

Annual Report of Wirelessly Powered Smart Dust

In this 4TU.NIRICT project of Wireless powered smart dust, we did local and international cooperation on the topic of wireless power transfer and smart sensors. Locally, we cooperated with IMEC-NL, ProDrive on the topic of how to wireless powered a wearable device for the future IoT device. Internationally, we join the arrangement of the wireless power week in London and present our results on the IEEE MTT-S Wireless Power Transfer Conference. Also, in this project, a seminar is arranged in the Ecole Polytechnique, University of Montreal, Canada, to present wireless power technique in the Netherlands, and exchange the ideals with the Canada team.

The publication within this project:

- i. 125 kHz wireless energy and 25 kbps data transfer for wearable device, Gao, D., Zhai, R., Baltus, P., Visser, H. & Gao, H., 2019, IEEE MTT-S Wireless Power Transfer Conference (WPTC). Institute of Electrical and Electronics Engineers
- ii. Comparison of tunnel diode and Schottky diode in rectifier at 2.4 GHz for low input power region, Manev, V., Visser, H., Baltus, P. & Gao, H., 2019, IEEE MTT-S Wireless Power Transfer Conference (WPTC). Institute of Electrical and Electronics Engineers

Seminar: Millimeter-wave ultra-low-power wireless sensing, cole Polytechnique, University of Montreal, Canada



Figure: picture from seminar: Millimeter-wave ultra-low-power wireless sensing, cole Polytechnique, University of Montreal, Canada