

# SPLIT SECOND

July 2017  
Edition 1

## From The Leaders' Desk

### **PUSH NOW, OR NEVER - Anil Kumar C** *Team Captain*

"Will you win the event?" asked an associate. My answer was as rhetorical as it can get. I said that it was a priority from day one. We faced a series of unfortunate events during the event, which eventually cost us the championship. However, I believe that instances like these are the ones that teach us and help us grow as a team. The unfailing attitude shown by the team makes me sure that they are on a road to glory.

The team has paved a flamboyant pathway since 2009, having achieved 21 awards to its name. We have only one way to continue, that is, to work with the same enthusiasm, to have high ambitions, to deliver the best in whatever field be it designing, manufacturing or management as all of these have an impact on the product. Ironically, the only constant is change. The past year had brought many changes to the team on an organizational level.

This meant that everything in the team was standardized. All thanks to the Alumni for their support and a dream to see their team ahead professionally.

Lastly, making sure that I give my 100% to the team is what made the difference in the entire season.



### **More Than Meets The Eye - Ronak Hemani,** *Project Manager*

When working with a Formula Student Team, there are many things that often go unnoticed. Considering all the aspects that are involved, management is a key to efficient functioning of the project. Managing a project on such a massive scale includes proper assessing of the in flow and outflow of money from the College and Sponsors. To build a race ready vehicles involves hard working students who design and fabricate it into reality. Proper assessment of the human resources involved pave way to smooth functioning of the team. Last but not the least is the time management involved. Whether it is meeting deadlines or testing the vehicle or performing a transaction, time is of the essence and must be used judiciously, just as they say in Formula 1 : Every second counts.





### **Working With The Maestro - Roni Deb Ayan Vehicle Dynamics Lead**

Simulation is priority to verify if the results will be met practically as according to the raw design. As a lead suspension designer of the team, I had already been working on something with the help of MATLAB. It all started when I met Mr. Christopher Hahn at Formula Student India, 2016 held at the Buddh International Circuit. I had approached him and asked him if we could work simultaneously on the concept. As the days passed, I had received a mail from Mr. Hahn stating that He'd be delighted if we had a model. All was good, and I was elated. He intended to collaborate with me and the team in order to release a new Matlab Simulink episode, which later became a success. Moving on, we spoke a lot, reiterated and found out some could-be errors. After visiting Formula Student Germany, 2016, we came back and recorded the episode. This has helped the team and I enormously as it

helped us finalize many design parameters and meeting certain objectives. Having this opportunity has made an integral part in the process of design as not only suspension will be benefited, but also powertrain and drivetrain in the coming years.

### **May The Downforce Be With You - Saiduth Ramesh Aerodynamics Lead**

Blend a bit of aggressive agility with a hint of some outrageously overpowering speed and you've got yourself the perfect racecar. One such high performance vehicle, CR16 was a huge step forward in Camber Racing's unwavering quest for engineering perfection. With a revamped engine MAP and lighter vehicle dynamic components this vehicle was a league above its predecessors. One of the most noteworthy advancements is its fluidic aerodynamics package. It comprises of a split front wing, a double channel diffuser and a monstrous rear wing. These three devices are collectively responsible for generating crucial amounts of downforce. This effectively presses the

vehicle downwards and increases limit of static friction between the tyres and the road, ultimately resulting in faster cornering speeds and lap times!

Vehicles equipped with properly engineered aerodynamic components have proven to bag up to 8 seconds of precious time on every single lap.

In CR 16 these components have been integrated to evenly distribute the downforce generated on to all the tyres to prevent any sort of vehicle cornering bias. However if a driver has any preference on car handling, be it oversteer or understeer, wing angles can be routinely changed to significantly alter the car's stability through corners.

With the perfect concoction of downforce, drag and wing mass this package allows the car to pull off a staggering lateral acceleration of 2.1 g's which is pretty impressive for formula student cars.

It's been created from the crucial data of its previous cars. A true Padawan to its past creations and a worthy master of its successors, looks like the Downforce is strong with this one!





## A Word for our Sponsors

### Mriganka Choudhury

#### Sponsorship Lead

Motorsport being a highly competitive as well as expensive affair, a student team like our own will find it difficult to stand out if we don't have the proper financial aid. This is why we would to thank all our backers and sponsors for their invaluable and steadfast support which they have shown throughout the season. We hope to have you working with us in the future as well.

#### CONTINENTAL

Continental GmbH, or more commonly known as Continental is a German automotive manufacturing company that deals with supply of tyres, brake systems, electronics, powertrain and chassis components. Continental have been our title sponsor since 2015 and we have been ever grateful for their support. Their support have not only boosted the teams morale, but also it's credibility on a professional level.

#### JCB

JCB have been the pioneer in large scale manufacturing of equipment for construction, agriculture and demolition. They are the world's third largest construction manufacturing company as of today. They also have specialized in the production of hand tools and storage equipment due to the increase in demand. Having them as a backer motivates us to face and endure the strife and accomplish what we intend to.

#### IEPL

Ideator Engineering Pvt. Ltd. settled in Delhi-NCR. We are a specialist in electrical and Civil & Interior contractors and engineers. They are firmly aimed to produce true positive results for both parties involved in business. They are a team of engineers and competent skilled workmen and other technical staff capable of complete installation. Erection-commissioning and annual operation & maintenance of LT distribution systems, Steel and Aluminium Fabrication, Glass, Paint, Wood Work, Civil Work and False ceiling & flooring, gypsum partition etc.

**Continental** 

 **JCB**







## An Oddly Satisfying Year

### *A Glance Back*

After enduring an emotional roller coaster of season in Germany 2016, we had our backs placed firmly on one note: Deliver the best at home, Formula Bharat 2017.

We had arrived back from Hockenheim with so much feedback from the judges that we did not waste any time and started working to get things right. Having spent sleepless nights to work on the faults, we had also tested vigorously for over two months before the event, making sure everything was spick and span!

As the days closed, we were confident of creating a positive impact and even securing a top spot. We had arrived at Kari Motor Speedway, Coimbatore, and had arranged our pits. The very next day, the static events namely Design, Business Plan Presentation and Cost Report were all under way. In the meanwhile, the technical team were setting up the car for the Technical Inspection.

The static events went swiftly without and hindrance, and we had cleared Mechanical Inspection and Noise Test and Tilt Test

Next day, we set out with a fresh mind and had cleared the Brake Test. We immediately went onto the testing area ahead of our Skid Pad run. After a few laps, we encountered a shifter rod failure, which had set us back by a few hours, thereby missing two crucial events : Skid Pad & Acceleration. However, the outfit had brilliant minds who had fixed the issue with a few hours and we were back running for the AutoX event. The car had set a competitive time with minimal driver errors. The very next day was the event we had our hopes on, Endurance. With our best drivers behind the wheel, we had managed to set sensational lap times, eliminating driver errors. Such a remarkable feat had brought us back in contention.

The conclusion of the event had us being awarded  
 3<sup>rd</sup> in Endurance  
 3<sup>rd</sup> in Autocross  
 2<sup>nd</sup> in Cost Report  
 2<sup>nd</sup> in Design  
 3<sup>rd</sup> Over all

Despite having issues during the event, both sides of the team, Corporate and Technical had worked tirelessly to bring the team back in a position where we could hold the honors.

We now, take a sabbatical, and work towards the 2018 season, where we are motivated with higher ambitions to win and be an iconic Formula Student Team in the world, holding firm that we are the fastest growing Team in the country.





### **The Rush Is Not Real - Aromal Jacob Vijay Corporate Associate**

Our country being a platform for many diverse talents, our racers and bikers head to the world platform rather inexperienced. Ever wondered why? The answer is very simple and is right in front of our eyes.

India has two iconic events - Raid de Himalaya and Desert Storm. These events have openings and slots for the participation of Quads. Our country does not register quad bikes. This means riding one on the road could put you behind bars. Organizers of such events are inconsiderate about the comfort and the safety of the contestants, for instance, a biker named Mohit Verma, who had broken his leg in three places had to depend on his friend to gain medical attention for which they had to drive around 300 Km.

Contestants are expected to start the race at sub-zero temperatures at inconvenient time which led to the drop in the number of participants. Indian companies also tend to scuff the name of the original power unit manufacturer of to scuff the name of the original power unit manufacturer of the vehicles and brand it under their Indian names. Investors tend to lose interest due to difference in opinion and persistent bickering. India also does not throw a light on such events which inturn affects the number of spectators. The talents that conquered the tracks are also not given the recognition they deserve.

These issues should hamper the spirit in the hearts of true motorsport fans and we spectators, should pave the track on which Indians can prove that they can race!

### **The End Of An Era - Aditya Abraham Corporate Executive**

Bernie Ecclestone's 40-year reign as Formula One's commercial supremo has ended with the sport's new owners Liberty Media replacing the 86-year-old Briton with American Chase Carey.

"I think when you look at the last four or five years, the sport has really not grown to its potential, and we have an opportunity to really grow this sport in a new and exciting way," Carey told CNBC on Tuesday.

The new management will see him play a less active role at least in the decision-making process. Instead, he will be available as a source of advice for the board of F1.

Also, Formula One legend, Ross Brawn has been officially designated as the Managing Director, Motor Sports, as part of Liberty Media's takeover.

Speaking on his role in F1, Brawn said, "It's fantastic to be returning to the world of Formula 1. I've enjoyed consulting with Liberty Media these last few months and I'm looking forward to working with Chase, Sean and the rest of the Formula 1 team to help the evolution of the sport."