



## Introduction

The School of Environmental Science and Engineering (SESE) was established in September, 1999. From then on, SESE has a thought of structuring public environment-friendly base aimed at improving our surroundings. The faculty, students and alumni of SESE have been always putting the effort on it. The discipline of Environment and Ecology was ranked among the top 1% globally in 2011. The discipline of Environmental Science has been ranked among the top 100 (from 51 to 100) by QS since 2012.

SESE has a high-level education and research team with a multi-disciplinary background of science, engineering, and management. All the faculty members hold doctorate degree and over 70% of current faculty members have at least one year overseas study experiences.

Tracing international frontiers and addressing the needs of China's national strategies, our academic research mainly focuses on water pollution treatment and control at the river basin level, regional air pollution control and treatment, solid wastes treatment and safe disposal and recovery, soil-underground water contamination repair and restoration, environmental functional materials, resource and environmental management and climate change policies, etc.

Meanwhile, with extensive international cooperation and exchange, SESE has carried forward strategic partnership with world top universities and institutes of different states.

# **School of Environmental Science and Engineering**

Subject Fields	Research Contents
Water Pollution Control and Environmental Modeling in River Basin	Lake and Reservoir Eutrophication Control; Migration, Transformation and Modeling of Emerging Contaminants in Water Environment; Point Source Pollution Control and Resource Utilization.
Air Pollution Control and Regional Air Quality Modeling	Platform for Simulation of Air Pollution Monitoring and Coordinating Control Technology; Composite Air Pollution and Climate Change, Innovate the Research Method of Air Quality Simulation, Evaluation and Early Warning System.
Solid Waste Treatment and Resource Recovery	E-waste Treatment and Recycling; Sludge Treatment and Disposal; Landfill Processing and Organic Waste Resources Recovery through Hydro-thermal Reaction.
Soil and Ground-water Contamination Reclamation	Soil and Groundwater Contamination Remediation; Modeling and Polluting Remediation of Groundwater; Biologically-based C Sequestration and its Eco-environmental Effect; Marine Environment Monitoring and Assessment.
Environmental Functional Materials	Photocatalystic and Photoelectrocatalytic Degradation of Organic Pollutants; Noise Pollution Control and Equipment Research; Electrocatalysis Pollution Control; Energy Technology and Functional Materials; Pollutants Separation Adsorption Material, Environment Conscious Materials.
Resource and Environmental Management and Climate Change Mitigation	Regional Circular Economy Model; Eco-industrial Park Design and Management; Regional Resource Accounting and Efficiency Evaluation; Waste Management; Regional Energy Management and Climate Change Mitigation Policies.
Clean and Renewable Energy	CO2 Conversion, Conversion and Utilization of Biomass and Waste; Photocatalytic Materials Synthesis; Novel Solar Cell Preparation, Electrochemical Energy Storage Materials.

## **Achievements**

SESE has been involved in many important environmental strategic decisions and events with significant achievements. Our research outcomes have made great contributions to protecting Erhai river basin, treating wastewater with higher organic concentrations, and recovering valuable metals from waste electronic and electric equipment. These achievements provide technological support to solve China's major environmental issues and promote the country's sustainable development, receiving national leaders' confirmation and appraisals. For instance, both President XI Jinping and Premier LI Kegiang highly commented our water project in Erhai.

In 2015, SESE has published 154 SCI papers in many leading journals, including Environmental Science & Technology, Journal of Hazardous Material, Water Research, Applied Energy, etc.

The collaboration on palm oil mill effluent zero discharge treatment system has been verified successfully and effectively, which was awarded Palm Oil Industry Award and Sustainable Technology Award by IChemE, and 2015 Frost & Sullivan Malaysia Excellence Awards by Malaysia, International Diamond Prize for Excellence in Quality 2015 by European Society for Quality Research. NRF CREATE (Campus for Research Excellence and Technological Enterprise) program, in collaboration with the National University of Singapore to work on Energy and Environmental Sustainability Solutions for Megacities (E2S2), makes incredible progress which contributes to SESE's fame.



#### **Platforms**

SESE Center Lab
SJTU-Yunnan Research Institute
STJU-MPOB Joint R&D Collaboration Center
SJTU-SXJEP Industrial Waste Recycling Joint Research Center
Shanghai E-Waste Recycling and Assessment Engineering Research Center
SJTU-Jiangsu Utilization of Waste Household Appliances Research Center
SJTU Environment Protection Equipment Collaborative Innovation Center
SJTU Nano-Environmental Technology Research Center
SJTU-ZJMRI Joint Lab for Ecological Recovery and Blue Carbon in Littoral Zone
SJTU-SCH Solid Waste Treatment Industry Union
Union of Safeguarding Safe Drinking Water in Shanghai
SJTU-Shanghai Laogang Wastes Disposal Research and Education Base
SJTU-NUS Joint Research Center for Environment and Water

#### **Renowned Professors**

CAO Xinde	SHAO Jiahui
CHENG Jinping	SHEN Zhemin
DONG Huijuan	SUN Tonghua
GENG Yong	Wang Xinze
Hu Yunhang	WU Deyi
HE Shengbin	WU Yanqin
HE Yiliang	XU Zhenming
HUANG Rongzhen	YAN Naiqiang
HUO Zhibao	ZHANG Zhenjia
JIA Jinping	ZHAO Yixin
JIN Fangming	ZHOU Baoxue
KONG Hainan	ZHU Nanwen
LI Liang	ZHUANG Huisheng