

Three-Dimensional Positioning Method of Indoor Personnel Based on Millimeter Wave Radar Sensor

Authors : Chao Wang, Zuxue Xia, Wenhai Xia, Rui Wang, Jiayuan Hu, Rui Cheng

Abstract : Aiming at the application of indoor personnel positioning under smog conditions, this paper proposes a 3D positioning method based on the IWR1443 millimeter wave radar sensor. The problem that millimeter-wave radar cannot effectively form contours in 3D point cloud imaging is solved. The results show that the method can effectively achieve indoor positioning and scene construction, and the maximum positioning error of the system is 0.130m.

Keywords : indoor positioning, millimeter wave radar, IWR1443 sensor, point cloud imaging

Conference Title : ICR 2022 : International Conference on Radar

Conference Location : Istanbul, Türkiye

Conference Dates : September 27-28, 2022