

December 28th, 2021

Kudan Inc.

Professor Daniel Cremers, Artisense founder and CSO, co-authored a paper on accurate tracking and 3D map construction using a monocular camera, and its related demo video won the Best Demo Award at an international conference

Kudan Inc. (headquarters in Shibuya-ku; CEO Daiu Ko; hereafter “Kudan”), a leading provider of simultaneous localization and mapping (SLAM) solutions across multiple industries and applications, is pleased to announce that Professor Daniel Cremers, a founder and CSO (Chief Scientific Officer) of Artisense GmbH (hereafter “Artisense”), a Kudan group company, as well as the Head of the Chair for Computer Vision and Artificial Intelligence at the Technical University of Munich (TUM), co-authored a paper entitled “TANDEM: Tracking and Dense Mapping in Real-time using Deep Multi-view Stereo”, which was presented at the Conference on Robot Learning (CoRL2021).

We are also excited to announce that the demo video won the Best Demo Award at the International Conference on 3D Vision 2021 (3DV2021), where research results covering a broad variety of topics in the area of 3D research in computer vision and graphics are disseminated.

Paper outline:

<https://vision.in.tum.de/research/vslam/tandem>

Check below for the paper:

<https://openreview.net/pdf?id=FzMHiDesj0I>

Demo video:

<https://www.youtube.com/watch?v=L4C8Q6Gv11w>

List of Award Winners:

<https://3dv2021.surrey.ac.uk/prizes/>

In their paper, Prof. Cremers et al. present the results of their research on a method called TANDEM for highly accurate tracking and 3D environment reconstruction using deep learning with a monocular camera. TANDEM outperforms other conventional and deep learning-based monocular visual odometry (VO) tracking methods, and has also proven its performance in reconstructing robust and highly accurate 3D maps.

Artisense continues to promote research and development of cutting-edge technologies backed by academic research, led by Prof. Cremers. Also, Kudan group as a whole, as leading companies in the computer vision industry, will strive to continuously establish competitive advantages in SLAM technology on a global scale and accelerate social implementation.

About Artisense Corporation

Artisense is a computer vision and sensor fusion software company that develops an integrated positioning platform using cameras as a lead sensor for the automation of robots, vehicles, and spatial intelligence applications. On a mission to accelerate the adoption of autonomous robots and machines, Artisense provides products and technology for highly accurate, robust, safe, and low-cost navigation in any space.

For more information, please refer to Artisense's website at <http://www.artisense.ai/>.

About Kudan Inc.

Kudan (Tokyo Stock Exchange securities code: 4425) is a deep tech research and development company specializing in algorithms for artificial perception (AP). As a complement to artificial intelligence (AI), AP functions allow machines to develop autonomy. Currently, Kudan is using its high-level technical innovation to explore business areas based on its own milestone models established for deep tech which provide wide-ranging impact on several major industrial fields.

For more information, please refer to Kudan's website at <https://www.kudan.io/>.

■ Company Details

Name: Kudan Inc.

Securities Code: 4425

Representative: CEO Daiu Ko

■ For more details, please contact us from [here](#).

