

# UWB and WiFi characterization for localization in construction sites

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## ABSTRACT

High-precision location is becoming a necessity in the future Industry 4.0 applications that will come up in the near future. However, the construction sector remains particularly obsolete in the adoption of Industry 4.0 applications. In this work we study the accuracy and penetration capacity of two technologies that are expected to deal with future high-precision location services such as Ultra Wide Band (UWB) and WiFi Fine Time Measurement (FTM). For this, a measurement campaign has been done in a construction environment, where UWB and WiFi-FTM setups have been deployed. The performance of UWB and WiFi-FTM have been compared with a prior set of indoors measurements. Moreover, the impact of fusion of location technologies has been assessed to measure the potential improvements in the construction scenario.

## ACKNOWLEDGEMENTS

This work has been carried out through the I plan Propio de Investigación y Transferencia y Divulgación Científica by University of Malaga and the Junta de Andalucía under the UMA-CEIATECH-12 TEDES-5G grant agreement. Moreover, this work has been performed in the framework of the Horizon 2020 project LOCUS (grant agreement number 871249), receiving funds from the European Commission. In addition, we would like to thank the company ACR for providing us access to a real construction environment.