UNMANNED AERIAL VEHICLE (UAV) WORKSHOP

Team Orion comprising, the members namely Basil Eldo, Christy Koshy Yesudas, Shubham Shirodkar, Shubham Gupta, Sanjana Dias, Mubasshir Shah, Madhav Ghatge, Mihir Patil conducted a 2-day workshop (26 th and 27 th March 2019) on UAV in association with SENCES at AITD campus. The workshop witnessed active participation of 44 students of 2 nd year Electronics and Communication Engineering of AITD.

On the first day, the participants were instructed about the precautions and safety measures to be considered during UAV flight in addition to general rules for flying drones / UAV in India. Further, the drone categories were explained. Components required for drone building such as frame, flight controller, speed controllers, BLDC motors, propellers, power distribution boards, lithium polymer battery, transmitter and receiver were introduced and explained.

Four important parameters i.e. drag, weight, thrust, lift was explained in addition to Airfoil principle. Later on, controls of flight i.e. pitch, yaw, throttle and roll were also explained. Various practical applications of UAV were shown through slides. Day 1 ended with a brief session on soldering where participants were to assemble a simple circuit with LED and register.

On day 2 participants were divided with 3 groups with flight controllers - APM, OPEN CC3D and KK 2.1.5 to build a hexacopter and two quadcopters models. Participants got to calibrate APM flight controller using Mission Planner software whereas OPEN CC3D flight controller was calibrated using LibrePilot software. Hexacopter and quadcopter were later tested for flight.

Report on PLC Programming Workshop

A PLC Programming workshop was conducted by The SENCES(Society of electronics and communications engineering students) council at Agnel Institute of Technology and Design on 30 th of march and 7 th of April 2019. The main objective was to provide a useful insight on the use of PLC's in electrical and electronics industries. The workshop witnessed active participation of 44 students of 2 nd year Electronics and Communication Engineering of AITD.

The resource person was Mr. Subodh Mone, The owner of Autotech Pvt ltd.
In this workshop, the students were made aware of the different types of PLC's used at the industry level. Demonstration was also performed on the same. Mr. Mone provided an insight into the "Industry" world and explained some of the
processes involved in it.
Students performed all of simulations on a software knows as WPL Soft.

The following topics were covered:
1)Basics of PLC
2) Timers and Counters in PLC
3) Use of Rising edge and falling edge pins and the memory bit.
4)Comparison instructions in PLC
5)Arithmetic instructions in PLC

The workshop concluded with a feedback session from which it was known that participants understood the topics very well and were happy to learn new things along with some programming knowledge.