## **EPE'20 ECCE Europe: LIST OF KEYWORDS**

AC machine

AC-cable

AC/AC converter

Accelerators

Acoustic noise

Active damping

Active filter

Active Front-End

Actuator

Adaptive control

Adjustable speed drive

Adjustable speed generation system

Aerospace

Airplane

Alternative energy

**Amplifiers** 

Artificial Intelligence

Asynchronous motor

Automotive application

Automotive component

Automotive electronics

Autotuning

**Axial Machines** 

**Batteries** 

Battery charger

**Battery Management Systems (BMS)** 

Bipolar device

Bipolar Junction Transistor (BJT)

Breakdown

Brushless drive

Bus bar

Charge compensation device

Charging Infrastructure for EV's

Circuits

Component for measurements

**Communication for Power Electronics** 

Conduction losses

**Contact Resistance** 

**Contactless Energy Transfer** 

**Contactless Power Supply** 

Control methods for electrical systems

Control of drive

Converter circuit



Converter control

Converter machine interactions

Cooling

Current limiter

Current sensor

**Current Source Inverter (CSI)** 

Data analysis

Data transmission

DC collector network

DC machine

DC power supply

DC-cable

Design

Device

**Device** application

Device characterisation

Device modeling

**Device simulation** 

Diagnostics

Diamond

Dielectric losses

Digital control

Diode

Direct power control

Direct torque and flux control

Discrete power device

Distributed power

Distribution FACTS (DFACTS)

Distribution of electrical energy

**Distribution STATCOM** 

Doubly fed induction motor

Drive

**DSP** 

Dynamic Voltage Restorer (DVR)

**Education methodology** 

**Education tool** 

Efficiency

Electric vehicle

Electrical drive

Electrical machine

Electroactive materials

Electronic ballast

Embarked networks

EMC/EMI

Emerging technology

**Emerging topology** 



**Energy Control Unit (ECU)** 

Energy converters for HEV

Energy storage

Energy system management

Environment

Estimation technique

**Excitation system** 

**FACTS** 

Fast recovery diode

Fault handling strategy

Fault ride-through

Fault tolerance

**Faults** 

Field Programmable Gate Array (FPGA)

**Fieldbus** 

Flicker

Flux model

**Flywheel** 

Flywheel system

Force Control (not only Torque Control)

Free Wheel Diode (FWD)

Frequency-Domain Analysis

Fuel Cell Electric Vehicle (FCEV)

Fuel cell system

Fuzzy control

Gallium Nitride (GaN)

Generation of electrical energy

Generator excitation system

Hardware (not only Software)

Harmonics

High frequency power converter

High power density systems

High power discrete device

High-speed drive

High temperature electronics

High voltage IC's

High voltage power converters

Highly dynamic drive

**HVDC** 

Hybrid Electric Vehicle (HEV)

Hybrid power integration

**IGBT** 

**IGCT** 

Impedance measurement

**Induction heating** 

Induction motor



**Industrial** application

Industrial communications

Industrial information systems

Insulation

Integrated Circuit (IC)

Intelligent drive

Intelligent Power Module (IPM)

Interharmonics

Interleaved converters

**IFET** 

Life Cycle Analysis (LCA)

Lighting

Linear drive

Load sharing control

Locomotive

Machine tool drive

Magnetic bearings

Magnetic device

Maintenance

Marine

Matrix converter

Measurement

Mechatronics

Microcontrollers (or controllers)

Microgrid

Mission profile

Modelling

MPC (Model-based Predictive Control)

Modulation strategy

Monolithic power integration

MOS device

**MOSFET** 

Motion control

Multi axle drives

Multi-machine system

Multilevel converters

Multiphase drive

Multiterminal HVDC

Nanotechnology

Neural network

Neuronal control

New switching devices

Nine-switch converter

Noise

Non-linear control

Non-standard electrical machine



Nuclear fusion

Ohmic Losses

On-board network

Optimal control

**Packaging** 

Parallel operation

Particle accelerator

Passive component

Passive component integration

Passive filter

Permanent magnet motor

Photovoltaic

Physics research

Piezo actuators

Power conditioning

Power converters for EV

Power converters for FCEV

Power converters for HEV

Power cycling

Power factor correction

Power integrated circuit

Power management

Power plant performance

Power quality

Power semiconductor device

Power supply

Power transmission

**Predictive Control** 

**Prognosis** 

**Programming** 

Protection device

Pulse Width Modulation (PWM)

Pulsed power

Pulsed power converter

Radio frequency (RF)

Rail vehicle

Reactive power

Real time processing

Real time simulation

Regenerative power

Regulation

Regulators

Reliability

Reluctance drive

Renewable energy systems

Resonant converter



Reverse recovery

Road vehicle

**Robotics** 

Robust control

Robustness

Safety

Schottky diode

Self-sensing control

Semiconductor device

Sensor

Sensorless control

Servo-drive

Ship

Signal processing

Silicon Carbide (SiC)

Simulation

Single phase system

Sliding mode control

Smart grids

**Smart microgrids** 

Smart power

Soft switching

Software

Software for measurements

Solar cell system

Space

Standard

Standardization

Static Synchronous Compensator (STATCOM)

Static Var Compensator (SVC)

**Statistics** 

Sub-synchronous resonance (SSR)

Super junction devices

Supercapacitor

Superconducting Magnetic Energy Storage (SMES)

Superconductors

Supply quality

Sustainable system/technology

Switched reluctance drive

Switched-mode power supply

**Switching losses** 

Synchronous motor

System integration

Systems engineering

**Teaching** 

Test bench



Thermal cycling

Thermal design

Thermal stress

Thermoelectric energy

Three-phase system

**Thyristor** 

Time-Domain Analysis

Traction application

Transducer

Transformer

Transistor

Transmission of electrical energy

Tranversal flux motor

Ultra capacitors

Uninterruptible Power Supply (UPS)

Variable speed drive

Vector control

Virtual instrument

Virtual prototyping

Voltage Regulator Modules (VRM)

Voltage sag compensators

Voltage sensor

Voltage Source Converter (VSC)

Voltage Source Inverters (VSI)

Water transport

Wave energy

Wide bandgap devices

Wind energy

Windgenerator systems

Wireless Control

Wireless power transmission

Wireless sensors

Z-source converter

**ZCS** converters

**ZCZVS** converters

**ZVS** converters