



Srishyla Educational Trust (R), Bheemasamudra

GM INSTITUTE OF TECHNOLOGY, DAVANGERE

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Report

on

“Drone Technology Demonstration”

in association with

Greenify Technologies Pvt. Ltd, Bengaluru

from

22/02/23 to 23/02/23

Resource Person/s

**Mr. Ajay Hegde & Team
Bengaluru**

Event coordinators

- Dr. Kavitha K J *Kavitha*
- Mr. Suprith P G *Suprith*
- Mr. HanumanthRaju R K *Hanumanth*
- Mr. Sandeep G S *Sandeep*
- Dr. Pavan K J *Pavan*
- Mr. Rakesh A, Instructor

Verified by

Dr. Praveen J
 Dr. Praveen J
 Head of the Department
Dr. Praveen J
 IQAC Director
 GM Institute of Technology
 Davangere - 577 006.

Dr. Praveen J

ECE HOD
 Head of the Department
 Dept. of Electronics & Comm. Engg.
 GM Institute of Technology
 DAVANGERE-577 006

Dr. Praveen J

Dean Academics
 DEAN ACADEMICS
 G.M. Institute Of Technology
 DAVANGERE-577006.

Dr. Praveen J

Principal
 PRINCIPAL
 GM Institute of Technology
 Davangere - 577 006.

Report on Drone Technology Demonstration 27th Feb 2023

Date: 22nd and 23rd February 2023

Experts: Mr. Ajay Hegde, Greenify Technology Pvt. Ltd., Bengaluru.

Co-ordinated by: Dr. Kavitha K J, Prof. Suprith P G, Prof. Hanumanth Raju R K, Prof. Sandeep G S, and Dr. Pavan K J

Faculty coordinators, GMIT, Davangere

Day#1:

1. Visit to Hiremegalagere, Drone Demonstration of pesticide Spray to Areca plantation

Brief on Demonstration:

On the morning 22nd February 2023 at 10.00 am, Mr. Ajay Hegde & his team and Faculty & Student coordinators of Drone – Technology visited a nearby village 'Hiremegalagere' for demonstrating fungicide application to Areca nut trees through Drone to the farmers of the village. The demonstration lasts in 3 hours from 11:00am. After that on demand by the formers, few plantations were sprayed till the evening.

Observations:

- Spray was faster and cost effective.
- Saves the time and manpower.
- Spraying was not much effective for the Areca due to the variation in the plant growth and also due to wind blow.
- Drone was operated Manually and hence was delayed in the process completion.
- **Challenge:** Suggestions to spray for the under covered leaves.

After visiting the village, there was an interaction between the field expert, farmers, faculty and students. During the interaction, Mr. Ajay Hegde explained the farmers about, how the drone may be used for fungicide application to various crops like paddy, maize, And Areca nut etc. The farmers enquired about effectiveness of crop yield / prevention of diseases by spraying the fertilizer through this technology and comparison with the current



technologies used by them. Mr. Ajay Hegde explained how this spray is done using GPS location and by monitoring the crop.

The interaction was followed by the fungicide spray through drone demonstration for 1-acre of Areca nut land. The drone carried by them was capable of carrying 10 litres of fertilizer and the spray was done 4 times to cover the area.

Day #2 :

2. Student Interaction

Expert: Mr. Ajay Hegde

Participants: 30 Students

Time: 10:00 am to 12:00 pm

On 23/02/2023, an interactive session was arranged for the enrolled students of CSE, ECE & BT about Drone Technology for 2-hours. 20 students from ECE, 05 students from CSE and 05 students from BT departments attended an interactive session. The key points discussed in the session are:

- The basic design technology of drone
- The current challenges and limitations of the technology briefed
- Students requested to conduct hands on workshop to learn the basics and implementation of drone.

3. Apex Committee Meeting

Participants: Dr. Sanjay Pande M B, Principal, Dr. Sunil Kumar B S, Dean Academics, Dr. Praveen J, HOD, ECE Department and Faculty Coordinators.

Time: 4:00 PM

Venue: Principal's Cabin

Meeting Proceedings:

- Dr. Kavitha K J, Faculty Coordinator, briefed the activities conducted on Day-1 and Day#2 morning.
- Also shared the feedback of farmers about the drone application for fungicide spray.
- The faculty coordinators expressed their views on Drone technology, and Scope for development are ;



- Spectral-Image Analysis
 - Detection of diseased part of land & auto spray the pesticides accordingly
 - Land geometry development and adaptation to Drone fly
 - Conversion of Drone fly from the bottom of Areca tree for betterment of spray results
- Dr. Sanjay Pande has mentioned to make MoU with Greenify Pvt. Ltd in order to make collaborative Research work on Drone technology. Mr. Ajay Hegde has agreed and will send the MoU within 8-10 days' time.
 - The MoU should support our students and faculty to facilitate Hardware and Software required for research and also to train them by setting up of Centre of Excellence in the campus.
 - Meeting was adjourned with thanking remark to Mr. Ajay Hegde and team and to sooner fix up the next visit.

Kavitha
Chief Coordinator

by Dr. J. 21/3/23

Head of ECE
Head of the Department
Dept. of Electronics & Comm. Engg.
GM Institute of Technology
DAVANGERE-577 006

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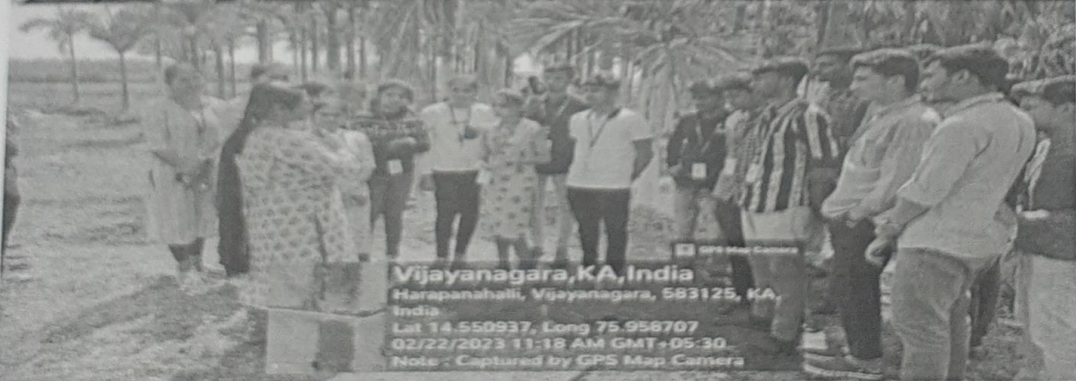
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Vijayanagara, KA, India
Harapanahalli, Vijayanagara, 583125, KA, India
Lat 14.550959, Long 75.958740
02/22/2023 11:39 AM GMT+05:30
Note : Captured by GPS Map Camera



Vijayanagara, KA, India
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Note : Captured by GPS Map Camera



Vijayanagara, KA, India
Harapanahalli, Vijayanagara, 583125, KA, India
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02/22/2023 11:18 AM GMT+05:30
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