



PAGES
PANGEA GLOBAL EVENTS



(ICMME-2024)

(ICRNRE-2024)

**International Conference on
Mechanical and Mechatronics Engineering**

&

**2nd International Conference on
Renewable and Non-Renewable Energy**

April 22-23, 2024 | Munich, Germany

Chair

Ralph Kennel, Chair of High-Power Converter Systems,
Technical University of Munich, Germany

Co - Chair

Christoph Pflaum, University of Erlangen-Nuremberg, Germany

09:00 - 09:30

On Spot Registrations

Plenary Presentations

09:30 - 10:10

P **Title:** Direct Model Predictive Control of Impedance Source Inverters-Making Full Use of Power Electronics for Energy Conversion

Ralph Kennel, Chair of High-Power Converter Systems, Technical University of Munich, Germany

10:10 - 10:50

P **Title:** Environmentally Friendly Aviation with Airships Using Solar and Wind Energy

Christoph Pflaum, University of Erlangen-Nuremberg, Germany

10:50 - 11:05

Refreshment Break

11:05 - 11:45

P **Title:** A Step Towards Smart, Ergonomic and Sustainable Mining Machinery Workplaces

Vesna Spasojevic Brkic, University of Belgrade, Serbia

11:45 - 12:25

P **Title:** Biodegradable Force Sensor: Research of Characteristics and Applications

Uldis Zaimis, Institute of Science and Innovative technologies, Latvia

12:25 - 13:05

P **Title:** Necessary Contributions to Reach 100% Renewable Energy and Energy Justice

Winfried Hoffmann, Applied Solar Expertise GmbH, Germany

13:05 - 14:05

Group Photo

Lunch Break

14:05 - 14:45

P **Title:** Green Hydrogen Fuel Cells as Renewable Energy Sources for Circular Economy-Challenges and Perspectives

Nevenka R. Elezovic, University of Belgrade, Serbia

14:45 - 15:25

P **Title:** Influence of Interactive Nanosized Metal-Oxides Supports on Catalyst Electroactivity and Stability for Ethanol Oxidation in Fuel Cell Applications

Milica P. Marceta Kaninski, Institute of General and Physical Chemistry, Serbia

15:25 - 15:40

Refreshment Break

15:40 - 16:20

P **Title:** Enhanced Nanocatalysts for Improved Ethanol Oxidation in Fuel Cell Applications

Vladimir Nikolic, Institute of General and Physical Chemistry, Serbia

16:20 - 17:00

P **Title:** Poseidon Hydroelectric System

Rick Navarro, CEO at Renewable Ocean Energy, Inc, USA

Keynote Presentations

17:00 - 17:25

K **Title:** Heat Pumps as Vital Elements of the Energy Transition

Schrag Tobias, Ingolstadt Technical University, Germany

17:25 - 17:50

K **Title:** Challenges of Renewable Energy Projects - Using Selected Projects in Africa as Examples

Kay Pfaffenberger, Flensburg University of Applied Sciences, Germany

17:50 - 18:15

K **Title:** Research and Development of Key Technologies for High Strength Gears and Bearings of New Energy Vehicles

Yong Chen, Guangxi University, China

18:15 - 18:40

K **Title:** Multivariable-Multi Objective Optimization of Energy Systems

Amedeo Amoresano, University of Naples, Italy

18:40 - 19:05

K **Title:** Experimental Study and Numerical Simulation of Heat Transfer Performance of Metal Oxides Nano-PCM Applied in Latent Heat Storage System

Zulfiqar Khan, Bournemouth University, England

19:05 - 19:30

K **Title:** Emerging Innovations in Robotics and Assistive Technologies

Redwan Alqasemi, University of South Florida, USA

Closing the Day 1 Conference

Day 2 | April 23, 2024

Chair

Ralph Kennel, Chair of High-Power Converter Systems,
Technical University of Munich, Germany

Chair

Andrea cammarano, University of Glasgow, UK

Plenary Presentations

09:00 - 09:40

P **Title:** Mechatronics for Harsh Environments: A Step-By-Step Approach
Andrea cammarano, University of Glasgow, UK

09:40 - 10:20

P **Title:** Kinematic Dynamic and Energy Characteristics of
Three-Dimensional Flow from Ventricle to Descending Aorta
Tin-kan Hung, University of Pittsburgh, USA

10:20 - 11:00

P **Title:** Hand Rehabilitation Robotics
Fong-Chin Su, National Cheng Kung University, USA

11:00 - 11:15

Refreshment Break

Keynote Presentations

11:15 - 11:40

K **Title:** The Innovation and Practice of Green Hydrogen Technology
in China Under the Goal of Carbon Neutrality
Yang Fuyuan, Tsinghua University, China

11:40 - 12:05

K **Title:** Simulation and Optimization of Small Solar Thermal
Storage Heating System
Zhenqian Chen, School of Energy and Environment, Southeast
University, China

12:05 - 12:30

K **Title:** Achieving High Precision Metal Additive Manufacturing with
Ultraprecision Machining Enhanced by Mechanochemical Effect
Hao wang, National University of Singapore, Singapore

12:30 - 12:55

K **Title:** Will Be Updated Soon
Kevin Worrall, University of Glasgow, United Kingdom

12:55 - 13:55

Group Photo

Lunch Break

13:55 - 14:20

K **Title:** Research and Development of Key Technologies for High
Strength Gears and Bearings of New Energy Vehicles
Anil Kumar Srivastava, University of Texas Rio Grande Valley, USA

14:20 - 14:45

K **Title:** The ABC's of DED(Directed Energy Deposition)
Jill Urbanic, University of Windsor, Canada

14:45 - 15:10

- K **Title:** 3D Printing of Field's Metal for Wearable Sensors and Flexible Electronics
Jerry FUH Ying Hsi, National University of Singapore, Singapore

15:10 - 15:35

- K **Title:** Studies of Energy Absorption for Interpenetrating Phase Composites with 3D Printed Triply Periodic Minimal Surface (TPMS) Lattice Structures
Lu Wen Feng, National University of Singapore, Singapore

15:35 - 15:50

Refreshment Break

15:50 - 16:15

- K **Title:** Energy Initiatives for Carbon Neutrality in Subtropical Small Islands
Jun-ichiro Giorgos Tsutsumi, University of the Ryukyus, Japan

16:15 - 16:40

- K **Title:** Offshore Energy Utilization and Storage
Kristina Terheiden, University of Stuttgart, Germany

16:40 - 17:05

- K **Title:** Design and Implementation of a Bionic Hand, Wrist and Forearm Prosthesis, with Manipulation and Rotation Capabilities, Controlled by Artificial Intelligence Through Myoelectric Signals, Using a Training System in a Virtual Environment to Facilitate Adaptation
Edwin Alejandro Quinaluisa, University of the Armed Forces ESPE, Ecuador

Invited Presentations

17:05 - 17:25

- I **Title:** Advanced Methods for Battery Storage Optimization with Respect to Electric Grid Flexibilities
Jan Dahlhaus, TWT GmbH Science & Innovation Industries, Germany

17:25 - 17:45

- I **Title:** Comparative Analysis of In Situ Ionic Activators for Energy Efficiency Process in Alkaline
Sladjana Maslovara, University of Belgrade, Serbia

17:45 - 18:05

- I **Title:** Filtering Efficiency of Pollutants in Heavy-Duty Vehicle Cabins
Katarina Dimic-Misic, Aalto University, Finland

18:05 - 18:25

- I **Title:** Integration of CSI Inverters in Grid Connected Photovoltaic Power Systems, State of the Art
Roberto Giacomobono, University of Salerno, Italy

18:25 - 18:45

- I **Title:** Improving the Fatigue Design of Mechanical Systems such as Refrigerator
Seongwoo Woo, Ethiopian Technical University, Ethiopia

18:45 - 19:05

- I **Title:** Powering the Future: A Deep Dive into Renewable Energy and Solar Innovation
Ahmed Asaad Ali, Iraq ministry of Electricity, Iraq

Closing the Day 2 Conference

UPCOMING CONFERENCES



2nd International Conference on Mechanical and Mechatronics Engineering

April 14-16, 2025 | Amsterdam, Netherlands

&

3rd International Conference on Renewable and Non-Renewable Energy

April 14-16, 2025 | Amsterdam, Netherlands