

# B.DES

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# AUTOMOBILE DESIGN



**AJEENKYA**  
D Y PATIL UNIVERSITY  
THE INNOVATION UNIVERSITY

**DYPDC School  
of Design**

# 'GREAT CARS ARE ART'

- CHRIS BANGLE

Automobile Design is the very pinnacle of design - all other design forms are a substrate.



Automobiles are an embodiment of art, entertainment and sculpture, which, coincidentally also happen to provide transportation. The design of an automobile is essential and is often decisive for its success. In addition to technical qualities, design triggers the impulse to buy. The automobile has, more than anything else has become a product with highly emotional properties and a significant impact on society. Worldwide, automobiles are the second largest purchase after a house. Aspects such as aesthetic appeal, emotional response, brand impression and expression are heavily influenced by product appearance, and thus of main concern for automobile manufacturers today. J D Powers says that the Design weightage factor of an automobile in most segments is higher than the related factors of reliability and performance. That is the importance of design in the market success of a vehicle. Automobile design implies taking into account several elements: function of the car, market, production, distribution, promotion, price reduction, and increase in safety, ergonomics and environmental concerns. Automobile designers work in multidisciplinary teams to define interior and exterior forms, materials, textures, surfacing and colors applied in the shaping of an automobile.

'I think that cars today are almost the exact equivalent of the great gothic cathedrals; I mean the supreme creation of an era conceived with passion by unknown artists and consumed in image, if not in usage, by a whole population which appropriates them as a purely magical object'

- Roland Barthes, *Mythologies*, 1957

We offer a **comprehensive, future-oriented curriculum** that continually develops the skills, knowledge and attitudes that allows success in the practice of Automobile Design, while incorporating the **most current developments in the field**

Our curriculum prepares aspiring professionals to learn the theory and practice that will enable them to go out into the working world with competence, maturity and the ability to operate independently.

The first half of the program is dedicated to learning the fundamentals: concept sketching, rendering, three-dimensional model making, presentation techniques, computer-aided design tools, emerging technologies and energy sources, and the principles of ergonomics, automobile engineering, and materials technology.

The final half is focused on putting the skills learned in the early terms into practice, refining skills, and finding appropriate specialties. Greater emphasis is placed on digital design techniques and presentation during the second half of the curriculum.

**The overall curriculum could be divided into following parts:**

- **Design Fundamentals**
- **Automobile Design Studios**
- **Digital Tools**
- **Allied Subjects**



# B.DES AUTOMOBILE DESIGN

Duration: : 4 Years, full time.

Eligibility: XII'th Arts or Science or Commerce, or 3 Year full-time Diploma

## Careers:

Today, every tenth job is dependent on the car. The automobile industry has grown immensely over the past years and in India it is exploding. Being an automobile designer will put you at the centre stage of this exciting industry.

Future-oriented curriculum that incorporates the most current developments in the field

Program is dedicated to learning the fundamentals: concept sketching, rendering, model making

Principles of ergonomics, automobile engineering, and materials technology

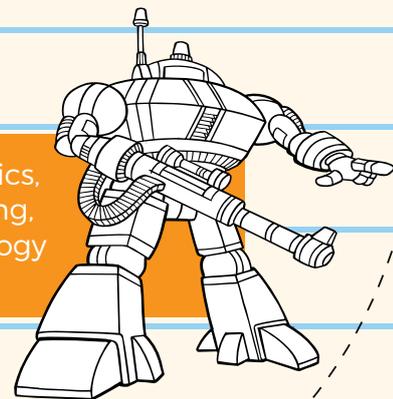
The core subjects consist of design studios, which run throughout the program duration. The final semester studios are reserved for industry projects.

Skills learned in the early terms will be put into practice through project work focused on refining skills, and finding appropriate specialties

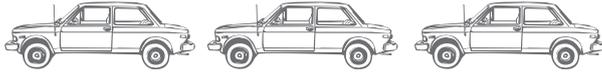
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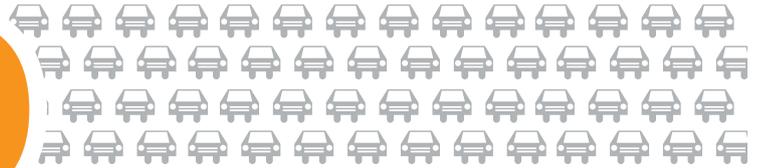


# 6 YEARS



The average life of a car design is 6 years

# 5000



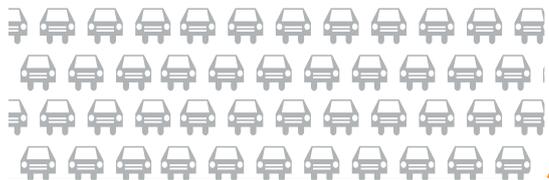
At any given time there are about 5000 different car being designed globally.

Each designed car would have gone through at least five to ten design variations.



# 5 YEARS

A car design lifecycle is about 5 years.



# 50000

That's 50000 designs that are churned out every five to six years.



# AS AN AUTOMOBILE DESIGNER

YOU DECIDE NEW STYLES AND  
NEW PATTERNS THAT MAKE  
LIFESTYLE STATEMENTS.

## ROLE OF AUTOMOBILE DESIGNERS



Shape the automobile  
in all its visible aspects



Arrange components in  
the engine compartment



Define the interior and  
exterior forms, materials,  
textures and colours



Style the interiors:  
dashboard, seating,  
cabin interiors,  
boot space



Take care of style,  
function, quality, safety.



Style the outer  
body shape

The demand for designers in India is rising as the automobile industry in India grows at a frenetic pace and Indian consumers demand more. Designers will find a place in R&D departments of large manufacturing companies or in specialized design consultancies or could work as freelance designers, and most exciting of all, drive start-ups.

## DESIGN FUNDAMENTALS

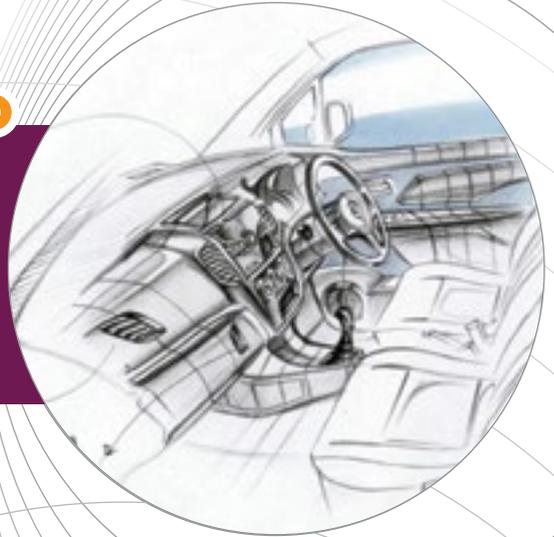


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The final half is focused on putting the skills learned in the early terms into practice, refining skills, and finding appropriate specialties. Greater emphasis is placed on digital design techniques and presentation during the second half of the curriculum.

## AUTOMOBILE DESIGN STUDIO

Allied subjects include areas, which are integral to the design process. The subjects are Basic Automobile Engineering, Vehicle Architecture, Vehicle Packaging and Materials Processes, Human Factors, User Research, Trends Analysis and Forecasting, Design Management, Marketing and Design, Branding, and Ergonomics.



## AUTOMOBILE DESIGN STUDIO

The main automobile design subjects consist of design studios, which run throughout the program duration in each trimester. The final semester studios are reserved for industry projects.

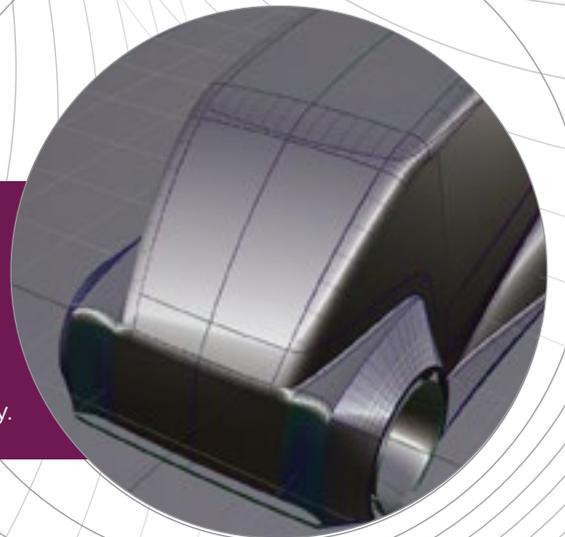
Beginning with the third semester, one automobile design studio per term forms the core of the concentration.

The design studios focus on both interior and exterior of an automobile. There is a digital core, which runs along the program and includes Digital Visual Communication and 3D Modeling using Autodesk Alias



## DIGITAL TOOLS

During the course, students create clay models of their designs. DYPDC is committed to traditional model building and the lessons of craft, volume, and form that it teaches. While digital models are frequently translated into physical models, a few exercises will take a clay model and import it into the digital realm by taking points right from the clay.





**Students engage with a number of projects during the course of the program. They work on individual design projects as well as on group design projects. This acts as a training ground and prepares them for future employment.**

But there is a thesis project for students, which is unsurpassable. The final project is the most satisfying and rewarding aspect of the program for our students. It provides them a platform to demonstrate all the skills and knowledge learnt throughout the program.

# 'DESIGNERS ARE MADE, NOT BORN'

- Dilip Chhabria



Do you want to do something different?

Do you want to be a creator and not a follower?

Are you looking for a lucrative career?

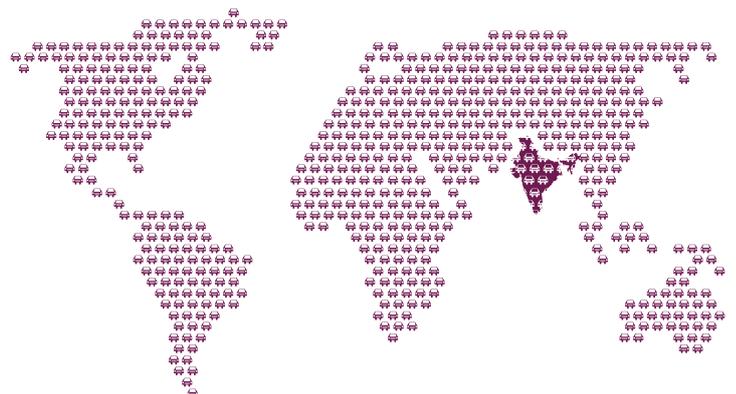
The answers to all these 3 questions lies in one answer - a career in Automobile Design. It is one career where you get paid to play. You get to become a trendsetter and not a trend follower, you decide new styles, new patterns, make lifestyle statements, all in one job.

Today, every tenth job is dependent on the car. The automobile industry has grown immensely over the past years and in India it is exploding. Being an automobile designer will put you at the centre stage of this exciting industry.

The field of automobile design currently enjoys unprecedented influence within the industry. Design is what sets products apart - technology, performance, function differ little in competing products. No longer can manufacturers count on a few models being sold by the hundreds of thousands. The market is now subdivided into dozens of niches and manufacturers seek to become dominant within these niches.

Competing in numerous niche markets requires a greater number of vehicle models, each tailored for a specific market and each having its own design. As competitive economic forces require companies to run leaner even in the face of the proliferation of models, the training and hiring of the best young designers becomes increasingly critical to the industry as a whole and to individual manufacturers.

Automobile Designers are responsible for the visual appearance or aesthetic appeal of vehicles. Primarily, Automobile Designers take care of everything that gives us pleasure when we look at an automobile: style, function, quality, safety etc.





We give you the opportunity to choose a path breaking career



We will open doors to countless new experiences



We will encourage you to learn, grow and challenge the given



We will prepare you to be 100% job ready



We will help you to make a living, doing what you love to do.

For pursuing an automobile design career you need to be bright not brilliant. You should be passionate, creative and highly imaginative. You should be good at not only problem solving, but also at problem finding. Ability to translate user needs and preferences into a finished product and keeping abreast of current products, trends, and customer tastes is a necessity. Attributes such as attention to detail and drawing and sketching by hand are integral.

You would find work with automobile companies, design studios and offices. You would advance by earning greater creative control over work and handling high-profile projects. You might move into managerial positions, supervising other designers and heading up design departments. With exceptional managerial skills you may become top company executives or open your own firm.

It takes artistic talent, knowledge of 3 dimensional form, creativity, the ability to work with others, a lot of hard work, and an education from DYPDC to be an automobile designer. If automobile design is a career of your choice then there is no place other than DYPDC that is ideal for you.

# BE ORIGINAL AND ENJOY LIFE.

## THAT'S THE KEY TO SUCCESS IN THE FIELD OF AUTOMOBILE DESIGN.

Design is everywhere, in everything. There is no one definitive definition that defines design. Design is not just about aesthetics. In fact, design is as fundamental as the air we breathe. Design is in the way your feet fit into your slippers, the way we uncork a wine bottle, the way we get the cap off a tube of toothpaste, the environments we work in, the way we order a pizza. We don't notice these things because we assume they ought to be there and ought to work in a particular way.

# DESIGN IS EVERY WHERE

Design must be understood as a word that describes both a process and an outcome. It is the process of turning ideas into material things, and adding value to products or services by interfacing with functionality, technology and aesthetics.

Steve Jobs, CEO of Apple Computers said "In most people's vocabularies, design means decoration. But to me, nothing could be further from the meaning of design. Design is the fundamental soul of a man-made creation".

Chairman of The Idea Factory, Arnold S. Wasserman, perceives design as "the integration of art and technology for the creation of products, communications and environments that serve human needs. Design is creativity directed toward a purpose."

Today's consumer has shifted from conventional commodities to novel experiences that satisfy not only their basic needs but their sensorial, intellectual, emotional, and cultural needs. Creating novel 'experiences' for consumers necessitates focusing on, besides their basic needs, deeper aspects of their lives, their emotions, aspirations which are the prime objectives for a designer.

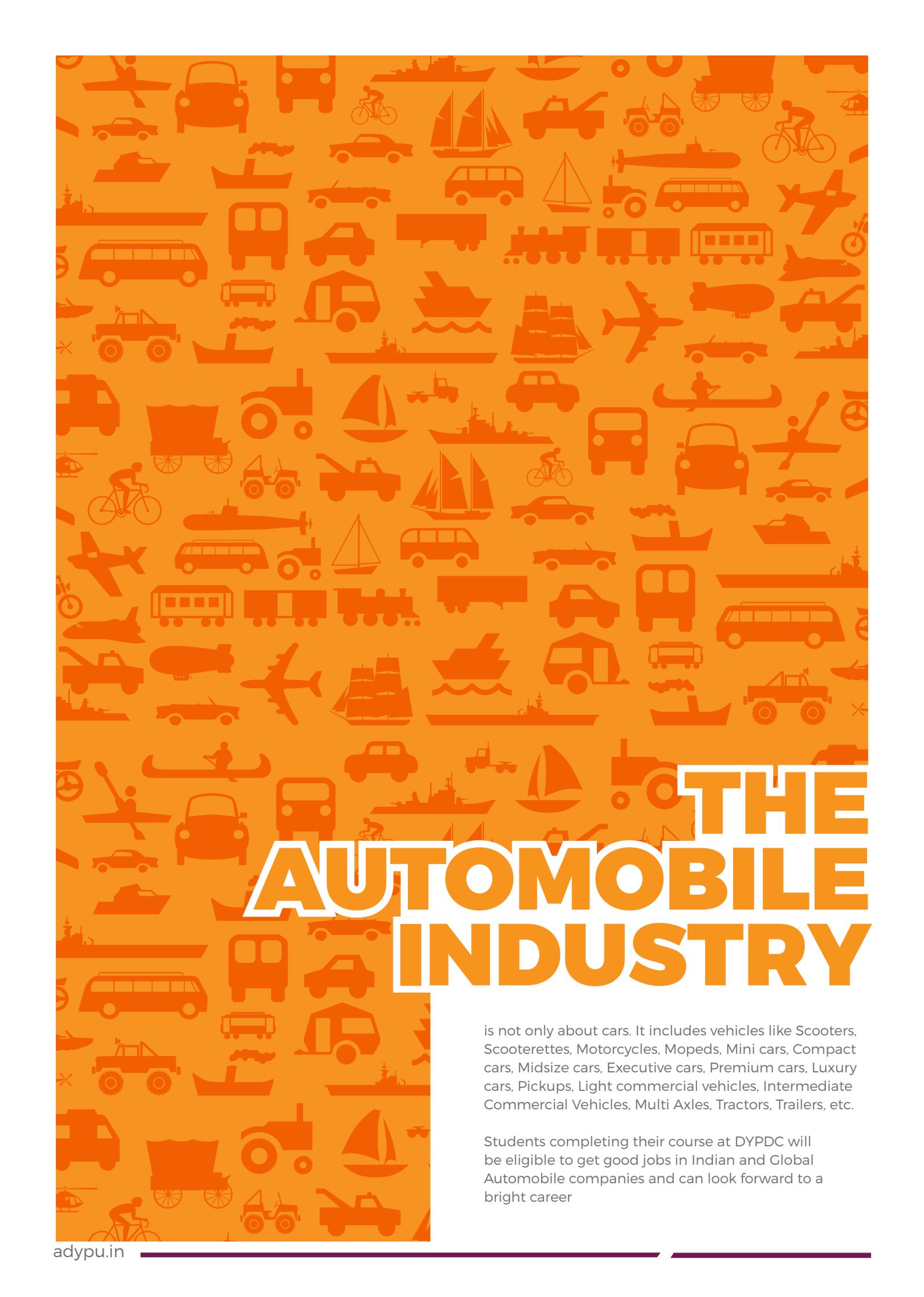
The UK Department of Trade and Industry (DTI) defines design as 'Design is a structured creative process. Design is readily associated with industrial product design for manufactured products –

specifically the 'look' of a product. However, the application of design is much broader, for example designing for function; for aesthetic appeal; for ease of manufacture; for sustainability; and designing for reliability or quality and business processes themselves.

Design is the number one determinant of why a product stands out – or does not. It is a process of creativity and innovation channeled towards the development of tradable products and services in a multi-disciplinary manner that involves the sciences of materials technology, engineering, ergonomics and manufacturing.

Design is not just as a finishing-off process, but is something that drives enterprise strategy. All competing products will have basically the same technology, price, performance, and features. What sets them apart is the design. **Ten years ago, companies competed on price. Then it was quality. TODAY IT IS DESIGN.**

In summary, Design as a career offers tremendous prospects. It is a career where you have fun everyday, earn better than others, and get a job more easily. In this career you will have the pleasure and satisfaction of creating something new and opportunity to become famous.



# THE AUTOMOBILE INDUSTRY

is not only about cars. It includes vehicles like Scooters, Scooterettes, Motorcycles, Mopeds, Mini cars, Compact cars, Midsize cars, Executive cars, Premium cars, Luxury cars, Pickups, Light commercial vehicles, Intermediate Commercial Vehicles, Multi Axles, Tractors, Trailers, etc.

Students completing their course at DYPDC will be eligible to get good jobs in Indian and Global Automobile companies and can look forward to a bright career

# AUTOMOBILE DESIGN VERSUS ENGINEERING



Automobile designers and automobile engineers are very different job roles

It is like the difference between architects and civil engineers. An architect would design a building, a house, an office. He would take care of how people will use it, what are the needs of the inhabitants, etc. he would take care of the aesthetics of the built structure. In contrast a civil engineer is more concerned with building what the architect has designed. He is responsible for realizing what architect has designed.

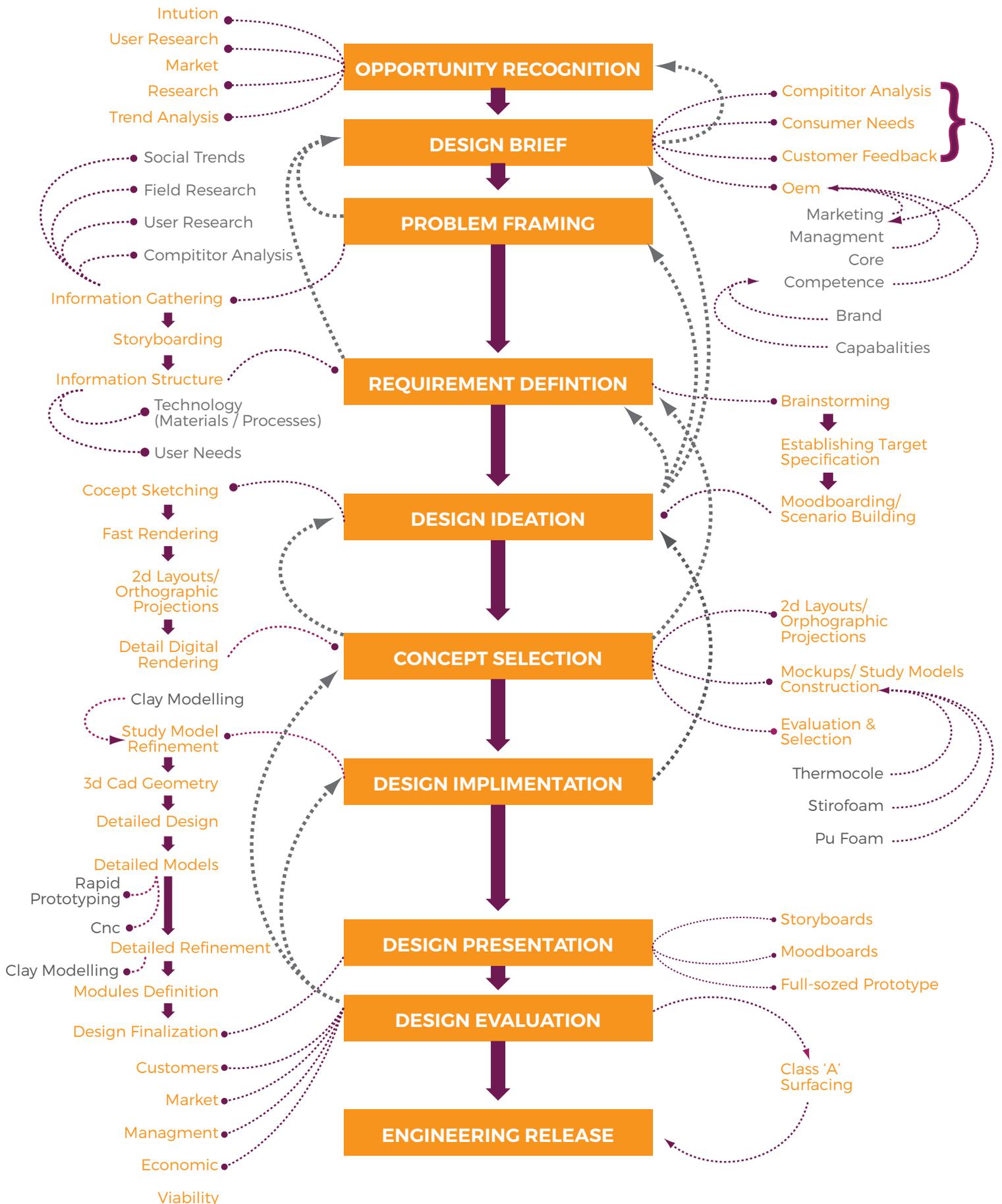
Design includes actively imagining and anticipating the future. It starts with identifying customer needs or a market opportunity or it could start with new scientific or technological knowledge and the opportunities such knowledge might be capable of creating.

Design is an applied art whereby the aesthetics and usability of products is defined or improved. The approach is "outside-in". As opposed to engineers who take an 'inside-out' approach.

It involves a complex system of decisions often made by different individuals with different mind-sets depending on their specialist knowledge and skills and the function within which they work. The process is neither smooth nor linear. It is dealing with the new, in a dynamic market and technological environment. It continually has to adapt and accommodate new information along its way.

**It is also important to understand the role of Computer Aided Design (CAD) in the design process. Many feel that knowing CAD Software is as good as knowing design. CAD is a tool. Knowing CAD Software is not equal to knowing "how to design".**

# DESIGN PROCESS



If you are interested in learning how to design automobiles DYPDC is the place to pursue your goal. Our courses offer the opportunity to excel in the field of automobile design. Looking to the future and with industry support, DYPDC has created a unique automobile design program that will help launch your bright career.