

Faculty and Postdoctoral Positions in Environmental Studies School of Environment, Tsinghua University



• About School of Environment, Tsinghua University

The School of Environment (SOE) at Tsinghua University, as a fastgrowing institution, was ranked 8th in the QS World University Rankings by the Subject of Environmental Sciences in 2021. SOE has become a major national teaching base and a scientific research center in the field of environmental protection.

SOE boasts a strong team of faculty with the leadership of four academicians of the Chinese Academy of Engineering, Professor QIAN Yi, Professor HAO Jiming, Professor QU Jiuhui and Professor HE Kebin. Each year, SOE attracts hundreds of the most talented young people from both China and abroad to study here, and nurtures many outstanding environmental engineers, scientists and administrators. Moreover, SOE provides technical services and theoretical support to the sustainable development of the country, and has been involved in the decision making



on some most critical environmental issues in China.

SOE will stand firmly with the two principles of combining and interconnecting engineering and sciences, technology and management, and keeping an open, innovative and practical mind to build the world's top school in environmental sciences and engineering.

Centenary SOE, a place where talents are cherished, is looking forward to your joining!



• Details of Job Opportunity

We are looking for distinguished and young faculties in various (inter-)disciplines in environmental studies, especially Cross-media composite pollution and emerging pollution, Environment-climate synergies, Biological risks and environmental health, System Ecology, Sustainable Cities, Key technologies for Carbon Neutrality, etc.

Faculty Positions:

Open Position 1

Regional water pollution control

Conducting researches on the identification and transformation of prioritized pollutants in the regional water environment, novel water pollution control theories and technologies for synergistic prevention of pollution and ecological risks.

Open Position 2 Interactions and regulation of water quality and aquatic ecology Conducting researches in the areas of the variation and adaption of



watershed-scale water environments and aquatic ecosystems towards global climate change and anthropogenic activities; the response of aquatic ecological systems to water quality change and regulation principles; the ecotoxicological effects and ecological risk assessment in the exposure of complex micropollutants; risk management and regulation of aquatic ecosystems health under different environmental stress.

Open Position 3

Drinking water safety and health risk control

Conducting researches in the areas of the evaluation methods on the synergistic toxic effects of complex pollutants in drinking water; the innovative technologies on the removal of micropollutants in drinking water; the principles and technologies on drinking water purification and health risk control with regards to achieving standards requirement and controlling toxic effects.

Open Position 4

Construction and operation of sustainable urban water infrastructure

Conducting researches on the construction and operation of sustainable urban water infrastructure, and mainly conduct researches about theory, methods and techniques of low carbon water and wastewater treatment, efficient collection and distribution of wastewater and drinking water, synergy of treatment plant and network, and urban water infrastructure safety management.

Open Position 5

Green environmental materials for long-term remediation of contaminated soil and groundwater

Conducting researches on the theories and methods for the design, synthesis, modification and characterization of remediation materials; the development of green and sustainable materials for long-term immobilization of soil metals, and evaluation methods for the long-term effectiveness of remediation processes etc. Innovative achievements in the development and practical applications of materials for soil and groundwater remediation are expected.

Open Position 6 Interface mass-transfer process simulation for soil and groundwater





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contamination

Conducting researches on the theories and technologies for the modeling of interface mass-transfer process for contaminants in the vadose zone and the groundwater aquifers. A variety of contamination and remediation processes will be studied by modeling approaches. Key achievements in terms of both mechanisms and dynamic modeling of the interface masstransfer process are expected.

Open Position 7

Simulation and cooperative control of multi-type, cross media environmental contamination of soil and groundwater

Conducting researches on the theories and technologies for the simulation and cooperative control of cross media environmental pollution by various contaminants from multiple sources, and field-scale demonstrations based on large environmental simulation facilities. Innovative achievements in the setup and applications of the process analysis and cooperative governance systems of environmental contamination at the regional scale are expected.

Open Position 8

Interactions and coordinated controls of air pollution and climate change

Conducting researches in the areas of chemical processes, formation mechanisms, and source apportionment of complex air pollution; the physicochemical processes and mechanisms controlling the interactions between air pollution and climate, especially the aerosol-cloud-radiation interactions; numerical models for the formation, evolution of air pollutants as well as their interactions with climate; the principles for coordinated controls of air pollution and climate change.

Open Position 9

Health-impact assessment and risk control of air pollutions

Conducting researches in areas of the influence of aerosol physicalchemical properties on their health effects; health effects of ultrafine particles; atmospheric chemical processes of air pollutants under conditions of complex air pollutions, and the influence on their health impact; the trans-media, trans-regional and trans-sectoral migration and conversion patterns of air pollutants, and their health-impact assessment and risk control policies etc.



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Open Position 10

Organic solid waste management and urban mining

Conducting researches on the innovative theories and technologies of material metabolism in the processes of organic solid waste low-carbon and efficient conversion, and recycling of urban wastes, to provide technological and decision-making support for development of urban mining, circular economy and ecological industry in China.

Open Position 11

Informatics and prediction for environmental microbiology

Establishing a multidisciplinary research platform to study and predict the ecological and function evolution of environmental microorganisms, and their impacts on pollution control and ecological safety based on cutting-edge bioinformatics technologies and methods.

Open Position 12

Analytical methods and pollution characteristic in multiple environment of emerging contaminants

Conducting researches on the analytical methods and rapid screening tools of emerging contaminants, such as persistent organic pollutants, pharmaceutical and personal care products, nano-materials and microplastics etc. in environmental media and organism; illustrating the concentration level, occurrence states, transform pathway and fate in regional multiple environment.

Open Position 13

Bacterial pathogens and environmental health

Developing epidemiology investigation methods, genetic analysis and mathematical modeling technologies to investigate source, transmission and controlling strategy of human pathogens in environment.

Open Position 14

Big data and environmental system modeling

Using big data to investigate multi-systems coupling mechanisms; big data mining and application in urban energy system, watershed water system, industrial adaptive system; conducting researches on theories and methods of computable environment.





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Open Position 15 Simulation and reconstruction of watershed systems

Conducting researches on cross-system integrated model development and application for composite systems to support collaborative environmental governance decision making in urban, regional, global or key industries.

Postdoctoral Positions: Shuimu Tsinghua Scholar

Tsinghua University has created the Shuimu Tsinghua Scholar Program which supports doctoral scholars in their academic career and educates leading researchers in various fields. Shuimu Scholars will receive an annual salary of 300,000 RMB (before tax) for two years. Shuimu Scholars will be provided with transitional housing on the campus or provided with housing subsidy of 42,000 RMB per year, state-funded housing subsidy of 1,2000 RMB per year, as well as subsidies for property management and heating. Shuimu Tsinghua Scholars enjoy the same medical plan privileges as Tsinghua faculty, and their children are offered positions at Tsinghua University's kindergarden and primary school. Shuimu Tsinghua Scholars can also participate in career training courses offered to Tsinghua faculty, and can apply for funds and allowances for attending top-level international conferences.

• Requirements for Applicants

- Being integrate, diligent, and healthy.
- Being competent to carry out cutting-edge scientific research, strong on teamwork and cooperation.

• Distinguished faculties are expected to be tenured professors / associate professors, or high-level researchers at universities and institutions at home and abroad, who have both outstanding performance in research and / or teaching recognized among international peers, and the capacity to stay at the research forefront and emerge as the most influential figures in their fields.

• Young faculties are expected to have no less than 2 years of postdoctoral or related working experience, and competitive publications or related outcomes.

• Applicants for Shuimu Tsinghua Scholar Program must fulfill the following requirements: be under 35 years old, and have obtained their



PhD degree within the last three years (recent graduates are given priority in consideration).

Benefits

SOE remuneration and benefits package includes:

- Remuneration: competitive salary;
- Start-up funds: negotiable according to actual demand;
- Doctoral students: guaranteed number of doctoral students;
- Talent programs: accessible to various municipal and state programs, which will be advantageous for your professional development;

• Housing: Temporary apartments on/near campus are provided at low rent. Welfare apartments can be purchased if they meet the requirements of the state and the university;

• Children's education: Children of pre-school and compulsory education age can be arranged to attend kindergartens and schools affiliated to Tsinghua University.

• To Apply

• Please send your application materials to soe-

faculty@tsinghua.edu.cn (for faculty positions) or

hjxrsk@oamail.tsinghua.edu.cn (for Shuimu Tsinghua Scholar),

including a cover letter, detailed resume, representative academic achievements and research proposal. This job advert will be valid until the positions are filled.

• To find out more information available at: https://www.tsinghua.edu.cn/enven/