

Smead Endowed Chair in Space Technology

in the

Ann and H.J. Smead Department of Aerospace Engineering Sciences

> College of Engineering and Applied Science



EXECUTIVE SUMMARY

The University of Colorado Boulder (CU Boulder) seeks an outstanding scholar in space technology to become the Smead Endowed Chair in Space Technology in the Ann and H.J. Smead Department of Aerospace Engineering Sciences. This tenured position is targeted at the level of Full Professor and will include responsibility for developing and leading an externally funded research group, teaching undergraduate and graduate courses, and engaging in university and professional service. Additionally, the Smead Endowed Chair will be a leader in The Smead Program, helping the program grow to be the most prestigious Ph.D. aerospace engineering fellowship program in the U.S. and worldwide.

THE ANN AND H. J. SMEAD DEPARTMENT OF AEROSPACE ENGINEERING SCIENCES

CU Boulder's Ann and H.J. Smead Department of Aerospace Engineering Sciences (AES) is nationally recognized, ranked #5 among public university peers by U.S. News and World Report. AES is known for teaching and research that address both challenges and opportunities facing the aerospace profession. Students engage extensively through both classroom-based and hands-on learning in our modern facilities. CU Boulder aerospace alumni are working at top companies and research labs, including the Jet Propulsion Laboratory, Johnson Space Center, BAE Systems, Lockheed Martin, and many other aerospace companies and government institutions. Additionally, AES faculty and alumni have founded several start-up companies, including Black Swift Technologies, Advanced Space, and Blue Cubed.

AES is home to 62 tenure-track, research, and instructional faculty, with over 550 graduate students, and over 1,200 undergraduates. AES's vibrant community of engineers and scientists tackle challenges in aerospace technology and science. The Department had research awards of \$41.6 million last fiscal year, more than any other department in the College of Engineering and Applied Science. Ongoing research activities in Smead Aerospace span five focus areas:

- Astrodynamics and Satellite Navigation Systems (ASN)
- Autonomous Systems (AUT)



- Bioastronautics (Bio)
- Fluids, Structures, and Materials (FSM)
- Remote Sensing, Earth and Space Sciences (RSESS)

AES researchers and faculty are organized into four world-class research centers to address multidisciplinary aerospace research topics: the Aerospace Mechanics Research Center (AMReC); the Research and Engineering Center for Uncrewed Vehicles (RECUV); the Colorado Center for Astrodynamics Research (CCAR); and the BioServe Space Technologies Center (BioServe). Individual faculty also have their own laboratories to conduct aeronautics, astronautics, and computational research.

Colorado is a national leader in aerospace and industry partnerships, which play a key role in AES's research and education programs.

According to the Colorado Space Coalition:

- Colorado ranks first in the nation for per-capita private aerospace workers
- Colorado has the second largest aerospace economy
- Colorado has more than 400 aerospace companies providing space-related products and services
- Colorado employs more than 190,000 individuals in space-related jobs

Candidates are encouraged to learn more about the <u>educational mission</u> of the department.

THE POSITION

The Smead Endowed Chair in Space Technology recognizes leadership, creativity, and technical excellence in space research. The department is seeking an experienced faculty member in the area of space technology research, a field that includes broad areas of study related to technologies enabling space flight,



atmospheric re-entry of Earth or other bodies, technologies to sustain life in space as well as space-based remote sensing technologies. Tenured faculty in the department typically hold positions that include 40% teaching, 40% research, and 20% leadership and service.

The Smead Endowed Chair in Space Technology will work closely with the Smead Program Director and other program-affiliated faculty to further enhance and raise the profile of The Smead Program. The Smead Endowed Chair in Space Technology will serve on The Smead Program Steering Committee, which is responsible for budgetary and strategic oversight of the program, and on the Smead Scholar Selection Board.

THE SMEAD PROGRAM: EXPLORE. ACHIEVE. LEAD.

The <u>Smead Program</u> consists of scholars and faculty internationally recognized for their research and character. The Smead Program is a strong community who support one another's continual growth and future goals. Through regular connections with participants, alumni, and leaders in the field, the program has built — and continues to grow — a diverse network in the fields of industry, academia, and government. The Smead Program is focused on leaders who will make an impact that benefits not only the aerospace community, but the future of humanity. The Smead Program is governed by The Smead Program Steering Committee and informed by the Smead Department of Aerospace Engineering Sciences, College of Engineering and Applied Science, and program participants.

There are five main pillars of The Smead Program that contribute to leadership, impact, and community:

- 1. Scholars (PhD students)
- 2. Faculty Fellows
- 3. Byram Distinguished Visiting Professor
- 4. Smead Endowed Chair of Space Technology
- 5. Smead Post-Doctoral Fellow

COMPETENCIES AND QUALIFICATIONS

Candidates must have an understanding and appreciation for aerospace engineering fundamentals, as well as excellent management and organizational skills and a willingness to learn quickly.

Candidates will be expected to engage in undergraduate and graduate teaching and mentoring. The department seeks candidates who are strongly interested in or demonstrate effectiveness in teaching, mentoring, and inspiring diverse students of all races, nationalities, and genders including first-generation college undergraduates. Additionally, candidates must maintain an externally funded research program in technical their area that mav include collaborations with colleagues throughout the department and across the College of Engineering Applied Sciences (CEAS); contribute and professional leadership and service to their unit, the college, and their professional community; and cultivate and contribute to the inclusive excellence of the academic community.

The successful candidate will engage in partnership with members of The Smead Program Steering Committee, including the donors supporting the program and the A. Richard Seebass Endowed Chair, and the Smead Scholar Selection Board. Moreover, the successful candidate will be expected to attend all major Smead Program events and support the program's outreach, marketing, and communications efforts, as well as assist in recruiting new program participants.

- A research doctorate in aerospace, aeronautical, or astronautical engineering, or a closely related engineering or physical/chemical science discipline
- The ability to meet <u>University standards</u> and unit criteria for tenure and appointment at the Professor rank. These criteria generally include having an established and ongoing program of original research, a strong publication record, a demonstrated ability to obtain external funding, and a record of high-quality teaching and mentoring
- Excellent communication and interpersonal skills along with the ability to teach and work in a highly collaborative environment

EMPLOYMENT TERMS

The anticipated academic year (9-month) salary range for this position is \$175,000-250,000, plus a moving allowance and a signing bonus within CEAS guidelines.

As the Smead Endowed Chair in Space Technology, the successful candidate will have access to annual discretionary funds in the range of \$100,000-125,000. These funds may be used for costs such as travel, supporting graduate students, equipment, publications, etc. The Smead Endowed Chair in Space Technology may also use up to 10% of the annual discretionary funds as an additional academic year salary for their 9-month appointment.

Tenure-track faculty benefits include eligibility for:

- Gender-neutral paid parental leave
- Housing down-payment assistance programs
- A relocation and dual career assistance program
- ▶ <u>Teaching</u>, <u>research</u>, <u>professional development</u>

The University of Colorado offers excellent <u>benefits</u>, including medical, dental, retirement, paid time off, tuition benefit, and free public transportation within Boulder. CU Boulder is one of the largest employers in Boulder County and offers an inspiring higher education environment.

In addition, qualified candidates will possess:



CU Boulder is committed to diversity, equity, and inclusion and encourages faculty to apply who will enrich the university's environment and further its strategic priorities. As part of CU Boulder's deep commitment to equity, diversity, and inclusion, the campus has implemented a reference check program with respect to final candidates for tenured faculty appointments. The reference check program is intended to allow CU Boulder to collect and review information about a candidate's conduct at their previous institutions, specifically, conduct related to sexual misconduct, harassment, and/or discrimination — before making hiring decisions. All final candidates for tenured faculty appointments are required to complete an Authorization to Release Information.

COLLEGE OF ENGINEERING AND APPLIED SCIENCE

The <u>College of Engineering and Applied Science</u> (CEAS) is the second largest school or college on the CU Boulder campus, and is ranked as a top ten public graduate engineering program and a top twenty undergraduate engineering program, with multiple specialty programs ranked in the top twenty as well. CEAS's approximately 250 tenuretrack, 115 instructional-track and 30 research-track faculty serve more than 6,000 undergraduate students, 1,300 master's students, and 1,000 PhD students.

Equally important, CEAS is <u>committed to fostering a</u> <u>diverse</u>, <u>inclusive</u>, <u>and academically excellent</u> <u>community</u>. CEAS recently updated its <u>strategic</u> <u>vision</u> to include three core foci: (i) research and innovation; (ii) education; and (iii) inclusion. CEAS asserts that a diverse faculty is necessary for achieving these goals and the <u>campus diversity</u> plan. CEAS believes that the college's success requires faculty who actively work to create an inclusive culture within the college.

THE UNIVERSITY OF COLORADO BOULDER

Nestled against the backdrop of the Rocky Mountains, CU Boulder stands as a beacon of academic excellence and innovation. CU Boulder is Colorado's flagship public institution and among the most research-active public universities in the country. As one of only 36 U.S. public research institutions in the prestigious Association of American Universities (AAU), it is a cornerstone of higher education, deeply committed to the pillars of teaching, research, and service.

With eight distinguished colleges and schools, CU Boulder boasts an enrollment of over 36,000 students guided by a dedicated faculty comprising more than 1,800 tenured, tenure-track, and teaching-track professors. As the largest campus within the renowned University of Colorado system, CU Boulder prides itself on fostering a vibrant academic community that nurtures intellectual curiosity and encourages groundbreaking exploration.

CU Boulder serves as a dynamic hub of innovation and community engagement, with a steadfast dedication to regional economic development earning prestigious recognition, including the Innovation and Economic Prosperity award from the Association of Public and Landgrant Universities. Across the University, the shared vision is to emerge as a leader in identifying and addressing the humanitarian, social, and technological challenges of the 21st century. Guided by a shared commitment to integrity, respect, inclusiveness, and openness, CU Boulder continues to advance its mission of teaching, research, and service.



In its research mission, CU Boulder stands at the forefront of discovery and innovation. Garnering over 4,500 research awards and gifts totaling more than \$742 million in fiscal year 2024, the University is committed to advancing the economy, culture, and health of Colorado, the nation, and the world. CU Boulder's twelve research institutes account for more than half of all sponsored research dollars at the university, and they employ some of the most productive researchers in the country. With more than 3,000 faculty, researchers, students, and supporting staff, the institutes make a major contribution to the university's research and

education missions as well as the local and area economy.

Federal agencies contributed \$495.4 million to support CU Boulder's research endeavors last year, underscoring the University's significant impact on national research priorities. In addition to federal support, in FY 2024 CU Boulder's sponsored-projects portfolio benefited from collaborations with industry partners, other universities, and international collaborators. The University also received generous support from foundations, private entities, and individuals. Contributions from these sources amounted to \$219.8 million, reflecting the diverse funding landscape that supports CU Boulder's research ecosystem.

TO APPLY

The University of Colorado has engaged Opus Partners (www.opuspartners.net) to support the recruitment of the Smead Endowed Chair in Space Technology. Craig Smith, Senior Partner, Ann K. Adams, Associate Partner, and Jeffrey Stafford, Senior Associate, are leading the search. Candidates should send the following materials as individual PDF files to jeffrey.stafford@opuspartners.net:

1. **Cover Letter**: A one-page cover letter describing your interest in the position and summarizing your personal academic goals.

2. Resume/CV: A current curriculum vitae.

3. A Statement of Research Philosophy: A statement of your experience and plans for research and/or

creative work that contributes to the body of knowledge in your field and provides broader benefits to education and society. Candidates with an experimental component to their research should provide a concise summary of anticipated financial and space needs. (2-3 pages)

4. **A Statement of Teaching Philosophy**: A statement of your experience and plans for teaching and mentoring a diverse student body and developing inclusive pedagogy practices. (2-3 pages)

5. Contributions to Diversity and Inclusion Statement: In this statement, describe your experience and demonstrated ability to advance a diverse and inclusive environment within your research, teaching, and/or service to the benefit of student learning, campus

culture, and society. Please provide details on your track record regarding activities related to broadening access and retention to aerospace engineering sciences or related fields, calibrated to your career stage, that outlines your research, teaching, or leadership/service activities to advance an inclusive environment and the role you played in these efforts. In addition, describe your specific plans for advancing access to the field of aerospace engineering sciences as a potential faculty member in the Smead Aerospace Engineering Sciences Department within the College of Engineering and Applied Science at the University of Colorado Boulder. (1-2 pages)

- Information about the department's inclusive excellence strategy can be <u>found here</u>.
- Additional guidance on writing this statement can be <u>found here</u>.

Nominations, recommendations, and inquiries should go to the same address. Every effort will be made to

ensure candidate confidentiality. Applications will be accepted until the position is filled, however for full consideration please apply by March 28, 2025. The search process will remain confidential until the final stage of a public campus visit.

In compliance with the Colorado Job Application Fairness Act, in any submitted materials, candidates may redact or remove age-identifying information such as age, date of birth, or dates of school attendance or graduation. Candidates will not be penalized for redacting or removing this information.

The University of Colorado Boulder is committed to building a culturally diverse community of faculty, staff, and students dedicated to contributing to an inclusive campus environment. The University of Colorado Boulder is an Equal Opportunity employer, including veterans and individuals with disabilities.

