

INCLUSIVE EXCELLENCE AND COMMUNITY ENGAGEMENT
COLLEGE OF ENGINEERING AND APPLIED SCIENCE

SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE students

APPLICATION DEADLINE: 02/25/2022

PROJECT TITLE: Empowering Parents in Churches in Creating STEMulation (EPICC STEMulation)

Whitney Gaskins
College of Engineering and Applied Science
610D Old Chemistry
Cincinnati, Ohio 45221
gaskinwb@ucmail.uc.edu
513-556-5898

Project Description

In this Pilot and Feasibility study, Black Churches will be leveraged as an informal STEM learning environment while parents from marginalized communities served by the churches will be empowered to deliver STEM content to their children. The overall goal of this project, Empowering Parents in Churches in Creating STEMulation (EPICC STEMulation), is to equip church leaders and parents from underrepresented backgrounds with the tools to deliver STEM content that is contextualized to their lived experiences to youth ages 10-14 who attend the partner churches. These places of informal STEM content delivery will be termed STEMulation Zones. The proposed project has 2 objectives: 1) Develop a tailored, contextualized STEMulation program curriculum using a participatory approach.; 2) Train and support parents to implement the pilot STEMulation curriculum in their church and assess its effectiveness. A consecutive mixed method design approach will be used in this multi-site study that will be conducted over 2 phases. Phase 1 will use a sequential qualitative to quantitative design that incorporates a participatory approach using the photovoice technique for qualitative data collection that will inform the development of a tailored, contextualized STEM education curriculum to be implemented in Black churches and Phase 2 will involve the training of parents to deliver the STEMulation curriculum in their place of worship. The overall project deliverable will be a documentary that follows the process by which STEMulation Zones are formed, curricular content is contextualized and developed, and how laypersons (parents and church leaders) are trained to deliver STEM content and assess the program.