Continue

More people than ever are choosing to drive an automatic car today. Crowded roads, chaotic traffic conditions and other stress inducing factors have contributed to this trend.   The automatic transmission system was introduced commercially around 1948 by General Motors to offer a no-fuss form of shifting. Automatic cars, as the name suggests, are for those seeking an easier, more relaxed form of driving; with convenience, safety and practicality woven into one. Time and technological advances have improved and introduced various types of automatic transmissions such as AMT, iMT, CVT, DCT and so on. While each of them are unique in their own ways, in this article we will deconstruct what the AMT and iMT transmissions essentially are. If you draw a parallel between the AMT and iMT transmissions with the manual transmission, you will find that the two are mechanically very similar to the manual transmission (as compared to other automatic transmissions), with the most apparent difference being 'user input'. While the two systems are very different from each other in the way they function, iMT and AMT can actually be looked at as based on the same system with some differences in operation and user input. Let's see how. Also read: Small Automatic Cars in India iMT stands for Intelligent Manual Transmission. This system simply removes the clutch pedal thus reducing a major point of interaction a driver has with the car. It relies on an intelligent intention sensor, hydraulic clutch actuator, and an electronic transmission control unit. This is then put together with a conventional H gearbox which in turn works with the engine of the car. To explain it in even simpler terms, the iMT transmission removes the clutch pedal and uses sensors to use the 'in-built' clutch while the power to change gears remains in the drivers' hands. AMT stands for Automated Manual Transmission. It is exactly as its name suggests – a transmission that automates manual transmission. AMT not only removes the clutch pedal like the iMT but also goes a step further to relieve the driver of the responsibility of shifting gears, thereby reducing user input to a bare minimum. The AMT system works with the help of a series of sensors and mechanical parts that are being told what to do by the cars ECU (Electronic Control Unit), pre-programmed by respective automotive manufacturers. Sensors and actuators work together to engage the clutch and shift gears and therefore, the only true interaction the driver has is with the accelerator and brake pedal. Like we've said before, iMT and AMT in essence are transmissions based on the same manual gearbox that has been used in cars for a long time. In a simpler world, they could perhaps be called sibling technologies as they share the same base of engineering. The major difference between these two transmissions is the way they function from the drivers' perspective. But while driver experience is the most valid ground for comparing the two, they could also be compared on the basis of cost and mileage. Let's break it down. Let's say you're learning how to drive a manual transmission car. You start the car, press the clutch pedal, move the gear from neutral to first, slowly let the clutch go, and press the accelerator pedal to get the car moving. Then, depending on the RPM of your car and the terrain you're driving on, you press the clutch, shift the gear to the next and repeat this process. Similarly, if you decrease your speed, you must use the clutch again and downshift. When you use this understanding of manual transmissions to compare the iMT and AMT systems, one similarity you'll find is the absence of a clutch pedal, which allows the driver to shift gears without pressing their left foot down on the clutch. Hyundai i20 iMT The difference in driving experience arises from the absence of a conventional H gearbox in an AMT. All you need to do in an AMT is start the car and move the gear-stick from Neutral to Drive and the car will automatically shift the gear from one to the next depending on your speed and the RPM your car is moving at. If you want to reverse the car, all you have to do is move the gear stick to reverse. You need not worry about pressing the clutch or shifting gears according to the circumstances of the road. Also read: How to Drive an Automatic Car Thus, iMTs offer drivers greater control of their cars in terms of gear-shifting by letting them decide when to upshift or downshift. AMTs on the other hand offer peace of mind by automatically changing gears at speeds pre-defined by car manufacturers keeping in mind longevity and mileage. It's no doubt that AMTs make driving a breeze especially in peak hour traffic, but the downside to them on account of the automatic changing of gears is a slight lag that is felt in comparison to an iMT, where power is engaged the moment gear shift is initiated by the driver (similar to a manual transmission). There is presently no car manufacturer in India who has both transmissions present in the same model, making a cost comparison between iMTs and AMTs a tad difficult. But we could perhaps touch upon general costs to help you compare the two. An iMT has fewer components compared to an AMT, so the basic cost of manufacturing is quite similar to an AMT which is a much older technology refined over time. On maintenance, AMT is a little more expensive to maintain as the number of automated parts are more than an iMT, which in the longer run will cost less to maintain than a high end AMT transmission. To know what works best for your budget, it is best to do an independent analysis of the cars you shortlist with respect to purchase price, service and maintenance to conclude which transmission works best for your pocket. Comparing an iMT to an AMT on the basis of mileage is simple. iMTs essentially are manual gear-shift cars with an automatic clutch, and therefore, on paper, have better mileage than manual cars. Nonetheless, fuel-efficiency of iMTs still depends largely on driving style and how frequently drivers' are able to change gears at the ideal RPMs. AMTs, on the other hand, come tuned from the factory to shift gears at the right time, to ensure consistent fuel efficiency. An AMT, therefore, is a hands down winner in this department. The Maruti Suzuki Celerio AMT can deliver a mileage of 26 kmpl iMTs and AMTs have advantages in their own right. It is, however, not easy to get a definitive answer on which transmission is best for you, as it depends entirely on your personal preference. If you're a driver who likes to take charge of your car's performance and speed at the shift of gears, and yet enjoy the relief of keeping your left foot free, perhaps the iMT car is best suited to your needs. If you're seeking an even easier driving experience and derive delight from merely pressing the brake and accelerator, (perhaps because you often find yourself stuck in city traffic), you may prefer an AMT transmission. In this particular case, you cannot call one better than the other, as both transmissions have their own sets of enthusiasts. To conclude, we'd say the choice rests with you and whether you value control over your car, irrespective of your driving conditions, or the feeling of relaxation that comes with not having to change gears at all. Intelligent Manual Transmission (iMT) is the new term defining clutchless manual transmission. First thing first, the clutchless manual transmission does not mean the absence of a clutch. It simply means the physical presence of the clutch pedal is now replaced by the software and actuators that control the clutch, whereas you govern the gear shifts. The advancement in transmission technology has made our driving experience carefree and comfortable. With the increasing traffic on roads, an automatic transmission plays a pivotal role in reviving the joy of driving. However, both the iMT and AMT are manual transmissions, but unlike manual transmission with a three-pedal setup, the iMT and AMT come with a two-pedal system. Though both iMT and AMT get a two-pedal setup, they are quite different in terms of operation. Let's find out how different an iMT is compared with an AMT. What is an iMT? Intelligent manual transmission (iMT), in most straightforward words, means a regular manual transmission without a physical clutch pedal. The gear shifting follows a traditional H pattern, which we are familiar with, but there is no clutch pedal accompanying the brake and accelerator pedal to engage or disengage gears. The major components of an iMT are a Transmission Gear Shift lever(TGS) which is connected to an intention sensor, a hydraulic clutch actuator and an electronic Transmission Control Unit(TCU). These components work in tandem to shift the gear with a conventional manual gearbox mated to the engine. Now in order to run a car with an iMT , the ' Intention sensor' on the gear lever gets activated whenever you shift gear. These intention sensors then send the signal to TCU when gear needs to be changed, and then TCU sends signals to the hydraulic clutch actuator, which then generates hydraulic pressure to engage or disengage the clutch plate with the help of a slave cylinder. A slave cylinder is nothing but a small cylinder connected to a large master cylinder that forms parts of a larger hydraulic system for operations of the clutch. What is an AMT? In an AMT, one doesn't have to operate either the clutch or clutch shift gear manually. The gear lever and clutch pedal are replaced by a hydraulic clutch actuator system mounted inside the engine, which in turn operates both the gear as well as a clutch. The gear selection pattern and the gear ratio is factory programmed, and the data is stored in the ECU. Thus whenever RPM reaches a certain level, the ECU automatically controls the actuators to operate both clutch and gearbox in synchronization. There is also an option to shift gear manually by engaging in the manual mode.Thus, while an AMT and iMT are both standard manual gearboxes, the AMT uses software to decide on the gearshift. In contrast, an iMT uses the electromechanical operation of the clutch, which helps the driver in driving manual transmission without the tedious operation of the clutch pedal. Ground report of driving Kia Seltos with an iMT gearbox If you are someone like me, who is driving a car with an iMT gearbox for the first time, you will instantly feel disparate by noticing a two-pedal setup with an H pattern manual gear stick. Even though I got used to it on my initial run, I still felt a little confused after driving it for a long time. I firmly believe that a prospect buyer /user will get used to it after certain odd kilometres. Like a manual gearbox, we have to disengage the clutch to start the engine. Similarly, in an iMT case, we must ensure the gear lever is neutral before cranking up the engine. Once cranked up, engage the 1st gear, put off the leg from the brake pedal, and you are set off. As with a manual gearbox, we shift gear with the clutch pedal pressed once the engine reaches an optimum RPM. Whereas with iMT, we directly change gear without pressing the clutch as there is no clutch. This two-pedal setup comes as a boon in a traffic situation as one won't stall a car. Moreover, the fatigue of the left foot is wholly eliminated. On the other hand, it also keeps the thrill of driving intact when driven enthusiastically. There is minimal jerkiness, and the gearbox feels sure-slotted if changed at the required RPM. Also, the system warns with a continuous beep sound to shift down to the optimum gear. The Seltos with iMT gearbox comes mated with a 1.5-litre, NA, 4-cylinder engine that generates 114bhp of power and 144 Nm of torque. Power and torque are quite adequate, and one won't find any trouble driving it with an iMT setup. In fact one would cherish it, considering it demands a marginal premium over the manual gearbox variant. However, the biggest downside is that it lacks a hill-hold function, and out on sloped terrain, it becomes quite difficult. So for the people staying in the hilly region whose commute encircles sloppy and treacherous terrain, we recommend a manual transmission. And if you are someone whose daily commute goes through city regions and occasional highway drives, then iMT makes a strong case for itself. All in all, it's a well-engineered gearbox that keeps away the hassle of clutch operations without even compromising the driving fun. The clutchless manual transmission is a new-gen type of gearbox or transmission system developed by automobile manufacturers. Hyundai Motors call it the clutchless manual transmission while Kia Motors named it IMT. However, both work on the same principle. The term IMT stands for Intelligent Manual Transmission. According to Kia Motors, this system is not an AMT. The IMT differs from the traditional automated manual transmissions (AMT) used in recent times. However, this is not the first of its kind technology. Back in the late '90s, Swedish carmaker, Saab had designed a somewhat similar system. Saab 900 featured Sensonic transmission also provided a manual shift lever without a clutch pedal. Saab 9000 even featured a joystick instead of a steering wheel. However, it was way ahead of its time and none of them materialized. Clutchless manual Transmission IMT Basically, the system combines the benefits of manual and automatic gearboxes. Unlike conventional design, a car with a clutchless manual transmission does not have the clutch pedal at all. IMT is just like any other automatic transmission but without a clutch pedal. This system allows the driver to change gears manually but without the need to use a clutch pedal. The system has the manual gear stick or gear shifting lever as it is. To engage a gear in conventional design, the driver would normally have to press the clutch. And then, he would move the gear stick to the desired gear. However, in clutchless manual transmission, the clutch pedal is not there. This leaves your left foot to rest on the floor. There is no clutch pedal to be pressed. You only need to change gears with the lever as you normally do. In IMT, Hyundai uses a Transmission Gear Shift (TGS) feature which has a lever with an Intention Sensor. When the driver touches the Intention Sensor located on the shift lever, the Transmission Control Unit receives a signal that the driver wishes to change gears. This engages a hydraulic actuator to actuate the clutch. A Clutch Tube manages the Concentric Slave Cylinder (CSC). The CSC uses the pressure caused by the actuator to control the clutch and pressure plate which engages and disengages the clutch. With this new IMT system, the driver can change gears without having to mechanically operate the clutch pedal. This system will have a traditional H-pattern manual gear lever just like a manual transmission. However, it will not have a clutch pedal although it will have the brake & accelerator pedals. This system totally eliminates the clutch pedal. The clutchless manual transmission uses various sensors to monitor the engine speed as well as the position on the gear lever and automatically engages the clutch when needed. According to Kia Motors, the system is "Clutch-less" which means without the clutch-pedal. However, it is not necessarily without the clutch mechanism itself. Only the clutch pedal is absent from the driver's footwell. A mechanical clutch in the drivetrain still exists internally. However, it is being operated electronically instead of manually. Clutchless Manual Transmission or Intelligent Manual Transmission helps to reduce the stress on the driver's left foot especially in heavy traffic conditions. The passionate drivers can enjoy driving a car with a manual gearbox and change gears while having the feeling of a manual shifter. They can also drive without worrying to press the clutch pedal with their left foot. Besides, according to Kia, the system will provide very high fuel efficiency. Intelligent Manual Transmission (IMT) Since there is NO clutch pedal, you don't need to press clutch manually. The system does it automatically.So, you just need to use brake and accelerator pedals.Even if you come to a halt, the system will keep the engine running without you needing to do anything.With the clutchless manual transmission, your clutch life will be more or less the same. However, it depends upon your driving style (Average or Aggressive) and driving conditions (Stop & Go Traffic), etc.You will be able to start on a slope without any issues with the help of the Hill Start Assist function.In normal driving conditions, you should be able to shift quickly as you could just like in normal manual transmission. Images Courtesy: Hyundai, Kia Read More: What is a Fully Automatic Transmission & How does it work?>> The clutchless manual transmission is a new-gen type of gearbox or transmission system developed by automobile manufacturers. Hyundai Motors call it the clutchless manual transmission while Kia Motors named it IMT. However, both work on the same principle. The term IMT stands for Intelligent Manual Transmission. According to Kia Motors, this system is not an AMT. The IMT differs from the traditional automated manual transmissions (AMT) used in recent times. However, this is not the first of its kind technology. Back in the late '90s, Swedish carmaker, Saab had designed a somewhat similar system. Saab 900 featured Sensonic transmission also provided a manual shift lever without a clutch pedal. Saab 9000 even featured a joystick instead of a steering wheel. However, it was way ahead of its time and none of them materialized. Clutchless manual Transmission IMT Basically, the system combines the benefits of manual and automatic gearboxes. Unlike conventional design, a car with a clutchless manual transmission does not have the clutch pedal at all. IMT is just like any other automatic transmission but without a clutch pedal. This system allows the driver to change gears manually but without the need to use a clutch pedal. The system has the manual gear stick or gear shifting lever as it is. To engage a gear in conventional design, the driver would normally have to press the clutch. And then, he would move the gear shift stick to the desired gear. However, in clutchless manual transmission, the clutch pedal is not there. This leaves your left foot to rest on the floor. There is no clutch pedal to be pressed. You only need to change gears with the lever as you normally do. In IMT, Hyundai uses a Transmission Gear Shift (TGS) feature which has a lever with an Intention Sensor. When the driver touches the Intention Sensor located on the shift lever, the Transmission Control Unit receives a signal that the driver wishes to change gears. This engages a hydraulic actuator to actuate the clutch. A Clutch Tube manages the Concentric Slave Cylinder (CSC). The CSC uses the pressure caused by the actuator to control the clutch and pressure plate which engages and disengages the clutch. With this new IMT system, the driver can change gears without having to mechanically operate the clutch pedal. This system will have a traditional H-pattern manual gear lever just like a manual transmission. However, it will not have a clutch pedal although it will have the brake & accelerator pedals. This system totally eliminates the clutch pedal. The clutchless manual transmission uses various sensors to monitor the engine speed as well as the position on the gear lever and automatically engages the clutch when needed. According to Kia Motors, the system is "Clutch-less" which means without the clutch-pedal. However, it is not necessarily without the clutch mechanism itself. Only the clutch pedal is absent from the driver's footwell. A mechanical clutch in the drivetrain still exists internally. However, it is being operated electronically instead of manually. Clutchless Manual Transmission or Intelligent Manual Transmission helps to reduce the stress on the driver's left foot especially in heavy traffic conditions. The passionate drivers can enjoy driving a car with a manual gearbox and change gears while having the feeling of a manual shifter. They can also drive without worrying to press the clutch pedal with their left foot. Besides, according to Kia, the system will provide very high fuel efficiency. Intelligent Manual Transmission (IMT) Since there is NO clutch pedal, you don't need to press clutch manually. The system does it automatically.So, you just need to use brake and accelerator pedals.Even if you come to a halt, the system will keep the engine running without you needing to do anything.With the clutchless manual transmission, your clutch life will be more or less the same. However, it depends upon your driving style (Average or Aggressive) and driving conditions (Stop & Go Traffic), etc.You will be able to start on a slope without any issues with the help of the Hill Start Assist function.In normal driving conditions, you should be able to shift quickly as you could just like in normal manual transmission. Images Courtesy: Hyundai, Kia Read More: What is a Fully Automatic Transmission & How does it work?>> The clutchless manual transmission is a new-gen type of gearbox or transmission system developed by automobile manufacturers. Hyundai Motors call it the clutchless manual transmission while Kia Motors named it IMT. However, both work on the same principle. The term IMT stands for Intelligent Manual Transmission. According to Kia Motors, this system is not an AMT. The IMT differs from the traditional automated manual transmissions (AMT) used in recent times. However, this is not the first of its kind technology. Back in the late '90s, Swedish carmaker, Saab had designed a somewhat similar system. Saab 900 featured Sensonic transmission also provided a manual shift lever without a clutch pedal. Saab 9000 even featured a joystick instead of a steering wheel. However, it was way ahead of its time and none of them materialized. Clutchless manual Transmission IMT Basically, the system combines the benefits of manual and automatic gearboxes. Unlike conventional design, a car with a clutchless manual transmission does not have the clutch pedal at all. IMT is just like any other automatic transmission but without a clutch pedal. This system allows the driver to change gears manually but without the need to use a clutch pedal. The system has the manual gear stick or gear shifting lever as it is. To engage a gear in conventional design, the driver would normally have to press the clutch. And then, he would move the gear shift stick to the desired gear. However, in clutchless manual transmission, the clutch pedal is not there. This leaves your left foot to rest on the floor. There is no clutch pedal to be pressed. You only need to change gears with the lever as you normally do. In IMT, Hyundai uses a Transmission Gear Shift (TGS) feature which has a lever with an Intention Sensor. When the driver touches the Intention Sensor located on the shift lever, the Transmission Control Unit receives a signal that the driver wishes to change gears. This engages a hydraulic actuator to actuate the clutch. A Clutch Tube manages the Concentric Slave Cylinder (CSC). The CSC uses the pressure caused by the actuator to control the clutch and pressure plate which engages and disengages the clutch. With this new IMT system, the driver can change gears without having to mechanically operate the clutch pedal. This system will have a traditional H-pattern manual gear lever just like a manual transmission. However, it will not have a clutch pedal although it will have the brake & accelerator pedals. This system totally eliminates the clutch pedal. The clutchless manual transmission uses various sensors to monitor the engine speed as well as the position on the gear lever and automatically engages the clutch when needed. According to Kia Motors, the system is "Clutch-less" which means without the clutch-pedal. However, it is not necessarily without the clutch mechanism itself. Only the clutch pedal is absent from the driver's footwell. A mechanical clutch in the drivetrain still exists internally. However, it is being operated electronically instead of manually. Clutchless Manual Transmission or Intelligent Manual Transmission helps to reduce the stress on the driver's left foot especially in heavy traffic conditions. The passionate drivers can enjoy driving a car with a manual gearbox and change gears while having the feeling of a manual shifter. They can also drive without worrying to press the clutch pedal with their left foot. Besides, according to Kia, the system will provide very high fuel efficiency. Intelligent Manual Transmission (IMT) Since there is NO clutch pedal, you don't need to press clutch manually. The system does it automatically.So, you just need to use brake and accelerator pedals.Even if you come to a halt, the system will keep the engine running without you needing to do anything.With the clutchless manual transmission, your clutch life will be more or less the same. However, it depends upon your driving style (Average or Aggressive) and driving conditions (Stop & Go Traffic), etc.You will be able to start on a slope without any issues with the help of the Hill Start Assist function.In normal driving conditions, you should be able to shift quickly as you could just like in normal manual transmission. Images Courtesy: Hyundai, Kia Read More: What is a Fully Automatic Transmission & How does it work?>> Every day, someone somewhere in the world invents new innovations to save lives and introduce new technologies to the world in the automobile sector. Today, we talk about two such innovations, IMT vs AMT.The IMT Transmission car, also known as Intelligent Manual Transmission, is a relatively new technology. Kia was the first to showcase the IMT transmission car in India, but Hyundai was the first to launch the IMT transmission in the Hyundai Venue. Here's what you need to know about the comparison between IMT vs AMT. We have also published an article about CVT vs DCT and you can read it here.The IMT, or intelligent Manual Transmitter, is, in a nutshell, a clutchless manual transmission. Yes, it is a clutchless manual transmission because it retains a two-pedal system consisting of the brake and accelerator, as well as a mainstream manual gearbox.The IMT falls somewhere between the AMT and the traditional manual transmission. Gears are shifted seamlessly without the need to press the clutch paddles with the IMT gearbox, thanks to intelligent software and actuators that virtually press the clutch paddle while you physically shift the gear.Download GaragePro App for AndroidAMT vehicles have become extremely popular due to their ability to provide automatic-like operation at a lower cost. Hyundai's introduction of the iMT gearbox has provided a new alternative that may prove to be more appealing. So, which is superior? To respond, we've compiled a side-by-side comparison in terms of comfort, maintenance, system efficiency, mileage, and overall price benefit.ConvenienceThe idea behind installing automatic transmission in cars is to provide users with a more comfortable driving experience and freedom from the constant need to change gears. Because convenience is the primary selling point of automatics, we must compare the IMT and AMT in this regard.Even though warmth is a subjective factor, an AMT can perform the entire gear changing function for you, whereas an IMT allows you to shift gears as needed without the use of a clutch. Having said that, take note that the gear change on an AMT car may be abrupt, detracting from the overall driving experience. In contrast, because you shift the gears, an IMT may provide a smoother driving experience. A test drive of both structures is the best way to determine which transmission is more suitable for you.Servicing, Maintenance and ReplacementGiven that iMT is a relatively new technology in India, expect more extensive maintenance requirements. This will become clear only after it has been pushed to the limit in India. However, one thing is certain: iMT is a less advanced software when compared to an AMT unit, because gear shifting on board the iMT is done almost entirely manually. The iMT will be much less expensive to maintain due to fewer complexities.The AMT, on the other hand, is composed of a greater number of components, making its operation far more challenging than that of the IMT.Because the manufacturer tunes an AMT transmission for the ideal gear ratios for the automobile, an AMT car should get somewhat better mileage than a manual transmission car. This is perfect if you want your car to get consistent mpg in both the city and on the highway. Fuel economy and mileage in an IMT car, on the other hand, are subjective and based on the driver's driving style. On an IMT, smart driving methods combined with the absence of the clutch will improve fuel efficiency, in the same manner, they do on a manual transmission.AMT vs IMT. Pros and consAMTPROSThe most affordable automatic transmissionIn city driving, there is no need to change gears or deal with a clutchProvides the feel of an automatic transmission at a low cost.CONSIn terms of performance, the ride is very jerky and uncomfortableAMT consumes a lot of fuel due to its inefficient enginesAMTs make uphill driving extremely difficultIf maintenance is neglected, breakdowns are to be expectedPROSAMT and MT provide a better driving experienceIt's less expensive than most automaticsThe upkeep is also reasonableThere are no noticeable jerks or lags during shiftsThere are paddle shifters availableExcellent fuel economy.CONSManual gear shifts are usedMore expensive than MTDue to the single clutch and actuator reliance, gear shifts can be clumsyThe availability is poorDownload GaragePro App for iOSBEST AMT CARS IN INDIATata Nexon AMTTata Nexon XMA AMT Price: The Tata Nexon XMA AMT is priced at Rs 9.07 lakh (ex-showroom) in New Delhi. Engine and Transmission: Tata Nexon XMA AMT It's powered by a 1199cc engine and comes with an automatic transmission. The 1199 cc engine produces 118.36bhp at 5500rpm and 170Nm at 1750-4000rpm.Volkswagen Polo AT1.0L TSI engine, Auto-Climatronic air conditioning, New 6-speed AT Gearbox, 17.7 cms Capacitive Touch Screen, Available in Flash Red, Sunset Red, Candy White, Reflex Silver, and Carbon Steel.Maruti Celerio AMTThe petrol option in the Celerio range is the Maruti Suzuki Celerio VXi AMT, which costs 6.13 lakh. It has a confirmed mileage of 26.68 kilometres per litre. The engine in this VXi AMT model produces 66 bhp at 5500 rpm and 89 Nm at 3500 rpm of maximum power and torque, respectively. Speedy Blue, Caffeine Brown, Glistening Grey, Silky Silver, Solid Fire Red, and Arctic White are the six colours available for the Maruti Suzuki Celerio VXi AMT.Hyundai VenueThe Hyundai Venue has a starting price of Rs. 6.99 lakh and may go up to Rs. 11.71 lakh. Hyundai Venue is available in nine variations, with the base model E costing Rs. 11.71 lakh and the highest variant Hyundai Venue SX Opt Diesel costing Rs. 11.71 lakh. This launch started the conversation around IMT vs AMT in India.Kia SonetThe Kia Sonet HTX 1.0 iMT is Sonet's petrol model, and it costs 10.49 lakh. It has a confirmed mileage of 18.2 kilometres per litre. The engine in this HTX 1.0 iMT model produces 118 bhp @ 6000 rpm and 172 Nm @ 1500 rpm of maximum power and torque, respectively. The Kia Sonet HTX 1.0 iMT comes in five colours: Aurora Black Pearl, Gravity Grey, Steel Silver, Intense Red, and Glacier White Pearl, with a Clutchless Manual transmission.Hyundai i20The Hyundai i20 Sportz 1.0 Turbo IMT is the i20's petrol model, and it costs 8.79 lakh. It has a confirmed mileage of 20.25 kilometres per litre. The engine in this Sportz 1.0 Turbo IMT model produces 118 bhp @ 6000 rpm and 172 Nm @ 1500 rpm of maximum power and torque, respectively. The Hyundai i20 Sportz 1.0 Turbo IMT comes in six colours: Starry Night, Metallic Copper, Titan Grey, Typhoon Silver, Fiery Red, and Polar White, with a Clutchless Manual transmission. iMT is a transmission system which brings the engagement of the shifting gears while smoothing out the clutch action. AMT in some ways was a technology that it was based on but as usual, technology progresses by adding things to the existing technology, iMT is made by taking out certain things from the AMT transmission. If you want to know more about how these transmissions work click here – iMT – All You Need to Know! This article will purely focus on the pros and cons of both these transmissions. Less Hassel Although iMT makes the driving experience engaging, it might not appeal to a person who just wants to get over the hassle of changing gears. The AMT scores here as there is less complication with one shift for forward and one shift for reverse. It does not provide smoothest of shifts but it does keep the mind free. There is a manual mode on most of the AMT but that too does not provide the accurate shifts that are required. Also, the AMT gets a sport mode or a lock mode which holds the gear unless the user allows to shift. One Car For the Enthusiast iMT is for the enthusiast. It allows extracting the full potential of the car according to the driver. While allowing the ease of driving of an Automatic in traffic. The AMT does not match the precision with which an iMT handles gear shifts. So if you are an enthusiast you can have one car that can handle the daily office commute as well as tear up the drag strip on the weekends. Jerky Shifts The iMT offers seamless shifts with the help of clutch sensors which trigger only when the gear is moved. Moreover, if you lift off your foot while changing gears it might be unnoticeable. This is not the case on an AMT and the car needs you to accelerate to trigger a shift. This result in a Jerky shift as the engine builds revs till the time your shift occurs and the clutch engages. Also, the crawl function on the iMT has been developed and well suited for adaptability of the driver style. Service and Maintenance The servicing and maintenance of the iMT will be almost similar to that of AMT. It is too early to comment on the exact service cost of an iMT but we expect slightly more electrical components that a Manual transmission. Also, the wear and tear of the transmission will depend upon the way a user shifts. There might be some of the clutch wear if the user has the habit of not letting off the accelerator while shifting. Also read: Skoda Rapid 2020 Service Cost Mileage In terms of mileage, there is no confirm way that we can say the iMT gives better mileage. AMT does tend to give mileage which slightly lower than the Manual transmission in many cases. The iMT gains an upper hand here as it is up to the driver to decide when to shift to maximise mileage. Lastly if we compare the cost there is no direct comparison where the AMT can be compared with iMT. It is definitely expensive than a manual transmission by quite a margin. But on the other hand, if DCT comes in the picture it is only 20,000 more than the iMT. This does raise a question if a person should actually go for iMT now or wait for this technology become more accessible. For more such content stay subscribed to the Motoroctane Youtube, Google NEWS, Facebook and Twitter. Tired of depressing the clutch all the time while driving? An effortless drive while being stuck in the traffic? Gone are the days when the clutch gave our left calf a rigorous workout. Comfort is something we all crave for, and here's the place where automatic transmissions have come to save! Technology has undoubtedly taken a massive leap in the automotive sector, with electronic equipment taking over the feel of entirely mechanical powertrains. We hear of plenty of drivetrain options available in the same segment. AMT Vs iMT has been on the cards since long! Both being manual transmissions in an automated way, what is the core difference between the two? Here's how you can choose between the two by reading this comprehensive guide! Automated Manual Transmission (AMT) This transmission setup is actually true to its name. AMT transmission is an 'Automated' Manual Transmission. So what does this mean? A regular Manual Transmission and an Automated Manual transmission make use of the exactly identical gear and clutch setup. The only difference being where in a manual transmission, it's the knee grease we put in to depress the clutch. Whilst, the same clutch engagement and disengagement operation takes place with actuated forces. Both the internals of the gear lever and the clutch pedal are operated using a hydraulic actuator which eliminates the need to shift gears manually. This gear shifting phenomenon is controlled by exclusive Transmission Control Units (TCUs), which are further coupled with the Engine Control Unit (ECU) for continuous feedback. Thus, it's the rev counter which governs your ride. An Automated Manual Transmission (AMT) in a Maruti Suzuki Celerio AMTs are infamous for being somewhat less intelligent transmissions as the TCUs don't work on a drive style adaptation basis like in a Dual Clutch transmission. Instead, AMTs simply upshift and downshift with a feedback loop only on the basis of RPM. Arguably, these transmissions do have a manual mode in most cases where the user can take over the car. However, the manual mode in these transmissions turns out to be a bit sluggish and lacks feedback. The manual mode doesn't give you complete control over the vehicle as some AMTs are meant to slot into a lower gear on being revved to a specific limit, thus plunging the car back into the automatic mode. Taking up the cost aspect, these are one of the most inexpensive automatic transmissions as they don't involve any complex mechanisms when compared to a CVT or a DSG. With the ease of manufacturing and maintenance, they are mostly offered in the budget segment vehicles. Also Read: 2020 Maruti Suzuki Ignis AMT CNG Ownership Review - India's First! Intelligent Manual Transmission (iMT) Is it actually as intelligent as it has been advertised? The automotive world likes to rephrase this transmission unit to be a 'Clutchless' Manual Transmission instead. So, the iMT is an iteration somewhere between an Automated Manual Transmission and a pure Manual Transmission. With an identical clutch pack and gear arrangement, the iMT does relieve your calf as it doesn't have a clutch to depress. However, it does have the same gear mechanism and layout as in a manual transmission. An Intelligent Manual Transmission (iMT) in a Hyundai Venue In an iMT, it's just the clutch that is electronically controlled by actuators. The conventional gear level is equipped with a Transmission Gear Selector (TGS) and an intention sensor mechanism that disengages the clutch using an actuator to change the gears. Taking it the other way round, it's your tactile feedback, which is disengaging the clutch and that too with no effort! With the manual shifting of gears, it is you who has complete command over the vehicle, and you're not at the mercy of a processor and a software to decide the gear for you. Your Ride, Your Gear! Therefore, the driving dynamics of an iMT equipped vehicle are somewhat similar but still inferior to that of Manual Transmission as the instant, and streamlined power output to the driveshafts is pretty priceless. AMT Vs iMT, what suits you better? All kinds of automatic transmissions from the stable operate on a similar principle of providing an immensely comfortable journey with the least effort involved. However, just a minor difference in functionality does help us differentiate between the two. An AMT gearbox does have an added advantage in terms of driving comfort as you can slot into the purely automatic mode and just cruise effortlessly with a two pedal and hands on the wheel kind of drive! This can prove to be a boon in bumper to bumper traffic too, wherein you won't need to bother about the gear level. With an added comfort, driving feedback and performance is tossed off for sure as the. With more complex parts involved, AMT maintenance is on the higher side. Coming to the economy, AMTs return less fuel efficiency when compared to iMT due to multiple factors involved. On the contrary, iMT does have a familiar gear functionality. If you just want to rest your leg and are ready to give in your elbow grease, iMT is the one for You! With a much less compromised driving feedback, it is surely a joy to drive. You, as the driver, have all the control over the vehicle as you are shifting the gears physically. iMT systems have fewer complications when it comes to mechanisms. Thus, iMTs would surely burn a smaller hole in your pocket and would be cheaper to maintain when compared to an AMT. However, iMT is a relatively new technology for the Indian homelands and we are yet to see the reliability factors. Last but not the least, drivers who are in the habit of treating their gear knobs as an armrest would not be able to do so. iMT's tactile feedback sensors are there on the gear knob itself, and it might lead to the transmission misbehaving and disengaging the clutch even when not necessary. So, companies recommend drivers not to use the iMT gear lever as an armrest. On the whole, AMT Vs iMT is a subjective opinion and should be a matter of choice and priorities as both these transmissions cater to the needs of different categories of people. AMT gearboxes are primarily offered in the budget segment as this category of people prioritises comfort over performance. Indian Automotive manufacturers have been offering AMT for ages, and some vehicles currently having this transmission are Maruti Suzuki: WagonR, Celerio, Swift, Ignis, S-Presso, Baleno 2022; Hyundai Santro, Grand i10 Nios, Aura; Renault Kwid, Kiger, Triber; Tata Tiago, Tigor, Punch, Nexon' Datsun RediGo and many more! iMT is currently being offered by Hyundai and Kia in just a few vehicles like Hyundai i20, Hyundai Venue and Kia Sonet and Seltos. So, what do you think about AMT Vs iMT transmissions? Would you like to own a vehicle equipped with a conventional manual or an automatic gearbox? Share your views in the comment section. Let's get into a discussion with this in our 91Wheels Telegram and 91Wheels Whatsapp group, where you can know more about vehicles, conduct discussions on your favourite ride, and much more! You can also subscribe to our Youtube channel for our exclusive video content on the latest from the world of cars and motorcycles. Also, connect with us on Facebook, Instagram, and Twitter for more about vehicles! The clutchless manual transmission is a new-gen type of gearbox or transmission system developed by automobile manufacturers. Hyundai Motors call it the clutchless manual transmission while Kia Motors named it IMT. However, both work on the same principle. The term IMT stands for Intelligent Manual Transmission. According to Kia Motors, this system is not an AMT. The IMT differs from the traditional automated manual transmissions (AMT) used in recent times. However, this is not the first of its kind technology. Back in the late '90s, Swedish carmaker, Saab had designed a somewhat similar system. Saab 900 featured Sensonic transmission also provided a manual shift lever without a clutch pedal. Saab 9000 even featured a joystick instead of a steering wheel. However, it was way ahead of its time and none of them materialized. Clutchless manual Transmission IMT Basically, the system combines the benefits of manual and automatic gearboxes. Unlike conventional design, a car with a clutchless manual transmission does not have the clutch pedal at all. IMT is just like any other automatic transmission but without a clutch pedal. This system allows the driver to change gears manually but without the need to use a clutch pedal. The system has the manual gear stick or gear shifting lever as it is. To engage a gear in conventional design, the driver would normally have to press the clutch. And then, he would move the gear shift stick to the desired gear. However, in clutchless manual transmission, the clutch pedal is not there. This leaves your left foot to rest on the floor. There is no clutch pedal to be pressed. You only need to change gears with the lever as you normally do. In IMT, Hyundai uses a Transmission Gear Shift (TGS) feature which has a lever with an Intention Sensor. When the driver touches the Intention Sensor located on the shift lever, the Transmission Control Unit receives a signal that the driver wishes to change gears. This engages a hydraulic actuator to actuate the clutch. A Clutch Tube manages the Concentric Slave Cylinder (CSC). The CSC uses the pressure caused by the actuator to control the clutch and pressure plate which engages and disengages the clutch. With this new IMT system, the driver can change gears without having to mechanically operate the clutch pedal. This system will have a traditional H-pattern manual gear lever just like a manual transmission. However, it will not have a clutch pedal although it will have the brake & accelerator pedals. This system totally eliminates the clutch pedal. The clutchless manual transmission uses various sensors to monitor the engine speed as well as the position on the gear lever and automatically engages the clutch when needed. According to Kia Motors, the system is "Clutch-less" which means without the clutch-pedal. However, it is not necessarily without the clutch mechanism itself. Only the clutch pedal is absent from the driver's footwell. A mechanical clutch in the drivetrain still exists internally. However, it is being operated electronically instead of manually. Clutchless Manual Transmission or Intelligent Manual Transmission helps to reduce the stress on the driver's left foot especially in heavy traffic conditions. The passionate drivers can enjoy driving a car with a manual gearbox and change gears while having the feeling of a manual shifter. They can also drive without worrying to press the clutch pedal with their left foot. Besides, according to Kia, the system will provide very high fuel efficiency. Intelligent Manual Transmission (IMT) Since there is NO clutch pedal, you don't need to press clutch manually. The system does it automatically.So, you just need to use brake and accelerator pedals.Even if you come to a halt, the system will keep the engine running without you needing to do anything.With the clutchless manual transmission, your clutch life will be more or less the same. However, it depends upon your driving style (Average or Aggressive) and driving conditions (Stop & Go Traffic), etc.You will be able to start on a slope without any issues with the help of the Hill Start Assist function.In normal driving conditions, you should be able to shift quickly as you could just like in normal manual transmission. Images Courtesy: Hyundai, Kia Read More: What is a Fully Automatic Transmission & How does it work?>> There are two types of car owners, one who simply love their cars and cherish the experience of owning them comprehensively and the others are the one for whom cars are a mere mode of transportation or a status symbol at best. For the latter, driving is not an exciting affair and all they want is convenience while they make their daily runs. The one thing that bothers these kinds the most is the working through the gears in city traffic. Read Hyundai Venue Sports Trim with iMT Launched @ ₹ 9.99 Lakh While the hotshots had their executive sedans with slick automatic transmission, there was no such option for the economy segment until the Automated Manual Transmission (AMT) showed up. The Indian car market got introduced to the AMT technology for the first time with the Maruti Celerio. Since then it has become an industry standard for cars below the Rs.12 Lakh mark. Various manufacturers have opted to use AMT for their diverse lineup, offering the much-needed convenience in urban commuting. But now certain manufacturers in India have got their hands on a new transmission tech which has begun to perform its duties in their latest cars. It is called Intelligent Manual Transmission or iMT. Hyundai Venue became the first car in India to have iMT transmission just recently. On the arrival of the iMT now, it seems like it's going to pose a threat to the sales of AMT equipped cars. So today we decided to pit AMT and iMT against each other to find out which one has the edge over the other. It's iMT vs AMT today! Hyundai Venue iMT The idea behind equipping cars with AMT or iMT is to relieve the driver from the hassle of constantly working through the gears. Which one does a better job in that? We'll come to that, but first, let's get the basics clear. Read 10 Things About AMT Cars (Automated Manual Transmissions) An AMT is not a proper automatic transmission, consider it as an automated version of the conventional manual transmission. In AMT, the sensors and the actuators operate the clutch and choose the right gear for you on its own. Easy R-AMT iMT transmissions, on the other hand, uses sensors and actuators to operate the clutch only and it comes with a regular stick shift from which the driver can select the gears like in a regular MT car but without the need to depress the clutch. As far as ease of use is concerned, it is subjective as to till what extent do you want your control on the shifts. An AMT in layman terms does the job for you while an iMT allows you to work the gears without the exhaustive clutch depressing. An AMT transmission is also popular for it's 'jerky' attributes. The shifts on an AMT are a bit abrupt which can be a bit annoying while driving. There is no such problem with an iMT as all the shifting is at your disposal. An iMT also makes for seamless shifts, for which a manual transmission needs the precision of the driver. Hence, in the iMT vs AMT comparison, this tips the scale a bit in favour of the iMT. Well, iMT is fairly new tech for India, so a comprehensive maintenance and service cost report for it would make sense after it's gone through the test of time in our country. However, one thing is certain that the iMT is less sophisticated than an AMT unit since the gear shifting in the iMT is done almost in the traditional way. Hence due to fewer complexities, the iMT will be much cheaper as far as maintenance is concerned. While car owners still find out what's cheaper to maintain between iMT and AMT, you can choose freedom from all your car troubles with GoMehcanic's Carzaadi Freedom Sale! Download the app now! CarZaadi Sale Hyundai Venue iMT Most of the automatic transmissions in the sub-15 lakh segment (likes of the Honda CVT) have a reputation of being lethargic. Similarly, the AMT abrupt, head tossing and a bit laggy characteristics aren't what you call performance-oriented. Getting a quick move on or doing those casual 0-100 tests can never be as exciting as with a manual gearbox. Now, this is where the iMT brings the best of both the worlds. If you need to crank out a feisty rush from your car, you need to be hands-on. An iMT transmission lets you do that without making your left leg sour from depressing the clutch every now and then. Now the iMT may not be as engaging as a proper manual but the convenience on offer more than makes up for the slight loss of thrill. Hyundai Venue Another popular attribute of a proper automatic is its drinking habit. An automatic transmission has always been less fuel-efficient than a manual. Though an AMT is not like the other auto box(s) around, still the gear shifted process is automated in an AMT and that can hinder fuel efficiency. Read Transmissions: Manual vs CVT vs DSG vs AMT Explained! With an iMT on the other hand, like with an MT, bringing out good efficiency numbers is totally on the driver's discretion. Smart hypermiling techniques will work for enhancing fuel efficiency on an iMT the same way it does for with an MT. Hyundai Venue Turbo The most important factor in iMT vs AMT considering its India! For determining whether buying an iMT will be bang for your buck or not, we're gonna take the example of the Hyundai Venue. Being the first and currently the only car on sale in India to have an iMT transmission, it is the most relevant example for the case. We are going to do a price comparison between two variants of the Venue, one having the manual and DCT transmission as options while the other having manual and iMT transmission options. There isn't any variant on the Venue which has all three transmission options. Manual Transmission DCT Transmission Hyundai Venue (S Turbo variant) Rs. 8.46 Lakhs (ex-showroom Delhi) Rs. 9.6 Lakhs (ex-showroom Delhi) Manual Transmission iMT Transmission Hyundai Venue (SX variant) Rs. 9.79 Lakhs (ex-showroom Delhi) Rs. 9.99 Lakhs (ex-showroom Delhi) As you can see for the given variants, the price difference between the Manual and the iMT drastically less than the difference between the Manual and the DCT, which is quite steep. But this is a comparison between iMT and AMT you say? Well, unfortunately, there is no AMT option for the Venue. So in order to gain a bit of perspective to determine cost-effectiveness, pitting the iMT against the only proper automatic on offer for the Venue was the best way. By the looks of it, it clearly seems that an iMT will be much more cost-effective than any other AT option since it's just marginally expensive than an MT. If all you want from an automatic transmission is the ease of driving, then iMT is a much reasonable option. Here's our comparison of the iMT and AMT transmissions. What are your thoughts on the latest transmission tech and also on the comparison -iMT vs AMT? Let us know in the comments below! Comparison IMT Vs AMTIntelligent Manual Transmission (IMT) improves manual gear shifts with automatic clutch control, while Automated Manual Transmission (AMT) fully automates both clutch and gear changes but may sacrifice refinement.What is an iMT?iMT stands for Intelligent Manual Transmission. This system simply removes the clutch pedal thus reducing a major point of interaction a driver has with the car. It relies on an intelligent intention sensor, hydraulic clutch actuator, and an electronic transmission control unit. This is then put together with a conventional H gearbox which in turn works with the engine of the car. To explain it in even simpler terms, the iMT transmission removes the clutch pedal and uses sensors to use the 'in-built' clutch while the power to change gears remains in the drivers' hands.What is an AMT?AMT stands for Automated Manual Transmission. It is exactly as its name suggests – a transmission that automates manual transmission. AMT not only removes the clutch pedal like the iMT but also goes a step further to relieve the driver of the responsibility of shifting gears, thereby reducing user input to a bare minimum.The AMT system works with the help of a series of sensors and mechanical parts that are being told what to do by the cars ECU (Electronic Control Unit), pre-programmed by respective automotive manufacturers. Sensors and actuators work together to engage the clutch and shift gears and therefore, the only true interaction the driver has is with the accelerator and brake pedal.Driving Experience :Once you start the car, press the clutch pedal, move the gear from neutral to first, slowly let the clutch go, and press the accelerator pedal to get the car moving. Then, depending on the RPM of your car and the terrain you're driving on, you press the clutch, shift the gear to the next and repeat this process. Similarly, if you decrease your speed, you must use the clutch again and downshift.When you use this understanding of manual transmissions to compare the iMT and AMT systems, one similarity you'll find is the absence of a clutch pedal, which allows the driver to shift gears without pressing their left foot down on the clutch.The difference in driving experience arises from the absence of a conventional H gearbox in an AMT. All you need to do in an AMT is start the car and move the gear-stick from Neutral to Drive and the car will automatically shift the gear from one to the next depending on your speed and the RPM your car is moving at. If you want to reverse the car, all you have to do is move the gear stick to reverse. You need not worry about pressing the clutch or shifting gears according to the circumstances of the road.Thus, iMTs offer drivers greater control of their cars in terms of gear-shifting by letting them decide when to upshift or downshift. AMTs on the other hand offer peace of mind by automatically changing gears at speeds pre-defined by car manufacturers keeping in mind longevity and mileage.It's no doubt that AMTs make driving a breeze especially in peak hour traffic, but the downside to them on account of the automatic changing of gears is a slight lag that is felt in comparison to an iMT, where power is engaged the moment gear shift is initiated by the driver (similar to a manual transmission).Cost: An iMT has fewer components compared to an AMT, so the basic cost of manufacturing is quite similar to an AMT which is a much older technology refined over time. On maintenance, AMT is a little more expensive to maintain as the number of automated parts are more than an iMT, which in the longer run will cost less to maintain than a high end AMT transmission.Milage:Comparing an iMT to an AMT on the basis of mileage is simple. iMTs essentially are manual gear-shift cars with an automatic clutch, and therefore, on paper, have better mileage than manual cars. Nonetheless, fuel-efficiency of iMTs still depends largely on driving style and how frequently drivers' are able to change gears at the ideal RPMs. AMTs, on the other hand, come tuned from the factory to shift gears at the right time, to ensure consistent fuel efficiency. An AMT, therefore, is a hands down winner in this department.Related Reading: NEW TECHNOLOGY UPDATE - INTELLIGENT MANUAL TRANSMISSION (IMT)