



MES ASMABI COLLEGE, P. VEMBALLUR  
RESEARCH AND PG DEPARTMENT OF BOTANY,  
CEtC OF WESTERN GHATS HORNBILL FOUNDATION  
CERTIFICATE COURSE IN GEOINFORMATICS AND MAPPING FOR  
NATURAL RESOURCE MANAGEMENT  
2023 -2024

Details of the Programme

Department	: Research and PG Department of Botany
Collaborating Cell	: CEtC of Western Ghats Hornbill Foundation
Name of the Course	: Geoinformatics and Mapping for Natural Resource Management
Course Code	: ASCEP 16
Coordinator	: Dr. Amitha Bachan K.H 9497627870, <a href="mailto:amithabmes@gmail.com">amithabmes@gmail.com</a>
Joint Coordinator	: Dr. Girija T.P
Head of the Department	: Dr. Girija T.P
Maximum No of Students	: 16
Duration of the Course	: 31 hrs
Level	: UG/PG
Teaching Methodology	: Direct method, Group discussion
Teaching aids	: Ppt, Videos

Certificate course in Geoinformatics and Mapping for Natural Resource Management  
 Conducted by Research Department of Botany, MES Asmabi College and  
 CEtC of Western Ghats Hornbill Foundation  
 2023 -2024

SI No	Name	Course	Signature
1	Fitha.T.M	III BSc Botany	<i>Fitha</i>
2	Fasna.K.M	III BSc Botany	<i>Fasna</i>
3	Mubeena.P.N	III BSc Botany	<i>Mubeena</i>
4	Irfana Parvin.C.A	III BSc Botany	<i>Irfana</i>
5	Karthika.K.B	III BSc Botany	<i>Karthika</i>
6	Hima.E.P	II MSc Botany	<i>Hima</i>
7	Malavika.M.Nair	II MSc Botany	<i>Malavika</i>
8	Athulya.O.M	II MSc Botany	<i>Athulya</i>
9	Sruthi.K	II MSc Botany	<i>Sruthi</i>
10	Swathi.R.K	II MSc Botany	<i>Swathi</i>
11	Akshay.K.P	I MSc Botany	<i>Akshay</i>
12	Husna Fathima.C.P	I MSc Botany	<i>Husna</i>
13	Safna.K.T	I MSc Botany	<i>Safna</i>
14	Shahana.K.K	I MSc Botany	<i>Shahana</i>
15	Sharmila Sheri.K	I MSc Botany	<i>Sharmila</i>
16	Thahseem Nujum.T.S	I MSc Botany	<i>Thahseem</i>

*[Handwritten signature]*



*[Handwritten signature]*  
 Head of Department  
 Research & PG Dept. of Botany  
 MES Asmabi College  
 P. Vemballur, Thrissur Dt.  
 Kerala - 680 671

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 PRINCIPAL  
 M.E.S. ASMABI COLLEGE,  
 P.O.P. VEMBALLUR,  
 KODUNGALLUR - 680 671

Research & PG Department of Botany  
M.E.S Asmabi college, P. Vemballur  
Thrissur, Kerala- 680671



# CERTIFICATE

*Certificate of  
completion*

This is to certify that Mr/Ms **FITHA. T. M.** has completed the certificate course....  
**.....GEOINFORMATICS AND MAPPING FOR NATURAL RESOURCE MANAGEMENT....**of 31 hrs duration  
conducted by Research & PG Department of Botany, CEtC centre of Hornbill Foundation M.E.S  
Asmabi College, P.Vemballur, Thrissur, Kerala-680671 during the academic year 2023-24.

He/She has secured ...**A..** Grade.

P.Vemballur



Dr. Girija T.P.  
H o D



Dr. Amitha Bachan  
Coordinator



Dr. A. Biju  
Principal

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**CURRICULUM AND EVALUATION PROCEDURE**

Department	: Research and PG Department of Botany
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## **CURRICULAM**

### **Objectives:**

1. To carry out inter and multidisciplinary research and studies on issues related to Geo-information.
2. Provide efficient means for data distribution and handling.
3. Complex analysis/queries involving geographical reference data to generate new information.

### **Module I**

#### **Introduction to GIS & Applications**

- What is GIS
- GIS Concepts
- Spatial Data Concepts
- GIS Applications in the real -world scenarios

(6 Hours)

### **Module II**

#### **Overview of open source and proprietary GIS software**

- Introduction to GIS software
- Open Source vs Proprietary GIS software
- Overview of GIS Products (ESRI, QGIS)
- Capabilities of GIS tools in the leading software's

(7 Hours)

### **Module III**

#### **Utilising Spatial technology for Natural resources**

- Spatial analytical capabilities used by ecologists and conservation biologists.
- Introduction to natural resource mapping, monitoring and modelling
- Latest GIS technology trends in Conservation GIS

(9 Hours)

## Module IV

### Spatial Data Model Creation

- GPS survey
- Georeferencing of Maps
- Digitisation and Creation of attribute table of Species samples
- Visual interpretation of Satellite imagery

(9 Hours)

### SOFTWARE USED

Quantum GIS (QGIS 3.22)

### EVALUATION PROCEDURE

- Model examinations (Theory as well as practicals)
- Weekly open source software based practical assessment

  
Dr. Amitha Bechan. K. H.  
Assistant Professor & Research Guide  
Research & P.G. Department of Botany  
MES Asmabi College, P. Vemballur  
Kodungallur, Thrissur 680 671, Kerala-India



MES Asmabi College  
KODUNGALLUR  
P. VEMBALLUR

  
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RESEARCH AND PG DEPARTMENT OF BOTANY,  
CETC OF WESTERN GHATS HORNBILL FOUNDATION  
ASCEP 16 - GEOINFORMATICS AND MAPPING FOR  
NATURAL RESOURCE MANAGEMENT  
2023 -2024

Time :1 Hrs.

Total Marks: 20

Section A  
(Each question carries 2 Marks)

1. What is GIS
2. Give an account on Spatial Data Concepts
3. Name any two GIS tools
4. Write any 4 applications of GIS
5. What are the major criteria used in natural resource mapping

Section B  
(Each question carries 5 Marks)

6. What are the latest GIS technologies
7. Write an essay on GIS software.



  
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ASCEP 16  
Geoinformatics and Mapping for Natural Resource Management  
2023 -2024  
Result

Sl No	Name	Course	Marks (20)
1	Fitha.T.M	III BSc Botany	18
2	Fasna.K.M	III BSc Botany	18
3	Mubeena.P.N	III BSc Botany	19
4	Irfana Parvin.C.A	III BSc Botany	18
5	Karthika.K.B	III BSc Botany	17
6	Hima.E.P	II MSc Botany	20
7	Malavika.M.Nair	II MSc Botany	18
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Dr. Amitha Bachan. K. H.  
Assistant Professor & Research Guide  
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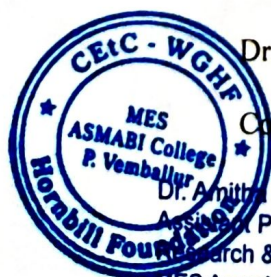
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**REPORT AND COURSE OUTCOME**


Department	: Research and PG Department of Botany
Collaborating Cell	: CEtC of Western Ghats Hornbill Foundation
Coordinator	: Dr. Amitha Bachan K.H
Joint Coordinator	: Dr. Girija T.P
No of Students enrolled	: 16
No of Students Completed	: 16
Year	: 2023 -2024
Date of evaluation	: 20-02-2024
No of Students qualified	: 16
No of Certificates issued	: 16

**COURSE OUTCOME**

- It provides awareness to the participants on Geospatial technologies and equip them with the necessary know -now for handling and managing GIS related tasks in biodiversity conservation.
- It will bring a pool of spatial knowledge to the student community
- It can help in conducting GIS projects.



  
Dr. Amitha Bachan.K.H  
Coordinator  
Dr. Amitha Bachan. K. H.  
Assistant Professor & Research Guide  
Research & P.G Department of Botany  
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Dr. Girija.T.P  
HoD

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