



SANJAY GHODAWAT UNIVERSITY, Kolhapur

Empowering Lives Globally !

Established under section 2 (f) of UGC Act 1956

Sanjay Ghodawat University Act XL of 2017 of Govt. of Maharashtra | Approved by PCI, COA & AICTE



**ISTE Sponsored
Five Days Online STTP
(Under Self Sponsored Scheme)**

***DESIGN, DEVELOPMENT OF
DRONE AND ITS APPLICATIONS***

21st - 25th June, 2021



Organized by

School of Technology

Department of Aeronautical Engineering

www.sanjayghodawatuniversity.ac.in

ABOUT THE UNIVERSITY



Sanjay Ghodawat University was established as a State Private University in the year 2017. Previously it was Sanjay Ghodawat Institutes formed in the year 2009 by the Chairman of SG Group, Sanjay Ghodawat. The Institute had received NAAC A grade and also its programs were accredited by NBA and after this the natural progression was the evolution of Sanjay Ghodawat University.

The University was formed to accommodate more students and give them a variety of choices for their career path. The University offers UG, PG and PhD courses in Technology, Management, Commerce, Science, Liberal Arts, Architecture, Pharmacy and Computer Applications.

The USP of the University is its curriculum in tandem with the requirements of the Industry plus choice based credit system that allows students to choose major as well as minor in the subjects of their choice. It encourages a multi-disciplinary approach that helps students' creativity and productivity. The University also offers hands-on experience with the establishment of Tata Technology Centre, Mechatronics Lab Car, BOSCH Collaboration Centre, Centre of Space and Atmospheric Science etc.

The University campus has a state-of-the-art facility provided to students to help them study in a pristine environment. The 165-acre campus is replete with facilities like spacious classrooms, smart classrooms, well-equipped labs, food court, amphitheatre, stadium with flood lights, swimming pool, horse riding, tennis court etc.

The School of Commerce and Management, SGU was recognized as Top Emerging B School by Times B School Survey 2020. School of Technology, SGU Ranked 4th in Top Emerging Engineering Institutes of the Nation, 9th in Placement Category and 2nd in Research Capabilities by Times Ranking 2020.

ABOUT THE DEPARTMENT

Aeronautical engineering is primarily concerned with the design, analysis and maintenance of aircraft and spacecraft. B-TECH in Aeronautical Engineering begins with courses that give you an excellent grounding in both engineering and calculus-based physics. Use software to build models and analyze real aerospace parts and systems; and design, build, and test your own model airplane or rocket. Subfields include aircraft maintenance, aerodynamics, aircraft structures, flight controls, and propulsion systems. Students who choose to earn an aeronautical engineering degree at SGU are part of a prestigious program at a University that is ranked in the nation's top tier. Research projects and relevant hands-on workshops involve concepts and systems that help students master the skill sets required for the Industry.



ABOUT THE WORKSHOP

Drone is a kind of unmanned aerial vehicle (UAV) and it is a flying robot that can be remotely controlled or fly autonomously through software-controlled flight plans in its embedded systems, working in conjunction with onboard sensors and GPS. Multi-Rotor works on the relative nature of force, that means when the rotor pushes the air, the air also pushes the rotor back. This is the basic principle by which the Multi-Rotor can go up and down. Furthermore, the faster the rotor rotates, the greater the lift, and vice versa. It has wide applications in day-to-day life like Military, Surveillance, Sports, Delivery drones to transport food, packages or goods to doorstep, Agriculture, Emergency Rescue, Outer Space, Medicine, Photography, Wildlife and Historical Conservation. This workshop will provide you the insight of design & development aspects of DRONE and its numerous applications.

TOPICS COVERED

- **Introduction to DRONE and Classification**
- **Anatomy of Airplane and Airfoil nomenclature, measurement of flight velocity and standard atmosphere, generation of lift and drag, aerodynamic centre and centre of pressure.**
- **Weight estimation, common propulsion system, battery sizing and electric propulsion**
- **Blade design, material selection**
- **Drone pilot: Effect of variation of CG location and static stability, Longitudinal static stability,**
- **Design and structural analysis of DRONE**
- **Indoor UVC Disinfectant UAV Design and Navigation in GPS-denied environments**
- **UAS for Public Safety and Management, for traffic management, for package delivery and for various applications**
- **Design of UAV wireless power transmission system and Solar Powered UAV for Internet coverage in Urban area**
- **Selection and implementation of Electronic components in DRONE**
- **Programming DRONES with Raspberry pi**
- **DGCA guidelines for operating drones in India**



WHO CAN ATTEND?

Participation in this STTP is open to the Students (PG/Research Scholars) and faculty members of Science and Engineering streams. It is open to industry personnel who wish to gain the knowledge of DRONE technology and who wish to commence their own start-up.

HOW TO APPLY?

Category	Registration Fee	
	ISTE Members	Non-ISTE Members
Students (PG/Research Scholars)	Rs. 400 /-	Rs. 500 /-
Faculty / Staff members	Rs. 500 /-	Rs. 600 /-
Industry Person	Rs. 600 /-	Rs. 700 /-

Link for Registration:

https://docs.google.com/forms/d/1-xfVFQIMGndwcGYcDoky_BY6sOO4glJvjQ76l1ef-fE/edit

Last Date of Registration: 18th June, 2021
Participation Confirmation: 19th June, 2021

TRANSACTION DETAILS

(Registration fee once paid is non-refundable)

- **Bank Account No.:** 087194600000051
- **Account Name** : SANJAY GHODAWAT UNIVERSITY
- **IFSC Code** : YESB0000871
- **Account Type** : SAVING
- **Bank Name** : YES BANK LTD
(JAYSINGPUR BRANCH)

Dr. Sanjeevakumar Khandal

Coordinator, Associate Professor, Department of Aeronautical Engineering
Cell: 9916190250 | e-mail: khandal.sv@sanjayghodawatuniversity.ac.in

Chief Patrons

Hon. Sanjay D. Ghodawat
President, SGU

Mr. Shrenik S. Ghodawat
Secretary, SGU

Mr. Vinayak V. Bhosale
Trustee, SGU

Patrons

Dr. Martand T. Telsang
Officiation VC, SGU

Dr. N.K. Patil
Officiating Registrar, SGU

Dr. V.V. Kulkarni
Director, SGI

Convener

Dr. Sanjeevakumar Khandal

Associate Professor and Head, Department of Aeronautical Engg., SGU

Organizing Committee

Mr. Balaji K
Assistant Professor, Department of
Aeronautical Engineering, SGU

Mr. Babu V
Assistant Professor, Department of
Aeronautical Engineering, SGU

Ms. Kasmira Samel
Assistant Professor, Department of
Aeronautical Engineering, SGU

Mr. Mari Prabhu
Assistant Professor, Department of
Aeronautical Engineering, SGU

Mr. Akhil CK
Assistant Professor, Department of
Aeronautical Engineering, SGU

Resource Persons

Dr. Pant R.S.
Professor, Aerospace Department
IIT Mumbai

Uthra M.P.
Co-Founder and Technical Head,
Fly at Mach Innovations Pvt. Ltd.

Kuralanban Ramu
Structural Analysis Engineer
Tech Mahindra Ltd., Bengaluru

Mari Prabhu Govindan
Assistant Professor, SGU

Tamilazhagan S. P.
Director, Fly Avionics

Sirisha Beejapuram
Business Development Manager, Fly Avionics

Chaitanya Walse
Business Development Officer,
Griffon Vulture Group

Vikrama Sing V.
Engineer - Operations and
Business Development,
Fly at Mach Innovations Pvt. Ltd.

Rakesh S. Shete
Aero Career Coach, Project Manager,
Edall Systems, Bengaluru