

Introduction to Automotive Engineering

Why? Who?
What? Where?



Why Automotive Engineering?

Automotive engineering is a branch of vehicle engineering which incorporates elements of mechanical, electrical, electronic, software and safety engineering. These elements are applied to the design, manufacture and operation of motorcycles, automobiles, buses and trucks, and their respective engineering subsystems.

The best part is that these professionals are very highly paid.

Who should be an Automotive Engineer?

Any student who:

- Has a passion for automobiles
- Has strong verbal, graphical and written communication skills
- Is good at calculations and designing
- Is good with electronic systems

Specialisations within Automotive Engineering:

- Engine Systems
- Electronics and Control Systems
- Fuel Technology and Emissions
- Fluid Mechanics
- Aerodynamics

- Thermodynamics
- Alternative Fuels
- Computer-based Systems and Electronics

Upcoming Specialisations within Automotive Engineering:

- Motor Sport
- Rapid Prototyping

Best colleges for Automotive Engineering in:

India

- Hindustan Institute of Engineering Technology-Chennai
- Delhi Technological University (Formerly known as DCE)-New Delhi
- PSG College of Technology-Coimbatore

USA

- University of Michigan
- Indiana University-Purdue University Indianapolis (IUPUI)
- Cornell University

UK

- University of Bath
- University of Leeds
- University of Birmingham



Did you know? The famous Alfa Romeo, Ferrari, Testarossa, ISO GT cars and the Lamborghini were designed by the genius automotive engineer 'Giotto Bizzarini.'

HAPPY
Discovering

What are the prospects after studying this subject? Does it open up international opportunities?
Answer these and other such questions by reading and watching expert views at www.university.com/courses

University 
Discover & be discovered

Discover the Career Options Right for You

1 Initial Options



What are your career ideas?

If you haven't already given it a thought, then base it on influences from:

- Parents, family and friends
- Passion towards a subject
- Personal experiences
- Media and internet

Univariety probes and provides answers

Initial Options

Go to step 2

Instructions

- Follow this process, one at a time, to finalise career choices
- If the answer is 'No' 'at any stage then start from stage 1
- Do in-depth self research
- Complete details of this process and the questions around a 'Typical Day' Test are at www.univariety.com/courses

2 Hypothesis



Do you like it?

Remember the activities from the past which gave you joy and happiness. Does this career option similarly excite you?

Initial Hypothesis



Can you do it?

- Do you know how long it takes to get the degree?
- Do you like the subjects which you will study?
- Can you perform to get through to good colleges?
- Do you have the financial resources to support the degree?

Final Hypothesis

Go to step 3

3 Validation



Do you want it?

Do you like the:

- Nature of work you will do?
- Type of people you will deal with?
- Physical and mental effort required?
- The challenge it poses?



Will it fulfill your and your family's ambitions?

Will this give you a good:

- Lifestyle?
- Time with family and friends?
- Salary and money potential?
- Possibility of being famous?

Validated Hypothesis

Go to step 4

4 Finalisation



'Typical Day' Test?

"If you want to know the road ahead, then ask someone who has travelled it."

- Ancient Chinese Proverb

Here, we ask you to identify 2 - 3 people who have the same career that you have chosen and brought to this stage. Observe and ask questions to understand the 'typical life' in that career



Decision

Tools

- Discussion within the family and friends
- Univariety Website – Career Section
- Sessions with Univariety Counsellors
- Internet, books and other media