

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

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

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

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

身份类别	导师姓名	项目课题
博士后	Liesbet Lagae	Smart pills with breakable membranes for bio-sensing
博士后	Pol Van Dorpe	Materials characterization and optimization for integrated ISFETs and chemFETs
博士后	Philippe Vereecken	Microfabrication of thin-film batteries with combined energy harvesting