Shri. Shahu Shikshan Prasarak Seva Mandal's

Shri. Vijaysinha Yadav College, Peth Vadgaon,

Department of Geography &

AJ Institute of Geoinformatics Science, Kolhapur

ORGANIZED

"Advance Diploma in Geoinformatics"

Feb., 2024 to Aug. 2025

Diploma (Course) Details

1. Diploma / Short Term Course	:	Advance Diploma in Geoinformatics
2. Duration	:	06 Months
3. Number of Student Enrolled	:	09
4. Number of Student Completing Course	:	08
5. Course Notice	:	Yes
6. Course aims and objectives	:	Yes
7. Course BoS Letter/ Syllabus / Teacher List	:	Yes
8. Course Time-table	:	Yes
9. Attendance	:	Yes
10. Sample Question Paper / Course Project	:	Yes
11. Result	:	Students completed diploma have been placed in various companies
12. Demo Certificate	:	Yes
13. Photo	:	Attached in Report
14. Course Report	:	Yes
15. Collaboration if any	:	Yes with AJ Institute of Geoinformatics Science, Kolhapur

Shri. Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur
GEOGRAPHY

Padhay

Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

SHRI VIJAYSINHA YADAV COLLEGE, PETH VADGAON (KOLHAPUR)

Department of Geography

And

AJ Institute of Geoinformatics Sciences, Kolhapur

'Six Months Advance Diploma in Geoinformatics'

February, 2024 to August, 2025

Name of the Activity	: Six Months Advance Diploma in Geoinformatics
Date and Time of activity conducted	: February, 2024 to August, 2025
Nature of Activity	: Offline
Target Group	: B. A. Part- III Students and Teachers
Number of Participants	: 08
Name of Organizer	: Department of Geography
Name of Faculty	:

1) Prof. (Dr.) B. S. Jadhav – Chairman, BoS in Geography and Geology, Shivaji University, Kolhapur.
2) Prof. (Dr.) M. A. Patil – Member, BoS in Geography and Geology, Shivaji University, Kolhapur.
3) Dr. Amol Jarag – Director of AJ Institute of Geoinformatics Sciences, Kolhapur.
4) Dr. Dinesh J. Bhandare – Dept. of Geography, Shri Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur.
5) Dr. Rushikesh Patil - AJ Institute of Geoinformatics Sciences, Kolhapur.
6) Dr. Sagar Chougule – AJ Institute of Geoinformatics Sciences, Kolhapur.
7) Mr. Harshal Jitkar - AJ Institute of Geoinformatics Sciences, Kolhapur.
8) Dr. S. Varur - AJ Institute of Geoinformatics Sciences, Kolhapur.
9) Miss. Vaibhavi Desai - AJ Institute of Geoinformatics Sciences, Kolhapur.

Short Description of Conducted Activity:

The department of Geography **of** Shri Vijaysinha Yadav College and AJ Institute of Geoinformatics jointly organized Six Months Advance Diploma in Geoinformatics. The side diploma inaugurated on 3rd February, 2024 at 11.00 am in AJ Institute hall. The president of this programme was Prof. (Dr.) B. S. Jadhav, Chairman, BoS in Geography and Geology, Shivaji University, Kolhapur and Head, Department of Geography, Shri Vijaysinha Yadav College, Peth

Shri. Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur
GEOGRAPHY

Vadgaon. He presented his views on modern technology in Geography and current opportunities. Dr. Amol Jarag delivered his speech on role of AJ Institute in technical human resource development. The participant Miss. Sanika Bhandari delivered her views as a participant.

Total 08 students of B. A. Part-III have been enrolled in this diploma and sucussesfuly completed. After the course 08 students have placed in various companies, but 01 student Miss. Yogini Bhate is not able to join any company due to her individual problem.

PO's and PSO's covered:

PO's:

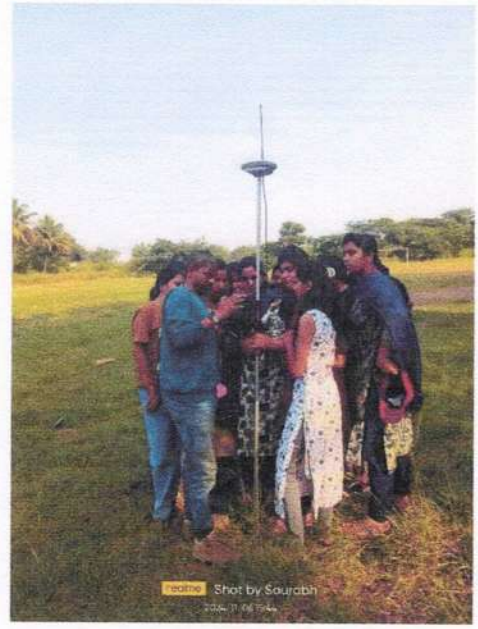
1) To focus on the modern tools, techniques and opportunities.
2) To aware the students about Geoinformatecs technology.
3) To aware the students about self responsibility and precautions when using tools and techniques.

PSO's:

1) The students were familiar with modern tools, techniques and opportunities.
2) The students were acquired detail knowledge of Geoinformatics.
3) The students were aware about self responsibility and precautions when using tools and techniques.

Photo Plate

Shri. Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur
GEOGRAPHY



Date of Report: 10th Sep., 2025

Organizer: Department of Geography

Shri. Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur
GEOGRAPHY

(Dr. B. S. Jadhav)
Coordinator

Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

(Prin. Dr. Ashok Chavan)
Principal

I/C Principal
Shri Vijaysinha Yadav College,
Peth Vadgaon, Tal. Hatkanangale,
Dist. Kolhapur.

Shri. Shahu Shikshan Prasarak Seva Mandal's

Shri. Vijaysinha Yadav College, Peth Vadgaon,

Department of Geography &

AJ Institute of Geoinformatics Science, Kolhapur

ORGANIZED

"Advance Diploma of Geoinformatics"

Feb., 2024 to Aug. 2025

Composition of

Board of Studies in Advance Diploma of Geoinformatics

Member of BoS

1) A/C Principal, Dr. Ashok S. Chavan - Shri Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur.
2) Prof. (Dr.) B. S. Jadhav – Chairman, BoS in Geography and Geology, Shivaji University, Kolhapur.
3) Prof. (Dr.) M. A. Patil – Member, BoS in Geography and Geology, Shivaji University, Kolhapur.
4) Dr. Amol Jarag – Director of AJ Institute of Geoinformatics Sciences, Kolhapur.
5) Dr. Dinesh J. Bhandare – Dept. of Geography, Shri Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur.
6) Dr. K. R. Jadhav – Head, Dept. of Geography, Krantisinha Nana Patil College, Walwa, Dist. Sangli.
7) Dr. Sagar Mali – Head, Dept. of Geography, Vidhyaprabodhini College of Commerce, Education, Computer and Management Vidhyanagar, Parorim, Goa.
8) Dr. Rakesh Patil - AJ Institute of Geoinformatics Sciences, Kolhapur.
9) Mr. Sagar Chougule - AJ Institute of Geoinformatics Sciences, Kolhapur.
10) Miss. Vaibhavi Desai - AJ Institute of Geoinformatics Sciences, Kolhapur.

Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

I/C Principal
Shri Vijaysinha Yadav College,
Peth Vadgaon, Tal. Hatkanangale
Dist. Kolhapur.

Shri. Shahu Shikshan Prasarak Seva Mandal's
Shri. Vijaysinha Yadav College, Peth Vadgaon,
Department of Geography & AJ Institute of Geoinformatics Science, Kolhapur
BoS in

"Advance Diploma of Geoinformatics"

2024-25

Notice

All the following members of BoS in Advance Diploma of Geoinformatics here by informed that our meeting will be organized on Sunday, 7th January, 2024 at 10.00 am in Department of Geography, Shri Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur.

1) A/C Principal, Dr. Ashok S. Chavan - Shri Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur.
2) Prof. (Dr.) B. S. Jadhav – Chairman, BoS in Geography and Geology, Shivaji University, Kolhapur.
3) Prof. (Dr.) M. A. Patil – Member, BoS in Geography and Geology, Shivaji University, Kolhapur.
4) Dr. Amol Jarag – Director of AJ Institute of Geoinformatics Sciences, Kolhapur.
5) Dr. Dinesh J. Bhandare – Dept. of Geography, Shri Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur.
6) Dr. K. R. Jadhav – Head, Dept. of Geography, Krantisinha Nana Patil College, Walwa, Dist. Sangli.
7) Dr. Sagar Mali – Head, Dept. of Geography, Vidhyaprabodhini College of Commerce, Education, Computer and Management Vidhyanagar, Parorim, Goa.
8) Dr. Rakesh Patil - AJ Institute of Geoinformatics Sciences, Kolhapur.
9) Mr. Sagar Chougule - AJ Institute of Geoinformatics Sciences, Kolhapur.
10) Miss. Vaibhavi Desai - AJ Institute of Geoinformatics Sciences, Kolhapur.

Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

I/C Principal
Shri Vijaysinha Yadav College,
Peth Vadgaon, Tal. Hatkanangale,
Dist. Kolhapur.

Agenda of Meeting:

1) Formation of syllabus for six months advance diploma in geoinformatics.
2) The matter of determining the fee for this course is under consideration.
3) To decide the coordinator for six months advance diploma in geoinformatics.
4) Resolution with the permission of the chairman

Shri. Shahu Shikshan Prasarak Seva Mandal's
Shri. Vijaysinha Yadav College, Peth Vadgaon,
Department of Geography & AJ Institute of Geoinformatics Science, Kolhapur
BoS in
"Advance Diploma of Geoinformatics"
2024-25
Meeting Proceeding

Following members of BoS in Advance Diploma of Geoinformatics remain present in meeting which is held on Sunday, 7th January, 2024 at 10.00 am in Shri Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur.

Sr. No.	Name of BoS Member	Signature
1	A/C Principal, Dr. Ashok S. Chavan, Chairman	
2	Prof. (Dr.) B. S. Jadhav	
3	Prof. (Dr.) M. A. Pati	
4	Dr. Amol Jarag	
5	Dr. Dinesh J. Bhandare	
6	Dr. K. R. Jadhav	
7	Dr. Sagar Mali	
8	Dr. Rakesh Patil	
9	Mr. Sagar Chougule	
10	Miss. Vaibhavi Desai	

Resolution 1: Wel-come of all the dignitaries

As a head, Department of Geography, Prof. (Dr.) B. S. Jadhav has wel-come of all the dignitaries.

Resolution 2: Formation of syllabus for six months advance diploma in geoinformatics.

Deep discussion on Geoinformatics the all memebers of BoS in advance diploma in Geoinformatics (Six Months) have been prepared enclosed syllabus and accepted with any minor change.

Resolution 3: The matter of determining the fee for this course is under consideration.

i) Regarding the fee for the six-month Advanced Diploma in Geoinformatics, the amount will be Rs. 12,000/- (Twelve thousand only) per student.

ii) The AJ Institute of Geoinformatics Sciences, Kolhapur is solely responsible for the collection and utilization of fees from enrolled students. The coordinator, principal,

and Shri Vijaysinha Yadav College, Peth Vadgaon bear no responsibility in this matter.

iii) With respect to fees, Shri Vijaysinha Yadav College, Peth Vadgaon serves only as a facilitator for student enrolment.

Resolution 3: To decide the coordinator for six months advance diploma in geoinformatics.

The Coordinator of six months advance diploma in geoinformatics is Prof. (Dr.) B. S. Jadhav, Head, Dept. of Geography, Shri Vijaysinha Yadav College, Peth Vadgaon.

Resolution with the permission of the chairman:

1) About the Faculty

The responsibility for faculty selection and appointments for the said course has been assigned to the Coordinator and Dr. Amol Jarag of the AJ Institute of Geoinformatics Sciences, Kolhapur.

2) Leave the College campus before college hours.

The faculty members of the Geography Department—Prof. (Dr.) B. S. Jadhav, Prof. (Dr.) M. A. Patil, and Dr. D. J. Bhandare have been granted permission to leave the college campus before regular college hours exclusively for duties related to the six-month Advanced Diploma in Geoinformatics, as per the schedule of the diploma programme.

Shri. Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur
GEOGRAPHY

I/C Principal
Shri Vijaysinha Yadav College,
Peth Vadgaon, Tal. Hatkanangale
Dist. Kolhapur.

Theory I: Fundamentals of Remote Sensing

Unit 1: Introduction to Remote Sensing and Photogrammetry

Definition and Concept of Remote Sensing, History and Evolution of Remote Sensing, Types of Remote Sensing Systems, Introduction to Photogrammetry: Principles and Applications, Platforms: Satellites, Aircraft, UAVs, Types of Sensors: Optical, Infrared, Microwave, Lidar, Characteristics of Different Sensors, Selection Criteria for Remote Sensing Platforms and Sensors.

Unit 2: Photogrammetric Principles

Basic Concepts of Photogrammetry, Stereoscopic Vision and Parallax, Types of Aerial Imagery (Nadir, Oblique), Photogrammetric Workflow, Image Acquisition, Pre-processing, and Photogrammetric Processing, Image Acquisition Process, Radiometric and Geometric Correction, Image Enhancement Techniques, Introduction to Photogrammetric Processing Software.

Unit 3: Image Interpretation and Analysis, Advanced Photogrammetry

Visual Interpretation of Remote Sensing Images, Digital Image Processing Techniques, Image Classification and Clustering, Advanced Photogrammetric Techniques (Digital Elevation Models, 3D Reconstruction).

Unit 4: Application of Remote Sensing

Application in Urban Planning, Disaster Management, Health, Land Use/ Land Cover Mapping, Agriculture, forestry and Environment etc.

Reference

1. Ramasamy S. M., Remote Sensing in Water Resources, Rawat Publications, 2005.
2. Joseph George, Fundamentals of Remote Sensing, Universities Press (India) Private Limited, 2004.
3. Lillesand T. M., Kiefer R. W, Remote Sensing and Image interpretation, John Wiley & Sons Inc, 2000.
4. Campbell James, Introduction to Remote Sensing, Taylor & Prancis London.
5. Agarwal C.S, Textbook on Remote Sensing, Wheeler A. H., 2000
6. Agarwal C.S., Garg, P. K., Remote Sensing, A. H. Wheeler and Co. Ltd., New Delhi, 2000.
7. Jensen, John R., Remote Sensing of the Environment: An Earth Resource Perspective, 2009, Prentice Hall

Theory II: FUNDAMENTALS OF GEOINFORMATICS

Unit 1: Introduction to GIS

Definition of GIS, Key Components of GIS: Hardware, Software, Data, People, Procedures, Spatial Data Types: Vector vs. Raster, Basics of Coordinate Systems and Map Projections, Overview of Popular GIS Software (e.g., ArcGIS, QGIS).

Unit 2: Spatial Analysis in GIS

Attribute and Spatial Queries, Overlay Analysis, Buffering and Proximity Analysis, Spatial Join and Intersect Operations, Introduction to Geoprocessing Tools, Creating Geoprocessing Models, Basics of Spatial Modeling, Applications of Spatial Modeling in GIS.

Unit 3: Data Management in GIS

Basics of Database Management Systems (DBMS), Database Design for GIS, Data Editing and Updating in GIS, Versioning and Data Maintenance.

Unit 4: Advanced Topics in GIS

Overview of Web GIS, Building Web Maps and Applications, Introduction to Mobile GIS, Field Data Collection with Mobile Devices, Applications of GIS in Decision Making, Case Studies of GIS Applications, Emerging Trends in GIS Technology, Ethical and Legal Considerations in GIS.

Reference

Suggested Readings

1. Burrough P. A., R. A MacDonneli, Principles of Geographical Information Systems, Oxford University Press, 2000.

2. Lo. C. P., A.W. Yeung, Concepts and Techniques of Geographical Information Systems, Prentice- Hall of India Pr. Ltd., 2002.

3. Heywood I., S. Cornelius, S. Carrer, An Introduction to Geographical Information Systems, Pearson Education Pvt. Ltd, 2002.

4. Kang-stung-Chang, Introduction to Geographical Information System, Tata McGraw Hill Pub. Comp, 2002.

5. Demers M.N, Fundamentals of Geographic Information Systems, John Wiley & Sons, 2000.

6. Roy P.S., Dwivedi R.S., Vijayan D., 2010 Remote Sensing Applications National Remote Sensing Centre, India

7. Reddy, M.A., 2008. Textbook of remote sensing and geographical information systems. BS publications.

8. El-Rabbany, A., 2002. Introduction to GPS: the global positioning system. Artech House.

Theory III: FUNDAMENTALS OF SURVEYING & GPS

Unit 1: Basics of Cartography

Definition and Purpose of Cartography, Key Elements of a Map: Scale, Legend, Symbols, Types of Maps: Topographic, Thematic, Choropleth, Map Design Principles, Understanding Map Projections, Common Map Projections: Mercator, Robinson, Conic, etc., Coordinate Systems and Grids, Dealing with Distortion in Maps.

Unit 2: Principles of Surveying

Definition and Scope of Surveying, Types of Surveys: Plane Surveying, Geodetic Surveying, Basic Surveying Instruments: Theodolite, Total Station, etc., Measurement Units in Surveying, , Basics of Plane Table Survey, Chain Surveying and Compass Surveying, Levelling and Contouring, Traversing and Traverse Adjustment.

Unit 3: Global Positioning System (GPS)

Principles of GPS Technology, Components of GPS: Satellites, Receivers, Types of GPS: Autonomous, Differential, Real-Time Kinematic, Applications of GPS in Surveying and Mapping.

Unit 4: Advanced Topics in Cartography, Surveying & GPS

Advanced Map Design Techniques, Multimedia Mapping and Interactive Cartography, Emerging Technologies in Cartography, GIS and GPS Integration, 3D Mapping and LiDAR Technology, Remote Sensing and GPS Applications, Case Studies and Real-world Applications.

Reference

1. Robinson, A. H., Morrison, J. L., Muehrcke, P. C., Kimerling, A. J., & Guptill, S. C. (1995). Elements of Cartography. John Wiley & Sons.
2. Dent, B. D. (2009). Cartography: Thematic Map Design. McGraw-Hill.
3. Wolf, P. R., & Ghilani, C. D. (2011). Elementary Surveying: An Introduction to Geomatics. Pearson.
4. Moffitt, F. H., & Bossler, J. D. (2017). Elementary Surveying: An Introduction to Geomatics. Wiley.
5. Davis, R., Mikhail, E. M., & Muehrcke, P. C. (2020). Surveying: Theory and Practice. McGraw-Hill Education.
6. Leick, A. (2015). GPS Satellite Surveying. John Wiley & Sons.
7. Hofmann-Wellenhof, B., Lichtenegger, H., & Collins, J. (2007). Global Positioning System: Theory and Practice. Springer.

Practical I: Remote Sensing and Digital Image Processing

Practical Session 1: Introduction to GIS and Remote Sensing Software

- Familiarization with ERDAS software
- Basics of image navigation and display
- Opening and exploring satellite images

Practical Session 2: Image Interpretation Basics

- Visual interpretation of basic land cover features
- Identifying different land cover types
- Understanding spectral signatures

Practical Session 3: Image Enhancement

- Contrast stretching and histogram equalization
- Image sharpening and smoothing techniques
- Practical applications on satellite imagery

Practical Session 4: Image Classification

- Introduction to supervised and unsupervised classification
- Hands-on classification exercises using satellite imagery
- Accuracy assessment of classification results

Practical Session 5: Change Detection

- Techniques for detecting changes in satellite imagery
- Comparing multi-temporal images for change analysis
- Practical applications on environmental changes

Practical Session 6: Image Fusion

- Understanding image fusion techniques
- Applying fusion methods to combine different sensor data
- Evaluation of fused images

Practical II: Geographic Information Systems (GIS)

Practical Session 1: Introduction to GIS Software

- Familiarization with GIS software (e.g., QGIS, ArcGIS)
- Basics of GIS interface and functionality
- Loading and exploring spatial data layers

Practical Session 2: Basic GIS Operations

- Performing basic spatial operations (e.g., buffer, overlay)
- Attribute data query and manipulation
- Creating simple maps

Practical Session 3: Spatial Analysis Techniques

- Conducting spatial analysis (e.g., spatial joins, overlay analysis)
- Buffering and proximity analysis
- Creating thematic maps for analysis

Practical Session 4: Geoprocessing and Spatial Modeling

- Using geoprocessing tools for data manipulation
- Introduction to spatial modeling

- Building a simple spatial model

Practical Session 5: GIS Database Design and Management

- Designing a GIS database
- Importing and exporting data
- Data editing and updating in GIS

Practical Session 6: Versioning and Data Maintenance

- Understanding versioning in GIS
- Performing data maintenance tasks
- Handling data conflicts and resolutions

Practical Session 7: Web GIS Basics

- Introduction to web mapping and web GIS platforms
- Creating web maps and applications, Overview of mobile GIS applications

Practical III: Cartography, Surveying, and GPS

Practical Session 1: Basics of Map Design

- Exploring map elements (scale, legend, title)
- Creating simple thematic maps
- Introduction to map design principles

Practical Session 2: Surveying Instruments

- Handling and understanding basic surveying instruments
- Introduction to theodolite and total station
- Measurement exercises in the field

Practical Session 3: Levelling and Contouring

- Performing levelling exercises
- Creating contour maps from field data
- Practical applications in topographic mapping

Practical Session 4: Traversing and Traverse Adjustment

- Understanding traversing in surveying
- Hands-on exercises in traverse adjustment
- Practical applications in boundary surveying

Practical Session 6: GPS Basics

- Operation of GPS devices
- Collecting GPS data in the field
- Data recording and downloading

Practical Session 7: Differential GPS (DGPS)

- Understanding DGPS technology
- Real-time kinematic (RTK) GPS applications
- Accuracy assessment of GPS data

Practical Session 8: GIS and GPS Integration

- Integrating GPS data into GIS software
- Mapping and analyzing GPS-collected data
- Practical applications in environmental monitoring

Practical IV: Geospatial Programming

Practical Session 1: Setting Up Development Environment

- Installing code editors (e.g., VS Code, Atom)
- Setting up a version control system (e.g., Git)

Practical Session 2: Basics of HTML and CSS

- Introduction to HTML structure and tags
- Styling web pages with CSS
- Building a simple static web page

Practical Session 3: Python Basics for GIS

- Introduction to Python programming language
- Python syntax, variables, and data types
- Writing and executing Python scripts

Practical Session 4: GIS Data Manipulation with Python

- Using geospatial libraries (e.g., GeoPandas, Fiona) in Python
- Loading and manipulating geospatial data
- Creating basic maps with Python

Practical Session 5: Basics of SQL

- Introduction to SQL and relational databases
- Creating tables, queries, and data manipulation with SQL
- Spatial SQL for geospatial data

Practical Session 6: Integrating Python and SQL for Geospatial Analysis

- Connecting Python to SQL databases
- Executing spatial queries in Python
- Hands-on exercises with real-world datasets

Practical Session 7: Advanced HTML and CSS for Geospatial Web

- Responsive web design principles
- Styling maps and geospatial content on the web
- Incorporating interactive elements

- **Practical Session 8: Building a Geospatial Web Application**
  - Combining HTML, CSS, and JavaScript for web mapping
  - Implementing basic web mapping functionalities
  - Testing and deploying a simple web application

Practical Session 9: R Basics for Geospatial Analysis

- Introduction to R programming language
- R syntax, variables, and data structures
- Basic data visualization in R

Practical Session 10: Geospatial Analysis with R

- Using R packages for geospatial analysis (e.g., sf, leaflet)
- Analyzing and visualizing geospatial data in R
- Case studies and practical exercises

Reference

1. Adriaans, P., and D. Zantinge. 1996. Data Mining. New York: Addison-Wesley.
2. Bernhardensen, Tor. 1999. Geographic Information Systems: An Introduction. Toronto: John Wiley & Sons, Inc.

3. Bishop, Michael P. and Shroder, John F. (Eds.) 2004. Geographic Information Science and Mountain Geomorphology. Chichester, U.K.: Praxis Publishing (Springer).11
4. Bracken, Ian and Webster, Christopher. 1990. Information Technology in Geography and Planning (Including Principles of GIS). London & New York: Routledge
5. S.K. Duggal, "Surveying, Vol. I, II and III", 2009, Tata Mcgraw Hill, New Delhi.
6. B. Bhatta, "Remote Sensing and GIS", Oxford University Press, New Delhi.
7. Dr. A.M. Chandra, "Remote Sensing and GIS", Narosa Publishers, New Delhi.
8. Sateesh Gopi, R. Sathikumar, and N. Madhu, "Advanced Surveying", Pearson Education India, 2007. 9. "GPS Satellite Surveying", Alfred Leick 3rd Edition, John Wiley and Sons 2004.
9. Global Navigation Satellite Systems by G. S. Rao 2010 Tata McGraw Hill Education Pvt Ltd.
10. "GPS Theory, Algorithms and Applications Guocheng Xu," Springer-Verlag, 2003.
11. Unmanned Aerial Remote Sensing: UAS for Environmental Applications 1st Edition, David R. Green (Editor) 2020.
12. Sateesh Gopi, R. Sathikumar, and N. Madhu, "Advanced Surveying", Pearson Education India, 2007.
13. 6. Global Navigation Satellite Systems by G. S. Rao 2010 Tata McGraw Hill Education Pvt Ltd.

Geospatial Programming Reference

1. **HTML and CSS:**
   - "HTML and CSS: Design and Build Websites" by Jon Duckett.
   - MDN Web Docs (https://developer.mozilla.org/en-US/docs/Web)
2. **Python for Geospatial Applications:**
   - "Python Crash Course" by Eric Matthes.
   - "Automate the Boring Stuff with Python" by Al Sweigart.
   - GeoPandas documentation (https://geopandas.org/).
3. **SQL and Spatial Databases:**
   - "Learning SQL" by Alan Beaulieu.
   - "PostGIS in Action" by Regina O. Obe and Leo S. Hsu.
   - SQLite documentation (https://www.sqlite.org/).
4. **Geospatial Web Development:**
   - "Leaflet.js Essentials" by Paul Crickard III.
   - "D3.js in Action" by Elijah Meeks.
   - Leaflet documentation (https://leafletjs.com/).
5. **R for Geospatial Analysis:**
   - "R for Data Science" by Hadley Wickham and Garrett Grolemund.
   - "Applied Spatial Data Analysis with R" by Roger S. Bivand, Edzer Pebesma, Virgilio Gómez-Rubio.
   - sf package documentation (https://r-spatial.github.io/sf/).

Shri. Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur
GEOGRAPHY

Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

I/C Principal
Shri Vijaysinha Yadav College,
Peth Vadgaon, Tal. Hatkananga-
Dist. Kolhapur.

Shri Shahu Shikshan Prasarak Seva Mandal's

SHRI VIJAYSINHA YADAV COLLEGE, PETH VADGAON, DIST. KOLHAPUR

DEPARTMENT OF GEOGRAPHY

Collaboration with

AJ INSTITUTE OF GEOINFORMATICS SCIENCES, KOLHAPUR

ORGANIZED

Six Months Advanced Diploma in Geoinformatics

Course Coordinator

Dr. Balasaheb Sauba Jadhav

Professor and Head, Dept. of Geography

Shri Vijaysinha Yadav College, Peth Vadgaon

2023-24

Shri Shahu Shikshan Prasarak Seva Mandal's

Shri Vijaysinha Yadav College, Peth Vadgaon

Department of Geography

Collaboration with

AJ Institute of Geoinformatics Science, Kolhapur

Organized

Sis Months Advanced Diploma in Geoinformatics

- **Course Coordinator: -** Dr. Balasaheb Sauba Jadhav
- **Faculty: -**
  i. Dr. Balasaheb S. Jadhav, Dept. of Geography, Shri Vijaysinha Yadav College, Peth Vadgaon.
  ii. Dr. Mahmedhusen A. Patil, Dept. of Geography, Shri Vijaysinha Yadav College, Peth Vadgaon.
  iii. Dr. Dinesh J. Bhandare, Dept. of Geography, Shri Vijaysinha Yadav College, Peth Vadgaon.
  iv. Dr. Amol P. Jarag, Director of AJ Institute of Geoinformatics Sciences.
  v. Dr. Rushikesh Patil, Faculty, AJ Institute of Geoinformatics Sciences.
  vi. Mr. Sagar Chougule, Faculty, AJ Institute of Geoinformatics Sciences.
  vii. Mr. Harshal Jitkar, Faculty, AJ Institute of Geoinformatics Sciences.
  viii. Dr. S. Varur, Faculty, AJ Institute of Geoinformatics Sciences.
  ix. Miss. Vaibhavi Desai, Faculty, AJ Institute of Geoinformatics Sciences.
- **General information of the Diploma**

1. Objectives -

i. To study the fundamentals of Remote Sensing.
ii. To study the fundamental of Geoinformatics, Surveying and GPS.
iii. To acquire skills of Remote Sensing and DIP.
iv. To develop the skills of GIS, DBMS, Cartography, Surveying and GPS.
v. To study and applications of Geospatial Programming.

2. Course Outcomes:

i. The students were acquired the knowledge of the fundamentals of Remote Sensing.
ii. The students were deeply aware about the fundamental of Geoinformatics, Surveying and GPS.

iii. The students were acquired the skills of Remote Sensing and DIP.

iv. The students were get hold of the skills of GIS, DBMS, Cartography, Surveying and GPS.

v. The students were practically known applications of Geospatial Programming.

3. Duration: - 06 Months

4. Target Group: - B. A. Part-II and III (Geography).

5. Intake capacity: - 10

6. Course Structure:

SIX MONTHS DIPLOMA IN ADVANCED GEOINFORMATICS

Introduction

Geoinformatics serves as a pivotal technology for aiding decision-making processes in resource and facility management. Its ability to handle spatial data makes Geoinformatics proficient in providing outputs that facilitate the visualization of choices, thereby promoting swift and accurate decision-making. As an extended branch of information technology, Geoinformatics integrates various tools such as remote sensing, digital image processing, GPS technology, and programming to construct geospatial databases capable of delivering pertinent answers upon query. The field of Geoinformatics encompasses geospatial analysis and modeling, the development of geospatial databases, and the design of information systems. Utilizing geocomputation and geovisualization, Geoinformatics excels in analyzing geoinformation, with applications spanning diverse fields.

The global recognition of the significance of the spatial dimension in assessing, monitoring, and modeling issues related to sustainable natural resource management underscores the critical role of Geoinformatics. This technology becomes indispensable for decision-makers in various disciplines, industries, commercial sectors, environmental agencies, local and national governments, research and academia, national survey and mapping organizations, international organizations, emergency services, public health and epidemiology, crime mapping, transportation and infrastructure, information technology industries, tourism, utility companies, market analysis and e-commerce, mineral exploration, and more.

The widespread adoption of spatial data for day-to-day activities by both government and non-governmental agencies underscores the growing importance of Geoinformatics in addressing contemporary challenges. The versatile applications of

Geoinformatics contribute significantly to enhancing efficiency and informed decision-making across a spectrum of sectors.

SCOPE

Embarking on a career in geoinformatics holds the potential for a profoundly positive impact on the world, with diverse applications across numerous disciplines. Lucrative opportunities abound in various sectors, making geoinformatics an attractive field for those seeking highly rewarding careers. The spectrum of career possibilities encompasses land resource management, integrated emergency management, water management, disaster management, risk assessment, transportation, urban planning, environment, hydrology, forestry, agriculture, military, mining, business, health, defense, space research, geology, and various related fields.

India, having entered the space age in 1972 with the establishment of the Department of Space, ranks among the top ten countries globally in this field. Notable institutions like the Space Application Centre in Ahmedabad and the National Remote Sensing Agency in Hyderabad serve as hubs for geoinformatics research. Additionally, every state boasts a Regional Remote Sensing Centre. Postgraduate degree holders in Geoinformatics are eligible for positions such as Jr. Scientist, Scientist, Project Coordinator, Project Scientist, Scientific/Technical Assistant, GIS Programmer, and Research Scholar within these prestigious organizations.

The thriving GIS industry, featuring prominent players like ESRI, Rolta, Intergraph, Wipro, TCS, Infosys, TomTom, Genesys, and others, regularly recruits postgraduates for roles such as Project Manager, Sr. System Executive, System Analyst, GIS Engineer, Image Analyst, and GIS Programmer. Opportunities extend beyond mainstream corporations to allied institutes dedicated to environmental studies, biodiversity conservation, forestry, landscape studies, water management, health, and more, where geoinformatics plays an integral role.

Furthermore, the demand for geoinformatics professionals extends globally, with countries like Malaysia, Australia, Canada, France, Germany, Netherlands, and China actively seeking skilled individuals. The field also offers ample scope for entrepreneurship, with easy access to bank loans opening up limitless possibilities for enterprising individuals.

The vast and varied applications of geoinformatics make it a dynamic and ever-evolving field, providing professionals with a plethora of opportunities for growth and contribution to global advancements.

DURATION OF THE COURSE

The duration of this course is six months. The medium of instructions and examination will be only English.

RULES AND REGULATIONS

1. The teaching and evaluation for these courses will be combined for both disciplines.
2. All hard core courses will be evaluated by the ITT Council/ MSME Examination.
3. Examination for the theory and practical courses will be conducted at the end of each respective course or as continuous assessment as indicated in the syllabus.
4. Each course will have 40% marks for internal assessment and 60% marks for course end examination.
5. The Internal Assessment (IA) and Examination will be conducted by the Institute and the internal assessment will be conducted throughout the semester in the form of tests/tutorials/seminars/oral presentations/assignments/debates, etc. as indicated in the syllabus.
6. Internal assessment for the practical course is through continuous assessment. Each practicals evaluated for fifteen marks. Of this, performance in the class is assessed for five marks and timely journal submission (within a week of the practical being conducted) as per instructions given by the concerned teacher is assessed for ten marks. The aggregate of the practical assessment will be averaged to 40 marks. If practicals are missed by the student, need to be complete by the student themselves before appearing for the final examination.
7. The general courses will be evaluated by the instructor on the basis of continuous assessment as indicated in the syllabus.

Dissertation:

The student will undertake dissertation enduring the course time. The topic for the research must be finalized by the last month of course after thorough literature review in consultation with your allotted guide.

Field Visits:

The field / industrial / academic Institute visits will be organized for demonstration of advance experimental techniques wherever necessary along with the courses. Attendances for these are mandatory and form part of internal assessment as indicated in the syllabus.

Internship:

The student must complete an internship of maximum one month duration in course which will entail extra credits. It is mandatory for students to attend the mid internship assessment. Formats of submission of internship report are attached in the relevant section of this document for reference. Students should submit their reports in these formats only.

IMPORTANT INSTRUCTIONS FOR STUDENTS

- Read carefully the entire Syllabus, making sure that all aspects of the course are clear to you, ie. Structure of the program, details of assignments, internal and external examinations systems, marking systems, grading, attendance requirements as well as rules and regulations.
- Course coordinators are liable to change from those mentioned. Students will be informed about the change if any before the commencement of the semester.
- Familiarize yourself with the library and online resources for maximizing your learning experience. Be a self-motivated learner.
- Faculties are always willing to accommodate interested and exceptional students in their ongoing research. If you are interested in volunteering your time on any of the projects to gain valuable work experience, do get in touch with them.
- Make sure that all assignments are submitted on time. Late submission of assignments may result in loss of a certain percentage of marks or rejection of your assignment.
- Every practical journal must be completed in the stipulated time.

Course Structure of Advance Diploma of Geoinformatics

Paper Code	Paper Type	Title of the Paper Total Marks	Total Marks
DGIS-01	Theory	Fundamentals of Remote Sensing	100
DGIS-02	Theory	Fundamental of Geoinformatics	100
DGIS-03	Theory	Fundamental of Surveying & GPS	100
DGIS-04	Practical	Remote Sensing & DIP	100
DGIS-05	Practical	GIS & DBMS	100
DGIS-06	Practical	Cartography, Surveying, GPS	100
DGIS-07	Practical	Geospatial Programming	100
DGIS-08	Internship	Dissertation, Seminar & Viva-voce	100
DGIS-09	Project	Internship (One month)	100
Total Marks			**900**

Padhar 3/2/2024

Course Coordinator & Head of the Department

Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

Principal
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

Shri. Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur
GEOGRAPHY

(Dr. D. J. Bhandare)

Dr. M.A. Patil

A J Institute of Geoinformatics Science
Accredited By ITT COUNCIL

Course Coordinator

Theory I: Fundamentals of Remote Sensing

Unit 1: Introduction to Remote Sensing and Photogrammetry

Definition and Concept of Remote Sensing, History and Evolution of Remote Sensing, Types of Remote Sensing Systems, Introduction to Photogrammetry: Principles and Applications, Platforms: Satellites, Aircraft, UAVs, Types of Sensors: Optical, Infrared, Microwave, Lidar, Characteristics of Different Sensors, Selection Criteria for Remote Sensing Platforms and Sensors.

Unit 2: Photogrammetric Principles

Basic Concepts of Photogrammetry, Stereoscopic Vision and Parallax, Types of Aerial Imagery (Nadir, Oblique), Photogrammetric Workflow,Image Acquisition, Pre-processing, and Photogrammetric Processing, Image Acquisition Process, Radiometric and Geometric Correction, Image Enhancement Techniques, Introduction to Photogrammetric Processing Software.

Unit 3: Image Interpretation and Analysis, Advanced Photogrammetry

Visual Interpretation of Remote Sensing Images, Digital Image Processing Techniques, Image Classification and Clustering, Advanced Photogrammetric Techniques (Digital Elevation Models, 3D Reconstruction).

Unit4: Application of Remote Sensing

Application in Urban Planning, Disaster Management, Health, Land Use/ Land Cover Mapping, Agriculture, forestry and Environment etc.

Reference

1. Ramasamy S. M., Remote Sensing in Water Resources, Rawat Publications, 2005.
2. Joseph George, Fundamentals of Remote Sensing, Universities Press (India) Private Limited, 2004.
3. Lillesand T. M., Kiefer R. W, Remote Sensing and Image interpretation, John Wiley & Sons Inc, 2000.
4. Campbell James, Introduction to Remote Sensing, Taylor &Prancis London.
5. Agarwal C.S, Textbook on Remote Sensing, Wheeler A. H., 2000
6. Agarwal C.S., Garg, P. K., Remote Sensing, A. H. Wheeler and Co. Ltd., New Delhi, 2000.
7. Jensen, John R., Remote Sensing of the Environment: An Earth Resource Perspective, 2009, Prentice Hall

Theory II: FUNDAMENTALS OF GEOINFORMATICS

Unit 1: Introduction to GIS

Definition of GIS, Key Components of GIS: Hardware, Software, Data, People, Procedures, Spatial Data Types: Vector vs. Raster, Basics of Coordinate Systems and Map Projections, Overview of Popular GIS Software (e.g., ArcGIS, QGIS).

Unit 2: Spatial Analysis in GIS

Attribute and Spatial Queries, Overlay Analysis, Buffering and Proximity Analysis, Spatial Join and Intersect Operations, Introduction to Geoprocessing Tools, Creating Geoprocessing Models, Basics of Spatial Modeling, Applications of Spatial Modeling in GIS.

Unit 3: Data Management in GIS

Basics of Database Management Systems (DBMS), Database Design for GIS, Data Editing and Updating in GIS, Versioning and Data Maintenance.

Unit 4: Advanced Topics in GIS

Overview of Web GIS, Building Web Maps and Applications, Introduction to Mobile GIS, Field Data Collection with Mobile Devices, Applications of GIS in Decision Making, Case Studies of GIS Applications, Emerging Trends in GIS Technology, Ethical and Legal Considerations in GIS.

Reference or Suggested Readings

1. Burrough P. A., R. A MacDonneli, Principles of Geographical InformationSystems, Oxford University Press, 2000.
2. Lo. C. P., A.W. Yeung, Concepts and Techniques of Geographical InformationSystems, Prentice- Hall of India Pr. Ltd., 2002.
3. Heywood I., S. Cornelius, S. Carrer, An Introduction to GeographicalInformation Systems, Pearson Education Pvt. Ltd, 2002.
4. Kang-stung-Chang, Introduction to Geographical Information System, TataMcGraw Hill Pub. Comp, 2002.
5. Demers M.N, Fundamentals of Geographic Information Systems, John Wiley& Sons, 2000.
6. Roy P.S., Dwivedi R.S., Vijayan D., 2010 Remote Sensing Applications NationalRemote Sensing Centre, India
7. Reddy, M.A., 2008. Textbook of remote sensing and geographicalinformation systems. BS publications.
8. El-Rabbany, A., 2002. Introduction to GPS: the global positioning system.Artech House.

Theory III: FUNDAMENTALS OF SURVEYING & GPS

Unit 1: Basics of Cartography

Definition and Purpose of Cartography, Key Elements of a Map: Scale, Legend, Symbols, Types of Maps: Topographic, Thematic, Choropleth, Map Design Principles, Understanding Map Projections, Common Map Projections: Mercator, Robinson, Conic, etc., Coordinate Systems and Grids, Dealing with Distortion in Maps.

Unit 2: Principles of Surveying

Definition and Scope of Surveying, Types of Surveys: Plane Surveying, Geodetic Surveying, Basic Surveying Instruments: Theodolite, Total Station, etc., Measurement Units in Surveying, ,Basics of Plane Table Survey, Chain Surveying and Compass Surveying, Levelling and Contouring, Traversing and Traverse Adjustment.

Unit 3: Global Positioning System (GPS)

Principles of GPS Technology, Components of GPS: Satellites, Receivers, Types of GPS: Autonomous, Differential, Real-Time Kinematic, Applications of GPS in Surveying and Mapping.

Unit 4: Advanced Topics in Cartography, Surveying & GPS

Advanced Map Design Techniques, Multimedia Mapping and Interactive Cartography, Emerging Technologies in Cartography, GIS and GPS Integration, 3D Mapping and LiDAR Technology, Remote Sensing and GPS Applications, Case Studies and Real-world Applications.

Reference

1. Robinson, A. H., Morrison, J. L., Muehrcke, P. C., Kimerling, A. J., & Guptill, S. C. (1995). Elements of Cartography. John Wiley & Sons.
2. Dent, B. D. (2009). Cartography: Thematic Map Design. McGraw-Hill.
3. Wolf, P. R., &Ghilani, C. D. (2011). Elementary Surveying: An Introduction to Geomatics. Pearson.
4. Moffitt, F. H., & Bossler, J. D. (2017). Elementary Surveying: An Introduction to Geomatics. Wiley.
5. Davis, R., Mikhail, E. M., &Muehrcke, P. C. (2020). Surveying: Theory and Practice. McGraw-Hill Education.
6. Leick, A. (2015). GPS Satellite Surveying. John Wiley & Sons.
7. Hofmann-Wellenhof, B., Lichtenegger, H., & Collins, J. (2007). Global Positioning System: Theory and Practice. Springer.

Practical I: Remote Sensing and Digital Image Processing

Practical Session 1: Introduction to GIS and Remote Sensing Software

- Familiarization with ERDAS software
- Basics of image navigation and display
- Opening and exploring satellite images

Practical Session 2: Image Interpretation Basics

- Visual interpretation of basic land cover features
- Identifying different land cover types
- Understanding spectral signatures

Practical Session 3: Image Enhancement

- Contrast stretching and histogram equalization
- Image sharpening and smoothing techniques
- Practical applications on satellite imagery

Practical Session 4: Image Classification

- Introduction to supervised and unsupervised classification
- Hands-on classification exercises using satellite imagery
- Accuracy assessment of classification results

Practical Session 5: Change Detection

- Techniques for detecting changes in satellite imagery
- Comparing multi-temporal images for change analysis
- Practical applications on environmental changes

Practical Session 6: Image Fusion

- Understanding image fusion techniques
- Applying fusion methods to combine different sensor data
- Evaluation of fused images

Practical II: Geographic Information Systems (GIS)

Practical Session 1: Introduction to GIS Software

- Familiarization with GIS software (e.g., QGIS, ArcGIS)
- Basics of GIS interface and functionality
- Loading and exploring spatial data layers

Practical Session 2: Basic GIS Operations

- Performing basic spatial operations (e.g., buffer, overlay)
- Attribute data query and manipulation
- Creating simple maps

Practical Session 3: Spatial Analysis Techniques

- Conducting spatial analysis (e.g., spatial joins, overlay analysis)
- Buffering and proximity analysis
- Creating thematic maps for analysis

Practical Session 4: Geoprocessing and Spatial Modeling

- Using geoprocessing tools for data manipulation
- Introduction to spatial modeling
- Building a simple spatial model

Practical Session 5: GIS Database Design and Management

- Designing a GIS database
- Importing and exporting data
- Data editing and updating in GIS

Practical Session 6: Versioning and Data Maintenance

- Understanding versioning in GIS
- Performing data maintenance tasks
- Handling data conflicts and resolutions

Practical Session 7: Web GIS Basics

- Introduction to web mapping and web GIS platforms
- Creating web maps and applications, Overview of mobile GIS applications

Practical III: Cartography, Surveying, and GPS

Practical Session 1: Basics of Map Design

- Exploring map elements (scale, legend, title)
- Creating simple thematic maps
- Introduction to map design principles

Practical Session 2: Surveying Instruments

- Handling and understanding basic surveying instruments
- Introduction to theodolite and total station
- Measurement exercises in the field

Practical Session 3: Levelling and Contouring

- Performing levelling exercises
- Creating contour maps from field data
- Practical applications in topographic mapping

Practical Session 4: Traversing and Traverse Adjustment

- Understanding traversing in surveying
- Hands-on exercises in traverse adjustment
- Practical applications in boundary surveying

Practical Session 6: GPS Basics

- Operation of GPS devices
- Collecting GPS data in the field
- Data recording and downloading

Practical Session 7: Differential GPS (DGPS)

- Understanding DGPS technology
- Real-time kinematic (RTK) GPS applications
- Accuracy assessment of GPS data

Practical Session 8: GIS and GPS Integration

- Integrating GPS data into GIS software
- Mapping and analyzing GPS-collected data
- Practical applications in environmental monitoring

Practical IV: Geospatial Programming

Practical Session 1: Setting Up Development Environment

- Installing code editors (e.g., VS Code, Atom)
- Setting up a version control system (e.g., Git)

Practical Session 2: Basics of HTML and CSS

- Introduction to HTML structure and tags
- Styling web pages with CSS
- Building a simple static web page

Practical Session 3: Python Basics for GIS

- Introduction to Python programming language
- Python syntax, variables, and data types
- Writing and executing Python scripts

Practical Session 4: GIS Data Manipulation with Python

- Using geospatial libraries (e.g., GeoPandas, Fiona) in Python
- Loading and manipulating geospatial data
- Creating basic maps with Python

Practical Session 5: Basics of SQL

- Introduction to SQL and relational databases
- Creating tables, queries, and data manipulation with SQL
- Spatial SQL for geospatial data

Practical Session 6: Integrating Python and SQL for Geospatial Analysis

- Connecting Python to SQL databases
- Executing spatial queries in Python
- Hands-on exercises with real-world datasets

Practical Session 7: Advanced HTML and CSS for Geospatial Web

- Responsive web design principles
- Styling maps and geospatial content on the web
- Incorporating interactive elements

Practical Session 8: Building a Geospatial Web Application

- Combining HTML, CSS, and JavaScript for web mapping
- Implementing basic web mapping functionalities
- Testing and deploying a simple web application

Practical Session 9: R Basics for Geospatial Analysis

- Introduction to R programming language
- R syntax, variables, and data structures
- Basic data visualization in R

Practical Session 10: Geospatial Analysis with R

- Using R packages for geospatial analysis (e.g., sf, leaflet)
- Analyzing and visualizing geospatial data in R
- Case studies and practical exercises

Reference

1. Adriaans, P., and D. Zantinge. 1996. Data Mining. New York: Addison-Wesley.
2. Bernhardensen, Tor. 1999. Geographic Information Systems: An Introduction. Toronto: John Wiley & Sons, Inc.
3. Bishop, Michael P. and Shroder, John F. (Eds.) 2004. Geographic Information Science and Mountain Geomorphology. Chichester, U.K.: Praxis Publishing (Springer).11
4. Bracken, Ian and Webster, Christopher. 1990. Information Technology in Geography and Planning (Including Principles of GIS). London & New York: Routledge
5. S.K. Duggal, "Surveying, Vol. I, II and III", 2009, Tata Mcgraw Hill, New Delhi.
6. B. Bhatta, "Remote Sensing and GIS", Oxford University Press, New Delhi.
7. Dr. A.M. Chandra, "Remote Sensing and GIS", Narosa Publishers, New Delhi.
8. Sateesh Gopi, R. Sathikumar, and N. Madhu, "Advanced Surveying", Pearson Education India, 2007. 9. "GPS Satellite Surveying", Alfred Leick 3rd Edition, John Wiley and Sons 2004.
9. Global Navigation Satellite Systems by G. S. Rao 2010 Tata McGraw Hill Education Pvt Ltd.
10. "GPS Theory, Algorithms and Applications Guocheng Xu," Springer-Verlag, 2003.

11. Unmanned Aerial Remote Sensing: UAS for Environmental Applications 1st Edition, David R. Green (Editor) 2020.
12. Sateesh Gopi, R. Sathikumar, and N. Madhu, "Advanced Surveying", Pearson Education India, 2007.
13. 6. Global Navigation Satellite Systems by G. S. Rao 2010 Tata McGraw Hill Education Pvt Ltd.

Geospatial Programming Reference

1. **HTML and CSS:**
    - "HTML and CSS: Design and Build Websites" by Jon Duckett.
    - MDN Web Docs (https://developer.mozilla.org/en-US/docs/Web)
2. **Python for Geospatial Applications:**
    - "Python Crash Course" by Eric Matthes.
    - "Automate the Boring Stuff with Python" by Al Sweigart.
    - GeoPandas documentation (https://geopandas.org/).
3. **SQL and Spatial Databases:**
    - "Learning SQL" by Alan Beaulieu.
    - "PostGIS in Action" by Regina O. Obe and Leo S. Hsu.
    - SQLite documentation (https://www.sqlite.org/).
4. **Geospatial Web Development:**
    - "Leaflet.js Essentials" by Paul Crickard III.
    - "D3.js in Action" by Elijah Meeks.
    - Leaflet documentation (https://leafletjs.com/).
5. **R for Geospatial Analysis:**
    - "R for Data Science" by Hadley Wickham and Garrett Grolemund.
    - "Applied Spatial Data Analysis with R" by Roger S. Bivand, EdzerPebesma, Virgilio Gómez-Rubio.
    - sf package documentation (https://r-spatial.github.io/sf/).

Date: 10/01/2024

Shri Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur

Department of Geography

"Advance Diploma in Geoinformatics"

Notice

All students of B.A. Part-III are hereby informed that the Department of Geography has entered into a collaboration with the AJ Institute of Geoinformatics Science, Kolhapur. As part of this partnership, our department will be organizing a six-month Advanced Diploma in Geoinformatics.

The students who are interested in participating in this course are requested to enroll their names with Prof. (Dr.) B. S. Jadhav, Head, Department of Geography, on or before 25th January, 2024.

Shri. Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur
GEOGRAPHY

Jadhav 10/1/24
Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

Shri. Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur
GEOGRAPHY

POST GRADUATE DIPLOMA IN GEOINFORMATICS

TIMETABLE -2023-24

Period	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1st	11:00 AM - 12:00 PM	Introduction to Remote Sensing (DJB)	Introduction to Cartography (MMP)	Introduction to GIS (BSJ)	Introduction to Remote Sensing (DJB)	Introduction to Cartography (MMP)	Introduction to GIS (BSJ)
2nd	12:00 AM - 01:00 PM	Introduction to GIS (BSJ)	Introduction to Remote Sensing (DJB)	Introduction to Cartography (MMP)	Introduction to GIS (BSJ)	Introduction to Remote Sensing (DJB)	Introduction to Cartography (MMP)
3rd	03:00 PM - 04:00 PM	Practical in GIS (APJ)	Practical in Remote Sensing (AJ)	Practical in GIS (APJ)	Practical in Remote Sensing (AJ)	Practical in GIS (APJ)	Practical in Remote Sensing (AJ)
4th	04:00 PM - 05:00 PM	Practical in Remote Sensing (AJ)	Practical in GIS (APJ)	Practical in Remote Sensing (AJ)	Practical in GIS (APJ)	Practical in Remote Sensing (AJ)	Practical in GIS (APJ)

BSJ: Dr. B. S. Jadhav MMP: Dr. M. A. Patil DJB: Dr. D. J. Bhandare APJ: Dr. Amol Jarag AJ: Miss. Arya Joshi

I/C Principal
Shri Vijaysinha Yadav College,
Peth Vadgaon, Tal. Hatkanangale,
Dist. Kolhapur.

Head of the Département
Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

Student Presenty Sheet for The Month of February 2024

Date	Bamane Namrata Shivaji	Bhate Yogini Dilip	Bhandari Sanika Narendra	Chavan Karishma Shivaji	Gurav Vaishnavi Vitthal	Jadhav Sanika Hanmant	Kagvade Arpita Anil	Salunkhe Manju Tukaram
1	P	P	P	P	P	P	P	P
2	P	P	P	P	P	P	P	P
3	P	P	P	P	P	P	P	P
4	***	***	***	***	***	***	***	***
5	P	P	P	P	P	P	P	P
6	P	P	P	P	P	P	P	P
7	P	P	P	P	P	P	P	P
8	P	P	P	P	P	P	P	P
9	P	P	P	P	P	P	P	P
10	P	P	P	P	P	P	P	P
11	***	***	***	***	***	***	***	***
12	P	P	P	P	P	P	P	P
13	P	P	P	P	P	P	P	P
14	P	P	P	P	P	P	P	P
15	P	P	P	P	P	P	P	P
16	P	P	P	P	P	P	P	P
17		P	P	P	P	P	P	P
18	***	***	***	***	***	***	***	***
19	***	***	***	***	***	***	***	***
20	P	P	P	P	P	P	P	P
21	P	P	P	P	P	P	P	P
22	P	P	P	P	P	P	P	P
23	P	P	P	P	P	P	P	P
24	P	P	P	P	P	P	P	P
25	***	***	***	***	***	***	***	***
26	P	P				P	P	
27	P	P				P	P	
28	P	P				P	P	
29	P	P				P	P	

Shri. Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur
GEOGRAPHY

A J Institute of Geoinformatics Science

Course Coordinator

Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

Student Presenty Sheet for The Month of March 2024

Date	Bamane Namrata Shivaji	Bhate Yogini Dilip	Bhandari Sanika Narendra	Chavan Karishma Shivaji	Gurav Vaishnavi Vitthal	Jadhav Sanika Hanmant	Kagvade Arpita Anil	Salunkhe Manju Tukaram
1								
2								
3	***	***	***	***	***	***	***	***
4								
5								
6								
7								
8	***	***	***	***	***	***	***	***
9								
10	***	***	***	***	***	***	***	***
11								
12								
13								
14								
15								
16								
17	***	***	***	***	***	***	***	***
18								
19								
20								
21								
22								
23								
24	***	***	***	***	***	***	***	***
25	***	***	***	***	***	***	***	***
26								
27								
28								
29	***	***	***	***	***	***	***	***
30								
31	***	***	***	***	***	***	***	***

A J Institute of Geoinformatics Science

Course Coordinator

Shri. Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur
GEOGRAPHY

Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

Student Presenty Sheet for The Month of April 2024

Date	Bamane Namrata Shivaji	Bhate Yogini Dilip	Bhandari Sanika Narendra	Chavan Karishma Shivaji	Gurav Vaishnavi Vitthal	Jadhav Sanika Hanmant	Kagvade Arpita Anil	Salunkhe Manju Tukaram
1								
2								
3								
4								
5								
6								
7	***	***	***	***	***	***	***	***
8								
9	***	***	***	***	***	***	***	***
10								
11	***	***	***	***	***	***	***	***
12								
13								
14	***	***	***	***	***	***	***	***
15	Exam						Exam	
16								
17	***	***	***	***	***	***	***	***
18								
19								
20								
21	***	***	***	***	***	***	***	***
22								
23								
24								
25								
26								
27								
28	***	***	***	***	***	***	***	***
29								
30								

A J Institute of Geoinformatics Science

Course Coordinator

Shri. Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur
GEOGRAPHY

Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

Student Presenty Sheet for The Month of May 2024

Date	Bamane Namrata Shivaji	Bhate Yogini Dilip	Bhandari Sanika Narendra	Chavan Karishma Shivaji	Gurav Vaishnavi Vitthal	Jadhav Sanika Hanmant	Kagvade Arpita Anil	Salunkhe Manju Tukaram
1	***	***	***	***	***	***	***	***
2	P	P	P	P	P	P	P	P
3	P	P	P	P	P	P	P	P
4	P	P	P	P	P	P	P	P
5	***	***	***	***	***	***	***	***
6	P	P	P	P	P	P	P	P
7	P	P	P	P	P	P	P	P
8	P	P	P	P	P	P	P	P
9	P	P	P	P	P	P	P	P
10	P	P	P	P	P	P	P	P
11	P	P	P	P	P		P	P
12	***	***	***	***	***	***	***	***
13	P	P	P	P	P	P	P	P
14		P		P		P		P
15	P	P		P	P	P	P	P
16	P	P	P	P	P	P	P	
17	P	P	P	P	P	P	P	P
18	P	P	P	P	P	P	P	P
19	***	***	***	***	***	***	***	***
20	P	P	P	P	P	P	P	P
21				P		P		P
22	P	P	P	P	P	P	P	P
23	***	***	***	***	***	***	***	***
24	P	P	P	P	P	P	P	P
25	P	P	P	P	P	P	P	P
26	***	***	***	***	***	***	***	***
27	P	P	P	P	P	P	P	P
28	P	P	P	P	P	P	P	P
29	P	P	P	P	P	P	P	
30	P	P	P	P	P	P	P	P
31	P	P	P	P	P	P	P	P

Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur
GEOGRAPHY

A J Institute of Geoinformatics Science

Course Coordinator

Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

Student Presenty Sheet for The Month of June 2024

Date	Bamane Namrata Shivaji	Bhate Yogini Dilip	Bhandari Sanika Narendra	Chavan Karishma Shivaji	Gurav Vaishnavi Vitthal	Jadhav Sanika Hanmant	Kagvade Arpita Anil	Salunkhe Manju Tukaram
1	P	P	P	K.S.Chavan	P	P	P	P
2	***	***	***	***	***	***	***	***
3	P	P	P	K.S.Chavan	P	P	P	P
4	P	P	P	K.S.Chavan	P	P	P	P
5	P	P	P		P	P	P	P
6	P	P		K.S.Chavan	P	P	P	P
7		P	P	K.S.Chavan	P	P	P	P
8	P	P	P	K.S.Chavan	P	P	P	P
9	***	***	***	***	***	***	***	***
10	P	P	P	K.S.Chavan	P	P		P
11	P			K.S.Chavan	P	P	P	
12	P	P	P	K.S.Chavan	P	P	P	P
13	P	P	P	K.S.Chavan	P	P	P	P
14	P	P	P	K.S.Chavan	P	P	P	P
15	P	P	P	K.S.Chavan		P	P	P
16	***	***	***	***	***	***	***	***
17	***	***	***	***	***	***	***	***
18	P	P	P	K.S.Chavan	P		P	P
19	P	P	P	K.S.Chavan	P	P	P	P
20	P	P	P	K.S.Chavan	P	P	P	P
21	P	P	P	K.S.Chavan	P	P	P	P
22	P	P	P	K.S.Chavan	P	P	P	
23	***	***	***	***	***	***	***	***
24	P	P	P	K.S.Chavan	P	P	P	P
25	P	P		K.S.Chavan	P	P		P
26	P	P	P	K.S.Chavan	P	P	P	P
27	P	P	P	K.S.Chavan		P	P	P
28	P		P	K.S.Chavan	P		P	P
29	P	P	P		P	P	P	P
30	***	***	***	***	***	***	***	***

Shri. Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur
GEOGRAPHY

A J Institute of Geoinformatics Science

Course Coordinator

Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

Shri. Vijaysinha Yadav College, Peth Vadgaon, Dist. Kolhapur
GEOGRAPHY

A.J INSTITUTE OF GEOINFORMATICS SCIENCE KOLHAPUR.

Student Presenty Sheet for the month of August 2024

Date	Bamane Namrata Shivaji	Bhate Yogini Dilip	Bhandari Sanika Narendra	Chavan Karishma Shivaji	Gurav Vaishnavi Vitthal	Jadhav Sanika Hanmant	Kagvade Arpita Anil	Salunkhe manju Tukaram
1	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
2	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
3	Bamane	YDBhak.		K.S.chavan	Gurav		Arpita	Salunkhe
4	***	***	***	***	***	***	***	***
5	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
6	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
7	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
8	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	
9	***	***	***	***	***	***	***	***
10	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
11	***	***	***	***	***	***	***	***
12	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
13	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
14	Bamane	YDBhak.	Bhandari	K.S.chavan			Arpita	Salunkhe
15	***	***	***	***	***	***	***	***
16	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
17		YDBhak.			Gurav		Arpita	Salunkhe
18	***	***	***	***	***	***	***	***
19	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	
20	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
21	Bamane	YDBhak.		K.S.chavan	Gurav		Arpita	Salunkhe
22	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
23	Bamane	YDBhak.	Bhandari	K.S.chavan			Arpita	Salunkhe
24	Bamane		Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
25	***	***	***	***	***	***	***	***
26	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
27	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
28	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
29	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
30	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
31	Bamane	YDBhak.	Bhandari	K.S.chavan	Gurav		Arpita	

Pathak
Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

A.J INSTITUTE OF GEOINFORMATICS SCIENCE KOLHAPUR.

Student Presenty Sheet for the month of September - 2024

Date	Bamane namrata shivaji	Bhate Yogini dilip	Bhandari sanika Narendra	Chavan karishma shivaji	Gurav vaishnavi vitthal	Jadhav sanika hanmant	Kagvade Arpita Anil	Salunkhe manju Tukaram
1	***	***	***	***	***	***	***	***
2	Bamane	YDBhate	Bhandari	K.S.chavan	Gurav.		Arpita	Salunkhe
3	Bamane	YDBhate	Bhandari	K.S.chavan	Gurav		Arpita	Salunkhe
4	Bamane	YDBhate	Bhandari				Arpita	
5	Bamane	YDBhate	Bhandari				Arpita	
6	Bamane	YDBhate	Bhandari				Arpita	
7	***	***	***	***	***	***	***	***
8	***	***	***	***	***	***	***	***
9								
10								
11								
12								
13								
14								
15	***	***	***	***	***	***	***	***
16	***	***	***	***	***	***	***	***
17								
18								
19								
20								
21								
22	***	***	***	***	***	***	***	***
23								
24								
25								
26								
27								
28								
29								
30								

Padhar
Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

A.J INSTITUTE OF GEOINFORMATICS SCIENCE KOLHAPUR.

Student Presenty Sheet for the month of Octomber - 2024

Date	Bamane namrata shivaji	Bhate Yogini dilip	Bhandari sanika Narendra	Chavan karishma shivaji	Gurav vaishnavi vitthal	Jadhav sanika hanmant	Kagvade Arpita Anil	Salunkhe manju Tukaram
1	Bamane	YDBhate	Bhandari	K.S.Chavan		Jadhav	Arpita	Salunkhe
2	***	***	***	***	***	***	***	***
3	***	***	***	***	***	***	***	***
4	Bamane	YDBhate	Bhandari	K.S.Chavan		Jadhav	Arpita	Salunkhe
5	Bamane	YDBhate		K.S.Chavan		Jadhav	Arpita	Salunkhe
6	***	***	***	***	***	***	***	***
7	Bamane	YDBhate	Bhandari	K.S.Chavan		Jadhav		Salunkhe
8	Bamane	YDBhate	Bhandari	K.S.Chavan		Jadhav	Arpita	
9		YDBhate	Bhandari	K.S.Chavan		Jadhav	Arpita	Salunkhe
10	Bamane	YDBhate	Bhandari	K.S.Chavan		Jadhav	Arpita	Salunkhe
11	Bamane	YDBhate		K.S.Chavan		Jadhav	Arpita	Salunkhe
12	***	***	***	***	***	***	***	***
13	***	***	***	***	***	***	***	***
14	Bamane		Bhandari	K.S.Chavan		Jadhav	Arpita	Salunkhe
15	Bamane	YDBhate	Bhandari	K.S.Chavan		Jadhav	Arpita	Salunkhe
16	Bamane	YDBhate	Bhandari	K.S.Chavan		Jadhav	Arpita	Salunkhe
17		YDBhate	Bhandari	K.S.Chavan		Jadhav	Arpita	Salunkhe
18	Bamane	YDBhate		K.S.Chavan		Jadhav		Salunkhe
19	Bamane	YDBhate	Bhandari	K.S.Chavan		Jadhav	Arpita	Salunkhe
20	***	***	***	***	***	***	***	***
21	Bamane	YDBhate	Bhandari	K.S.Chavan		Jadhav	Arpita	
22	***	***	***	***	***	***	***	***
23	Bamane	YDBhate	Bhandari			Jadhav	Arpita	Salunkhe
24	Bamane	YDBhate	Bhandari	K.S.Chavan		Jadhav	Arpita	Salunkhe
25	Bamane	YDBhate	Bhandari				Arpita	Salunkhe
26	Bamane	YDBhate	Bhandari				Arpita	
27	***	***	***	***	***	***	***	***
28	Bamane	YDBhate	Bhandari				Arpita	
29	Bamane	YDBhate	Bhandari				Arpita	
30	Bamane	YDBhate	Bhandari				Arpita	

Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

QUESTION PAPER SAMPLE FORMAT

PGD in Geoinformatics (One Year)

Theory

PAPER No. —— Paper Title ——————————

Day and Date: —— Total Marks: 80 Duration: 03 Hours

Instructions:
1) All questions are compulsory.
2) All questions carry equal marks.

Q. No. 1: Multiple Choice Questions (2 Marks Each)	Marks 16
Q. No. 2: Short Answer (Any Four out of Five)	Marks 16
Q. No. 3: Short Notes (Any Two out of Three)	Marks 16
Q. No. 4: Descriptive Answer (Any Two out of Four)	Marks 32

Practical

PAPER No. —— Paper Title ——————————

Day and Date: —— Total Marks: 80 Duration: 03 Hours

Instructions:
1) All questions are compulsory.
2) All questions carry equal marks.

Q. No. 1:	Marks 20
Q. No. 2:	Marks 20
Q. No. 3:	Marks 20
Q. No. 4:	Marks 20

Head
Department of Geography
Shri. Vijaysinha Yadav College
Peth Vadgaon, Dist. Kolhapur.

ITT-COUNCIL
Information Technology and Technical Education Council

सूचना प्रौदयोगिकी और तकनिकी शिक्षा परिषद, दिल्ली

Information Technology And Technical Education Council Delhi

CIN-U74999DL2016NPL299102

Reg. Under Government of India

(Affiliated by Ministry of Corporate Affairs Government of India Reg. No. 299102)

Diploma

This is to Certify That Mr. / Mrs.

Sameer Joshi

Has Successfully Completed One Year

Post Graduates Diploma in Geo-informatics Training

and Passed the Examination in

July 2021

First Division with Distinction and A+ Grade

Training At

Reliable Institute of Computer, Aurangabad

is Awarded This Certificate

With seal and signature of the Authorised of

Information Technology and Technical Education Council, Delhi

Student PR No. : 123456789

Certificate Sr. No. : 123456789

Intitute Reg. No. : ITT50001

Published on : 10/12/2021

Authorised

Information Technology and Technical Education Council, New Delhi

1. This certificate online verification and valid visit www.ittcouncil.com
2. This Certificate is issued as per prevailing rules and regulations of ITT Council at the time of this exam. Student All Information Provided By ATC

ITT-COUNCIL
Information Technology and Technical Education Council

सूचना प्रौदयोगिकी और तकनिकी शिक्षा परिषद, दिल्ली

Information Technology And Technical Education Council Delhi

CIN-U74999DL2016NPL299102

Reg. Under Government of India

(Affiliated by Ministry of Corporate Affairs Government of India Reg. No. 299102)

Diploma

This is to Certify That Mr. / Mrs.

Sameer Joshi

Has Successfully Completed One Year

Post Graduates Diploma in Geo-informatics Training

and Passed the Examination in

July 2021

First Division with Distinction and A+ Grade

Training At

Reliable Institute of Computer, Aurangabad

is Awarded This Certificate

With seal and signature of the Authorised of

Information Technology and Technical Education Council, Delhi

Student PR No. : 123456789

Certificate Sr. No. : 123456789

Intitute Reg. No. : ITT50001

Published on : 10/12/2021

1. This certificate online verification and valid visit www.ittcouncil.com
2. This Certificate is issued as per prevailing rules and regulations of ITT Council at the time of this exam. Student All Information Provided By ATC

Authorised

Information Technology and Technical Education Council, New Delhi

Shri. Shahu Shikshan Prasarak Seva Mandal's

Shri. Vijaysinha Yadav College, Peth Vadgaon,

Department of Geography &

AJ Institute of Geoinformatics Science, Kolhapur

ORGANIZED

"Advance Diploma of Geoinformatics"

Feb., 2024 to Aug. 2024

FEEDBACK FORM

1. Name of Participant: Kagwade Arpita Anil

2. Class: BA III

3. Residential Address: Burude Wathar, Tal: Hatkanagale
Dist: Kolhapur.

4. Mobile No.: 7350681711 Email ID: arpitakagwade@gmail.com

Please evaluate the following on Four Point Scale

(Excellent-4, Very Good-3, Good-2, Poor-1)

i) Theme of the workshop (4)

ii) Resource Person (4)

iii) Technical management (3)

iv) Session schedule (4)

v) Hospitality (4)

vi) Overall impression about the workshop (4)

vii) Suggestion, if any Please take course of
AI and Earth engine also

Place: Peth Vadgaon

Date: 29/10/2024

Arpita
Signature
(Arpita A Kagwade)

Shri. Shahu Shikshan Prasarak Seva Mandal's

Shri. Vijaysinha Yadav College, Peth Vadgaon,

Department of Geography &

AJ Institute of Geoinformatics Science, Kolhapur

ORGANIZED

"Advance Diploma of Geoinformatics"

Feb., 2024 to Aug. 2024

FEEDBACK FORM

1. Name of Participant: Bamane Namrata Shivaji

2. Class: B. A. III

3. Residential Address: At. Post. Khochi, Tal. Hatkanangale, Dist. Kolhapur

4. Mobile No.: 7798778860 Email ID: _____

Please evaluate the following on Four Point Scale

(Excellent-4, Very Good-3, Good-2, Poor-1)

i) Theme of the workshop (4)

ii) Resource Person (3)

iii) Technical management (4)

iv) Session schedule (4)

v) Hospitality (3)

vi) Overall impression about the workshop (3)

vii) Suggestion, if any no suggestion

Place: Peth Vadgaon

Date: 29/10/2024

Signature

(Miss. Bamane N. S.)

Atlas
Geographic Data Pvt. Ltd.

City Bay, Office No. 302-A,
3rd Floor, C Wing, Street No.17,
Boat Club Road, Sangamwadi,
Pune - 411001.
Ph. No. 020-26167868

1st August 2025.

MS. SANIKA NARENDRA BHANDARI,

Strictly Confidential

Near by. Gidde Mala.
A/P. Narande. Taluk. Hatkanangle
Dist. Kolhapur. Pin Code. 416110

Dear Sir/Madam,

With reference to your application and our subsequent interview, we are pleased to appoint you as a Gis Analyst on probation for four months stationed in Pune on the following terms and conditions:-

1. DESIGNATION : You will be designated as a Gis Analyst.

2. DATE OF JOINING :You are requested to join duties on 1st August 2025.

3. Your appointment is subject to your furnishings.

   e) Relieving and service certificate from your present employer.
   f) All certificates and documents in original in support of the claims made in your job application.

4. SALARY :

   c) You will be a paid a Salary of Rs. 17000/- (Rs. Seventeen Thousand Only) per month during your Probation Period.

5. CONFIDENTIALITY :

   You shall not at any time either during the continuance or after the termination of your employment hereunder, except and may be required in connection with your employment hereunder or as may be consented to by the Company in writing, divulge either directly or indirectly to any person, firm or company or use for yourself or another any knowledge, information or documents, which you may acquire during the coursed of employment Pertaining, interalia to any inventions, discoveries, improvement processes, formulas, apparatus, equipments , methods,

compositions of matter , trade secrets, research, contracts, transactions or affairs of the company's affiliates.

6. NOT TO COMPETE :

It is understood that the services you will render are of a special character with unique value to the company. The Company considers this information to be proprietary and confidential and desirous to keep it secrets from all competitors. You would, therefore, be bound to do not to do the following.

a. Use for your own benefit or others or disclose to any person, firm or corporation, any confidential information about us, except to further the interests of our company.

b. Solicit or entice any employee of our company to seek employment elsewhere.

7. Your services are transferable at short notice to any department, works etc. belongings to the company. In the event of your transfer, the terms and conditions of employment outlined hereunder shall continue to apply.

8. Although your normal work consists of the duties assigned to you in the capacity as shown above, you many at any time be called upon to discharge any other duties which in the opinion of the company are within your capacity to discharges and you will forthwith undertake to discharge those duties and diligence and care.

9. It has been explained to you that generally speaking,satisfactory performance during the probationary period leads to confirmation in our company .

10. It is understood that this is your full time appointment and that you will not undertake any other occupation, part time or otherwise, for monetary gain.You will of course be governed by the rules of our company.

11. The Company may terminate your services at any given moment of which the decision rests with the company.Should you desire to terminate the employment contract, it will be necessary for you to give two month's notice to the company of your intention to do so.No experience letter and relieving letter or salary for the days you worked in that month would be given should u desire to leave without intimidation or serving the notice period.

12. LEAVES : You will not be entitled to any Leaves during probation period of Four months, Unless in case of Emergency. After that, you will be entitled to a maximum of 14 days leaves in every financial year. Employee after resigning, while on notice period will not be entitled for any leave.

13. Upon the termination of the employment, you will return to the company all documents, and any other articles, and / or copies thereof belongings to the company, which may at the time in your possession.

14. It is hereby agreed and understood, that the company will not be liable to pay any claims or damages to any party or company, which may arise from the previous employers.

If you are agreeable to the above terms and conditions, please return duplicate of this letter, duly signed by you confirming your acceptance, within Two days of receipt of this letter.

We take this opportunity to welcome you to the company and hope that your association with us will prove to be of mutual benefit.

Sincerely,

For **Atlas Geographic Data Pvt. Ltd.** ,

For Atlas Geographic Data Pvt. Ltd.

RRPatil

Authorised Signatory

Authorized Signatory

ATLAS GEOGRAPHIC DATA PVT. LTD.

Accepted :

Name : MS. SANIKA N. BHANDARI

Date : 1st August 2025.

Atlas
Geographic Data Pvt. Ltd.

City Bay, Office No. 302-A,
3rd Floor, C Wing, Street No.17,
Boat Club Road, Sangamwadi,
Pune - 411001.
Ph. No. 020-26167868

2st May 2025.

MS. VAISHNAVI GURAV,

Strictly Confidential

Mose, Kalli, Sambhapur

Tall- Hatkangle, Dist - Kolhapur
House no - 0186396

Dear Sir/Madam,

With reference to your application and our subsequent interview, we are pleased to appoint you as a Gis Analyst on probation for four months stationed in Pune on the following terms and conditions:-

1. DESIGNATION : You will be designated as a Gis Analyst.

2. DATE OF JOINING :You are requested to join duties on 1st May 2025.

3. Your appointment is subject to your furnishings.

   g) Relieving and service certificate from your present employer.
   h) All certificates and documents in original in support of the claims made in your job application.

4. SALARY :

   d) You will be a paid a Salary of Rs. 17000/- (Rs. Seventeen Thousand Only) per month during your Probation Period.

5. CONFIDENTIALITY :

   You shall not at any time either during the continuance or after the termination of your employment hereunder, except and may be required in connection with your employment hereunder or as may be consented to by the Company in writing, divulge either directly or indirectly to any

person, firm or company or use for yourself or another any knowledge, information or documents, which you may acquire during the coursed of employment Pertaining, interalia to any inventions, discoveries, improvement processes, formulas, apparatus, equipments , methods, compositions of matter , trade secrets, research, contracts, transactions or affairs of the company's affiliates.

6. NOT TO COMPETE :

It is understood that the services you will render are of a special character with unique value to the company. The Company considers this information to be proprietary and confidential and desirous to keep it secrets from all competitors. You would, therefore, be bound to do not to do the following.

a. Use for your own benefit or others or disclose to any person, firm or corporation, any confidential information about us, except to further the interests of our company.

b. Solicit or entice any employee of our company to seek employment elsewhere.

7. Your services are transferable at short notice to any department, works etc. belongings to the company. In the event of your transfer, the terms and conditions of employment outlined hereunder shall continue to apply.

8. Although your normal work consists of the duties assigned to you in the capacity as shown above, you many at any time be called upon to discharge any other duties which in the opinion of the company are within your capacity to discharges and you will forthwith undertake to discharge those duties and diligence and care.

9. It has been explained to you that generally speaking,satisfactory performance during the probationary period leads to confirmation in our company .

10. It is understood that this is your full time appointment and that you will not undertake any other occupation, part time or otherwise, for monetary gain.You will of course be governed by the rules of our company.

11. The Company may terminate your services at any given moment of which the decision rests with the company.Should you desire to terminate the employment contract, it will be necessary for you to give two month's notice to the company of your intention to do so.No experience letter and relieving letter or salary for the days you worked in that month would be given should u desire to leave without intimidation or serving the notice period.

12. LEAVES : You will not be entitled to any Leaves during probation period of Four months, Unless in case of Emergency. After that, you will be entitled to a maximum of 14 days leaves in every financial year. Employee after resigning, while on notice period will not be entitled for any leave.

13. Upon the termination of the employment, you will return to the company all documents, and any other articles, and / or copies thereof belongings to the company, which may at the time in your possession.

14. It is hereby agreed and understood, that the company will not be liable to pay any claims or damages to any party or company, which may arise from the previous employers.

If you are agreeable to the above terms and conditions, please return duplicate of this letter, duly signed by you confirming your acceptance, within Two days of receipt of this letter.

We take this opportunity to welcome you to the company and hope that your association with us will prove to be of mutual benefit.

Sincerely,

For Atlas Geographic Data Pvt. Ltd. ,

For Atlas Geographic Data Pvt. Ltd.

Authorised Signatory

Authorized Signatory

Accepted : Recived. 29/07/2025

Name : MS. VAISHNAVI GURAV

Date : 2st May 2025.

ATLAS GEOGRAPHIC DATA PVT. LTD.

Atlas
Geographic Data Pvt. Ltd.

City Bay, Office No. 302-A,
3rd Floor, C Wing, Street No.17,
Boat Club Road, Sangamwadi,
Pune - 411001.
Ph. No. 020-26167868

1st August 2025.

MS. ARPITA ANIL KAGWADE,

Strictly Confidential

A/P - Vathar Tarf Udgaon
Tal - Hatkangale
Dis - Kolhapur

Dear Sir/Madam,

With reference to your application and our subsequent interview, we are pleased to appoint you as a Gis Analyst on probation for four months stationed in Pune on the following terms and conditions:-

1. DESIGNATION : You will be designated as a Gis Analyst.

2. DATE OF JOINING :You are requested to join duties on 1st August 2025.

3. Your appointment is subject to your furnishings.

   c) Relieving and service certificate from your present employer.
   d) All certificates and documents in original in support of the claims made in your job application.

4. SALARY :

   b) You will be a paid a Salary of Rs. 17000/- (Rs. Seventeen Thousand Only) per month during your Probation Period.

5. CONFIDENTIALITY :

   You shall not at any time either during the continuance or after the termination of your employment hereunder, except and may be required in connection with your employment hereunder or as may be consented to by the Company in writing, divulge either directly or indirectly to any person, firm or company or use for yourself or another any knowledge, information or documents, which you may acquire during the coursed of employment Pertaining, interalia to any inventions, discoveries,

improvement processes, formulas, apparatus, equipments , methods, compositions of matter , trade secrets, research, contracts, transactions or affairs of the company's affiliates.

6. NOT TO COMPETE :

It is understood that the services you will render are of a special character with unique value to the company. The Company considers this information to be proprietary and confidential and desirous to keep it secrets from all competitors. You would, therefore, be bound to do not to do the following.

a. Use for your own benefit or others or disclose to any person, firm or corporation, any confidential information about us, except to further the interests of our company.

b. Solicit or entice any employee of our company to seek employment elsewhere.

7. Your services are transferable at short notice to any department, works etc. belongings to the company. In the event of your transfer, the terms and conditions of employment outlined hereunder shall continue to apply.

8. Although your normal work consists of the duties assigned to you in the capacity as shown above, you many at any time be called upon to discharge any other duties which in the opinion of the company are within your capacity to discharges and you will forthwith undertake to discharge those duties and diligence and care.

9. It has been explained to you that generally speaking,satisfactory performance during the probationary period leads to confirmation in our company .

10. It is understood that this is your full time appointment and that you will not undertake any other occupation, part time or otherwise, for monetary gain.You will of course be governed by the rules of our company.

11. The Company may terminate your services at any given moment of which the decision rests with the company.Should you desire to terminate the employment contract, it will be necessary for you to give two month's notice to the company of your intention to do so.No experience letter and relieving letter or salary for the days you worked in that month would be given should u desire to leave without intimidation or serving the notice period.

12. LEAVES : You will not be entitled to any Leaves during probation period of Four months, Unless in case of Emergency. After that, you will be entitled

to a maximum of 14 days leaves in every financial year. Employee after resigning, while on notice period will not be entitled for any leave.

13. Upon the termination of the employment, you will return to the company all documents, and any other articles, and / or copies thereof belongings to the company, which may at the time in your possession.

14. It is hereby agreed and understood, that the company will not be liable to pay any claims or damages to any party or company, which may arise from the previous employers.

If you are agreeable to the above terms and conditions, please return duplicate of this letter, duly signed by you confirming your acceptance, within Two days of receipt of this letter.

We take this opportunity to welcome you to the company and hope that your association with us will prove to be of mutual benefit.

Sincerely,

For **Atlas Geographic Data Pvt. Ltd.** ,

For Atlas Geographic Data Pvt. Ltd.

Authorised Signatory

Authorized Signatory

Accepted :

Name : MS. ARPITA A. KAGWADE

Date : 1st August 2025.

ATLAS GEOGRAPHIC DATA PVT. LTD.

TERA SOFT

MANJU SALUNKHE

EXECUTIVE

DOB -06-11-2002

+91-7391027594

Tera software

Hyderabad Telangana 500053

TERA SOFT

SANIKA JADHAV

EXECUTIVE

DOB -17-07-2003

+91-8788314348

Tera software

Hyderabad Telangana 500053

TERA SOFT

NAMRATA BAMANE

EXECUTIVE

DOB -27-05-2004

+91-7798778860

Tera software

Hyderabad Telangana 500053