



Itgalpur, Rajankunte, Yelahanka, Bengaluru – 560064

## School of Engineering DEPARTMENT OF CIVIL ENGINEERING

### Schedule of proposed “Five-day Faculty development programme on “Beyond the Horizon: Innovative Engineering Practices with Drone-Based Surveying and Digital Mapping”

(Organised by Civil Engineering Department, Presidency University, Bengaluru)

Date	Time	Topic	Resource Person(s)
Day 1	10:00 AM - 12:00 PM	<ul style="list-style-type: none"> <li>UAV Fundamentals and Design</li> </ul>	<p>Mr. Rahul Ramanna Asst. Vice President - Aerospace Systems NewSpace Research &amp; Technologies Pvt Ltd Bengaluru</p>
		<ul style="list-style-type: none"> <li>Types of Survey Drones, Scalability and Serviceability - PPK/RTK, Hardware configuration, procurement, and assembly</li> </ul>	<p>Mr. Praveen Deputy Chief Remote Pilot Instructor, Aereo</p>
	12:00 PM - 1:00 PM	Lunch Break	
	1:30 PM - 3:30 PM	<ul style="list-style-type: none"> <li>Applications of Drone in SVAMITVA resurvey project and Flood zone mapping (Live Projects) - Clear water dynamics (CWD)</li> </ul>	<p>Mr. Rajeshwar R Chief Executive Officer (CEO) Clear Water Dynamics</p>
		<ul style="list-style-type: none"> <li>Applications of Drones, Drone Business in India, and Vision of India as the Drone Capital of the World.</li> </ul>	<p>Dr. K. Ramesh Kumar, Head – RPTO Establishments Garuda Aerospace</p>
		<ul style="list-style-type: none"> <li>Creation of DEM for reduction of natural and human-caused hazards in identified areas using Drone.</li> </ul>	<p>Dr. Jagdish H Godihal Professor, Dept. of Civil Engg Presidency University. Bengaluru</p>
3:30 PM - 3:45 PM	Overview and Discussions of the day		
Day 2	10:00AM-12:00 PM	<ul style="list-style-type: none"> <li>Drone Flying 101 (Intro.)</li> </ul>	<p>Mr. Karthik M H Founder BK Drones</p>
		<ul style="list-style-type: none"> <li>Mastering KML Preparation, Control Points, and GCP Marking: Key Steps for Precision Mapping</li> </ul>	<p>Dr. Shwetha A Assistant Professor-Selection grade Department of Civil Engineering Presidency University</p>



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Date	Time	Topic	Resource Person(s)
		<ul style="list-style-type: none"> <li>Drone flight programming and Pre-flight Checklist</li> </ul>	<p>Mr. Bibang Gwra Basumatary Founder BK Drones</p>
	12:00 PM - 1:00 PM	Lunch Break	
	1:30 PM - 3:30 PM	<ul style="list-style-type: none"> <li>Hands-on Drone flight session in Presidency University campus (70 acres)</li> <li>Data collection; segregation of drone base data images</li> </ul>	<p>Mr. Surya Project Engineer and Drone Pilot Vimatraya</p> <p>Mr. Tejas S Drone Pilot BK Drones</p>
	3:30 PM - 3:45 PM	Overview and Discussions of the day	
Day 3	10:00 AM - 12:00 PM	<ul style="list-style-type: none"> <li>Post-flight checklist and processing, Real Time Kinematic (RTK) conversion, Geotagging.</li> </ul>	<p>Mr. Bibang Gwra Basumatary Founder BK Drones</p> <p>Mr. Bheemrao Research Scholar and GIS Specialist Civil Engineering Presidency University</p>
	12:00 PM - 1:00 PM	Lunch Break	
	1:30 PM - 3:30 PM	<ul style="list-style-type: none"> <li>Hands-on session on generating Ortho-Rectified Images (ORI). Quality checking (QC) using Pix4d and Global Mapper software</li> </ul>	<p>Mr. Karthik M H Founder BK Drones</p> <p>Mr. Balachandan Research Scholar and GIS Specialist Civil Engineering Presidency University</p>
	3:30 PM - 3:45 PM	Overview and Discussions of the day	
Day 4	10:00 AM - 12:00 PM	<ul style="list-style-type: none"> <li>Introduction to Digitization and applications</li> <li>Digitization using QGIS and ArcGIS software program</li> </ul>	<p>Dr. Shwetha A Assistant Professor-Selection grade Department of Civil Engineering Presidency University</p> <p>Dr. Nakul R Professor and HoD Civil Presidency University</p>
	12:00 PM - 1:00 PM	Lunch Break	
	1:30 PM - 3:30 PM	<ul style="list-style-type: none"> <li>Digitization – Hands-on session on preparation of cadastral maps</li> </ul>	<p>Dr. Shashank CEO Vimatraya Geospatial Services</p>



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		<ul style="list-style-type: none"><li>Digitization – Hands-on session on habitation marking on cadastral maps (Habitation map development)</li></ul>	Mr. Santhosh Cadastral Mapping Expert
			Ms. Shravani L Cadastral mapping expert
	3:30 PM - 3:45 PM	Overview and Discussions of the day	
Day 5	9:00 AM - 10:00 AM	Valedictory and Feedback	
	10:00 AM - 2:00 PM	<ul style="list-style-type: none"><li>Site visit to CDspace facility to learn about drone building and flight testing from industry experts</li></ul>	Mr. Shreyash Chief Operation officer (COO) CDspace Robotics