

Fortum and Neste Foundation Grants 2022

Adedipe Taiwo

Atmospheric boundary layer modeling for earth topographical structures

Akram Muhammad Saad

Utilizing carbon neutral fuels in heavy-duty engines

Attar Mehdi

Distribution grid congestion management using local flexibility market

Azangoo Mohammad

Automatic generation of a digital twin of a process plant using graph theory for the purpose of performing safety analysis, design validation, and optimization

Chen Jiayi

Study of materials-related challenges in fabricating axially laminated rotors of synchronous reluctance motors for electric transportation and high-speed applications

Dahal Roshi

Fractionation and purification of pyrolysis oil obtained from the pyrolysis of biomass/waste polystyrene plastic

Esmaeili Mohammadamin

Membranien modifiointi bioperäisillä fenolisilla yhdisteillä toimintakyvyn parantamiseksi ja biolikaantumisen estämiseksi

Fattaheian Dehkordi Sajjad

Optimizing the planning of energy storage units in a smart distribution system considering the flexibility requirements

Haider Syed Ejaz

Synthesis, simulation, and optimization of integrated biorefining program

Hietalahti Arttu

Wide spectral calibration of III-V multi-junction solar cells

Hytönen Noora

Study of microstructure and ageing effect on fracture initiation in nuclear reactor critical welds

Järvinen Lauri

Effect of power quality on alkaline water electrolyzer operation

Kaka Khel Taimoor Ahmad

A comprehensive catalytic study for the production of diesel range cycloalkanes from biomass-derived molecules

Karhu Juha

Lumen vaikutus aurinkosähkötuotantoon Suomessa

Kochrekar Sachin

Development of efficient catalyst for electrochemical CO₂ reduction (ECR)

Kroyan Yuri

Modeling the reactivity and performance of renewable fuels in spark-ignition engines of light-duty vehicles - enhancing the digitalization and sustainable energy transition in the transport sector

Kumar Haresh

Big data analytics for condition monitoring and predictive maintenance of medium voltage cables

Laitinen Markus

Methanol as an energy carrier for future transportation via Carbon Capture Utilization and Power-to-X

Lin Yan

High-voltage spinel cathode materials for next-generation lithium-ion batteries

Maddahi Reza

International law on CCS technology: A legal appraisal of compatibility and opportunities under the Paris Climate Change Agreement with a focus on international market mechanisms

Mousavi Seyede Maryam

Improving the longevity of solar cells through the integration of added functions

Mousivand Navid

Novel Sorption biomaterials for seasonal thermochemical energy storage

Nguyen Thu

Lignin as renewable antimicrobial and antioxidant agents: unlocking the structure-property correlation mechanism

Nyari Judit

Methanol production via carbon dioxide hydrogenation for renewable electricity storage

Otaki Miho

Ultra-selective separation of lanthanides by organophosphorous-based hybrid materials

Pakkanen Noora

Radionuclide transport with colloids in Fractured Rock

Peltonen Lasse

Dynamic response of a microgrid operating at constant frequency control method with two grid-forming inverters

Ramu Prabudeva

Multi-junction high efficiency thin-film solar cells

Rizzo Piton Gabriela

Biodegradable supercapacitors – a quest for bioinspired sustainable energy solutions

Romakkaniemi Idamaria

Ligniinin entsyymaattinen valorisaatio

Rouhi Hassan

Multi-physics modeling of Lithium-ion batteries

Rönn Kristian

Super-knock-tutkimukset turboahdetussa bensiinimoottorissa

Salonen Pasi

Mo, W ja V aminofenolaattokompleksit katalyyttisessä alkeenien epoksidaatiossa ja katekolien hapetuksessa

Sayed Ahmed Hassan

Towards affordable green hydrogen: data-driven optimization of PEM electrolysis

Schmidt Christoph

Transient studies of catalytic three-phase processes: oxidation of molecules from biomass

Storm Xiaoguo

Exploring the solution to the climate crisis by closing the technical knowledge and practical implementation gap for the next-generation Reactivity Controlled Compression Ignition (RCCI) engine

Välimäki Emmi

Catalytic conversion of methane to carbon and hydrogen

Wang Maria

Trade flows, carbon leakage, and the EU Emissions Trading System

Wojcieszuk Michal

Research on renewable drop-in fuels for transport applications aiming at reduced greenhouse gas emissions, optimized end-use performance, and improved energy security

Yeganeh Maryam

The first stage of gradual development of a hydrogen direct injection- spark ignition engine