
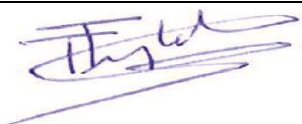


ANNEX 2: APPLICATION FORM COVER PAGE



CELSA - Collaborative research project - Application form - COVER PAGE

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3. Non confidential and public friendly summary (max. 2000 characters)

Project title: SfS++: Efficient & Robust Structure from Semantics

Summary:

The goal of this project is to automatically reconstruct a scene in 3D, based on a single 2D image. This is only possible by relying on domain knowledge, such as the 3D shape of common object categories. After recognizing such objects, a suitable 3D model can be retrieved and aligned with each of the objects in the 2D image data. Initial work in this direction is already ongoing at partner KUL. With the help and expertise of CTU (in particular in terms of large scale retrieval), the crucial step in this system, being the retrieval of a rendering of a 3D model based on a query-image, will be improved substantially, both with respect to efficiency and scalability, as with respect to robustness to material and illumination changes.

4. List 5 key words

Computer vision, 3D image understanding, Retrieval, Image rendering, Neural networks