Elevate your AEC Projects with the Integration of GIS and BIM

ABOUT ESRI INDIA

Esri India is the market leader in Geographic Information System (GIS) software, location intelligence, and mapping solutions in India.

- Established in 1996
- Headquartered in Noida (Delhi-NCR) with offices in 7 cities across the country
- Delivering enterprise GIS technology to over 6,500 customers and 1 million users
- Team of 600+ Esri'tes
- Great Place To Work® Certified – 2021, 2022, and 2023

We work with:

Government | Energy & Utilities | Water | Education | Smart Cities | Disaster Management | Transport | Health | Telecommunications | Defense & Homeland Security | Natural Resources | Architecture, Engineering, and Construction | Retail | Banking | Financial Services | Insurance

OVERVIEW

Infuse geographic context into the entire project life cycle.

Discover what's possible when you integrate computer-aided design (CAD) data and building information models (BIM) with geographic information system (GIS) technology. This course is for GIS and architecture, engineering, and construction (AEC) professionals and anyone else who wants to improve project decision-making, gain critical insights, and deliver more sustainable infrastructure, more efficiently. You'll explore powerful GIS visualization and spatial analysis capabilities and see firsthand how location-based insights enhance each phase of the project life cycle—from planning and design to construction and operations.

MODULE 1: INTRODUCTION TO GEOBIM

1. Overview of GIS and BIM
- Introduction to GIS and its applications in AEC
- Introduction to BIM and its significance in construction and infrastructure projects
- Understanding the need for integrating GIS with BIM for holistic project management

2. Fundamentals of ArcGIS and BIM Platforms
- Overview of ArcGIS as a platform (Desktop, Mobile and Web)
- Overview of popular BIM platforms (e.g. Revit, AutoCAD)
- Compatibility and interoperability between ArcGIS and BIM

3. Benefits and Challenges of GIS-BIM Integration
- Exploring the advantages of combining GIS and BIM data
- Identifying common challenges and potential solutions
- Case studies highlighting successful GeoBIM integration projects

MODULE 2: ARCGIS INTEGRATION WITH BIM WORKFLOWS

1. Data Preparation for Integration
- Best practices for preparing GIS data for integration with BIM
- Data formats and standards for GIS and BIM interoperability
- Introduction to common data transformation tools

2. Integrating GIS and BIM Data
- Importing BIM data into ArcGIS
- Overlaying GIS data onto BIM models
- Georeference a BIM file
- Ensuring data consistency and accuracy during integration
- Hands-on exercise

3. Advanced GIS-BIM Workflows
- 4D and 5D visualization: Adding time and cost dimensions to GeoBIM
- Simulating real-world scenarios using integrated GIS and BIM data
- Automated analysis tools for decision support
- Hands-on exercise

4. Visualize and Share BIM and GIS Data with your AEC Team
- Use ArcGIS Online/ArcGIS Enterprise to share data with your team
- Create 3D meshes and scenes to share over ArcGIS Online/ArcGIS Enterprise
- View shared data in ArcGIS Online/ArcGIS Enterprise
- Explore an Operations Dashboard
- Hands-on exercise

5. Perform Spatial Analysis on BIM Data
- Measure distance and elevation in Scene Viewer
- Configure layers in web map
- Perform a line-of-sight analysis
- Evaluate sunlight and shadows
- Hands-on exercise

MODULE 3: PRACTICAL APPLICATIONS AND HANDS-ON EXERCISES

1. Implementation of ArcGIS in Infrastructure Management
- Asset management using ArcGIS Infrastructure Management
- Maintenance and facility management with integrated GIS and BIM
- Demonstrations of practical applications in the field

2. Hands-On Exercises and Project Work
- Participants will work on practical exercises integrating GIS and BIM data
- Guidance and support from trainers
- Q&A and troubleshooting session

MODULE 4: GEOBIM BEST PRACTICES AND FUTURE TRENDS

1. Best Practices in GeoBIM Implementation
- Standards and guidelines for GeoBIM integration
- Quality control and assurance in integrated projects
- Case studies showcasing successful implementation

2. Future Trends and Innovations
- Emerging technologies in GeoBIM
- Industry trends and their impact on integrated workflows
- Strategies for staying updated and adapting to new advancements

esri India
THE SCIENCE OF WHERE™