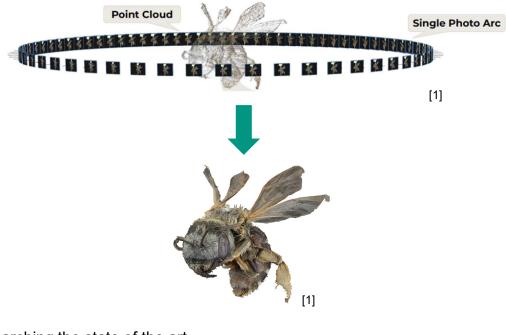




Institute for Automation and Applied Informatics (IAI)

Master's Thesis Development of an automated system for 3D reconstruction

3D reconstruction is used in many fields to analyze and digitize small objects. A widely used method of 3D reconstruction is photogrammetry, in which images are taken from different perspectives to obtain a 3D model. Within the scope of the thesis, existing systems should be further developed to automatically take multi-perspective images of small biological samples and convert them into a 3D model.



Tasks:

- Researching the state of the art
- Concept development and technical implementation
- · Performing tests and evaluating the design

Education, experience and skills:

- · High motivation and ability to work independently
- Experience with Python
- CAD knowledge (Creo Parametric)
- Thesis can be written in English or German

[1] https://escholarship.org/uc/item/0th7b3mh

Nathalie Klug, M.Sc. Prof. Dr. Christian Pylatiuk E-mail: nathalie.klug@kit.edu

Institute for Automation und Applied Informatics (IAI) Karlsruhe Institute of Technology, Campus North Hermann-von-Helmholtz-Platz 1 76344 Eggenstein-Leopoldshafen