A comprehensive evaluation method of different building systems using EXPRESS language and SWRL language expressions of Historical Timber Structure Buildings.

Establish HTSM-BIM platform by C# code.

The database of decay-restoration elements is used to intelligently propose repair systems.

Damage extension model based on IFC 4.1 is provided with damage information extension.

SWRL language expressions of Historical Timber Structure Buildings.

Analysis of ontology expressions of Historical Timber Structure Buildings by protege.

Core code comes up with the integral assessment system.

Damage extension model based on IFC 4.1 is obtained from the IFC model with damage information.

Monitoring database of environmental and mechanical monitoring data collection.

Use Revit transform point cloud into model.

IoT sensors are used in direct sensor installation.

ABAQUS is used to analyze the location of structural stress concentration.

EXPRESS language and Industry Foundation Classes 4.1 are used.

Laying the ground is performed on the damage extension model based on IFC 4.1.

Import and export .ifc format.

Input monitoring data and output monitoring data.

Input monitoring data and export .ifc format.

INM model in .ifc format is obtained.

Inport IoT sensors and direct sensor installation.

Database of decay-restoration elements is used in RESNET Neural Network.

DeepMind is used to input monitoring data and output monitoring data.

RESNET Neural Network is input in DeepMind.

Database of decay-restoration elements is input in RESNET Neural Network.

Input in RESNET Neural Network is used in DeepMind.

Database of decay-restoration elements is input in DeepMind.

Input in RESNET Neural Network is used in DeepMind.

Database of decay-restoration elements is input in DeepMind.

Input in RESNET Neural Network is used in DeepMind.

Database of decay-restoration elements is input in DeepMind.

Input in RESNET Neural Network is used in DeepMind.

Database of decay-restoration elements is input in DeepMind.

Input in RESNET Neural Network is used in DeepMind.

Database of decay-restoration elements is input in DeepMind.

Input in RESNET Neural Network is used in DeepMind.