

Engine Research Laboratory

School of Mechanical Engineering

• About the Lab •

Our Research is focused on the design and development of GDI engines, especially the combustion system. Our four labs, namely spray lab, CAE lab, optical engine lab, engine dyno lab, are well developed with cooperation with GM and AVL corporations. The research of flash boiling sprays has already achieved a leading position in the world, and caught the attention of most famous car corporations including GM, Ford, and Nissan and so on. If you come to our lab, you can study the basic principle of engine spray by professor test device.

• About the Team •

Min Xu, Professor, PhD in Mechanical Engineering. He is director of Automotive Engineering Institute in Shanghai Jiao Tong University. His is also fellow of SAE.

Research areas: Spray and combustion, Combustion system for internal combustion engines, design and development for vehicle engines

Course(s) offered: Advanced Propulsion Technology.

• Research Fields •

- Flash boiling Spray Characterization of Direct Injection Gasoline Injectors
- Research of breakup mechanism of liquid jet via dimensionless analysis
- Research of combustion process based on an optical engine

• Responsibility •

Take experiment and knowledge study in the lab.

• Eligibility •

- In principle, we recruit junior and senior students
- Hold at least a 2.5 GPA on a 4.0 scale
- Students of non-English speaking countries must provide English language proficiency certificate, IELTS no less than 6.0, and TOEFL no less than 90 points. If you are in the college for English teaching programs, please provide relevant certificates
- Have at least one prior research experience
- Have basic knowledge of engine and powertrain system
- Our intern 1-2 position are open for senior students with mechanical background

• Additional Financial Support •

N/A

• Contact •

Xiaodong WU, 18721170911, xiaodongwu@sjtu.edu.cn,