SAVITRIBAI PHULE PUNE UNIVERSITY
(Formerly University of Pune)

DRONEACHARYA AERIAL INNOVATIONS LIMITED

Board of Studies,
Department of Technology

Electronics & Electrical (EE) Technology

Curriculum Structure for
Professional Certification Programme in

CERTIFICATE COURSE FOR AERIAL CINEMATOGRAPHY

Course Name:
Professional Certification Programme in

CERTIFICATE COURSE FOR AERIAL CINEMATOGRAPHY

Compulsory Modules – 3

Duration: 10 DAYS

Course Intake: - 40

Course Mode: - Classroom (Hybrid)

Eligibility Criteria:

Education Background:-

10th Pass

Should able to read, understand & write English/Hindi

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Curriculum Structure for Professional Certification

Programme in

CERTIFICATE COURSE FOR AERIAL CINEMATOGRAPHY

Sr. No.	Subject Code	Subject Name	Credits	Teaching Scheme (Theory)	Teaching Scheme (Practical)
1	CCAC1	FUNDAMENTALS IN DRONES , RULES AND REGULATIONS AND MAINTENANCE	2	√	√
2	CCAC2	CAMERA TECHNIQUES AND VIDEO EDITING	2	√	√
3	CCAC3	FILM MAKING ASSIGNMENT	2	√	√
		Total Course Credits	**6**		

TAKEAWAYS AFTER COMPLETION OF (CCAC) COURSE

Certificate Programme allowing students to enhance their own filmmaking and editing skills as well as the art of drone filmmaking. Use aerial imagery to elevate filmmaking to a whole new level. This short duration industry specific course offers a highly engaging learning environment with practical applications and is created for people who wish to begin a new, challenging, and distinctive profession.

CCAC1 : FUNDAMENTALS IN DRONES AND RULES AND REGULATIONS

Learning Outcomes

This module gives students a thorough understanding of drone systems, flight principles, and operational safety, enabling them to navigate complicated regulatory frameworks, abide by airspace restrictions, and engage in responsible drone operation. Additionally, students develop crucial skills in routine maintenance, troubleshooting, and repair, ensuring the sustained functionality and compliance of their equipment with a focus on safety and responsible usage of Drones

SYLLABUS

Introduction of Drones: Introduction,Types of drones, Application, Future scope, Doubt Solving Session.

DGCA Rules & Regulation: Preliminary, Classification,Authorization & Regulation, Operation of UAS, Unmanned, Air Traffic Control Management, General, Doubt Solving Session.

Basic Principles of Flights: What is Bernoulli's Principle of Flight ?What are the 4 Principles of Flight ? What are the 4 Forces acting on a Flight in different situations? Doubt Solving Session.

ATC Procedures and Radio Telephony: Working principle, Flight Profile &Pre flight, Landing & Approach, Drone Airspace, Navigation Chart, Doubt Solving Session.

Fixed Wing Operations and aerodynamics: Force operating, Flight maneuver, Controls,Types, Doubt Solving Session.

Multi Rotor Operations and aerodynamics: Quadcopter physics, Block Diagram, Drone Components,Controls, Doubt Solving Session.

Drone Equipment and Maintenance: Field maintenance, Operational maintenance, Manufacturer maintenance,Camera Cleaning and Drone Cleaning, Doubt Solving Session.

CCAC2 CAMERA TECHNIQUES AND VIDEO EDITING

Learning Outcomes

Students who complete this subject will have a thorough understanding of drone camera technology, including camera kinds, settings, and the best shooting methods for taking professional-looking aerial footage. The ability to edit and improve drone footage, use visual effects, and produce polished videos would also help students advance their post-production video editing skills. With this combination of abilities, students would be able to create aerial videos of a high caliber while utilizing drone cameras and video editing software to their fullest capacity for a variety of purposes, including filmmaking, marketing, or documentation.

SYLLABUS

The Basics of Drones and Cameras: Know Your Equipment, Screenplay, Shooting Techniques, Advance Drone Features Basics of Camera Settings, Drone Maneuvers and functions, Doubt Solving Session.

Creative Cinematic Shots (Flying Sessions): Basic Drone Controls, Simulation Flying Camera Movement and Drone Operation in Simulation, Basic Drone Maneuvers, Advance Drone Maneuvers, Cinematic Drone Maneuvers, Advance Camera Setting with Gimbal Movements, Doubt solving session everyday.

Video editing (Practical Hands on): Introduction to Video editing software, Basic of video editing in Adobe Premiere Pro or davinci Resolve, Advance Video Editing Techniques, Make your own video Doubt solving session everyday.

Emergency Procedures: Identification and Handling, Risk Assessment , Phases of Risk Assessment, Identification & Handling, How to Respond to a Drone Emergencies, Doubt Solving Session.

Application and Industry: Cinematography application in Film Industry, Industry Exposure, Market Scenario, Doubt Solving Session.

CCAC3: FILM MAKING ASSIGNMENT

Learning Outcomes

The goal of a drone-based filmmaking assignment is to provide students with the practical knowledge and creative insight necessary to make aerial videos of a professional standard. Students will gain competency in the technical aspects of drone operation and camera settings through this assignment, as well as in aerial cinematography techniques like framing, composition, camera movement, and dynamic picture capture. They will gain practical experience in every step of the filmmaking process, from pre-production planning to post-production editing, strengthening their ability to produce captivating and visually stunning films using drone technology. They will learn how to seamlessly integrate drone footage into storytelling, effectively communicating narratives or messages.

SYLLABUS

Final Test Theory (Written Exam): Objective, Subjective.

Short Film Assignment