National Institute of Advanced Industrial Science and Technology (AIST)



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To Whom It May Concern,

It is my pleasure to strongly recommend Dr. Arnaud Tanguy for the position "expert en contrôle-commande" at CNRS. I have been working with him for more than five years.

I first came to know him during his first year of PhD thesis, in the context of the DARPA Robotics Challenge, to which we participated as Team AIST-NEDO. Despite the event occurred within the first 6 months of his thesis, he was able to quickly develop SLAM-based localization of the robot, along with registration algorithms to locate objects. In addition, he quickly became proficient in understanding the complex humanoid robot system and assisted the development of challenging tasks such as driving and egressing a vehicle. His efforts greatly contributed to our team's success and were later rewarded with the "Best paper finalist" award at the International Symposium on Systems Integration 2016.

During the following years, I saw he grow through his experiences in both I3S and LIRMM, culminating in the achievement of his thesis with expertise in both state-of-the-art SLAM and robotics control. During the impressive final demonstrator of the H2020 COMANOID project showcasing use of a humanoid robot at Airbus factory, he was given the opportunity to put these skills in practice and achieved high accuracy locomotion of the robot in this challenging environment. The project's achievements were rewarded with the 2020 IEEE Robotics and Automation Magazine's best paper award.

Convinced by his scientific and technical capacities, I offered him the challenging task of unifying the existing control architectures, developed on one hand by CNRS and on the other hand by AIST. The main objective is to reach a high-quality common software framework incorporating the combined expertise of both institutes. Since he joined the team last November, he put his expertise in service of this goal and has been able to bring together some of our most prominent algorithms, all while providing support to the students and researchers of the lab and implementing complex demonstrations.

I believe that by his wide knowledge of robotic systems backed by his strong engineering skills, and his drive to provide high-quality software catering to the needs of both expert roboticist and new coming students, research as well as its industrial applications, he would be a great addition to CNRS and the robotic department of LIRMM.

Sincerest regards,

Fumio Kanehiro,

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Director, Cooperative Research Laboratory

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