

Opportunity Title: Air Force Institute of Technology (AFIT) - Remote Sensing of the Ionosphere Fellowship Opportunity Reference Code: AFIT-2022-0015

Organization U.S. Department of Defense (DOD)

Reference Code AFIT-2022-0015

How to Apply Click on Apply at the bottom of the opportunity to start your application.

Description The Air Force Institute of Technology (AFIT) is offering a postdoctoral fellowship at Wright Patterson Air Force Base. The Air Force Institute of Technology, with its main campus located at Wright-Patterson AFB, Ohio, is the Department of the Air Force's leader for advanced, multi-disciplinary academic education, as well as its institution for technical professional continuing education. A component of <u>Air University</u> and <u>Air Education</u> and <u>Training Command</u>, AFIT is committed to providing innovative, defense-focused graduate education and related research, and operationally-relevant professional continuing education to sustain the technological supremacy of America's air, space, and cyber forces. Since 2008, AFIT has been designated as the Air Force's Cyber Technical Center of Excellence.

What will I be doing?

As an ORISE participant, you will join a engage with U.S. Air Force Institute of Technology (AFIT) faculty and staff in an effort to support research related to remote sensing of the ionosphere. The research focus will be centered on using GNSS radio occultation (RO) to measure the bottomside ionosphere with an emphasis on sporadic-E. Updated GNSS-RO techniques to monitor sporadic-E will be developed and used to improve global climatologies. Additionally, D- and E-region electron density profiles derived from GNSS-RO measurements will be validated and analyzed for global trends with respect to varying solar and geomagnetic conditions.

Where will I be located? Dayton, Ohio

What is the anticipated start date?

Exact start dates will be determined at the time of selection and in coordination with the selected candidate. Applications are reviewed on an ongoing basis and fellowships will be filled as qualified candidates are identified.

What is the appointment length?

Appointments are initially for one year with the option to extend the appointment for up to four additional years, contingent upon project needs and funding availability.

What are the benefits?

You will receive a stipend to be determined by AFIT. Stipends are typically based on a participant's academic standing, discipline, experience, and research facility location. Other benefits may include the following:

- Health Insurance Supplement (Participants are eligible to purchase health insurance through ORISE)
- Relocation Allowance
- Training and Travel Allowance

About AFIT

The Air Force Institute of Technology, or AFIT, located at Wright-Patterson Air Force Base, Ohio, is the Air Force's graduate school of engineering and management as well as its institution for

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The ORISE GO mobile app helps you stay engaged, connected and informed during your ORISE experience – from application, to offer, through your appointment and even as an ORISE alum!





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technical professional continuing education. A component of Air University and Air Education and Training Command, AFIT is committed to providing defense-focused graduate and professional continuing education and research to sustain the technological supremacy of America's air, space and cyber forces. For more information about AFIT: https://www.afit.edu/ABOUT/index.cfm

About ORISE

This program, administered by Oak Ridge Associated Universities (ORAU) through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and DoD. Participants do not enter into an employee/employer relationship with ORISE, ORAU, DoD or any other office or agency. Instead, you will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE. For more information, visit the <u>ORISE Research Participation Program at the U.S.</u> <u>Department of Defense</u>.

Qualifications The qualified candidate will have a doctoral degree received within 5 years of the appointment start date.

Applicants should have a solid academic background in a research area that aligns with at least one of those described in the project description.

Highly competitive applicants will have education and/or experience in one or more of the following:

- · remote sensing
- · radio propagation through plasmas
- · plasma physics
- machine learning

Application Requirements

A complete application consists of:

- Zintellect Profile
- · Educational and Employment History
- · Essay Questions (goals, experiences, and skills relevant to the opportunity)
- Resume (PDF)
- Transcripts/Academic Records For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. <u>Click here for detailed information about acceptable</u> <u>transcripts</u>.
- One recommendation. Your application will be considered incomplete and will not be reviewed until one recommendation is submitted. We encourage you to contact your recommender(s) as soon as you start your application to ensure they are able to complete the recommendation form and to let them know to expect a message from Zintellect. Recommenders will be asked to rate your scientific capabilities, personal characteristics, and describe how they know you. You can always log back in to your Zintellect account and check the status of your application.

If you have questions, send an email to AIRFORCE@orise.orau.gov. Please list the reference code



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of this opportunity [AFIT-2022-0015] in the subject line of the email. Please understand that ORISE does not review applications or select applicants; selections are made by the sponsoring agency identified on this opportunity. All application materials should be submitted via the "Apply" button at the bottom of this opportunity listing. Please do not send application materials to the email address above.

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Eligibility • Degree: Doctoral Degree received within the last 60 month(s).

- Requirements Discipline(s):
 - Earth and Geosciences (4.)
 - Engineering (<u>1</u>
 - Physics (<u>16</u>)
 - Veteran Status: Veterans Preference, degree received within the last 120 month(s).