



Introduction

The history of the School of Mechanical Engineering (ME) of Shanghai Jiao Tong University (SJTU) dates back to 1913. Over the past century, the School has cultivated tens of thousands of graduates who made significant contribution to the technological development and economic growth in the world as scientists, engineers, educators, statesmen and entrepreneurs. In the new century, the School adopted a vision of a world-class engineering school that offers the best learning experience to its students, the most rewarding working environment for its faculty and staff as well as the most effective service to the industry and the society.

The faculty, staff and students are the foundation of all that the School has been able to achieve. The School has a team of 359 faculty members, of which 163 are full professors and 181 associate professors, and the student population is over 5,000. Each year, the School admits nearly 1,300 new students, 481 of whom are enrolled in the Bachelor's degree programs, 482 in the Master's degree programs and 403 in the Doctoral degree programs. Over the past few years, the School has witnessed a substantial increase in the research funding it received. In 2024, over 197 million USD research funding from government, business and industry was granted to ME School.

School of Mechanical Engineering

List of Ph.D. Programs

Mechanical Engineering
Power Engineering and Engineering Thermophysics
Nuclear Science and Technology

List of Master Programs

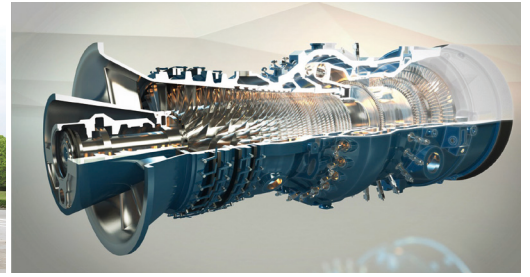
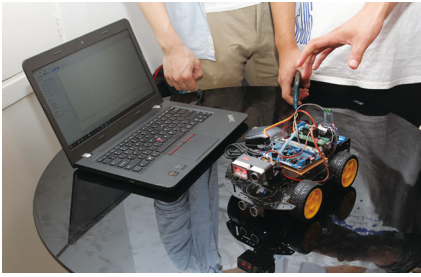
Mechanical Manufacture and Automation
Mechatronic Engineering
Mechanical Design and Theory
Vehicle Engineering
Industrial Engineering
Engineering Thermophysics
Thermal Power Engineering
Power Machinery and Engineering
Refrigeration and Microtherm Engineering
Fuel cell
Nuclear Thermal Hydraulics
Nuclear Safety and Simulation
Nuclear Fuel Cycle and Materials

ME Faculty

Total	Prof.	Assoc. Prof.	Assis. Prof.
359	163	181	15

15th

2025 QS World University Rankings by Subject
- Engineering - Mechanical, Aeronautical & Manufacturing



No.	Courses Offered in English	Semester
1	Advanced Operations Research	Spring
2	Aero-Engine/Gas Turbine Frontier Technology	Spring
3	Advanced Automotive Powertrain Technology	Spring
4	Ultra-precision Smart Manufacturing	Spring
5	Advanced Composites and Their Manufacturing Techniques	Spring
6	HighTemperature Materials for Advanced Engineering Applications	Spring
7	Mechanics of Solids	Spring
8	Plastic Mechanics in Metal Processing	Spring
9	Combustion Chemical Kinetics	Spring
10	Advanced Noise Control Techniques	Spring
11	Introduction to Engineering Tribology	Spring
12	Data Mining	Spring
13	Advanced Measurement and Instrumentation	Spring
14	Advanced Combustion Theory	Spring
15	Advanced Operations Research	Spring
16	Advanced Heat Transfer	Fall
17	Digital Signal Processing and Application	Fall
18	New Energy Systems	Fall
19	Compressible Aerodynamics	Fall
20	Nuclear Reactor Theory and Design	Fall
21	Fundamentals and Practices of Advanced Aerodynamics	Fall
	Measurement Technologies	Fall
22	Modern Vehicle Control Engineering	Fall
23	Wearable Systems	Fall
24	Computational Fluid Dynamics and Applications	Fall
25	Advanced Measurement and Instrumentation	Fall

Priority Research Areas

- Smart Manufacturing/Intelligent Manufacturing Technology
- Precision/Ultra-Precision Measurement
- Micro/Nano Systems
- Additive Manufacturing Technology
- Robotics and Bio-mechatronics
- Soft, Flexible Smart Materials and Devices
- Nanoelectronics Design and Manufacturing
- Biomedical Engineering/Smart Healthcare
- Intelligent Connected Vehicle
- Maritime Environment Perception
- Big Data & AI
- Industrial Engineering and Management
- Fluid Power Transmission and Control
- Energy Storage Technology and Application
- Hydrogen and Fuel Cell
- Sustainable Energy Technology of Max-city
- Low Carbon Smart Energy Technology and System
- Aerodynamics, Aeromechanic and Combustion Technology of Aeroengine & Gas Turbine
- Dynamics Design and Manipulation of Vibration & Sound Wave
- Reactor Engineering, Nuclear Materials, Nuclear Fuel Cycle and Nuclear Technology Application

Follow in Their Footsteps



Alemu Medhanit Yekunoamlak -Master Student graduated in 2024

My experience at the School of Mechanical Engineering has been a fulfilling blend of academic pursuits, research endeavors, and active community engagement, each aspect contributing significantly to my growth as a student and an aspiring engineer.

> Engineer at JAKA Robotics, Shanghai



Muhammad Shahzad Javed- Master & Ph.D. Student graduated in 2023

My journey with SJTU started in 2017 when I came here for my master, due to the SJTU supportive learning environment, I decided to pursue my PhD here during my masters. I have developed highly competitive research and critical thinking skills. Also, I got opportunities to broaden my horizon by meeting people of other countries that I would have never had the chance to meet with.

> Postdoctoral researcher in University of Oslo

Contact

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