

**The Department of Chemical and Biochemical Engineering (CBE) at the University of Iowa (UI) invites applications for an open-rank tenure track position**, with an anticipated August 2022 starting date. Preference will be given to candidates with expertise in the formulation and design of instrumentation for Earth observation from space or airborne platforms. In addition, candidates with expertise in the development of novel sensor materials, distributed and smart sensor networks, and big data analytics are encouraged to apply. Successful candidates should demonstrate potential for attracting extramural funding and establishing a research program that will contribute to the advancement of observation technology for studying the atmosphere, climate and/or Earth systems. The successful candidate will develop a teaching portfolio both in chemical engineering and in research-relevant areas such as earth observation, sensor technologies, and atmospheric/environmental sciences.

CBE is a vibrant, collegial, research-active department with 11 tenure-track faculty, over 200 undergraduate students, 35 graduate students, and a diverse team of postdoctoral researchers, professional, instructional, and administrative staff. CBE has an established global reputation for research innovation in atmospheric and fire remote sensing, atmospheric modeling, and environmental measurements. A successful candidate will complement this research strength and will be able to use the world-class fabrication and other facilities of the Department of Physics and Astronomy (P&A). The first satellite (Explorer 1) launched by the United States carried the Cosmic-Ray Detector designed by UI in 1958. Since then, UI-built instruments have been launched on over 70 different spacecraft. In addition to developing and growing their own research program, the candidate will have the opportunity to leverage and bridge P&A's excellence in space instrumentation, with CBE's strengths in atmospheric modeling and remote sensing algorithms.

This position is a new strategic hire in the College of Engineering. Our college has six academic departments, several research centers of excellence, and research expenditures of \$50M per year. All academic units are hosted in the Seamans Center for the Engineering Arts and Sciences, which enables frequent and regular opportunities for engagement with students, faculty, and staff throughout the college. Within the College of Engineering, the Iowa Technology Institute has the first-class flight-testing facility (including 7 manned aircraft) through its Operator Performance Laboratory (OPL) in the Iowa City airport. Additionally, the IHR- Hydraulic Science and Engineering Center has a vibrant research program in related areas, including hydrology, environmental informatics, water quality, and flood prediction. Collectively, the atmospheric and Earth science research in the University of Iowa is also fostered by the Center for Global and Regional Environmental Research, the Office of Sustainability, and other interdisciplinary departments, centers, and colleges (including the College of Public Health and Carver College of Medicine). Additional information be found at <https://cbe.engineering.uiowa.edu>, in the section of 'Faculty Search'.

The successful candidate will have a Ph.D. degree in chemical engineering, atmospheric science, chemistry, physics or other related field. The search committee is especially interested in candidates who will bring to their research the perspective that comes from nontraditional educational background or an understanding of the experiences of those historically underrepresented and/or marginalized in STEM fields. The University of Iowa understands the link between diversity, equity and inclusion (DEI) and excellence in education. We are proud to be the first public institution that admitted both men and women regardless of race (since our founding in 1847), and the first to extend benefits to employees' domestic partners (in 1992). We embrace our shared responsibility to create a welcoming and inclusive campus culture so that all community members can unlock their own potential. Faculty in the College of Engineering contribute to DEI by designing curricula, research programs, and engagement opportunities that challenge the status quo, cultivate empathy, seek out diverse perspectives, and value global

citizenship. To learn more about the University of Iowa's commitment to diversity, equity, and inclusion, visit <https://diversity.uiowa.edu/>.

The College is committed to recruiting and retaining talented and diverse faculty and staff, which includes providing dual-career resources and opportunities for employees to "Build a Career *and* Build a Life" in the Iowa City area. The University offers several benefits to support faculty and their families in achieving a healthy work/life balance. For more information, please visit this link: <https://worklife.uiowa.edu>.

Preliminary inquiries for additional information are encouraged. Review of applications will begin on November 15, 2021; however, applications will be accepted until the position is filled. [A detailed description of the position, qualifications, and the application process can be found at: http://jobs.uiowa.edu/](http://jobs.uiowa.edu/) under the faculty section, searching requisition #74257.

#### **Required Qualifications:**

- Ph.D. degree in chemical engineering, atmospheric science, chemistry, physics or other related field.
- Ability to teach and develop courses and mentor students in the Chemical and Biochemical Engineering program.
- Potential to attract extramural funding and establish a research program that will contribute to the advancement of observation technology for studying the atmosphere, climate and/or Earth systems
- Evidence of a commitment to diversity, equity and inclusion. We are particularly interested in applicants who will actively foster a climate that values and engages diversity in all its forms as aligned with the DEI goals of the department and college.

#### **Desirable Qualifications:**

- Training and expertise in one or more of the following areas:
  - Instrumentation for Earth observation from space or airborne platforms
  - Novel sensor materials
  - Distributed and smart sensor networks
  - Big data analytics
- Ability to teach and develop courses on earth observation, sensor technologies, and atmospheric/environmental sciences
- Demonstrated success working with diverse groups of students
- Experience with interdisciplinary collaborations
- Experience acquiring research funding
- Evidence of a commitment to maintain respectful, team-oriented working relationships

#### **The Application Package**

- A cover letter explaining your interest in the position;
- A current CV;
- Name and contact information for three references;
- A representative research publication; and
- Three equally important supporting statements:
  1. Commitment to DEI Statement. Describe your past, current, and/or future contributions to DEI, and how your research, teaching, mentoring and/or professional service activities have (or will) advance DEI and promote social justice.
  2. Teaching Statement. Explain your teaching philosophy, and a plan for maintaining continuous improvement in teaching and mentoring.

3. Research Statement. Explain your research philosophy, and present your plan for establishing and maintaining a recognized and well-funded research program.

Further inquiries regarding this position can be sent to the attention of Jun Wang, Search Committee Chair via: [engr-hr@uiowa.edu](mailto:engr-hr@uiowa.edu).

The University of Iowa is an equal opportunity/affirmative action employer. All qualified applicants are encouraged to apply and will receive consideration for employment free from discrimination on the basis of race, creed, color, religion, national origin, age, sex, pregnancy, disability, genetic information, status as a U.S. veteran, service in the U.S. military, sexual orientation, gender identity, associational preferences, or any other classification that deprives the person of consideration as an individual.