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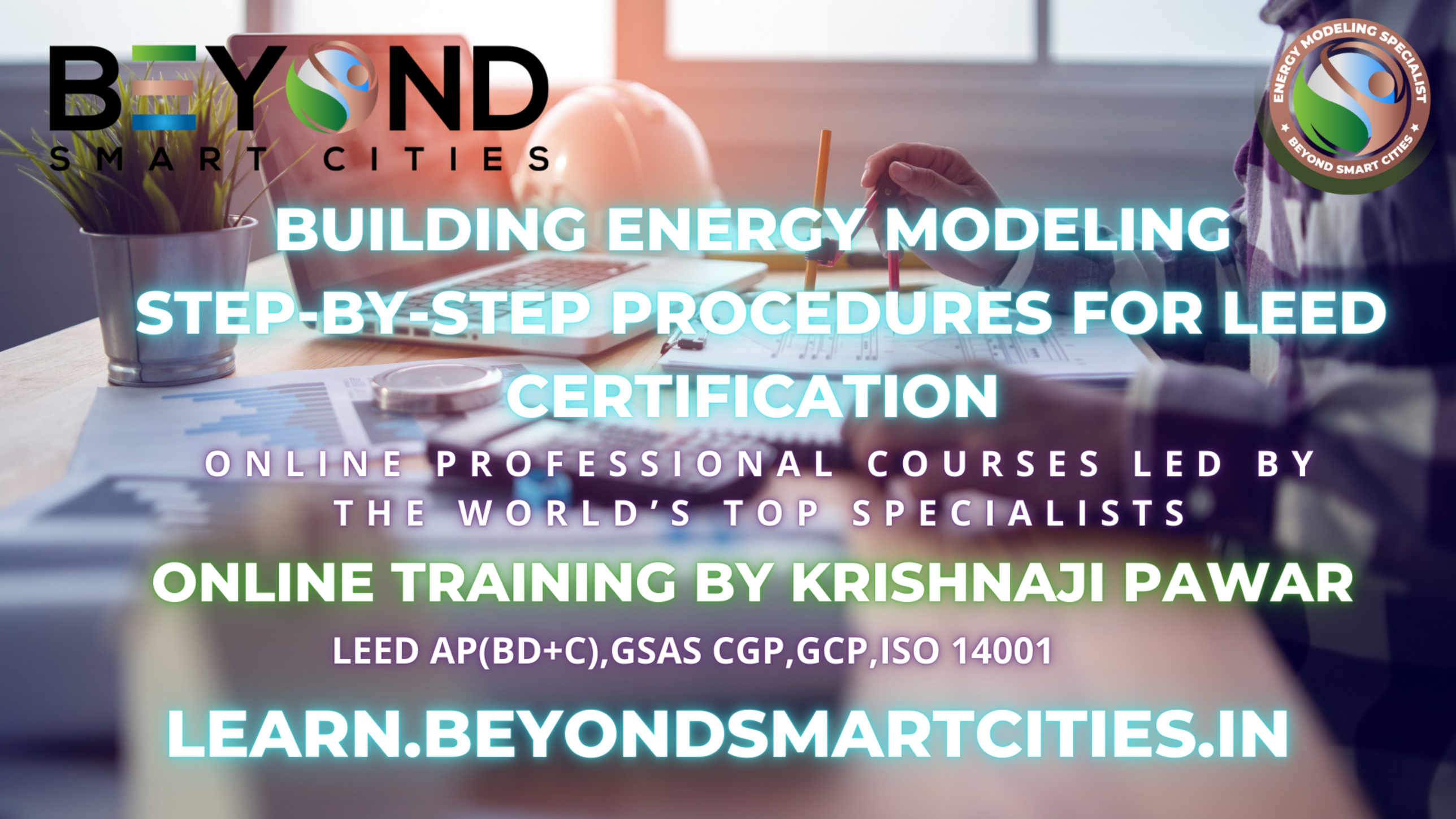
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ENERGY MODELING SPECIALIST
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BUILDING ENERGY MODELING
STEP-BY-STEP PROCEDURES FOR LEED
CERTIFICATION
ONLINE PROFESSIONAL COURSES LED BY
THE WORLD'S TOP SPECIALISTS
ONLINE TRAINING BY KRISHNAJI PAWAR
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MODULE L5

Importing into BEM Software

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BUILDING ENERGY MODELING : STEP-BY-STEP PROCEDURES FOR LEED CERTIFICATION

Building Energy Modeling (BEM) software is crucial for designing and analyzing energy-efficient buildings. Importing data from various sources into BEM software enhances its utility by integrating complex datasets required for accurate modeling. The import process can be broken down into three stages: preparation, execution, and validation.

Learning Objectives

- Introduction and Course Outline
- Building Energy Modeling Checklists
- Importing into BEM Software
- ASHRAE Standards and Guidelines
- BEM software inputs for the project section, facade, systems, and zones
- Setup and Running the Building Energy Modeling Simulation
- Review BEM Software Output Reports.
- Sample Energy Modeling Report
- Summary and Resources
- BEMP Practice Test V.4.1

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INTRODUCTION

- Importing data from various sources into BEM software enhances its utility.
- The process is divided into three stages: preparation, execution, and validation.
- Preparation involves cleaning datasets, adhering to file formats, and understanding the required schema.
- Execution involves navigating the import function, selecting the data source, mapping data fields, and conducting validation.
- Validation ensures the integrity and accuracy of the imported data through consistency checks, visual inspection, and simulation runs.
- Importing data from various sources like CAD, HVAC systems, and spreadsheets enhances modeling capabilities and improves building performance outcomes.

IMPORTING INTO BUILDING ENERGY MODELING SOFTWARE

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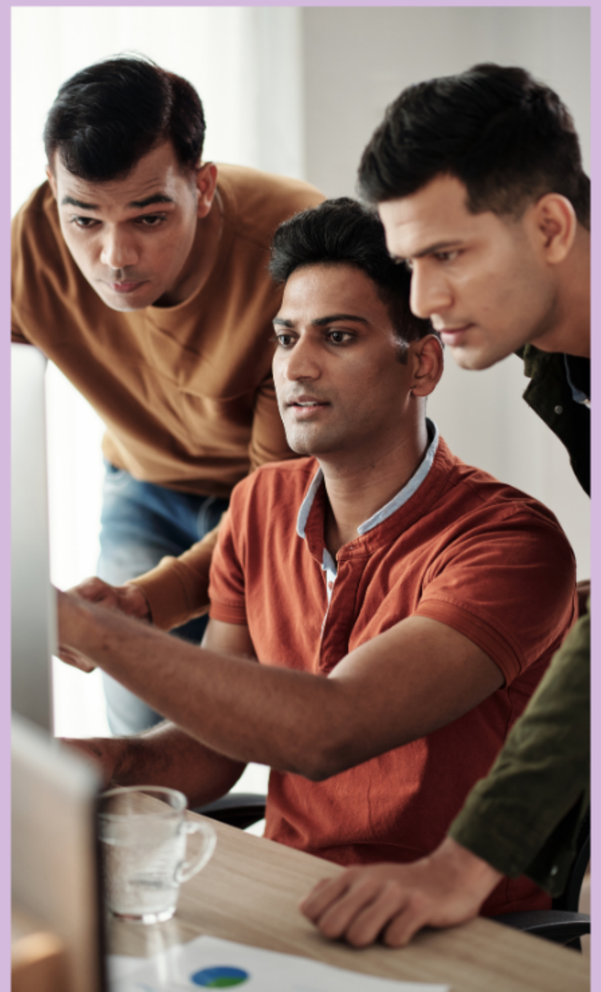
- Importing data into Building Energy Modeling (BEM) software is crucial for accurate modeling.
- The process is divided into three stages: preparation, execution, and validation.

PREPARATION



- Data cleaning: Removing inconsistencies, duplicates, or errors in the datasets.
- Data formatting: Adherence to specific file formats like CSV, Excel, or native formats.
- Schema alignment: Understanding the required schema is crucial.

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EXECUTION

- Navigating the Import Function: Navigating the "Import" or "Data Upload" function.
- Selecting the Data Source: Identifying and selecting the file or database from which the data is to be imported.
- Mapping the Data Fields: Ensure accurate assignment of information.

VALIDATION

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- Running Consistency Checks: Running tools to check for inconsistencies or errors within the imported data.
- Visual Inspection: Visually inspecting the imported data to ensure quality.
- Conducting preliminary simulation runs: Conducting preliminary simulation runs to confirm successful data import.

Importing into Visual DOE

1. Open Visual DOE and begin importing the wanted drawing by adding a custom block.
2. Click on the “+” sign and select DXF
3. Select “Open DXF File”Go to the AutoCAD folder under Energy Modeling and select your _v2.dxf file.
4. Choose the “bpoly”layer and click “Add all”

EXAMPLES OF IMPORTING DATA

- Importing Building Geometry from CAD: Exporting geometry, Importing into BEM Software, Mapping Layers, Validating Geometry.
- Importing HVAC Systems from Spreadsheet: Preparing the Spreadsheet, Using the Import Wizard, and Verifying Imported Data.

Conclusion

- Understanding data formats, schema alignment, and unique features of BEM software is essential for successful data integration.
- By following these processes, users can enhance their modeling capabilities, leading to more accurate energy assessments and improved building performance outcomes.

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