



# 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 357 faculty members, of which 142 are full professors and 186 associate professors, and the student population is over 5,000. Each year, the School admits nearly 1,333 new students, 500 of whom are enrolled in the Bachelor's degree programs, 467 in the Master's degree programs and 366 in the Doctoral degree programs. Over the past few years, the School has witnessed a substantial increase in the research funding it received. In 2022, over 166 million USD research funding from government, business and industry was granted to ME School.

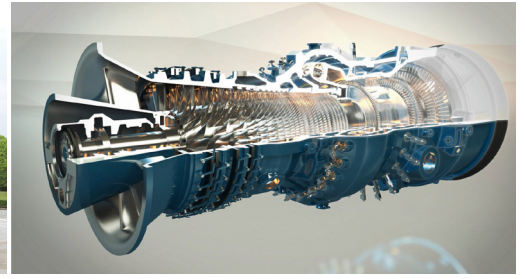
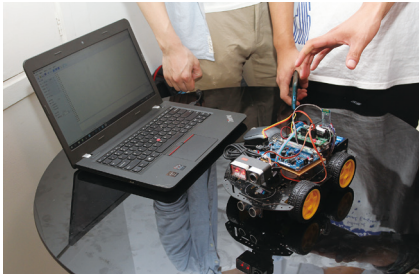
# School of Mechanical Engineering

List of Ph.D. Programs	List of Master Programs
Mechanical Engineering	Mechanical Manufacture and Automation
	Mechatronic Engineering
	Mechanical Design and Theory
	Vehicle Engineering
Power Engineering and Engineering Thermophysics	Industrial Engineering
	Engineering Thermophysics
	Thermal Power Engineering
	Power Machinery and Engineering
	Refrigeration and Microtherm Engineering
Nuclear Science and Technology	Fuel cell
	Nuclear Thermal Hydraulics
	Nuclear Safety and Simulation
	Nuclear Fuel Cycle and Materials

ME Faculty			
Total	Prof.	Assoc. Prof.	Assis. Prof.
357	142	186	29

16<sup>th</sup>-  
22<sup>nd</sup>

During 2013-2022 QS World University Rankings by Subject - Engineering - Mechanical, Aeronautical & Manufacturing



No.	Courses Offered in English	Semester
1	Advanced Operations Research	Spring
2	Ultra-precision Smart Manufacturing	Spring
3	Advanced Composites and Their Manufacturing Techniques	Spring
4	Mechanics of Solids	Spring
5	Structural Acoustics	Spring
6	Computational Imaging and Intelligent Application	Spring
7	Introduction to Engineering Tribology	Spring
8	Advanced Automotive Powertrain Technology	Spring
9	Data Mining	Spring
10	Scientific Writing, Integrity and Ethics	Spring
11	Computational Materials Thermophysics	Fall
12	Aeroacoustics	Fall
13	Advanced Thermodynamics	Fall
14	Digital Signal Processing and Application	Fall
15	New Energy Systems	Fall
16	Compressible Aerodynamics	Fall
17	Nuclear Reactor Theory and Design	Fall
18	Advanced Fluid Mechanics	Fall
19	Fundamentals and Practices of Advanced Aerodynamics Measurement Technologies	Fall
20	Production and Operations Analysis	Fall
21	Modern Vehicle Control Engineering	Fall
22	Circulating Fluidized Bed Combustion	Fall
23	Wearable Systems	Fall
24	Computational Fluid Dynamics and Applications	Fall
25	Advanced Heat Transfer	Fall
26	Advanced Noise Control Techniques	Fall

## Follow in Their Footsteps



**Salman Ahmed -Master Student graduated in 2022**

China has been my second home, and during my stay here I have grown myself professionally and have made some life-long friendships. I hope to return this favour in the future by being an excellent alumnus for SJTU and ambassador for China.

> Mechanical Design Engineer in HILTI Shanghai



**Ammar Tariq-Phd Student graduated in 2022**

I have gained a lot in terms of my intellectual and psychological abilities. I am really indebted to my supervisor, who has really taught me well on how to become a good researcher and also improved my presentation abilities.

> Assistant Professor in National University of Sciences and Technology, Pakistan



**Azhar Abbas Khan -Phd Student graduated in 2021**

All this journey was long and memorable, I experienced and learnt many good things that will help me all my life. I came here with many expectations and got more than my expectations. I love ME and SJTU!

> Assistant Professor in NFC Institute of Engineering and Technology Multan, Pakistan.



**Arash Kazemian-Phd Student graduated in 2022**

I selected SJTU because of its great academic ranking in the world and also my PhD project is very similar to my previous experience. Good team work, smart students and hardworking professors lead that doing research in ME School be very interesting to me.

> Postdoctoral researcher in The Hong Kong Polytechnic University

## Priority Research Areas

1. Smart Manufacturing/Intelligent Manufacturing Technology
2. Precision/Ultra-Precision Measurement
3. Micro/Nano systems
4. Additive Manufacturing Technology
5. Robotics and Bio-mechatronics
6. Soft, Flexible Smart Materials and Devices
7. Nanoelectronics design and manufacturing
8. Biomedical Engineering/Smart Healthcare
9. Intelligent Connected Vehicle
10. Industrial Engineering and Management
11. Energy Storage Technology and application
12. Hydrogen and Fuel Cell
13. Sustainable Energy Technology of Max-city
14. Low carbon smart energy technology and system
15. Aerodynamics, Aeromechanic and Combustion Technology of Aeroengine & Gas Turbine
16. Fluid-structure-sound interaction and control
17. Reactor engineering, nuclear materials, nuclear fuel cycle and nuclear technology application

## Contact

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