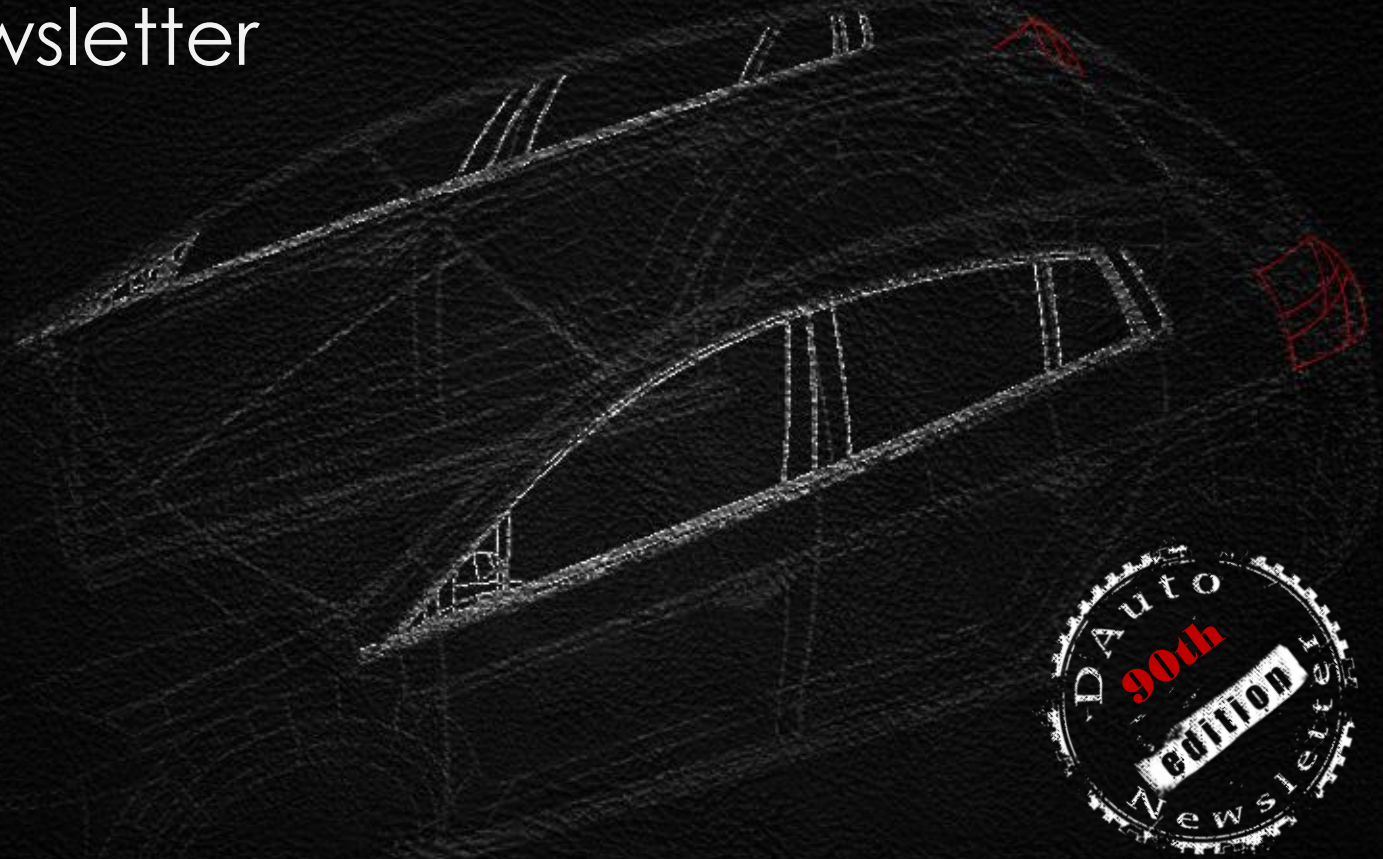


2017

DAuto Newsletter

FEBRUARY EDITION



Design engineers turn designs into reality. Without them, a great idea but nothing more than, ... well, a great idea.

LEXUS SPORT YACHT CONCEPT

Exploring the idea of a possible product line-up expansion, Lexus has revealed a design study of a sleek sport yacht with an advanced composite hull construction.

Lexus is not the first automotive brand that ventures in the yacht design field: Jaguar, Mercedes Benz, Peugeot and Aston Martin, all have recently presented their own interpretation of a motor boat.

Whether this is a sign of a possible crisis of the “automobile” object, is another matter.

In the case of the Lexus Sport Yacht Concept, the project was developed over a couple of years and was finally publicly unveiled on January 12 2017 at Di Lido Island on Biscayne Bay, Miami Beach FL.

The prototype was built by Marquis-Carver Yacht Group of Pulaski, Wisconsin, USA: an independent privately-owned company that designs, engineers and manufactures the brands of Marquis Yachts and Carver Yachts.

The appeal of these projects, which are for the most part not intended for production, is easy to see: designing a yacht allows designers to experiment with a freedom not found in the car industry: there are very few constraints, and at the same time luxury yachts are fascinating, almost unattainable iconic objects that can easily raise the public attention and give prestige to a brand.

The design of the Lexus Sport Yacht concept has the upper deck and outer hull seamlessly bonded around the inner structure, each piece a single massive hand-laid composite of two-part polyurethane epoxy resin reinforced with hand-laid woven carbon fibre cloth, a composite material called carbon-fibre reinforced plastic, or CFRP.



LEXUS SPORT YACHT CONCEPT

CFRP is the technology used in the structure of race cars and supercars like the Lexus LFA, high-performance aircrafts, competition skis and bicycles, and world-class racing sailboats.

The Lexus Sport Yacht concept's unique CFRP construction saves nearly 1,000 kg compared to a similar yacht in fiberglass reinforced plastic (FRP). The underwater hull design is stepped to reduce resistance or drag and improve handling balance at high speeds.

The concept is powered by twin 5.0-litre V8 gasoline engines based on the 2UR-GSE high-performance engine of the Lexus RC F coupe, the GS F sport sedan and the new LC 500 grand tourer. Each engine produces over 440 horsepower / 446 DIN hp / 328 kW, driving the yacht at speeds up to 49 miles per hour (43 knots) through a pair of hydraulically controlled inboard/outboard stern-drives. A bow-thruster with joystick control aids in docking.

The captain controls and monitors on-board systems from a color touchscreen panel at the helm; screens show GPS navigation, digital charts, surface radar, underwater sonar, lighting and entertainment systems. The captain's seat is power adjustable; the armrests fold out to become jump seats on each side for very special guests.

The forward passenger cabin is inviting in luxurious Lexus leather with wood and glass details. A standing height, sofa seating for six with a table, and air conditioning create a comfortable environment for intimate entertaining.

The galley features a two-burner stove, sink and under-counter refrigerator; a beautifully finished head includes a shower. An integrated audio-video entertainment system is fully networked, with 4G Wi-Fi & WAN. Sound reproduction is by Revolution Acoustics surface-mounted drivers using the ceiling panel as a transducer, powered by a Mark Levinson® Reference digital amplifier.



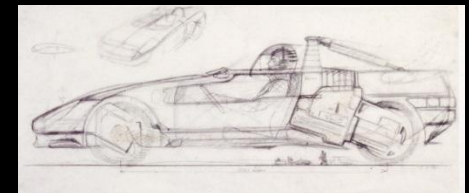
ITALDESIGN LAUNCHES “AUTOMOBILI SPECIALI” DIVISION

Italdesign has announced the launch of a new brand, “Italdesign Automobili Speciali”, that will focus on the development of special vehicles produced in ultra low series aimed at a number of selected collectors.

The new brand, which will make its debut during the next Geneva International Motor Show, marks Italdesign’s return to small series production, following the past experiences of the Seventies with the BMW M1, the Eighties with the Aztec prototype and the Nineties with the Nazca and W12.

Filippo Perini, Head of Innovation Design, stated: *“When designing this new logo, we were inspired by the symbol of the City of Turin. We started not from the rampant bull of the city’s crest but from the bull’s head, which is a real icon being used on ancient palaces as an ornamental part. In this city the history of Italian automobile was born, the most famous and prestigious carmakers were born, as well as the ‘coachbuilders’ who made the Italian car design famous worldwide. Besides, it’s the city which hosted, from 1968 to 1974, the first Headquarters of Italdesign. With whis logo therefore we wanted to celebrate the passion and the know-how that ideally unite Italdesign and Turin”*.

All the different aspects of the limited production runs, including styling, testing, validation and homologation, will be handled by the Italian design firm, which has recently made investments in technology and training for the development of pre-series vehicles for the world’s major OEMs, as testified by the assembly of seventy pre-series of the new Audi Q2 compact SUV.



GENERAL MOTORS DESIGN DOME IS REVERED, FEARED AND SOMETIMES

The Dome is part of GM's iconic Technical Center at Warren, in Detroit. It's both a fully functional centre for the company's global design operations and an historic landmark. Much of the Centre is listed on the National Register of Historic Places.

We can thank Harley Earl for some of the best and worst in the modern car industry. He helped create planned obsolescence with yearly model changes, exotic concept cars and of course the Corvette.

The Dome became the centrepiece of GM design. It was and is the place where all new GM products are presented in the metal (well, perhaps clay) to company executives. Careers are made and destroyed inside it. Earl wanted a secret and very special place where GM teams could put the spotlight on future designs.

Why a dome? Because the shape and indirect lighting replicate what it's like to see a vehicle outside. Although walled areas around the facility allow designers to present their models outside as well.

INVADED BY ROBOTS

Masterminded by legendary GM design boss Harley Earl and penned by equally legendary architect Eero Saarinen, the Tech Center was as much a statement of GM's brand philosophy as it was a functioning facility. GM was one of the first American carmakers to prioritize design. It hired Earl in 1927 and set up a department to study 'art and color' in its vehicles.

Saarinen decided the Dome itself should pay homage to the car by being constructed in metal: a self-supporting structure of interlocking aluminium panels, standing 20 metres high, with a massive display space in its centre. Consider it GM's design church. Company executives certainly consider it a spiritual place, given that every major GM vehicle since the 1957 model year has been approved there. The Dome is revered. So it might surprise you that it was also given a huge thrashing as a location for the 2014 movie *Transformers: Age of Extinction*. GM has a huge hand in the franchise: Camaro has a starring role as Bumblebee and the movies are filled with the company's vehicles. GM supplied its Tech Centre and many other facilities as locations for *Age of Extinction*.



GENERAL MOTORS DESIGN DOME IS REVERED, FEARED AND SOMETIMES INVADED BY ROBOTS

Dome, doubled as CIA digs. It's the same office, with the same exquisite mid-century furniture, that Earl used from 1956-58.

Welburn even has a cameo as the boss of Autobot research in the Dome scenes. Over 50 other GM employees also appear in the film.

GM masterminded planned obsolescence and the *Transformers* Dome shoot was typically pragmatic planned damage. It was a convenient catalyst for a major refurbishment of the facility - the most significant upgrade since the introduction of some new lighting technology in 1993.



Back then, GM installed a simple nine-metre-wide lighting ring with a mass of spotlights attached. To adjust them, staff still had to climb up on ladders and manually move the individual units to achieve the correct (and crucial) lighting effect.

The 18-month renovation in 2014 involved a complete rewire, with new LED lighting on a 12-metre rig that can be remotely controlled from an iPad. Individual lights can be used to highlight tiny details such as badges and wheels, or project patterns around the vehicle.

There are screens that drop down from the ceiling, and even a projector that can put a mood-enhancing image onto the domed roof to help showcase a particular model. The Warren Tech Center is the oldest and largest of a network of GM design centres that have been linked as a since global entity since 2005. There are others in the United States, Germany, Korea, China, Brazil, India and of course Australia, employing 1900 people. Australian Michael Simcoe also succeeded Welburn as GM's global design head last year. But no movie role yet.

2017 HONDA CITY FACELIFT LAUNCHED AT Rs 8.50 LAKH

Honda's C-segment stalwart has a fresh new face and a slew of updates. The facelift of the fourth-generation City has been officially launched in India with prices starting at Rs 8.50 lakh for base-spec petrol, going all the way up to Rs 13.57 lakh for the top-spec diesel.

The facelift retains the same layout and features, and the tried-and-tested beige-black colour combo. Added goodies include a 7.0-inch touchscreen infotainment system with MirrorLink (which will be carried over **to the upcoming Honda WR-V**), and a one-touch function for opening/closing the sunroof. It carries over its bag of tricks that includes the touchscreen for the automatic climate control, steering-mounted audio and telephony controls, cruise control, and power-folding mirrors. This is besides the de rigueur convenience features that include tilt and telescopic adjust for the steering, a height-adjustable driver seat and keyless entry/go.

There are LED lamps, everywhere. LED daytime running lamps are standard across the range. The top-spec variant goes one step further featuring LED headlamps with DRLs, LED fog lamps and tail lamps. If that wasn't enough LED for you, the cabin lights are of the same variety as well. Aesthetically, the City retains its 'arrow-shot' design theme. The top-of-the-line VX and ZX variants now wear bigger 16-inch diamond-cut alloy wheels, whereas the mid-spec V variant gets a set of 15-inch alloys.



2017 HONDA CITY FACELIFT LAUNCHED AT RS 8.50 LAKH

Oh yes. The top-spec ZX variant now features side and curtain airbags, taking the total tally up to six. This puts it on a par with its arch rival, the **Hyundai Verna**, which is due for an update itself. Honda has also added adjustable rear headrests, which is sadly limited to the top variant only. All other variants feature dual front airbags, and anti-lock brakes with EBD as standard.

Mechanically, the City remains unchanged, carrying over the 1.5-litre i-VTEC petrol motor, and the 1.5-litre i-DTEC diesel. The petrol is available with a 5-speed manual (and not a six-speed as in the BR-V) or a 7-speed CVT (only in V, VX and ZX), whereas the diesel gets the good old 6-speed stick shifter. The output from both engines have remained unchanged at 119PS/145Nm (petrol) and 100PS/200Nm (diesel), but ARAI-certified fuel efficiency has gone down by 0.4kmpl, to 17.4kmpl (petrol) and 25.4kmpl (diesel). Notably, the efficiency for the petrol-automatic has remained unchanged at 18kmpl. Honda is also offering a 3 year/unlimited kilometres warranty as standard.



MERCEDES E-CLASS WINS UK CAR OF THE YEAR 2017 AWARD

“Stunning inside and out, it takes driver and passengers into the realms of luxury. The level of technology – and the attention to detail – at your fingertips is astounding.”

Fellow director Alisdair Suttie added: “The E-class has it all and does it very well. Its refinement, comfort and style mean you want for nothing else.”

I am a huge fan of the current E-class, rating its class, comfort and quality, as well as an excellent range of engines.

In the overall category, the E-class triumphed over the Volvo V90 and Jaguar F-Pace, which finished in joint second place, with Hyundai’s Ioniq and the Ford Focus RS in joint third.

The new Mercedes-Benz E-class has been voted the winner of the UK Car of the Year Awards 2017. Having already been awarded the accolade of Best Executive Car when the category winners were announced at the beginning of January, the E-class then cruised to victory in the overall vote.

The Mercedes S-class Cabriolet won the Best Cabriolet category.

John Challen, director of the UK Car of the Year Awards, said: “Mercedes-Benz has a long history of creating impressive saloon cars and the new E-class continues this trend and raises the bar in the executive vehicle sector.



HESKETH UNVEILS 2100 CC SUPERCHARGED VALIANT

British motorcycle brand Hesketh has launched a new motorcycle at the Carol Nash MCN London Show, and the bike is a 2100 cc supercharged motorcycle. The Valiant is named after the cold war bomber, the Vickers-Armstrong Valiant, a high-altitude bomber used by the Royal Air Force in the 1950s and 1960s. The bike is made around a massive 2100 cc supercharged v-twin engine, the biggest production v-twin in the world, which makes 210 bhp power and pushes 294 Nm of torque.

The supercharger is developed by TTS Performance and the front and rear suspension is developed for Hesketh by Ktech. Braking is handled by Pretech with 12-piston calipers at the front and a Beringer four-piston caliper on the rear wheel. The billet machined bits on the bike like the primary drive, rocker covers and yokes are made by Billet World in Derby.

Now, Hesketh is planning to increase the power output even further to around 250 bhp when the bike is tested later this year. Hesketh has kept the bike completely British with all the components are made by Hesketh or designed by them and outsourced for manufacture in the UK. The speedometer is a classic, single pod unit developed by Smiths, proudly displaying the Hesketh name while the frame and swingarm are produced by Nottingham-based GIA engineering.

The Valiant is what Hesketh describes as "shed-built" and is the first Hesketh motorcycle to feature the company's H logo, which belongs to their engineering and development department. The H logo is kind of exclusive and won't be seen on the company's production machines. The bike is expected to be available commercially in 2018 and is expected to be a limited edition model, priced at around GBP 50,000 (just over Rs 41 lakh).



PEUGEOT UNVEILS THE INSTINCT CONCEPT AHEAD OF GENEVA MOTOR SHOW

Autonomous vehicles is the trend to look out for in future cars and French car manufacturer, Peugeot, does not want to be left behind. The company recently took the wraps off its rather amazing Instinct Concept in Spain, which will also offer autonomous driving. The Instinct Concept has a shooting brake design with sharp futuristic looks and is a plug-in hybrid electric vehicle and is fitted with a powertrain that has an output of close to 300 bhp. The car has two modes which are the 'Drive' and 'Autonomous' modes. These modes have two further sub-modes which Peugeot says offer a balanced and a comfortable journey. In both the modes, the driver possesses complete control with the help of the i-Device, which is a 9.7-inch touchscreen interface in the centre console.

The Peugeot Instinct Concept is on display at the ongoing Mobile World Conference in Barcelona, Spain and will also be on display at the upcoming Geneva Motor Show as well.

The Instinct Concept has an 'Internet of Things' (IoT) platform, which is the Samsung Artik Cloud system that syncs with the smartphones or other smart wearables of the driver. This makes the interface in the car in sync with the schedule of the driver as well. Also, each LED lamp in headlamp cluster has a small camera that captures the surface of the road ahead and sends the information to the driver assistance systems.

Matthias Hossann, Head of Peugeot Concept cars said: "With the Peugeot Instinct Concept and its Responsive i-Cockpit, we are building on the factors that have made the brand's latest models so successful. We are creating new forms of driving pleasure. These may come from the interfaces, the architecture or the styling. There is no reason why a self-driving car should be dull to look at or to experience."

Once the autonomous mode is engaged, the steering wheel and the throttle and brake pedals fold back into the dashboard and the footwell respectively, to maximise space. Truly astounding! The company says that it will be manufacturing fully autonomous cars by 2025.



WHY INDIA IS IMPORTANT FOR KTM?

In 2012, KTM changed the way Indians looked at street motorcycles with the then completely different styling of the KTM 200 Duke. The 390 Duke followed and made a mark in the Indian market as a cult performance bike, not seen in the Indian two-wheeler space since the 1980s and 1990s. KTM India has recently launched its third product offering in the Duke range for India - the made in India and all-new for India KTM 250 Duke. In a way, it looks like one-too-many motorcycles in a market where there seems to be no replacement for displacement. But, a closer look reveals that KTM India's product strategy seems to be spot on.



While the 200 Duke has largely remained unchanged for 2017, with a few cosmetic updates, the 390 Duke has received the most updates, including a larger front disk brake, new chassis and TFT color instrument panel, although engines on both the 200 and 390 remain largely the same as the outgoing models. What has changed is that both engines have now been upgraded to meet Bharat Stage IV (BS-IV) emission regulations which will kick into place from April 1, 2017. KTM India also took the opportunity to introduce an all-new model for India - the KTM 250 Duke, which has been in production in India for some time now, but only for KTM's certain export markets.

It's a strategy which is well thought out - the 200-250 cc Indian motorcycle segment is the fastest growing motorcycle segment, and has seen over 50 per cent growth in the past year alone. It's as if the Indian motorcyclist wants to get into the 'performance' side of things, but without breaking the bank and is willing to spend roughly between Rs 1.5-2 lakh - slap bang in the territory of KTM's Duke range in India. And so, enter the 250 Duke! At Rs 1.43 lakh (ex-showroom Delhi), the KTM 200 Duke will now cater to the budget conscious lot wanting to get into the KTM brand umbrella, while the 250 Duke (Rs 1.73 lakh ex-Delhi) will offer more displacement, more performance and styling similar to the even more aspirational KTM 390 Duke, which is priced at Rs 2.25 (ex-showroom Delhi). What also works for the 250 Duke is that it's got a fuel consumption advantage over the performance-oriented 390.

WHY INDIA IS IMPORTANT FOR KTM?



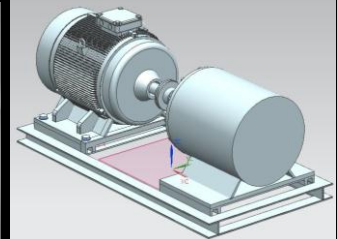
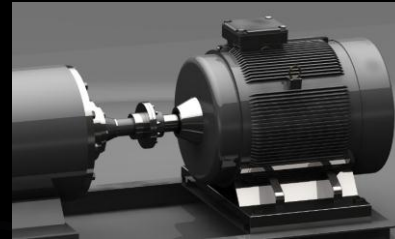
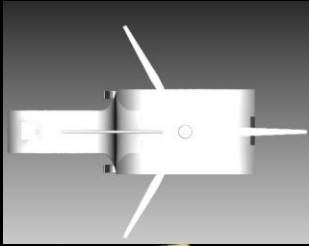
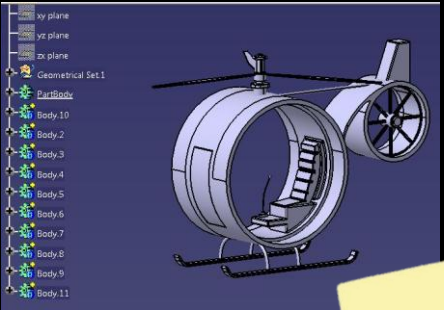
So, the question now is will the new Duke range make KTM India's fortunes head north? Quite likely, but it's not as simple as it sounds. In 2007, Bajaj Auto invested in 14.5 per cent of the then beleaguered Austrian two-wheeler manufacturer which was going through a financial crisis of sorts with the global financial crisis hitting most motorcycle manufacturers across the world. In 2012, KTM and Bajaj Auto formed an alliance and Brand KTM entered the Indian market with the 200 Duke, followed by the 390 Duke and the RC twins. And it's been a journey which has been quite successful.

In FY2012 KTM India sold 2200 bikes and in FY2017 that figure has shot up to 37000 bikes. With the Duke range getting more power with the new 250, KTM is expected to do well this year in India as well, expected to end FY2018 with double digit growth. So, does KTM's success in India mean we get to see larger KTM models in the Duke and Adventure range for India? So far, there's been no confirmation on those lines, and yes, the Indian market needs to mature and economies of scale needs to be taken into account for KTM to manufacture or at least partly manufacture those bikes in India to keep prices competitive. But with the way the premium motorcycle space is growing in India, who knows? And if India tops the list of KTM's global markets, as is estimated, it could only be better news for the Indian motorcyclist - opening up an entire range of large displacement KTM bikes in India.

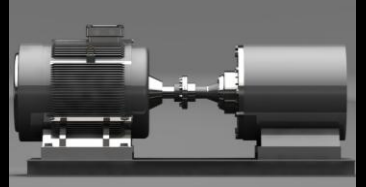
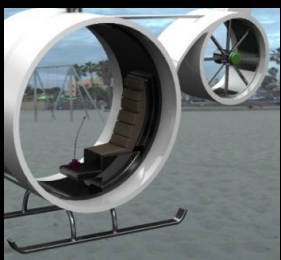
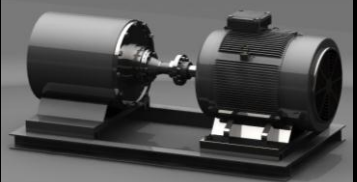
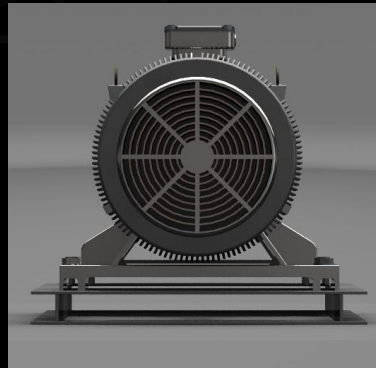
According to most estimates, KTM India has grown by over 48 per cent in the past five years. And yes, in the meantime, Bajaj Auto also increased its stake in KTM to 48 per cent. And that investment, together with utilizing Bajaj's manufacturing facilities to make in India KTM bikes seems to have paid off. KTM has been manufacturing the Duke models ranging from the 125, 200, 250 and 390 for export markets, and Bajaj has played a significant role with the alliance providing access to emerging markets such as China, the Philippines, Malaysia and Colombia.

STUDENT'S CORNER

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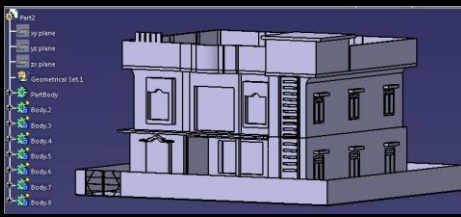
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TIT-Excellence
College
(BHOPAL)
Design Tool :
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