



Zhi Liang Tan

Malaysia

School of Engineering

I am currently a Masters student in the G30 Automotive Engineering program attached to Suzuki laboratory, my 5th at NU. Suzuki Laboratory is a very well-known laboratory in the Mechatronics field. The decision to join the laboratory is a well justified one as I am able to satisfy my desire to conduct research on Electric Vehicles with the supervision and advice of experienced professors. I find Nagoya University with its strong emphasis on research a very conducive place for conducting an impactful research. The classes being offered in the G30 program also complements the research being done in the laboratory. With such a comprehensive program, I believe that students like me can acquire the necessary knowledge and skill which will be beneficial in our future Engineering career.

Automotive Engineering Program

The G30 automotive program is a well-established program, and allows students to obtain invaluable hands-on experience with cars in their very first year. Professors coming directly from leading companies, for example, Toyota, provide us with an enlarging perspective towards the world of automotives. Such an experience may prove vital to many of us in realizing our goals later on in the industry. It is an exciting time for the automotive industry, and all of us here in the program look forward to learning lots more in the future!



Tajinder Singh

India

School of Engineering

NAGOYA UNIVERSITY GLOBAL 30 INTERNATIONAL PROGRAMS Undergraduate Programs

Automotive Engineering Program

Automotive Engineering Biological Science Chemistry Fundamental and Applied Physics Social Sciences Japan-in-Asia Cultural Studies

NAGOYA UNIVERSITY GLOBAL 30 INTERNATIONAL PROGRAMS Undergraduate Programs

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名古屋大学



Automotive Engineering Program

Bachelor of Engineering



Program Outline

Today, many new technologies such as hybrid electric vehicle systems, active drivers assist systems, advanced battery systems, and connected vehicle systems are being integrated into automobiles. For this reason, students in the Automotive Engineering Program at Nagoya University are required to study not only mechanical or electrical and electronic engineering, but also other relevant fields such as material, chemical, and traffic engineering. In particular, students study the following topics:

Vehicle Engines, Vehicle Design, Vehicle Dynamics and Control, Car Electronics, Metallic, Ceramic and Organic Materials for Automobiles, Intelligent Transportation Systems, Environmental Issues and Recycling.

– School of Engineering

Mechanical Engineering

Students first study a broad range of fundamental engineering topics, core mechanical engineering topics, and fundamental subjects of automotive engineering. They then study advanced automotive engineering concepts related to the primary parts of automotive systems, such as their structures, their mechanisms and their motions. The objective of this course is to cultivate researchers and engineers who can develop lighter, stronger, and safer cars with higher performance. Therefore, students study thermodynamics and fluid mechanics to develop engines; mechanisms and mechanics of materials to design car structures; and dynamics and control of safe and comfortable driving to improve drivability.

Electrical, Electronic/Information Engineering

Students first study a broad range of fundamental engineering topics, core electrical, electronic/information engineering topics, and fundamental subjects of automotive engineering. They then study advanced automotive engineering concepts related to the car's electrical systems, such as motor control, sensors, and telematics/infotainments. The objective of this course is to cultivate researchers and engineers who can develop safer, more intelligent and more energy-efficient cars. To gain these abilities, students study electromagnetism, electric and electronic circuits, power electronics, software engineering, signal processing, and functional material science.



Career Prospects

Generally, students graduating from the Automotive Engineering Program directly enter companies after graduation or continue their study in a postgraduate educational program. Students continuing their study after graduation general work towards becoming company engineers, researchers or university professors. Students entering companies in the automotive industry after graduation are expected to work on the research and development of safe, high-performance/efficiency, and affordable automobiles that contribute to a sustainable society. Since automobiles are integrated systems of various high technologies, a broad range of knowledge is necessary to develop such systems. Some students, therefore, also join laboratories other than those in mechanical or electrical engineering and contribute to companies in many other fields. Students graduating from the Mechanical Engineering course are expected to engage in research and development of structures; noise, vibration, and harshness suppression; aerodynamic resistance reduction; control of mechanical systems; mobility enhancement technologies; production engineering in automotive plants; and so on. Students graduating from the Electrical, Electronic/Information Engineering course are expected to work on advanced motor technologies, power electronics technologies, electric and electronic circuit development, sensing and control technologies, software development, development of electric systems of electric vehicles, hybrid electric vehicles, fuel cell electric vehicles, and so on.