Automated Image Localization for Post-Event Building Assessment

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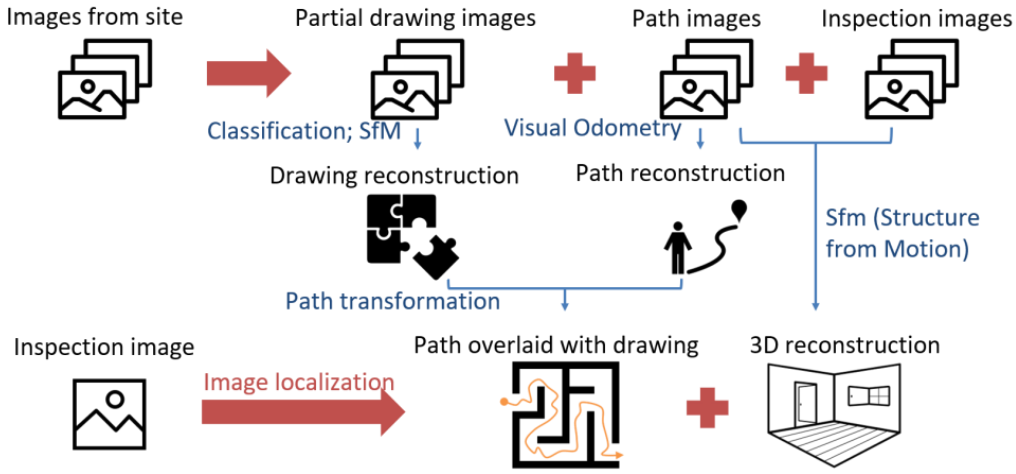
Project Description

After an earthquake, the analysis and organization of image data collected at a building site requires locating those photos within the structural drawings. Here a systematic tool is developed to automatically localize the inspection images and generate their 3D reconstruction.

Approach

- Black words = data.
- Blue words = methods.



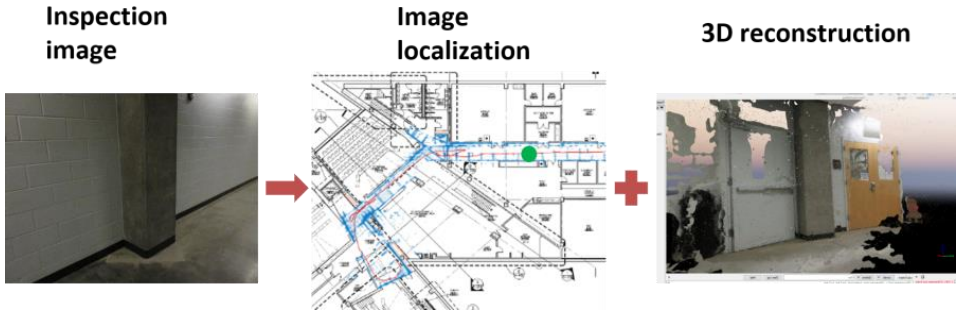
Discussion

Post-event building assessment requires the collection of hundreds of images. The capability to automatically localize such image data and reconstruct the path taken through the building will facilitate **automated building assessment** in the future.

Results

- Method is validated with experiments in Armstrong Hall, Purdue.
- Each image is shown with its location and the 3D reconstruction.

(In Image localization, 1. Red denotes Path; 2. Blue denotes Point cloud; 3. Green denotes Image Location.)



Computer vision techniques make it possible to automate the processes and procedures needed for building assessment.

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