

School of Environmental Science and Engineering

<http://sese.sjtu.edu.cn/en/index.php>

I . An Introduction to Disciplines and Main Research Fields

School of Environmental Science and Engineering (SESE) of Shanghai Jiao Tong University (SJTU) was established on September 10, 1999. SESE was approved to establish the doctor program of the major of Environmental Engineering in 2001, the master program of the Environmental Engineering in 2002, and the master station and post-doctoral program of the primary discipline of Environmental Science and Engineering in 2003. With the supports of Ministry of Education, Ministry of Environmental Protection, Department of Housing Construction, Municipal Education Commission and other universities, SESE has made outstanding achievements in many aspects, such as discipline construction, talent cultivation, scientific research, teaching faculty improvement, and multilateral cooperation in the past 15 years. So far, many research areas with special characteristics have been formed, including the control and restoration of river basin water pollution, regional air pollution control and governance, waste disposal and resource recovery, soil and groundwater pollution repair, the development of environment functional materials and environmental protection equipment, environmental chemistry and ecological toxicology, resources and environment management, and the strategies to cope with climate change. What's more, SESE has formed an excellent faculty; cultivated numerous talents of environmental protection scientific research as well as engineering and technology; and provided invaluable supports of talents, technology, and theories for major national strategies and local environmental protection.

II . Faculty

SESE has a high-level education and research team with a multi-disciplinary background of science, engineering and management. At present, SESE has 52 full-time teachers, of whom 100% have doctoral degree, 25% have graduated in world top universities, 70% have overseas experiences over one year. There is one distinguished professor of Chang Jiang Scholars Program supported by the Ministry of Education, one recipient of the National Science Fund for Distinguished Young Scholars, one member of the Thousand Talents Plan (youth), one member of the New Century Talents Project of China, eight members of the

New Century Talents Program supported by the Ministry of Education, two members of the Hundred Talents Plan supported by Chinese Academy of Sciences (CAS), one member of the Thousand Talents Plan of Shanghai, one Shanghai Oriental Scholar, two members of the Pujiang Talents Program of Shanghai, one winner of Shanghai Morning Star, and one member of Shanghai Yangfan Program. One of the faculty is deputy Editor in SCI source journals and five are editorial members of SCI journals.

2. Renowned Professors

No.	Name	Research Field	No.	Name	Research Field
1	GENG Yong	Circular economy and industrial ecology Climate change policies	11	SUN Tonghua	Assessment of environment pollution and its effect on health Detection of new pollutants
2	CAO Xinde	Characterization and remediation of contaminated sites Application of biochar into soil for C sequestration and its eco-environmental effect	12	SHEN Zhemin	Catalytic conversion of organic matter Waste reuse and energy recovery
3	XU Zhenming	Pollution prevention of waste electric and electronic equipment Environmental materials and renewable resources utilization	13	HE Yiliang	Water pollution control and remediation
4	JIA Jinping	Electrochemical method in wastewater treatment Environmental monitoring and solid-phase microextraction	14	CHENG Jinping	Air pollution prevention and control Marine environment
5	JIN Fangming	CO ₂ conversion and utilization Conversion of biomass and organic wastes into useful chemicals and fuel	15	HE Shengbing	Removal of phosphorous and nitrogen from micro-polluted water
6	WU Yanqing	Simulation of river basin and environment Restoration of soil and underground water pollution	16	SHAO Jiahui	Water/wastewater treatment and reuse Membrane material, membrane technology and integration

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No.	Name	Research Field	No.	Name	Research Field
7	ZHANG Zhenjia	Water purification and recycling technology	17	ZHAO Yixin	Renewable energy Functional nanomaterials
8	ZHU Nanwen	Technology of sludge treatment and disposal	18	HUO Zhibao	CO ₂ conversion and utilization
9	ZHOU Baoxue	Environment functional materials New monitoring method	19	HUANG Jungchen	Wetland ecology The river ecology
10	YAN Naiqiang	Co-benefit technologies for multiple pollutants emission control from coal-fired flue gas and other industrial flue gases Novel methods for mercury emission control	20	LI Liang	Environmental functional nanomaterials New energy materials

III. Achievements

The Environmental Science and Engineering was listed in the top 1% of ESI (Essential Science Indicators) in 2011, in the top 100 of QS World University Rankings in 2012, and in the top 100 of primary discipline of Shanghai in 2013. Aiming at the major issues of frontiers of science as well as economic and social developments, the SESE has carried out the featured theoretical research and the research of technological development to meet the national and local demands. All the research relies on the jointly-built key laboratories and the construction of engineering center. Our school also has created six academic platforms in environmental science and engineering, including Water Pollution Control and Environmental Modeling in River Basin, Air Pollution Control and Regional Air Quality Modeling, Solid Waste Treatment and Resource Recovery, Soil and Underground-water Reclamation, Environmental Functional Materials, Resource and Environmental Management, and Climate Change Mitigation. Over the recent years, SESE has undertaken a number of research projects of Ministry of Environmental Protection, Ministry of Science and Technology, and local government, including two major National Science and Technology projects on Water Pollution Control of Erhai Lake, one key research project supported by National Natural Science Foundation of China (NSFC), 41 projects of NSFC, eight projects supported by the National High Technology Research and Development Program (863) and the Major National Basic Research

Program (973), two major International Cooperative Projects and five key projects supported by Shanghai.

IV. Talents Cultivation

Our ESE is the featured discipline of the Chinese Ministry of Education, and it was on the list of “Excellent Engineer Training Program” in 2013. SESE has been awarded twice the first prize of Shanghai Excellent Teaching Results. We have four provincial level quality courses and one province-level key course. Based on the idea of “High-end scientific research talents and outstanding engineers”, the school cultivates graduates by carrying out the national major scientific research projects and international co-operations. Through these endeavors, we have cultivated a group of professional talents with profound theoretical knowledge, strong ability in solving specific problems as well as fully grasping the forefront of subject development, and the passion of actively participate in the international academic exchanges. In the last five years, there are 15 doctoral theses being awarded Excellent in Shanghai, among which two were nominated as National Excellent Doctoral Thesis. Furthermore, the school recruits the students who take MA degree of SESE in order to cultivate applicable and versatile talents for the university and the society.