



## Invited Letter: Greetings from the National Science Foundation!

**Keywords:** NSF, ATE, technician education

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Hello from the National Science Foundation!

It is my pleasure to support the Journal of Advanced Technological Education (JATE) and its success in reaching community and technical colleges since its introduction in 2022. I am excited to contribute to this second issue of Volume 2 of the JATE. As a Program Officer at NSF from a community college, an author of several publications focused on innovations in technician education, and a proud member of the NSF ATE leadership team, I am aware of the importance of community and technical colleges publishing their work in the JATE. As an engineer who worked in industry prior to my teaching career, I understand that our nation's two-year schools are keystones of the community in preparing students to enter directly into the workforce and contribute to our nation's economy. The JATE provides a voice for these institutions to share their research and accomplishments with a national audience.

The theme of this issue, undergraduate research in technician education, is closely aligned with the current and future needs of industry and with the missions of NSF and ATE. Community and technical colleges are known for serving a higher percentage of students from diverse backgrounds, which is important for the future of our economy. I was a Principal Investigator on two ATE grants that focused on enhancing the curriculum for technician education programs and creating pathways for workforce development certification programs into credit technician education majors. I was also the advisor to two teams that made the final round of the NSF, AACC Community College Innovation Challenge (CCIC). Through these ATE grants, the CICC, and private grants, my students researched important national interest areas such as additive and subtractive manufacturing, drone technology, alternative energy, and cybersecurity. They disseminated their research at local and national conferences through presentations, competitions, panel discussions, and casual conversations, contributing to the advancement of knowledge. They met with industry leaders, faculty, and students locally and nationally. My students developed valuable research, communication, and networking skills that instilled confidence and helped prepare them for industry careers.

I am aware of the importance of cultivating student engagement, empowerment, and a sense of belonging through undergraduate research. These valuable research experiences that greatly benefitted my students have informed my strong belief that improving undergraduate research in technician education is crucial for preparing students to enter into industry careers in areas of national need. These research experiences align with the mission of ATE in that they help to create pathways into industry for a diverse population of students, including a larger percentage of groups historically underrepresented in STEM. It helps lead to retention, success, and degree completion for these students. Undergraduate research in technician education aligns with the mission of NSF in that it promotes the progress of science, helps to secure our national defense, and contributes to the health and welfare of our nation through discovery.

I am proud to serve my country as a Program Officer from a community college for NSF and ATE and to share with you the importance of undergraduate research in technician education. It is crucial for faculty

DOI: [10.5281/zenodo.8346634](https://doi.org/10.5281/zenodo.8346634)

*J ATE* 2023, 2, 2



members from community and technical colleges to publish their work and disseminate their research. I strongly encourage all community college faculty and leaders on ATE grants, including all projects and centers, to submit their research and accomplishments to JATE for publication. It is important for the future of our nation to reach a wider audience through continued communication and nationwide connections.

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