

Position Title: Electrical Engineering Undergraduate Research Assistant

Position Summary:

Missouri Institute for Defense and Energy (MIDE) is pleased to invite applications for an Undergraduate Research Assistant to work on high frequency, high power transmitter project. The research assistant will perform research on power amplifiers and transmitter circuits, assist in the design and simulation of power amplifiers, obtain hands-on experience testing the end product, and prepare technical reports. This project provides the opportunity to work on Gallium Nitride (GaN) transistors as part of a large-scale, long-term effort for the Office of Naval Research (ONR). Candidates must have strong verbal and written communication skills. The successful applicant must be in good academic standing and making satisfactory progress toward an Electrical Engineering degree.

Qualifications:

- Firm understanding of circuit theory and electronic circuits,
- Experience in analog and/or RF circuit design is a plus,
- Ability to work with minimum supervision,
- G.P.A. of 3.0 or above,
- Successful completion or current enrolment in following coursework:
 - *Required coursework:* Circuit Theory I & II (276 & 376), Electromagnetic Waves & Fields (302), Electronic Circuits (330), Signals and Systems (380), Semiconductors & Devices (334)
 - *Preferred coursework:* Introduction to VLSI Design (442), Principles of RF/Microwave Engineering (412), Microwave Engineering for Wireless Systems (414), Intro to Communication Systems (474)

Compensation:

- \$15/hr for up to 20hrs/week paid biweekly (~\$1200/month)
- Tuition reimbursement/ scholarship / increased salary is a possibility for future semesters after demonstration of satisfactory progress.

To apply, please complete the application form located at https://umkc.co1.qualtrics.com/jfe/form/SV_09v41tZ5ow7v58G.

About the Missouri Institute for Defense and Energy (MIDE):

The mission of MIDE is to improve the quality of life by bridging academia with industry to address wicked problems. The vision of MIDE is to lead in the development of technologies that directly and positively impact society and to grow the leaders of tomorrow in a team-focused culture.

The main research areas within MIDE include high power electrical engineering, pulsed power, condensed matter physics, computational physics, radio frequency propagation and detection, alternative and energy storage, chemistry, biotechnology, and urban agriculture.

For more information about MIDE, visit umkc.edu/mide.