

第 18 回研究科セミナー(サステナブルイノベーション研究領域)

テーマ

「サウサンプトン大学におけるサステナブル電子技術の研究と 新しい博士トレーニングセンター (CDT) の紹介」

Sustainable Electronic Technologies and new Centres for Doctoral
Training (CDT) at Southampton

講演者: University of Southampton
Professor, Kees de Groot

日 時: 令和 6 年 10 月 8 日(火) 15:00~16:30

場 所: マテリアルサイエンス研究棟4階8階 中セミナー室

講演要旨:

I will describe our activities in the Sustainable Electronic Technologies group on Energy Harvesting through Thermo-Electric Generator and Photo-Voltaic Devices through cleanroom work, field experiments, and artificial neural network optimisation. Particular focus will be on my work on heat dissipation through radiative cooling. Using metamaterial structures of Al-doped ZnO (AZO) or thermochromic W-doped VO₂, we are able to control absorption and emission across the wavelength spectrum allowing for radiative cooling with optical and near infra-red transparency. In addition, I will describe the UK funding system on Centres for Doctoral Training (CDT) and specifically the implementation of two of those centres at Southampton: The MINDS CDT on neuromorphic computing at the interface of Electronics and Computer Science and the new CDT on Quantum Technology Engineering.

講演者略歴:

- 1994 Master degree in Physcs, University of Groningen
- 1998 PhD degree, University of Amsterdam
- 1998 Research Fellow, Massachusetts Institute of Technology (MIT), Cambridge U.S.
- 2000 Assistant Professor, School of Electronics and Computer Science, Univ. of Southampton
- 2006 Associate Professr, School of Electronics and Computer Science, Univ. of Southampton
- 2012 Professor, School of Electronics and Computer Science, Univ. of Southampton
- 2017 Professor and Head of Sustainable Electronic Technologies Group, School of Electronics and Computer Science, Univ. of Southampton

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