Ohio 45221
gaskinwb@ucmail.uc.edu
phone: 513-556-5898**

Project Description

Neurodivergent is the term that is used to describe people who identify as neurodiverse. Neurodiversity is not a diagnosis, rather it is a broad term used to encompass a wide range of specific, non-specific, hidden and/or undetermined diagnoses that include but is not limited to: attention deficit hyperactivity disorder (ADHD), autism spectrum disorder (ASD), specific learning disorder (SLD). Neurodivergent students are enrolling in higher education at increasing rates but they continue to experience significant challenges which greatly impact their college life and their transitioning into the workforce. It is estimated that 15-20% of the US population are neurodivergent. But evidence reveals that neurodivergent students are underrepresented in engineering fields and representation of neurodivergent people in engineering is far less than other STEM fields. Yet strengths and skills of neurodivergent individuals are essential to meeting current and future engineering workforce needs. Therefore, the objectives of this proposed research project are: 1) Exploring the experiences of engineering neurodivergent students to find a better understanding of the challenges they face and the supports they need regarding success in studying engineering, internship and employment. 2) providing and examining evidence-based strategies and recommendations for how to address the challenges and needs of neurodivergent students through the combination of participatory action research methods with the emerging body of literature and experts' opinions. This research project will be completed in the Removing Obstacles from STEM Excellence (R.O.S.E) Lab in the Department of Engineering and Computing Education. You will work as part of a multidisciplinary team to develop a model to support neurodiversity excellence in engineering.

Preferred skills include:

- Familiarity with qualitative research, action research, and mixed methods research
- Familiarity/experience in conducting interview
- Familiarity with qualitative and quantitative data analysis methods

Training provided:

- Data ethics and integrity via CITI Training, IRB on-boarding, and lab on-boarding
- Knowledge and experience of a variety of research methods
- Knowledge of neurodiversity and evidence-based supports for neurodivergent students
- Understanding of Engineering Education Research fields
- Potential for research publications and presentations at the local and national levels