

Kudan's Visual SLAM Technology Completes Integration with NVIDIA Isaac Perceptor

Kudan is pleased to announce that Kudan's Visual SLAM (VSLAM) technology is integrated with NVIDIA Isaac Perceptor, an Isaac ROS 2 software package for developing autonomous mobile robots (AMRs).

NVIDIA Isaac Perceptor is a collection of hardware-accelerated packages for visual AI, tailored for Autonomous Mobile Robot (AMR) to perceive, localize, and operate robustly in unstructured environments.

With this collaboration, Kudan's CUDA-accelerated VSLAM significantly enhances its performance by leveraging the 3D perception functions of NVIDIA Isaac Perceptor, including AI-based depth perception and real-time 3D reconstruction with a cost map. Using outputs from Kudan VSLAM, NVIDIA Isaac Perceptor can elevate localization performance in environments with dynamic objects and frequent scenery changes.

This has been successfully demonstrated using NVIDIA's Nova Carter robot, confirming the value of real-time 3D occupancy maps in enhancing the VSLAM approach for mapping and localization of mobile robots. The combination of Kudan VSLAM with NVIDIA Isaac Perceptor offers a sophisticated, visual-based perception and navigation solution for AMR developers, helping enable reliable localization, obstacle detection, and navigation capabilities in complex scenarios.

To view the demonstration of Kudan Visual SLAM integrated with Isaac Perceptor, please visit: [DEMO VIDEO](#)

Kudan will continue to deliver top-notch, best-in-class perception and navigation solutions, addressing the challenges faced by AMR developers and accelerating the deployment of AMRs in various environments.

Comments from both companies:

"We are thrilled to collaborate with NVIDIA in integrating our Visual SLAM technology with Isaac Perceptor, marking a significant leap forward in providing AMR developers with AI-based perception powered by NVIDIA AI and accelerated computing. We look forward to continuing our work with NVIDIA to push the boundaries of what's possible in robotics."

- Daiu Ko, CEO of Kudan Inc.

"AI-driven technologies are significantly advancing autonomous mobile robots. Kudan's Visual SLAM technology integrated with Isaac Perceptor enables AMRs to navigate and operate in unstructured environments with greater precision and reliability."

- Deepu Talla, Vice President of Robotics and Edge Computing, NVIDIA

News Release

About Kudan Inc.

Kudan 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 licensing its technology for next-generation solution areas such as digital twin, robotics and autonomous driving.

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

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