



Master Thesis (6M)

In collaboration with Huawei Wireless Terminal Chipset Lab in Munich

Title	Study and Modeling of Local Reference Sensing for 6G
Description	<p>Fusion of data communication and sensing is one of the focused research area for 6G wireless systems. An enabling technology is the proper modeling of the sensing targets and the propagation channels.</p> <p>In this master thesis project, the student will have the opportunity to learn the mechanism of an open sourced propagation channel model, and extend the model for the purpose of indoor radar sensing. The student will have the opportunity to learn the polarimetric radar characteristics through literatures exploration for some typical scatters, study how those characteristics are impacted by the communication bandwidth and the carrier frequency, select the proper scatters which are suitable for local reference sensing, and finally implement the model within the channel model.</p> <p>A scientific publication of the results is possible and even desirable. For this position, remote working is possible.</p> <p>[1] T. Visentin, Polarimetric Radar for Automotive Applications, PhD Thesis, Karlsruhe Institute of Technology, 2018</p>
Qualifications	<ul style="list-style-type: none"> • Student from electrical engineering or related study programs • Good knowledge and interest in RF technologies. • Good knowledge and interest in radar signal processing. • Very good knowledge in Matlab • Excellent communication in English • Knowledge and interest in channel modeling is a plus.
Begin	According to agreement
Duration	6 Months with the possibility of extension for another 3 Months
Language	English
Supervisor	zhibinyu@huawei.com and ISS

~~Please contact zhibinyu@huawei.com for more information~~

Please contact Prof. Yang by sending your Bachelor and Master transcript.