

2018

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

#### December 2017 refresh

Honda Sports Vision Gran Turismo Concept

Honda unveils Riding Assist-e self-balancing motorcycle concept

Mitsubishi e-Volution Cond

Lexus LS + Concept

Lamborghini and MIT reveal Terzo Millennio Concept



CES 2018: Mercedes-Benz unveils MBUX AI system



At CES 2018 Mercedes-Benz has revealed the Mercedes-Benz User Experience (MBUX) multimedia system, that will make its debut on the new A-Class later this year.

The system is centered around an Al-based software capable of adapting to the user's needs and receiving updates from Mercedes-Benz.

In terms of user interface, the new generation cockpit features a high-resolution Widescreen Cockpit with touchscreen operation, navigation display with augmented reality technology and an advanced voice control with natural speech recognition system, activated with the keyword "Hey Mercedes".

Additional controls – including buttons and touch sensitive elements – are integrated on the steering wheel and the center tunnel and allow the driver to control the interface minimizing the distractions.

A revolution in the cockpit: Taking centre stage in the Mercedes-Benz presence at the Consumer Electronics Show in Las Vegas (CES; 9 – 12 January 2018) will be the world premiere of the intuitive and intelligent multimedia system MBUX – Mercedes-Benz User Experience.

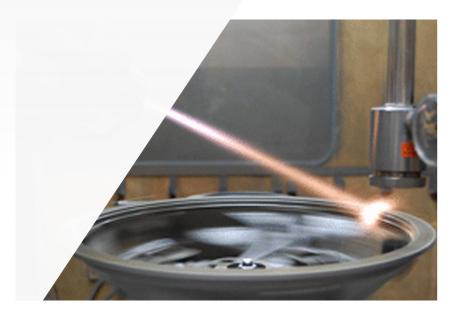
It will enter series production this year in the new A-Class. New services from Mercedes me will also be available.

The name MBUX for the new infotainment system signals that the user experience (UX) is to the fore. A unique feature of this system is its ability to learn thanks to artificial intelligence. MBUX can be individualized and adapts to suit the user. It thus creates an emotional connection between the vehicle, driver and passengers. At the same time updates "over the air" are possible. It also heralds a new era at Mercedes me Connectivity.



NASA Shows Interest in 'Made in India' Tech for Space crafts





While working at Jodhpur-based Metallizing Equipment Company (MEC) as a chief scientist, Research and Development, (R&D), Dr Satish Tailor developed the controlled segmented Yttria Stabilised Zirconia (YSZ)-Plasma sprayed coating technology, which according to him could reduce the thermal spray coating cost by almost 50 per cent.

A new thermal spray coating technology used for gas turbine engine in space crafts developed by a Rajasthan-based researcher has caught the attention of a NASA scientist, an official said.

Expressing his interest in the research, James L Smialek, a scientist from NASA wrote to Dr Satish Tailor after it was published in the journal Ceramics International and Thermal Spray Bulletin, said SC Modi, the chairman of a Jodhpur-based Metallizing Equipment Company (MEC).

While working at MEC as a chief scientist, Research and Development, (R&D), Dr Tailor developed the controlled segmented Yttria Stabilised Zirconia (YSZ)-Plasma sprayed coating technology, which according to him could reduce the thermal spray coating cost by almost 50 per cent.

#### "In simple language, vertical cracks (segmentation) in the coating are beneficial for gas turbine engine application used in space crafts," Dr Tailor said.

"At present, researchers are developing such cracks through very expensive processes (in several crore) and cracks are generated during the coating deposition process, and crack generation is not controllable," he told PTI.

He said he has shared his research papers with the NASA scientist who had written him an email regarding this. Scientists working at the country's leading research organizations - the Council of Scientific and Industrial Research (CSIR) and Defense Research Development Organization (DRDO)- are equally impressed with the new technology.



Land Rover announces limitededition Range Rover SV Coupé

The interior image released shows the combination of traditional skills combined with the latest technologies. The special edition model will also offer extensive options for customization.







# At the 2018 Geneva Motor Show Land Rover will unveil Range Rover SV Coupé, a two-door, full-size SUV coupé that inspired by the original 1970 model.

Set to be produced in a limited run of 999 units, the Range Rover SV Coupé will be offered to clients worldwide, each hand-assembled by Special Vehicle Operations in Warwickshire, UK.

The design, characterized by a distinctive two-door silhouette, pays homage to the original Range Rover, which was launched just as a two-door model in 1970.

Gerry McGovern, Land Rover Chief Design Officer, commented: "The Range Rover SV Coupé is a highly compelling design with peerless refinement and uncompromised sophistication from its breathtaking exterior proportions to its sumptuous, beautifully appointed, interior. This is a vehicle that will resonate on an emotional level."

#### The 1970 Range Rover Classic

The first generation model, known as the Classic and originally only available as a twodoor, went on sale in 1970 featuring a lightweight aluminium V8 engine, full-time fourwheel drive and all-round disc brakes.

Numerous variants and upgrades were introduced during its 25-year lifespan including the addition of a four-door model in 1981 and an automatic gearbox in 1982.





LG Posts Biggest Ever Revenue in 2017 Thanks to TV Sales, Mobile Division Posts Loss





#### LG Electronics, South Korea's tech behemoth, posted its biggest-ever revenue in history in 2017 due mainly to strong TV sales, the company said on Thursday.

Revenue reached record high of KRW 61.4 trillion (\$57.9 billion or roughly Rs. 3.68 lakh crores) in 2017, topping KRW 60 trillion for the first time in the company's 60-year history, Xinhua news agency reported.

Operating profit was 2.47 trillion won (\$2.33 billion or roughly Rs. 14,800 crores) last year, marking the second-biggest in its history.

The revenue increased 10.9 percent compared with the previous year, with the operating profit jumping 84.5 percent.

During the October-December quarter, LG's revenue reached KRW 16.96 trillion (\$15.99 billion or roughly Rs. 1.01 lakh crores), up by 14.8 percent compared with the same period in the previous year.

Operating profit turned into the black with KRW 366.8 billion (\$346 million) in the fourth quarter from a deficit of KRW 35.2 billion (\$33 million) a year earlier.

During the December quarter, LG's TV unit posted KRW 5.48 trillion (\$5.17 billion) of revenue. It was up 14.2 per cent from a year ago. The unit's operating profit surged 133.8 percent to KRW 383.5 billion (\$362 million) in the quarter.

The mobile communications division, which makes smartphones, posted an operating loss of KRW 213.2 billion (\$201 million) in the fourth quarter on high marketing costs and higher component prices.



IBM, Maersk Announce Global Blockchain Shipping Venture

IBM and Maersk, one of the world's leading shipping container firms, have teamed up to provide a more efficient method of standardizing shipping logistics using block chain technology.



#### IBM and A.P. Moeller-Maersk on Tuesday announced a joint venture to create a platform based on Hyper ledger Fabric 1.0, with the goal of creating huge efficiencies in the global supply chain.

"Adoption of Hyper ledger Fabric by Maersk and its partnership [with] IBM has the potential to remake the shipping sector landscape and its use of information technology," said Brian Behlendorf, executive director of The Linux Foundation, which hosts Hyper ledger Fabric 1.0.

The new firm, which will be based in the New York metropolitan area pending regulatory approval, will be 51 percent owned by Maersk, with the remaining 49 percent owned by IBM. Mike White, former president of North America for Maersk, will be CEO of the venture. Vincent Clerc, chief commercial officer at Maersk will be chairman of the board.

The venture will offer the platform to a variety of companies. Among those that have expressed early interest are automaker General Motors; Procter & Gamble, the makers of Tide detergent, Bounty paper towels and Pampers diapers; and freight forwarding company Agility Logistics, which will be able to provide more streamlined customs clearance brokerage.

"Maersk is a strategic partner of General Motors," noted Nick Richards, product development/purchasing and supply chain communications manager at GM.

"We believe this initiative will improve efficiency in how we manage our logistics network, as well as improving visibility of our cargo," he told Linux Insider. "We have started testing this in a few international lanes with Maersk."





### GAC Enverge Concept

The Enverge Concept is an electric-powered compact crossover with a rather refined and modern design incorporating many trendy elements: from slim LED lights to a futuristic interior featuring a large touch screen and several pattern-based elements.

The exterior surfaces are muscular yet at the same time clean, with the obvious absence of side windows, replaced by VR panels.

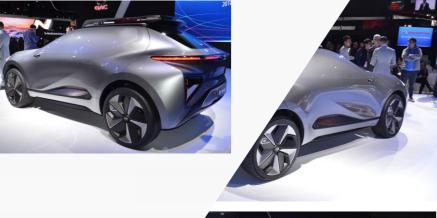
The powertrain features a 71-kWh battery that allows to achieve a range of 370 miles and that can be recharged up to 65% wirelessly in just 10 minutes.

Among the distinctive design elements are detachable headlights that can be used as spotlights and scissor doors.

GAC motors has announced its plans to enter the US market, with a brand name that is still being researched – the group currently sell cars under the name Trumpchi in its home market – and the first US model will be the GS8, a full-size SUV that will cost about \$35,000 and that should be launched in late 2019.



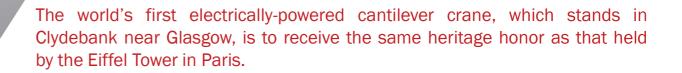








The world's first electricallypowered cantilever crane to receive honor



The 106-year-old Titan Crane – which is all that remains of John Brown's shipyard, where battleships such as HMS Hood and passenger liners like the QE2 were built – has been designated an International Historic Civil Engineering Landmark by four of the world's leading engineering institutions.

The listed structure had already been presented with an Engineering Heritage Award from the Institute of Mechanical Engineers last year.

The retired Titan re-opened as a tourist attraction in July 2007 and now offers activities to the public such as abseiling, bungee jumping, swinging or guided tours. Its restoration cost around £3.75m.







## **CES 2018: Kia Niro EV Concept**





# At CES 2018 Kia is presenting its vision for the future of mobility and a fully electric compact SUV that preview the introduction of new environment-friendly models in the coming years.

The Niro EV Concept is Kia's first step under the new ACE Strategy (Autonomous, Connected and Eco/Electric) and the 'Boundless for all' vision, a philosophy that sees future cars not just as means of transport but broader mobility solutions with advanced connectivity.

Created by Kia's design studio in Korea, the concept is a compact SUV powered by an advanced battery-electric powertrain.

The exterior is characterized by an aerodynamically-efficient body. Following a common current trend, the traditional grille – no longer required for engine cooling – is replaced by an interactive display panel, and along with the ultra-slim lamps contributes to a sleek modern front end design.

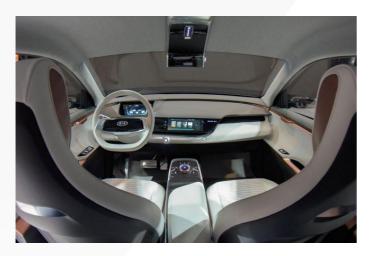
In profile, the concept draws inspiration from the current Kia Niro, with a compact crossover silhouette, elevated body and wide C-pillar.

The rear end has clean and sharp trailing edges allowing air to flow more easily off the back of the car.

Designed to be driven mostly on urban and suburban roads, the Niro EV Concept is equipped with new technologies to enhance safety for pedestrians.



## **CES 2018: Kia Niro EV Concept**





The concept's new Active Pedestrian Warning System (APWS) features a combination of front view cameras, object recognition technology and front speakers. If the system detects a pedestrian or cyclist crossing in front of the car, the speakers sound an alert targeted specifically at that person, warning them of the car's presence. APWS is matched by the Niro EV Concept's new interactive lighting system, which offers users and pedestrians a highly-intuitive visual communication with vehicle.

Inside, the cabin has been designed with a pure, minimalist and digital appearance, creating greater user interaction with new technologies and features. With a wrap-around design to cocoon the driver and passengers, the dashboard's horizontal layout has broad and smooth surfaces.

The effect is a sense of space and calm in the cabin, enhanced by the soft shades of silver, grey and bronze covering every surface.

The electric vehicle powertrain makes use of new production technologies and combines a high-capacity 64 kWh lithium-polymer battery pack with a 150 kW electric motor. The driving range is 238 miles (383 kilometers).

Kia's 'ACE' strategy is based around three core elements, presenting Kia's vision for future personal transportation:

- Autonomous Kia plans to commercialize Level 4 autonomous driving technology, with 'Smart City' autonomous vehicle testing due to commence in 2021
- Connected By 2025, Kia will adopt connected car technologies across every vehicle segment, and aim to make every single model a connected car by 2030
- Eco/Electric Kia will introduce 16 new advanced powertrain vehicles by 2025, including a range of new hybrids, plug-in hybrids and electric vehicles, as well as an all-new fuel-cell electric vehicle in 2020



Asia's Biggest Auto Testing Track is Ready in Pithampur, Madhya Pradesh, India.





Union Minister of State for Heavy Industries Babul Supriyo and Minister for Industry of Madhya Pradesh Rajendra Shukla inaugurated the Asia's biggest auto testing track in Pithampur of Dhar district on Sunday.

Babul Supriyo said that country's research and development activities in the sector of automobile engineering and technology will get boost, due to the construction of auto testing track in Pithampur. He hoped that Pithampur will emerge as a hub of the automobile industry in future.

Union Minister of State Supriyo further mentioned that the state government has provided 4 thousand acre land to NATRiP and the National Auto Testing Track has been developed on 3 thousand acre land. Automobile units can be established by the industrialists on the remaining one thousand acre land.

Rajendra Shukla said that this track will prove to be a pivotal center for the development of automobile industry in the country. Industrial revolution is must to provide maximum employment opportunities to youths. He mentioned that youths of the state will get maximum employment opportunities by establishing more industries in the state. Mentioning about the infrastructure development in the state, Shukla said that Madhya Pradesh is an electricity surplus state. Four lane roads have been constructed in big numbers in the recent years.

Shukla informed that Mahindra, Force, MAN Group Heavy Industries, Earth Moving and Construction Equipment manufacturing companies have units in Pithampur. He urged the Union Minister of State, Supriyo that it will become helpful for the automobile and commercial vehicles' sector of Pithampur, if testing facility of earth moving and construction equipment is made available here.



## **Infiniti Q Inspiration Concept**









## Revealed at the recent NAIAS, the Q Inspiration Concept previews the company's design direction envisioning a new form of advanced sedan.

The Q Inspiration Concept is a proposal for a next-generation luxury sedan equipped with the latest technologies in terms of powertrain as well as autonomous driving features. It combines a sleek, muscular exterior with coupe-like proportions with a human-centric, minimalist interior.

The brand's new design language adopts straight lines, concise graphics and clean surfaces. The result is a pure and simple – yet muscular – design execution inspired by modern powertrain technologies.

The impending adoption of more advanced forms of propulsion has allowed INFINITI's designers to propose a new architecture for the mid-size sedan.

The Q Inspiration avoids classical sedan forms in favor of more coupe-like proportions and an elongated silhouette. Its short hood segues into a long cabin, made possible

The compact dimensions of the VC-Turbo engine allowed designers to create a short hood in favor of a more spacious interior, while adopting an elongated silhouette that gives the sedan a coupe look.

The front end is characterized by the large double-arch grille, that recalls the signature design of the brand's line-up, with a very refined level of execution.

The interior has a minimalist approach, aimed at reducing "the noise", in order to help the driver to rediscover the driving pleasure, focusing entirely on the road ahead without unnecessary distractions.



## **Student's Corner**

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## **Student's Corner**

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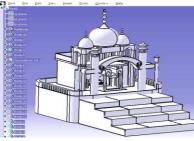


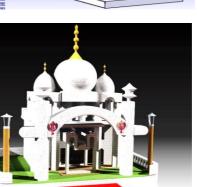
























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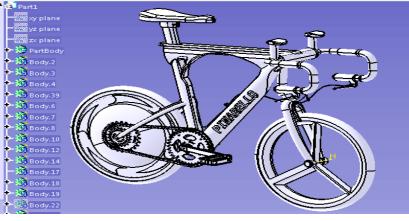




**Student's Corner** 

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## Never be satisfied with inaction. Question and redefine your purpose to attain progress

Jeffrey K. Liker, The Toyota Way

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