

# Bachelor of Engineering (Honours) Automotive Engineering with Motorsports

2019  
Undergraduate

You will learn about the aerodynamics of high-speed vehicles, high-performance engine design testing and mapping, engine mapping, suspension, tyres and road holding.

This BEng Honours in Automotive Engineering with Motorsport will give you the opportunity for hands-on motorsport from your first year onwards, if you wish by getting involved in the design, build and racing of a single-seater race car in the UK Formula Student Competition.

Your studies will reflect the latest thinking in the industry as the School is supported by a Motor Industry Advisory Panel which includes representatives from many well-known automotive companies.

Our BEng Automotive Engineering with Motorsport students have previously completed work placement years at companies including: McLaren Cars, Lola Cars Ltd, and Midland F1 Racing.

Nearly every Formula One racing team has one of our graduates working in their design team, so your degree will open doors for you within the motorsport industry. Recent Automotive Engineering graduates have gone on to work at organisations including: William Grand Prix Engineering, McLaren Racing, and Renault Sport Racing

## Industry connections

You have the opportunity to spend a year working either in a professional research environment or within industry. The practical experience you gain will be of tremendous benefit both when you resume your studies and when you embark on a career. Students have previously undertaken placements in organisations such as:

- Lola Cars Lts
- McLaren Cars
- Midland F1 Cars
- Rolls Royce Cars

## Career outlook

Employment prospects are excellent. As one of the top UK motorsport schools, our links with this sector are very strong, providing good placement and employment prospects. Almost every Formula One racing team has a University of Hertfordshire graduate in their design team.

Graduates can expect to be employed in design, manufacture or testing in one of the major automotive companies in the UK or abroad. There are also opportunities with the consultancy companies that specialise in vehicle safety. Many other graduates decide to stay at the University and extend their automotive education at a postgraduate level.

## Professional recognition

The BEng (Hons) Automotive Engineering with Motorsport course is accredited by RAes and IMechE and satisfies, in part, the academic requirements for Chartered Engineer (CEng) registration for the cohort intakes from 2016 up to, and including, 2020.

This is a globally accredited qualification recognised by all 18 countries that are signatories to the International Engineering Alliance, the Washington Accord. These include the India, USA, UK, Australia, Ireland, Canada, China, New Zealand, Japan, Korea and Singapore.

## Program snapshot

### Duration

Full-time: 4 years

### Location

#### Chennai and Melbourne campuses

Years 1 and 2 are conducted on the Chennai campus and years 3 and 4 on the London campuses

### How to apply

Apply ONLINE:

[cornerstone.edu.in/apply now](https://cornerstone.edu.in/apply-now)

### Fees

For fee information:

[cornerstone.edu.in/fees-and-funding](https://cornerstone.edu.in/fees-and-funding)

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[cornerstone.edu.in/  
motorsport-engineering](https://cornerstone.edu.in/motorsport-engineering)

## Program structure

### Year 1

You will study introduction to electronic systems, materials and electrical science, introduction to manufacture technology, engineering mathematics, computer programming for electronics engineers, mechanical science, introduction to design and engineering applications of mathematics.

### Year 2

You will study electrical engineering and power control, dynamics, computer-aided engineering, further engineering mathematics, data acquisition and control systems, structural mechanics, integrated engineering systems design, project management and product development.

### Year 3 &4

You have the option of taking an integrated one -year professional placement.

You will study power systems, control systems, mechanics and properties of materials, Micro-engineering and micro-technology, noise and vibration analysis, mechatronic design and an individual major project

### More about the course

Mechatronics is a synergistic combination of precision mechanics, electronics, controls, and computer engineering, combined through a process of integrated design. Thus it involves being able to handle a wide range of technologies in sensors, actuators, interface hardware, control systems, analogue and digital electronics, software engineering, and concurrent design.

Applications are extremely wide ranging – covering, for example the aerospace industry, road vehicles and trains, medical engineering, materials processing, advanced manufacturing systems, defence systems and consumer electronics. Graduates may therefore expect employment across a very wide range of engineering companies. This programme lays greater emphasis on the mechanical engineering aspect of the discipline.,

Year 1 &2	Introduction to Design	Career Skills Development	Introduction to manufacturing technology	Computer programming for electronics engineers
	Introduction to Electronic systems	Material and electronic science	Mechanical Science	Engineering Mathematics Engineering Application of Mathematics
Year 3 &4	Control Systems	Mechanics and Properties of Materials	Careers Portfolio	Micro-Engineering & Micro-Technology
	Noise and Vibration Analysis	Mechatronics Design	BEng Individual Project (Mechanical)	Power Systems

## Optional

- Industrial placement
- Year abroad
- Semester abroad

Please note: This is an indicative program structure. Courses may change and be available in different semesters.