## Project highlights:

- We are interested in the automatic processing of data from powerpylon inspection, and specially in the generation of Simplified CAD documentation, see Fig. 1.
- The distance from the powerlines to the main constructive elements of a transmission pylon are important electric characteristics of this infrastructure.
- The ICG has extensive experience in the generation of precise sparse and dense 3D models from aerial imagery. You would develop a tool to automatically extract keypoints and precise measurements from the 3D Reconstruction and imagery of a powerpylon.
- Industrial partner: Austrian Power Grid AG.

Objectives

- Learn and get practical experience with Aerial 3D Reconstructions and their geo-referenciation.
- Automatically segment main the powerline and the main elements of the powerpylon.
- Extraction of main characteristics and measurements of the powerpylon.
- Generation of the simplified CAD model
- We are open to your suggestions!

Simplified CAD model example
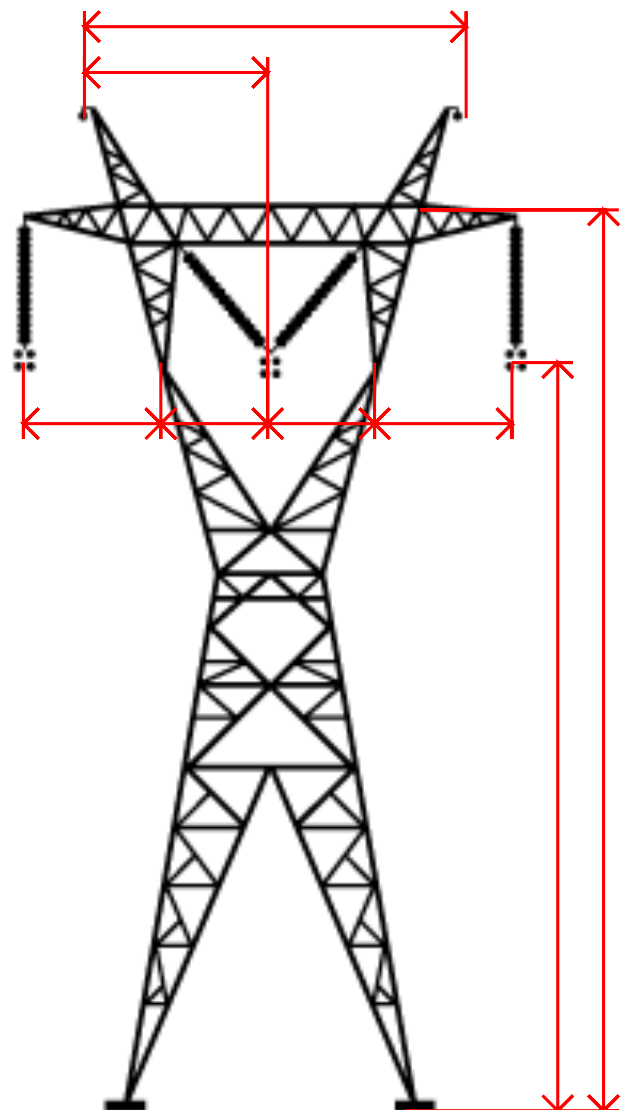
Simplified CAD model of powerpylon. The main measurements are automatically extracted from a 3D Reconstruction. Original image attribution, user: CODinDK; website:https://commons.wikimedia.org.

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