

## 2021年CSC-IMEC-KU Leuven合作奖学金项目可申报项目课题清单

导师姓名	项目课题
Bart Nauwelaers	Microwave heating in tubes for optimal proteomics (MAESTRO)
Ben Aernouts	Internet of dairy: novel combination of reusable filter and multispectral imaging for online detection of clinical mastitis in cows
Ben Aernouts	Remote sensing of respiration and heart rate of dairy cows by the use of radar technology
Carmen Bartic Wim Thielemans	Multifunctional extracellular matrices based on nanoparticle/hydrogel composites
Davy Pissoort Hans Hallez en Dries Vanoost	Electrical drive as an online condition monitoring system
Davy Pissoort Tim Claeys en Dries Vanoost	Line coding diversity techniques for EMI Resilience
Dirk Springael	Understanding environmental factors and mechanisms that govern the interactions within a pesticide degrading bacterial consortium
Dirk Springael	Insertion element mediated horizontal gene transfer and its contribution to microbial community adaptation
Dirk Van Hertem	Energy scenarios and development options for a Eurasian power system
Filip Tavernier	Capacitive DC/DC converters in GaN-IC
Georges Gielen	AI techniques for intelligent optimization in analog integrated circuit synthesis
Georges Gielen	Design of power-efficient analog and mixed-signal circuits using Carbon NanoTube (CNT) technology
Hans Hallez Davy Pissoort en Dries Vanoost	Flexible optimization in smart production factory trough digital twin
Hans Hallez en Dries Vanoost	AdReST: advanced retrofitting for a sustainable tranformation to Industry 4.0
Hugo Van hamme	Weakly supervised training of automatic speech recognition systems
Jef Beerten en Panos Patrinos	Data-driven dynamic analysis of power systems using deep-learning techniques

导师姓名	项目课题
Jeffrey Prinzie Valentijn De Smedt	Modelling and characterization of UT-FDSOI devices and their long term reliability at cryogenic temperatures
Jeffrey Prinzie Valentijn De Smedt	Low voltage and supply resilient frequency locked loop oscillators
Jeroen Boydens en Dries Vanoost	Ensuring dependable error correction code communication in harsh industrial environment
Jeroen Boydens Jens Vankeirsbilck en Dries Vanoost	Hardware-enabled software-implemented soft error detection
Jiabin Li	Development of alternative construction materials from construction and demolition waste (CDW)
Jiabin Li	New sand replacement materials in mortar and concrete
Joris Van de Vondel en Ewald Janssens	Graphene as a sensor for the electronic properties of few atom clusters
Liesbet Van der Perre	Co-design of architectures and algorithms for distributed large intelligent surfaces to create hyper-connected environments.
Lieven De Strycker	Sensor federation for precise positioning of autonomous devices in hyper-connected environments
Patrick Van Dijck	The elucidation of subcellular iron homeostasis in Candida albicans in the presence and absence of the antifungal drug flucozole
Rony Keppens	Extreme plasma conditions in the solar atmosphere: post-flare coronal rain
Ruth V. Sabariego Geert Deconinck	Condition monitoring of electrical machines via virtual measurements and machine learning
Sofie Pollin	AI-powered indoor privacy-preserving sensing with visible light
Steven De Feyter	On-surface synthesized two-dimensional polymers
Tom Schrijvers	Cheap and easy development of advanced domain-specific languages
Valentijn De Smedt en Jeffrey Prinzie	Modelling and design of reliable high density power converters at cryogenic temperatures
Vero Vanden Abeele	Deconstructing casual games to yield digital biomarkers of cognitive performance
Wilmar Martinez	Ultra compact variable transformer for wide voltage applications-power electronics

导师姓名	项目课题
Wilmar Martinez	Machine learning based modeling platform for optimization of power electronics design
Wim Dehaen en Steven De Jonghe	Synthesis and structure-activity relationship studies of CCR8 agonists as a novel treatment option for autoimmune diseases
Xavier Casadevall i Solvas en Toon Goedemé	Automating microfluidic systems: towards autonomous cell-based experimental platforms
Claudia Fleischmann	Fundamental aspects of pulsed laser interactions with nano-scaled objects
Margriet Van Bael	Exploratory topological semimetal materials for beyond CMOS devices
Stefan De Gendt	Chemical vapor deposition of metal-organic frameworks (MOFs) for advanced IC applications
Wilmar Martinez	Thermal modelling of integrated power converters
Wilmar Martinez	Feasibility analysis of wireless power transfer implementation in building integrated DC systems
Wilmar Martinez	Additive manufacturing for novel heat dissipation techniques in power converters
Jef Poortmans	Thermo-mechanical simulation of integrated PV modules
Geert Deconinck	Energy management for hybrid PV systems
Philippe Vereecken	Novel electrocatalysts for hydrogen production from low-alkaline water electrolyzers using nano-structured electrodes
Philippe Vereecken	Nanostructured anodes for high-Energy solid-state Lithium ion batteries
Liesbet Lagae	Long lifetime bioreceptors for continuous measurements in bioreactors, diagnostics and ingestibles
Liesbet Lagae	Spatiotemporal profiling of neural circuits by single cell integrative analysis using High-Density MEA chips
Chris Van Hoof	Wireless high-channel count implantable neurorecording system
Paul Heremans	Thin-film printed micro-supercapacitors for energy management of autonomous IoT sensors nodes
Jef Poortmans	Improve the operational stability of perovskite solar cells