



# KCG DRONE PITSTOP - 2018

## A NATIONAL LEVEL DRONE RACING EVENT

Organised by  
Department of Aeronautical Engineering  
In Association with  
AIDAT & AeSI, Chennai Branch



2<sup>nd</sup> & 3<sup>rd</sup> March, 2018



### **Report on KCG Drone Pitstop - 2018 and Seminar on “Drone Technologies and Applications”**

For the first time in India KCG college has brought in National level Drone Racing to Chennai on March 2<sup>nd</sup> and 3<sup>rd</sup>. KCG Drone PitStop 2018 happened to be the most exciting event for the Drone lovers of this country where flying drone has become a passion for most of the youngsters. This event was planned in such a way that young minds have to design their own drone not just flying the off the shelf commercial one. This was a spectacular event for the audience witnessing the several drones competing with each other and flying through challenging obstacles. Winners were evaluated based on the originality, innovation, add on gadgets and timing.

Department of Aeronautical Engineering, KCG college of Technology in association with, Aeronautical Society of India (**AeSI**) and Aerospace Industry Development Association of Tamilnadu (**AIDAT**) has conducted the Mega event KCG Drone Pit Stop 2018. On 2<sup>nd</sup> March 2018 eminent speakers from Drone Industry have delivered the lectures in the Seminar “Drone Technology and Applications” at Mirza Seminar Theatre of KCG college of Technology. For Food lovers and fun lovers more than thirty stalls were functioning on both the days.

The seminar program was started with welcome address by Dr. K. Vijayaraja, HoD Aero followed by the Lightning of Lamp by the Dignitaries. The Special address was given by Dr. G. Prabhakaran, Principal KCG College of Technology. The Chief Guest and the Guest of Honour for the event were **Dr. S. R. Chakravarthy, Professor, Department of Aerospace Engineering, IITM and Coordinator National Centre for Combustion Research and Development (NCCRD)** and **Mr. Subbian Seetharaman, Asst Vice President, Siemens-Gamesa.**



**More than 270 students from KCG College of Technology and 38 students from various Colleges and professionals from Industries have attended the seminar. Earlier in the day the chief guests officially inaugurated the Cloud <sup>10</sup> 2018 Bazaar and KCG Drone Pitstop - 2018 in the KCG college campus.**



**Inauguration of KCG Drone Pitstop and KCG Bazaar by  
Dr. S. R. Chakravarthy, Professor, Department of Aerospace Engineering, IITM**

Introduction of Chief Guest was given by Mr. A. Jayababu, Associate Professor followed by the speech of Chief Guest. He spoke on the different engineering principles and shared his vision how the engineering should be. His key note address covered various topics including grounding of CONCORDE, air taxis in future, VTOL, comparison of US GDP and Indian GDP growth and the possibility of India becoming the second biggest economy in the world within twenty years and necessity of our younger generation commitment. He was really excited and humbled about his contribution to the society and motivated the audience to do the same.





**Dignitaries lighting the Kuthuvilakku**

Guest of Honour was introduced by Dr. R. Naren Shankar, Associate Professor followed by the speech of Guest of Honour. He shared his experiences in the industry, usage of drones in wind turbines and solar power plant and his current projects at the outset. Chinese were employing drones in inspection of wind turbine blades and he suggested and implemented a similar technology in Indian market. He also employed drones for the survey and inspection of solar panels. He spoke on various drone applications in the current market and its future prospects.

The Dignitaries unveiled the Logo of Critical Thinkers club and its Year Magazine followed by the prize distribution to the achievers in the club. After the tea break the Seminar started with the first session given by the Resource Person **Mr. Syed Mubashar Ali, Director, D-EPSAT Pvt Ltd.** He spoke on DFMA (Design for Manufacturing and Assembly) and its main objective was to reduce the number of parts for manufacturing.



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3<sup>rd</sup> Year Aeronautical Engineering students were awarded for their contribution towards the Critical Thinkers Club

Mr. Sathyanathan - Creating the launch video

Ms. Madhumathi - best critical thinker of the year 2018

Mr. Jagatheesh - student co-ordinator of the club.



He stressed on the importance of manufacturing machine components with less parts which would reduce the weight and leading to additional benefits. He explained the case studies of Apache AH64D Helicopter's Wing Rotor Hub and Boeings' F/A18 and demonstrated how the design of both evolved in reducing the number of parts for the assembly. He introduced a new term EVIATION which deals with electric planes.





A video showing his accomplishments over the years was played at the end of his lecture which showed his expertise in battery operated cars. Finally he wished to be a partner of Hindustan group in innovating new technologies in air travel.



**Dr. S. R. Chakravarthy, Professor,  
Department of Aerospace Engineering,  
IITM, Addressing the gathering**



**Mr. Subbian Seetharaman,  
Asst Vice President, Siemens-Gamesa,  
Addressing the gathering**



**Mr. Syed Mubashar Ali,  
Director, D-EPSAT Pvt Ltd  
Honoured by Memento**



**Mr. Bhaskar Raghunathan,  
Director and CEO, Takvaviya Tech Pvt Ltd  
Addressing the gathering**



**Mr. Sai Patabiraman,**  
**Founder, Sree Sai Aerotech Innovations**  
**Honoured by Memento**



**Mr. Rakend Dubba,**  
**CFD Engineer, Sukra Helitek**  
**Honoured by Memento**

Second session was handled by **Mr. Bhaskar Raghunathan, Director and CEO, Takvaviya Tech Pvt Ltd**. He shared his passion towards the drones and his experiences in the industry. In the interactive session about the out of the box applications of Drones and he explained about his companies involvement in developing drones for specific applications in agriculture NDVI (Normalized Difference Vegetation Index), studying the tide waves and collecting the data for safety precautions on Tsunami. He said that Ensuring the safety and security of Drones itself is a big market. His work was highly application/task oriented and inspired the students to take up a career on drone technology.

After Lunch Break the third session was conducted by **Mr. Sai Patabiraman, Founder, Sree Sai Aerotech Innovations**. He introduced the regulations of Drones in India and said it was one of the best in the world and how the regulations will create more opportunity in the future. He said every registered drone will get a Unique Identification Number. He stressed the importance of autopilot in the drones and the requirement of four data points to develop



an AI (Artificial Intelligence). He shared his experience in developing a drone for mapping for a mining company.

Final session was handled by **Mr. Rakend Dubba, CFD Engineer, Sukra Helitek**. He spoke on various application of CFD with drones and their company's contribution towards the development of drones. He briefed the various modelling available in CFD and their applications. He shared the case study on "Hot plume interaction on the Surveillance ship".

All the participants were felicitated with certificates and the seminar was concluded with vote of thanks delivered by Mr. R. Ravichandran, Assistant Professor.

The KCG drone pitstop (racing event) participants were briefed on 2<sup>nd</sup> March, about the rules and guidelines. **18 teams participated in the event**. On the first day, the teams were involved in assembling their drones as per the specifications provided by the organising team of the Department of Aeronautical Engineering, KCG College of Technology. Points were awarded for their assembling skills and for the innovation.

**On the second day**, in front of drone lovers of various colleges and public, racing event have started with loud cheering. Professional flyers have flown their UAVs and demonstrated their various aerobatic skills of flying. **MMC\_UAV and SKYPORT Innovations**, an Indo-Chinese MNC, have flown their UAV showing its capability of crowd monitoring and patrolling, which was well appreciated by the knowledgeable crowd.

This is the first ever college event in India for drone racing which will become a yearly event.





# WINNERS OF KCG DRONE PITSTOP - 2018

## Student Category:

First prize - Agni College of Technology, Chennai

Second Prize - RV College of Engineering, Bangalore

Third Prize - Sri Krishna College of Engineering,  
Coimbatore

## Consolation prizes:

1. Hindustan Institute of Technology and Science
2. Bharath Institute of Higher Education and Research

## Open Category:

Winner: Mr. Mohammed Riyaz

Consolations Prize: Mr. Janarthan

## Judges for the Event:

Mr. Vinoth Kumar, Engineer, Boeing India Pvt Ltd

Mr. Manoj Kumar, Technical Engineer, Boeing India Pvt Ltd

Mr. Bhanu Praveen, R&D Head, SKYPORT Innovations

Mr. Suresh, Assistant Professor, HITS, Padur

Mr. Dinesh, Project Lead, UCAL





**Mr. Banu Praveen from MMC\_UAV and SKYPORT Innovations, an Indo-Chinese MNC, flying drone with advanced capabilities.**

### Highlights of the Event







## Highlights of the Event







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## Valedictory Function

**Mr. Parvez Alam, Head Corporate Marketing, UCAL, India** and Guest of Honour **Mr. Justin Kwok, Overseas Manager, MMCUAV, China** were invited for the valedictory function as Chief Guest and Guest of Honour respectively. Mr. Parvez Alam has appreciated KCG College of Technology for conducting such events. He also spoke to the students insisting the importance of drones in future. Mr. Justin Kwok explained the need for drones in present and future, he also detailed the type of drones used for various applications. The dais was decorated by the presence of our Principal Dr. G. Prabhakaran and Vice-Principal Dr. Sumathi Poobal. The prizes under various categories were awarded to the winners by eminent personalities on the dais. The participants and winners have appreciated the way in which the event was planned, organised and executed.



**Participants with Chief Guest Mr. Parvez Alam, Head Corporate Marketing, UCAL, India and Guest of Honour Mr. Justin Kwok, Overseas Manager, MMCUAV, China**



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**Department of Aeronautical Engineering  
thank our Management for  
the support and encouragement**



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