Tenure-track faculty position in Earth & Environmental Engineering

The Department of Earth and Environmental Engineering at Columbia University in the City of New York has a tenure track position at the Assistant Professor level.

Earth and Environmental Engineering at the Henry Krumb School of Mines fosters excellence in education and research for the development and application of science and technology to maximize the quality of life for all, through the sustainable use and responsible management of Earth's resources. The department contributes to the goals of the *Engineering for Humanity* initiative of SEAS, the Columbia Earth Institute, and the Columbia World Projects. Global sustainability challenges related to climate, water, energy and materials are the primary focus of the department, and we are looking for faculty who will make a significant real-world impact in these interdisciplinary research areas.

Specific areas of interest include, but are not limited to:

Energy: Develop sustainable technologies to extract and utilize Earth's energy with minimum environmental impacts. Example areas include,

- energy storage
- carbon capture, utilization and storage (CCUS) and renewable or low-carbon energy sources such as biomass and urban/industrial wastes
- unconventional energy extraction

Water: Design innovative urban water systems with expertise on some of the following example areas:

- novel storage and point of use treatment and water re-use
- smart grids, sensors, data analytics, and systems integration
- renewable energy powered water purification and desalination
- oil and gas produced water treatment; zero/minimum liquid discharge technologies
- emerging contaminant and micropollutant detection and treatment

Minerals, mining and Materials: Extraction from primary and secondary materials with environmental management in areas such as:

- minerals and mining (including deep ocean, robotic, urban mining)
- Novel materials for energy conversion and storage, water production (e.g., filtration and desalination), environmental protection (e.g., carbon capture and conversion) based on nanotechnology, hierarchical and soft materials, biomimic and genomically engineered materials
- smart manufacturing and sustainable pathways for material cycles, material use efficiency, water less technologies and environmental impacts of material and energy cycles

All applicants must have a demonstrated record of outstanding research accomplishments, excellent teaching credentials and established leadership in the field. The successful candidate

should contribute to the advancement of the department in these areas by developing an externally funded research program and contributing to the undergraduate and graduate educational mission of the Department. He/she is expected to establish multidisciplinary research and educational collaborations with academic departments and units across Columbia University.

All applications received by February 15th, 2018 will receive full consideration.

Applicants can consult http://eee.columbia.edu/ for more information about the department.

Columbia University is an Equal Opportunity/Affirmative Action employer -- Race/Gender/Disability/Veteran