

FACULTY OF CONSTRUCTION AND ENVIRONMENT DEPARTMENT OF LAND SURVEYING AND GEO-INFORMATICS 建設及環境學院 土地測量及地理資訊學系

## (PhD) Research Assistant / (Postdoc) Research fellow

The 3D geospatial vision Research Group at the Hong Kong Polytechnic University is part of the Deartment of land surveying and geoinformatics. The group is concerned with general problems and techniques of 3D urban sensing and environmental informatics, namely with the generation, analysis and interpretation of 3D geospatial data. The group adopts and develops multi-sensor systems (including unmanned aerial vehicles, mobile mapping vehicles) to create highly accurate georeferenced 3D data of the built and natural environment. One of many applications is the 3D monitoring of plants and their interaction with environment for precision forestry purposes and environmental informatics.

The project is related to the frontier areas of 3D remote sensing and laser scanning and is concerned with the development and testing of intelligent procedures for the 3D detection, learning and characterization of objects in urban and forested areas as well as the optimization of algorithm development for efficient operational use. The main focus is put on carrying out the scientific investigations as well as the algorithmic implementation in MATLAB and C++. The work area also includes the implementation of system tests and accuracy studies.

Our research group at the Hong Kong Polytechnic University is seeking for highly qualified and motivated research staffs at different ranks in the areas of exploiting 3D multi-modality remote sensing data (3D multispectral vision, laser scanning, data fusion from different platforms) and geospatial vision analysis (e.g. computer vision and machine learning, parameter extraction, object detection and classification) for diverse environmental and urban applications.

$\hfill\square$ Have strong background or knowledge in the field of photogrammetric computer vision and laser scanning
☐ Have good programming skills
☐ Be a team player, open minded, with good communication skills
□ Speak and write reasonably well English

A prerequisite for research assistant/ associate is a completed university MSc degree in geomatics, computer science, photogrammetry and remote sensing, geoscience and related fields, A doctorate study within the university leading to PhD degree is possible and advocated. For (postdoctoral) research fellow post, a doctorate degree with above-average success, ranging from 3D remote sensing to automatic Image/point cloud interpretation, as well as some international journal publications are required.

## How to apply

Qualified applicants holding a Master's or PhD degree should provide the following material:

- 1. Cover letter briefly describing their background and motivation
- 2. CV including their Master/PhD's degree certificate / transcript of record
- 3. Date of availability
- References

International candidates are encouraged to apply, knowledge of chinese language is welcome but not required.

Please send the material via email to Prof. Dr.-Ing. Wei Yao (<a href="wei.hn.yao@polyu.edu.hk">wei.hn.yao@polyu.edu.hk</a>). Preferred starting date is as soon as possible.

Salary will be highly competitive (monthly salary from 1600 to 5500 USD) and will be determined according to the successful applicant's accomplishments, experience and qualifications. The PolyU offers a premium medical insurance package for its full-time employees at no cost of employees.

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