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## **All Weather Navigation Perception System**

In military operations, unmanned ground vehicles (UGVs) is expected to perform in day, night and all weather environments. In addition, the UGV will operate in both structured (urban roads) and unstructured (rural tracks) terrains. The current navigation perception sensors employed are mainly LIDAR, complemented with RADAR and/or EO Sensors. The problem of perception under heavy rain is still a unsolved problem. A day/night and all weather navigation perception system that can operate in all terrains will facilitate the adoption of UGV for more military applications.

This call seeks for navigation perception system that can perform terrain mapping for day/night, all weather and all terrain conditions to enable high speed (> 25 km/h) point A to B mobility. Proposals can use a combination of hardware and software processing to collect and model the terrain to facilitate path planning by a UGV in real-time.

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