



Energy and Wetland Research Group  
Center for Ecological Sciences  
Indian Institute of Science, Bengaluru

**ADAMYA CHETANA**

आदम्य चेतन्य मन्त्रालय (AMC)  
ADAMA | ADARSA | ADAROGYA



# Nature Science Internship Programme





**VAGDEVI VILAS  
INSTITUTIONS**

# **VAGDEVI VILAS SCHOOL, MARTHAHALLI**

**Guide teachers name: Shalini .S, Sarita**

**Students name:**

**Nidhi Gupta,**

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**Jeyaditya Babu**

**Aditya Rajesh**

**Sohani Bakkannanvar**

**Sahana Rajesh**



# **MAPPING USING MAP INR APP AND EPICOLLECT**



# STUDY AREA SELECTED

**STUDY AREA SELECTED: FOR BIODIVERSITY  
STUDY AND SOIL SAMPLE TEST**

**LOCATION: VAGDEVI VILAS SCHOOL,  
MARTHAHALLI**

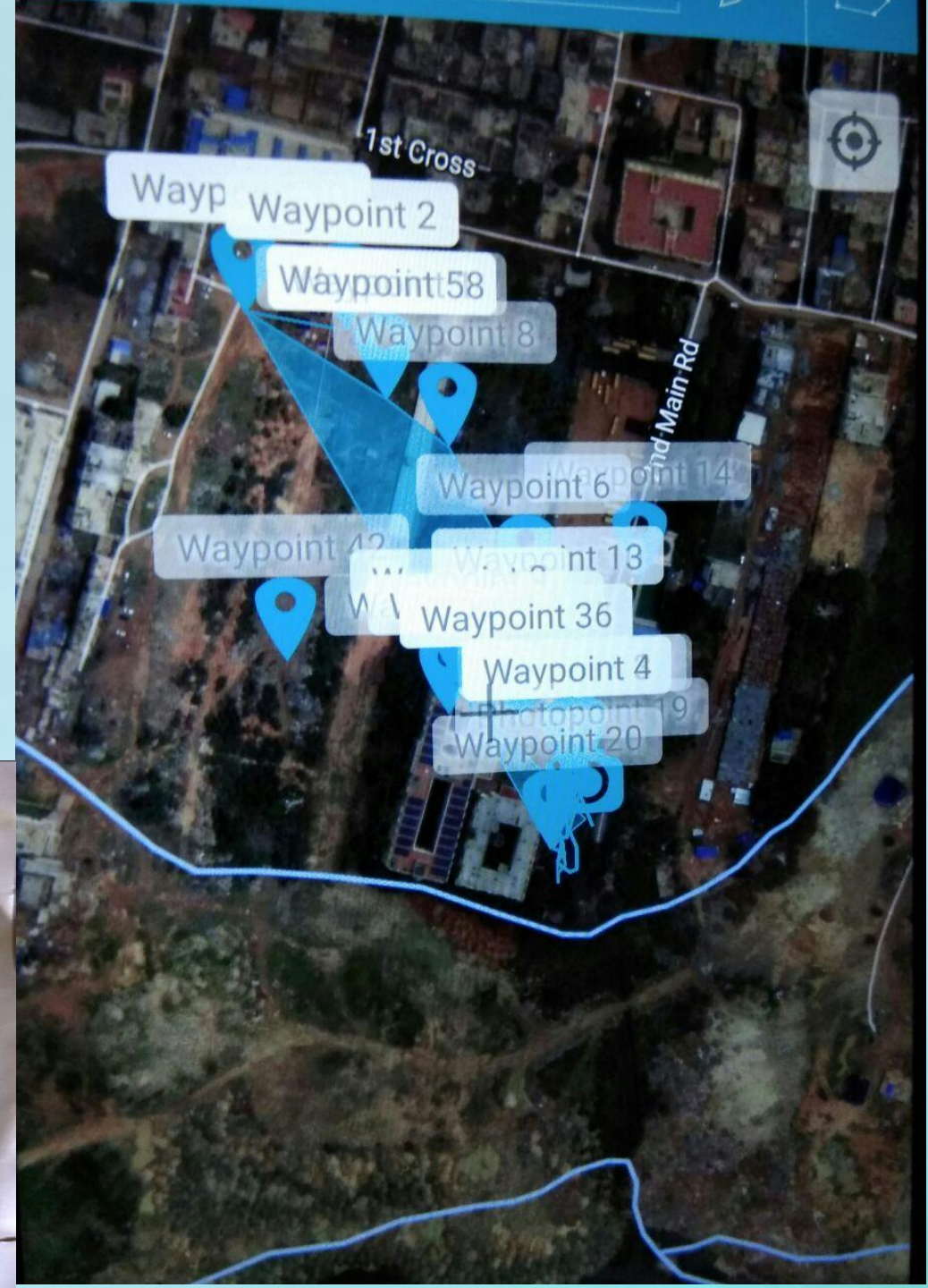
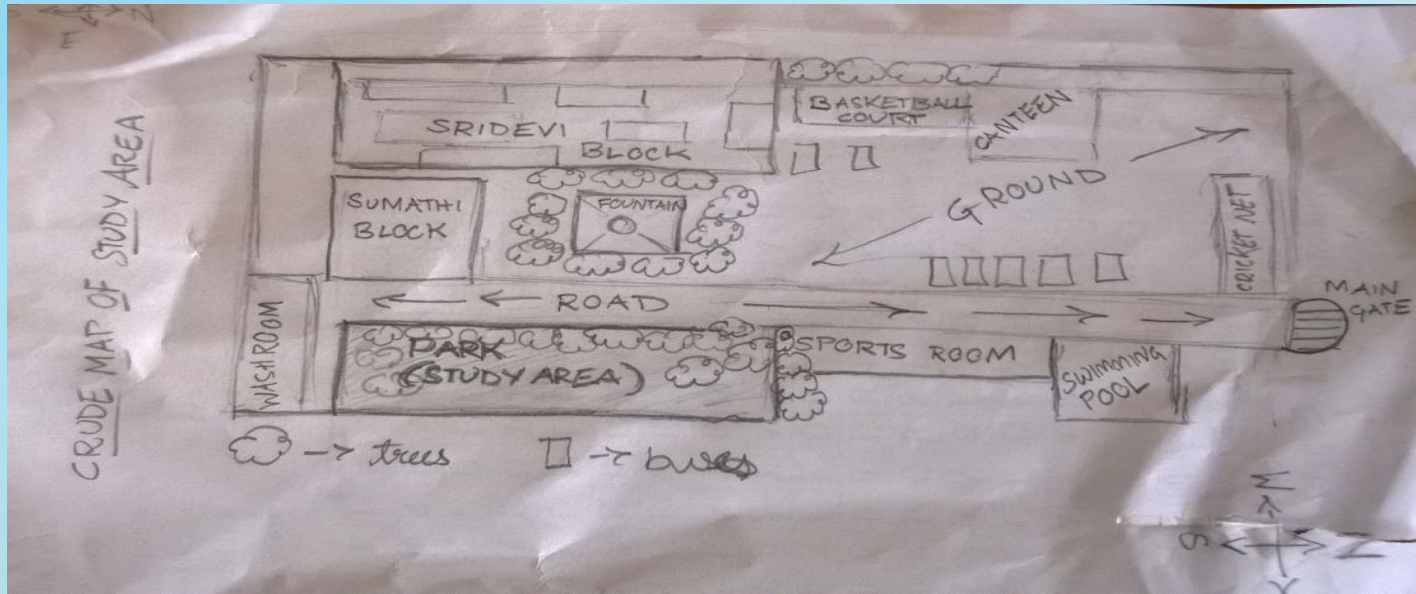
**GPS SET ACCURACY: 4.550999641418457M**

**LATITUDE: 120.8'N**

**LANGITUDE: 770.6'E**

**ALTITUDE: 893m from sea level**

**Perimeter: 159.36 meter VVSM park**





# LAKE STUDY AND BIRD STUDY AREA

**LAKE: CHINNAPANAHALLI LAKE**

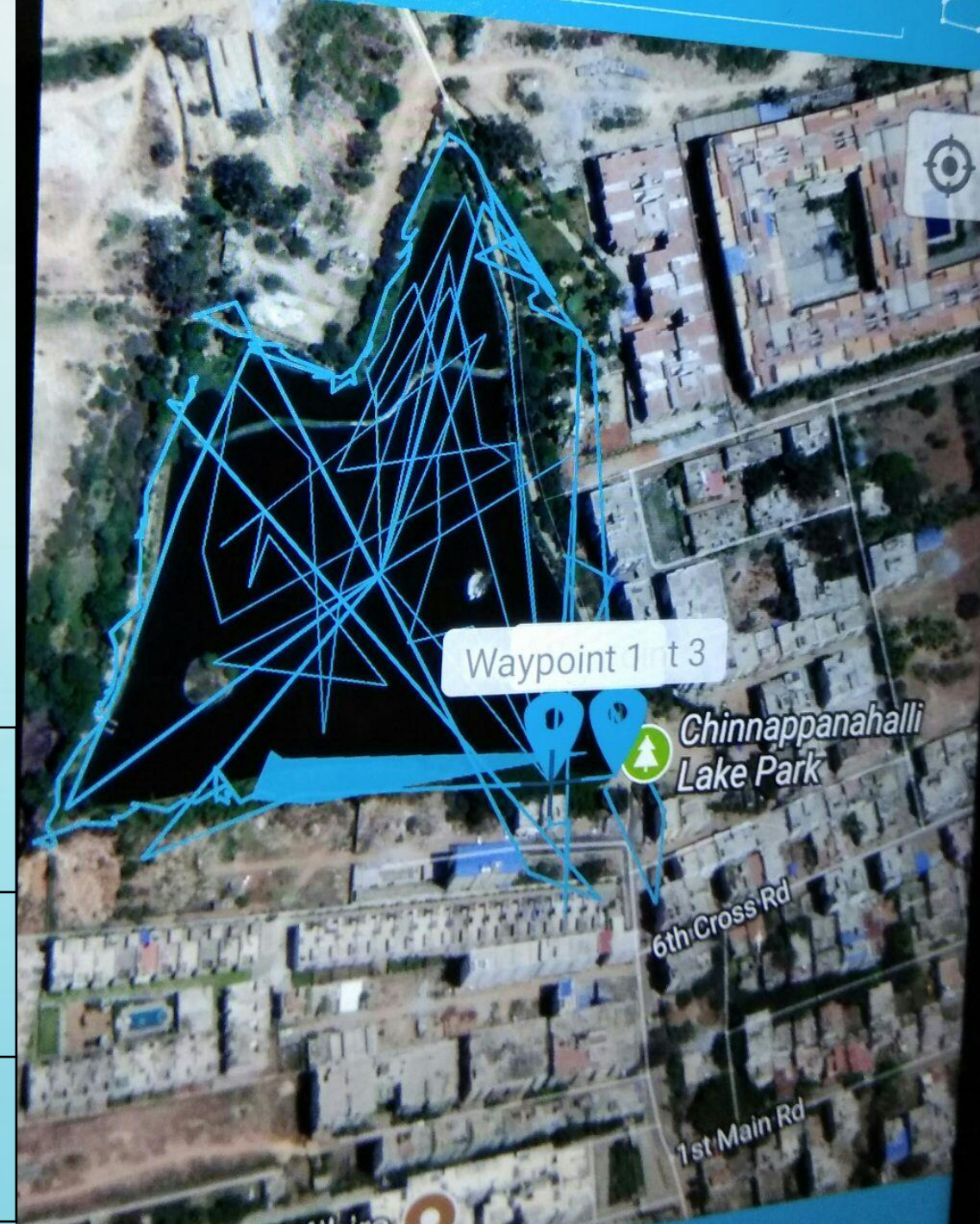
**PARK, BENGALURU**

**LATITUDE: 12.96323685**

**LONGITUDE: 77.71072313**

**DISTANCE: 90.80m**

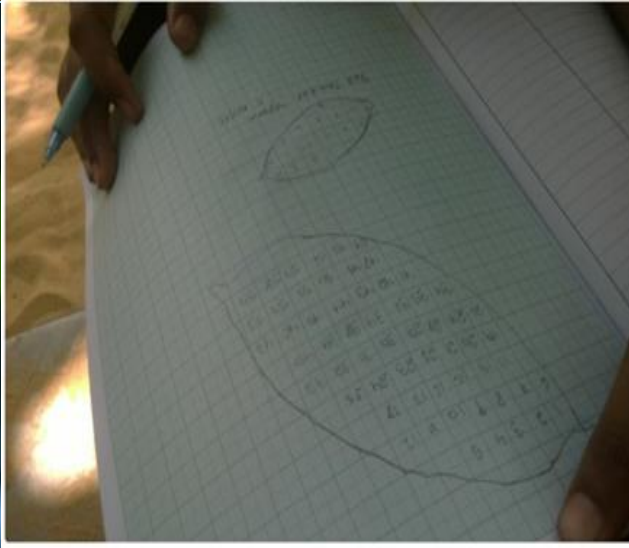
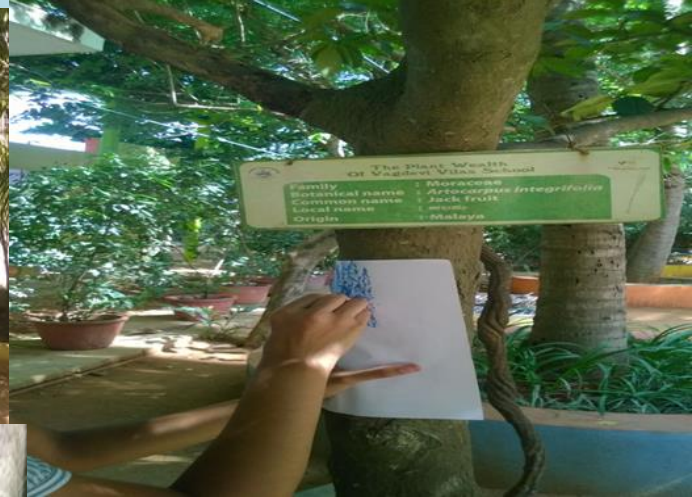
GPS SET ACCURACY	PHOTO ID	TIME	DATE	PHOTO DISCRIPTION
7.58500038146 973m	3	12;23;5	08-08-2017	Tamrind tree
4.55099964141 8457m	4	9;4;7	09-08-2017	Rose wood tree



The background of the slide features a soft-focus photograph of a calm lake reflecting the surrounding landscape. In the distance, there are rolling hills or mountains under a pale, overcast sky. The water in the foreground is still, creating clear reflections of the sky and the distant land. The overall color palette is muted and naturalistic, with various shades of blue, green, and grey.

# **BIODIVERSITY STUDY**







**Date:** 2/8/17**Time:** 1:45 to 2:30**Place:** VVSM**Weather:** Drizzling**Study Location:** Play area

<b>Local name</b>	<b>Scientific name</b>	<b>Number</b>	<b>Flowering/fruiting/Leafy</b>	<b>Dependents</b>	<b>Amount of oxygen produced by plant</b>
<b>Raktha Chandana</b>	<b>Pterocarpus santalinus</b>	1	<b>Flowering and fruiting</b>	<b>Butterfly,ants Honey bees</b>	<b>48ml of oxygen per day</b>
<b>Pride of India</b>	<b>Lagestroemia speciosa</b>	2	<b>Flowering and fruiting</b>	<b>Squirrel,butterfly</b>	<b>1152ml of oxygen per day</b>
<b>Tamarind</b>	<b>Tanarindus indica</b>	1	<b>Leafy, and fruiting</b>	<b>Ant and squirrels</b>	<b>82.2ml of oxygen per day</b>
<b>Jackfruit</b>	<b>Artocarpus Heterophyllus</b>	2	<b>leaf</b>	<b>Squirrel, monkey</b>	<b>1987.2 ml of oxygen per day</b>
<b>Bauhinia</b>	<b>Bauhinia divaricata</b>	1	<b>leaf</b>	<b>Ant and squirrels</b>	<b>2764.8ml of oxygen per day</b>





**CATTLE EGRET;LITTLE EGRET**



**GREATER CORMORANT**



**PAINTED STROKE**



**GREY HERON**







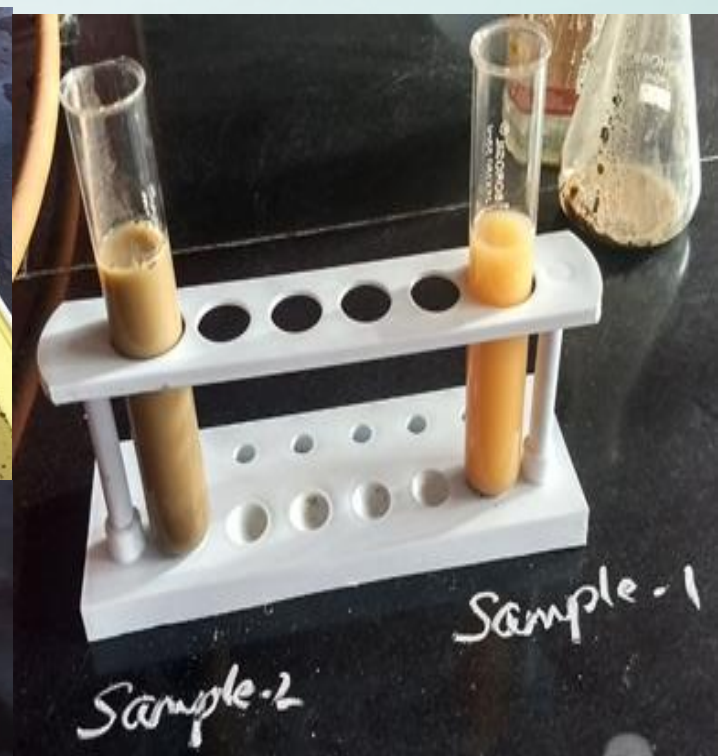
# BUTTERFLY AND BIRD STUDIED

<b>BUTTERFLY SPOTED</b>	<b>BIRDS SPOTED</b>
<b>COMMON GRASS YELLOW</b>	<b>GREATER CORMORANT</b>
<b>COMMON EVENING BROWN BUTTERFLY</b>	<b>GREY HERON</b>
<b>SMALL SALMON ARAB</b>	<b>LITTLE ERGET</b>
<b>COMMON CERULEAN</b>	<b>GREATER COUCAL</b>
<b>CHACOLATE PANSY</b>	<b>COMMON MYNA</b>
<b>COMMON EMIGRANT</b>	<b>BLUE ROCK PIGEON</b>
<b>LEMON PANSY</b>	<b>PAINTED STROKE</b>





# SOIL STUDY





**Date:** 16/8/17                      **Time:** 10.00  
**A.M.**                                      **Place:** VAGDEVI VILAS  
**SCHOOL,MARTHAHALLI**  
**Weather:** Sunny  
**Study Location:** FARM HOUSE

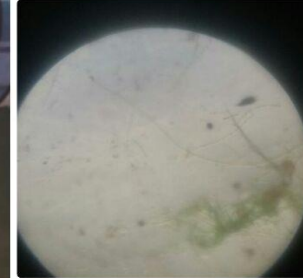
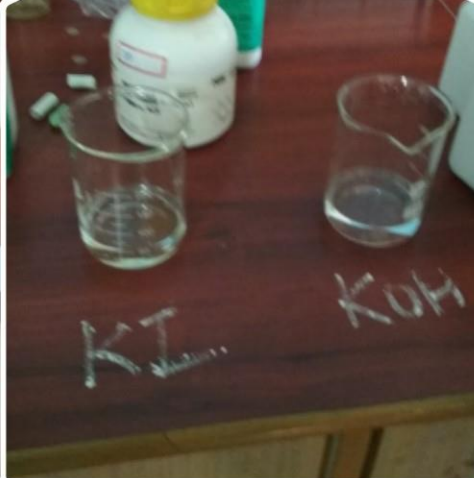
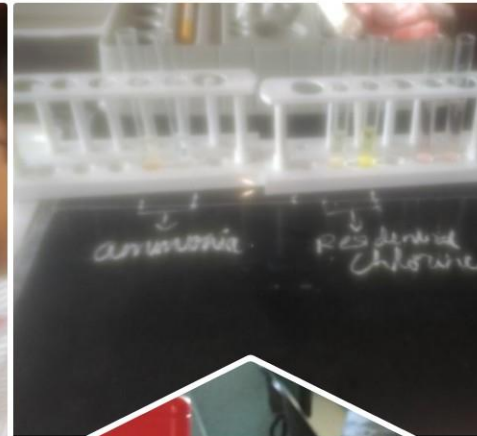
SOIL SAMPL E	FIELD DENSITY IN GRAM PER CENTIMETER CUBE	BULK DENSITY IN GRAM PER CENTIMETE R CUBE	pH	TEXTURE	COLOUR	PERCENTA GE OF WATER CONTENT
1	17.60	0.93	7	COARSE	BLACK	13.83%
2	0.99	0.77	7	COARSE	RED	16.6%
3	1.04	0.93	7	COARSE	BROWN	12.09%



The background of the slide features a serene landscape with a calm body of water reflecting the surrounding environment. In the distance, misty mountains are visible under a soft, hazy sky. The overall color palette is dominated by light blues and greys, creating a clean and professional aesthetic. A solid teal vertical bar is positioned on the left side of the image.

# **WATER ANALYSIS**





**DATE: 19/08/2017      TIME: 8:30 A.M**

**LOCATION: CHINNAPANAHALLI LAKE, MARTHHALLI**

**Weather: cloudy**

<b>Biological parameter</b>	<b>Blue green algae</b>
<b>Large aquatic plant present</b>	<b>Typha, Pistia, Stratiotes, Aligator weed</b>
<b>Percentage of hydrogen ion concentration</b>	<b>7.8</b>
<b>Temperature</b>	<b>24 ° C</b>
<b>conductivity</b>	<b>940 Micro-siemens</b>
<b>Dissolved oxygen</b>	<b>9.48mg/L</b>
<b>Calcium hardness</b>	<b>560.0mg/L</b>



# **Future plans:**

- **Textile study- visit to sericulture department and survey of textile**
- **Water sample test**
- **Soil sample test**
- **Food mile**
- **Waste management study**
- **Green sunday**

