Assistant Professor - Energy Science and Engineering (Geothermal and/or Hydrogen Subsurface Eng)
Stanford University

Job Title Assistant Professor - Energy Science and Engineering (Geothermal and/or Hydrogen Subsurfac

Department Energy Science & Engineering
http://ese.stanford.edu

Institution Stanford University
Stanford, California

Date Posted Aug. 26, 2025

Application Deadline Oct. 31, 2025

Position Start Date Aug. 26, 2025

Job Categories Core Faculty

Assistant Professor

Academic Field(s) Planetary Sciences

Natural Sciences
Mathematics/Applied Mathematics
Geology - Tectonics/Structure
Geology - Sedimentology/Stratigraphy
Geology - Paleontology
Geology - Hydrogeology
Geology - GIS
Geology - Geophysics
Geology - Geochemistry
Geology/Geosciences - General
Environmental Sciences/Ecology/Forestry
Earth Sciences

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Job Website https://facultypositions.stanford.edu/cw/en-us/job/494888/assistant-professor-energy-science-ar geothermal-andor-hydrogen-subsurface-engineering

Apply Online Here https://secure.dc4.pageuppeople.com/apply/1054/aw/applicationForm/initApplication.asp?lJobID us&sSourcePointer=aw&lJobSourceTypeID=796

Apply By Email

Job Description

The Department of Energy Science and Engineering (ESE) at Stanford University invites applications for a tenure-track faculty appointment at the Assistant Professor level. We are seeking exceptional candidates with a strong commitment to research and teaching in the broad area of sustainable subsurface energy systems, with a particular emphasis on **geothermal energy** or **subsurface hydrogen production and storage.**

Research Focus:

We are particularly interested in candidates who use theoretical, numerical and/or experimental research to address fundamental and applied problems in geothermal energy and hydrogen in the subsurface. Potential areas of research include, but are not limited to:

- **Geothermal Energy:**
  - Enhanced Geothermal Systems (EGS), superhot rock (SHR), and advanced geothermal concepts.
  - Subsurface fluid flow, heat transfer, and rock mechanics in geothermal reservoirs
  - Advanced drilling and completion technologies for geothermal wells
  - Geophysical and geochemical characterization of geothermal systems
  - Modeling, simulation, and optimization of underground geothermal processes
  - Hybrid geothermal systems and integrated energy solutions
- **Hydrogen:**

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- Underground hydrogen detection and production (e.g., serpentinization, radiolysis, pyrolysis).
- Hydrogen retention and loss mechanisms in the subsurface
- Subsurface hydrogen storage (e.g., in depleted reservoirs, salt caverns)
- Assessment and verification of hydrogen storage
- Modeling, simulation, and optimization of underground hydrogen processes
- Hybrid geological hydrogen and geothermal systems

The successful candidate is expected to develop an internationally recognized, externally funded research program, contribute to the teaching mission of the department at both the undergraduate and graduate levels, and advise Ph.D. students. Stanford offers an exceptional environment for interdisciplinary collaboration across departments such as Geophysics, Civil & Environmental Engineering, Earth and Planetary Science, Materials Science & Engineering, Chemical Engineering, and Mechanical Engineering, as well as institutes like the Precourt Institute for Energy and the Stanford Woods Institute for the Environment.

Qualifications:

Applicants must possess a Ph.D. by the time of appointment, in a relevant field such as Energy Engineering, Mechanical Engineering, Chemical Engineering, Petroleum Engineering, Civil & Environmental Engineering, Geophysics, Geology, or a closely related discipline. We seek candidates with a demonstrated record of research excellence and a strong potential for developing innovative research and teaching programs.

Application Materials:

Candidates should submit the following:

1. Cover Letter
2. Curriculum Vitae (CV) including a list of publications
3. Research Statement (maximum 3 pages) outlining research interests, accomplishments, and future plans
4. Teaching Statement (maximum 1 page) describing teaching philosophy and experience
5. Names and contact information for three references

Application Deadline: Application materials need to be submitted online at https://secure.dc4.pageuppeople.com/apply/1054/gateway/Default.aspx?c=apply&sJobIDs=494888&SourceTy
us.

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The deadline to submit your application is **October 31, 2025, 11:00pm PST**. Late applications will not be accepted.

The Department of Energy Science and Engineering, the Stanford Doer School of Sustainability and Stanford University value faculty who will help foster an open and respectful academic environment for colleagues, students, and staff with a wide range of backgrounds, and perspectives. Candidates may choose to include as part of their research and teaching statements a brief discussion about how their work and experience will further these values.

Stanford is an equal employment opportunity and affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, protected veteran status, or any other characteristic protected by law. Stanford welcomes applications from all who would bring additional dimensions to the University's research, teaching and clinical missions.

Consistent with its obligations under the law, the University will provide reasonable accommodations to applicants and employees with disabilities. Applicants requiring a reasonable accommodation for any part of the application or hiring process should contact disability.access@stanford.edu.

The expected base pay range for this position is $143,500 - $193,000. Stanford University has provided a base pay range representing its good faith estimate of what the university reasonably expects to pay for the position. The pay offered to the selected candidate will be determined based on factors including (but not limited to) the experience and qualifications of the selected candidate including years since terminal degree, training, and field or discipline; departmental budget availability; internal equity; and external market pay for comparable jobs.

For general questions regarding this position, please contact Samantha Mickens at smickens@stanford.edu.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

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