




Charlemont grant report

Recipient name:	Dr Xingqi Zhang	
Discipline and subject area:	Sciences, Engineering and Material Sciences	
Amount and year awarded:	€2,250 in 2021	
Title of project:	Intelligent Planning of Emerging Wireless Technologies in Railway Transportation Systems	

Summary of findings:

Research collaborations have been initiated between University College Dublin and University of Toronto. A joint research paper has been published at an international conference (IEEE Vehicular Technology Conference).

Plans for continuing collaboration:

Long-term collaborations could be fostered on research projects in the areas of applied electromagnetics and wireless communications.

Published work and publication plans:

X. Zhang, N. Sood, S. Baroudi, J. Liebeherr, C. D. Sarris, "Physics-based wireless channel modeling and optimization of access points placement for communications-based train control systems," IEEE Vehicular Technology Conference (VTC-Spring), 2021.

<https://ieeexplore.ieee.org/abstract/document/9448988>

Dissemination and plans for future dissemination:

A talk has been given at an international conference (IEEE Vehicular Technology Conference) to disseminate research findings from the project.

Outreach and engagement activities:

CHIST-ERA Research Grant, EUR € 836,631, "Towards Sustainable ICT: Sparse Ubiquitous Networks based on Reconfigurable Intelligent Surfaces (SUNRISE)," European Coordinated Research under the Horizon 2020 Future & Emerging Technologies (FET) Program.