



EPE'21 ECCE Europe: LIST OF KEYWORDS

AC machine
AC-AC
AC-AC converter
AC-cable
Accelerators
AC-DC
AC-DC converter
AC-DC microgrid
Acoustic noise
Active damping
Active filter
Active Front-End
Active power-decoupling circuit
Active Protection
Actuator
Adaptive auto-reclosing
Adaptive control
Adjustable speed drive
Adjustable speed generation system
ADMM algorithm
Aerospace
Aging
Airplane
Alternative energy
Amplifiers
Analytical losses computation
Ancillary services
Artificial intelligence
Asynchronous motor
Automotive application
Automotive component
Automotive electronics
Autotuning
Axial Machines
Batteries
Battery
Battery charger
Battery Management Systems (BMS)
Bearing currents
Bi-directional
Bi-directional converters
Billing rules
Bipolar device
Bipolar Junction Transistor (BJT)
Block modulation
Boost
Branch currents mismatch
Breakdown

September 6-10, 2021

Ghent, Belgium

<http://www.epe2021.com>

EPE'21 ECCE Europe

The 23rd European Conference on Power Electronics and Applications



Brushless drive
Bus bar
Calculation method
Capacitor voltage balancing
Capacitors
Cascaded H-Bridge
Chaotic suppression EMI
Charge compensation device
Charge scheduling
Charging infrastructure for EV's
Circuits
Combination MMC LLC
Combined heat and power
Communication for Power Electronics
Compensation
Component for measurements
Computational cost
Condition Monitoring
Conduction losses
Consensus
Consensus-based cooperative control
Contact resistance
Contactless Energy Transfer
Contactless Power Supply
Control methods for electrical systems
Control of drive
Controller benchmark
Controllers
Converter circuit
Converter control
Converter machine interactions
Cooling
Core loss modelling
Core loss
Corrosion testing
Cost analysis
Cost function
Coupled capacitor
Coupled inductor
Coupling characteristics
Cryogenic
CSI
Current balancing
Current derivative
Current limiter
Current loop
Current observer
Current sensor
Current source
Current Source Inverter (CSI)

September 6-10, 2021

Ghent, Belgium

<http://www.epe2021.com>

EPE'21 ECCE Europe

The 23rd European Conference on Power Electronics and Applications



Current-source DC-DC
DAB-LLC Converter
Data analysis
Data transmission
DC circuit breaker
DC collector network
DC machine
DC power supply
DC railway power supply
DC voltage control
DC-AC
DC-AC converter
DC-AC converters
DC-cable
DC-DC
DC-DC converter
DC-DC converters
DC-DC power converter
Dead-time
Decentralized control structure
Deep Learning
Degradation
Demand response
Design
Design optimization
Device
Device application
Device characterisation
Device modelling
Device simulation
Diagnostics
Diamond
Dielectric losses
Digital control
Diode
Direct matrix converter
Direct power control
Direct torque and flux control
Direct Torque Control (DTC)
Discrete power device
Discrete-time
Distributed Generation
Distributed Power
Distribution FACTS (DFACTS)
Distribution of electrical energy
Distribution STATCOM Doubly fed induction motor
Double pulse test
Double-input converter
Double-star chopper cells (DSCC)
Doubly-Fed Induction Generator (DFIG)
Drilling

September 6-10, 2021

Ghent, Belgium

<http://www.epe2021.com>

EPE'21 ECCE Europe

The 23rd European Conference on Power Electronics and Applications



Drive
Driver concepts
Droop control
DSP
Dual Active Bridge (DAB)
Dual Active Bridge (DAB) DC-DC converter
Dual Active Bridge Converter
Dynamic Ron
Dynamic Voltage Restorer (DVR)
Economic dispatch
Eddy current loss
Education methodology
Education tool
EESM
Efficiency
Elastic / Plastic deformation
Electric vehicle
Electrical drive
Electrical machine
Electroactive materials
Electromagnetic Energy Harvester
Electromagnetic Interference (EMI)
Electronic ballast
Electrostatic Machine
Embarked networks
EMC/EMI
Emerging technology
Emerging topology
Energy Control Unit (ECU)
Energy converters for HEV
Energy digitalization
Energy management system
Energy storage
Energy system management
Energy Transition
Environment
Estimation technique
Excitation system
FACTS
Failure modes
Fast fault detection
Fast recovery diode
Fault handling strategy
Fault ride-through
Fault tolerance
Faults
Ferrite
Field Oriented Control
Field Programmable Gate Array (FPGA)
Fieldbus
Filter Design Automation

September 6-10, 2021

Ghent, Belgium

<http://www.epe2021.com>



EPE'21 ECCE Europe

The 23rd European Conference on Power Electronics and Applications



Filtering
Finite-element analysis
Finite-element method
Flatness control
Flicker
Flux model
Flux separation
Flyback Converter
Flying Capacitor Boost Converter
Flywheel
Flywheel system
Foil winding
Force Control (not only Torque Control)
Four-switch Buck-Boost Converter (FSBB)
Free Wheel Diode (FWD)
Frequency Dynamics
Frequency-Domain Analysis
Fuel Cell
Fuel Cell Electric Vehicle (FCEV)
Fuel Cell System
Fuzzy control
Gallium Nitride (GaN)
Generation of electrical energy
Generator
Generator excitation system
Genetic algorithm
Green aviation
Grid forming
Grid measurements
Grid-connected converter
Grid-connected inverter
Grid-forming converters
Half-bridge
Half-bridge-active-clamp converter
Hardware
Harmonic current model
Harmonic injection
Harmonics
HEMT
High frequency power converter
High low-frequency ripple
High power density systems
High power discrete device
High temperature electronics
High voltage IC's
High voltage power converters
Highly dynamic drive
High-speed drive
Humidity
HVDC
Hybrid

September 6-10, 2021

Ghent, Belgium

<http://www.epe2021.com>



EPE'21 ECCE Europe

The 23rd European Conference on Power Electronics and Applications



Hybrid DC breaker
Hybrid Electric Vehicle (HEV)
Hybrid power integration
Hybrid simulation
Hybrid transformer
IED
IGBT
IGCT
Impedance analysis
Impedance measurement
Impedance model
Induction heating
Induction motor
Industrial application
Industrial communications
Industrial information systems
Inertia support
Input admittance
Insulation
Integrated Circuit (IC)
Intelligent drive
Intelligent gate driver
Intelligent Power Module (IPM)
Intercell transformer
Interharmonics
Interleaved converters
Iron losses
Islanded operation
Isolated converter
I-V signature
JFET
Junction Temperature Control
LCL
LCL-type inverter
Leakage current
Levelized cost of energy
Life Cycle Analysis (LCA)
Lifetime
Lifetime of DC-link capacitor
Lighting
Linear drive
Linear time periodic systems
Litz wire
Load imbalance
Load sharing control
Locomotive
Low-Inertia Grid
LVDC
Machine emulation
Machine learning
Machine tool drive

September 6-10, 2021

Ghent, Belgium

<http://www.epe2021.com>



EPE'21 ECCE Europe

The 23rd European Conference on Power Electronics and Applications



Magnet loss
Magnetic bearings
Magnetic coupling
Magnetic device
Maintenance
Marine
Matrix converter
Maximum Power Point Tracking Quadratic Converters
Measurement
Measurements
Mechatronics
Medium voltage
Medium voltage converter
Microcontrollers
Microgrid
Midpoint voltage balancer
Miniaturization
Mission profile
Model Predictive Control
Model-based Predictive Control
Modelica
Modelling
Modular Converter
Modular Matrix Converter
Modular Multilevel Converters (MMC)
Modulated Hysteresis Direct Torque Control
Module temperature measurement
Monolithic power integration
More-Electric Aircraft
MOS device
MOSFET
Motion control
MPC (Model-based Predictive Control)
MPC (Model-based Predictive Control) Modulation Strategy
MPPT
Multi-axle drives
Multi-level converters
Multi-level inverters
Multi-level system
Multi-machine system
Multi-objective optimization
Multiphase converter
Multiphase drive
Multiple secondary windings
Multi-terminal HVDC
Mutual couplings
Nano-grid
Nanotechnology
Natural convection
Nelder-Mead simplex algorithm

September 6-10, 2021

Ghent, Belgium

<http://www.epe2021.com>

EPE'21 ECCE Europe

The 23rd European Conference on Power Electronics and Applications



Neural network
Neuronal control
Neutral current ripple
New switching devices
Night mode
Nine-switch converter
Noise
Non-constant failure rates
Non-identical devices
Non-intrusive load monitoring
Non-isolated EV chargers
Non-linear control
Non-linear loads
Non-standard electrical machine
Normally-on
Nuclear fusion
Ohmic losses
ON/OFF control
On-board auxiliary power supply system
On-board network
On-chip fuse
Open switch fault
Open-end winding
Open-ended winding PMSM
Operating condition
Optimal control
Optimal efficiency drive
Optimization
Optimization algorithm
Optimization method
Over-current protection
Overmodulation
P&O MPPT
Packaging
Parallel operation
Paralleling
Parasitic elements
Parasitic inductance
Parasitics
Partial discharge
Particle accelerators
Passive component
Passive component integration
Passive filters
Passivity
PD-PWM
Permanent magnet motor
Permanent Magnet Synchronous Generator
Permeability
Phase-Shift Mode
Photovoltaic

September 6-10, 2021

Ghent, Belgium

<http://www.epe2021.com>

EPE'21 ECCE Europe

The 23rd European Conference on Power Electronics and Applications



Physics research
Piezo actuators
Piezoelectric Resonator
Planar magnetics
Plasma
PLL
Plug and Play Control
PM assisted Synchronous Reluctance Machine
Pole placement
Pole shift
Portable appliances
Power balance control technique
Power conditioning
Power converters for EV
Power converters for FCEV
Power converters for HEV
Power cycling
Power density optimisation
Power die
Power factor
Power factor correction
Power flow
Power flow control
Power Hardware-in-the-Loop
Power integrated circuit
Power Line Communication
Power management
Power plant performance
Power quality
Power semiconductor device
Power sharing
Power supply
Power transmission
Predictive Control Prognosis
Pressing
Programming
Protection device
Pulsating DC Link Converter (PDLC)
Pulse current charge/discharge
Pulse Width Modulation (PWM)
Pulsed current
Pulsed power
Pulsed power converter
PV active generator
Radio frequency (RF)
Rail vehicle
Railway power supply
Railway traction system
Reactive power
Real-time processing
Real-time simulation

September 6-10, 2021

Ghent, Belgium

<http://www.epe2021.com>

EPE'21 ECCE Europe

The 23rd European Conference on Power Electronics and Applications



Regenerative power
Regulation
Regulators
Relative Gain Array
Reliability
Reluctance drive
Renewable energy systems
Residual current device
Resonant converter
Resonant peak damping strategies
Reverse recovery
Ripple minimization
Ripple port
Road vehicle
Robotics
Robust control
Robustness
Root trajectory
Rotor eccentricity cogging
Safety
Scalable control
Schottky diode
Seamless transfer
Self-sensing control
Semiconductor device
Sensor
Sensorless control
Sensorless current sharing
SEPIC converter
Servo-drive
Shedding and restoration algorithms
Ship
Shore-to-ship charging
Short circuit
Short circuit current data exchange
Shunt current
Signal processing
Silicon Carbide (SiC)
Simulation
Sine filter
Single phase system
Single-event burnout
Six-step
Sliding mode control
Small signal
Small signal stability
Smart Gate Drivers
Smart grids
Smart loads
Smart meters
Smart microgrids

September 6-10, 2021

Ghent, Belgium

<http://www.epe2021.com>

EPE'21 ECCE Europe

The 23rd European Conference on Power Electronics and Applications



Smart power
Soft switching
Software
Software for measurements
Software-defined power domains
Solar cell system
Solar Field
Solid-State
Solid-State Circuit Breaker (SSCB)
Solid-State Transformer
Space
Space Vector PWM
Speed control
Spike detection
Split-Source inverter
Square-wave operation
Stability
Stability analysis
Stability assessment
Standard
Standardization
State of charge
State-space model
Static Synchronous Compensator (STATCOM)
Static Var Compensator (SVC)
Statistics
Submodule capacitor parameter design
Sub-synchronous resonance (SSR)
Super junction devices
Supercapacitor
Supercapacitors
Superconducting Magnetic Energy Storage (SMES)
Superconductors
Supervisory system
Supply quality
Sustainable system
Sustainable technology
Switched capacitor
Switched reluctance drive
Switched-mode power supply
Switching losses
Synchronization
Synchronization stability
Synchronous motor
Synchronous rectifier
Synchronous Reluctance Machine (SynRM)
Synthetic inertia
System identification
System integration
Systems engineering
Teaching

September 6-10, 2021

Ghent, Belgium

<http://www.epe2021.com>

EPE'21 ECCE Europe

The 23rd European Conference on Power Electronics and Applications



Test bench
Thermal cycling
Thermal design
Thermal model
Thermal storage
Thermal stress
Thermo-electric energy
Third harmonic injection
Three-phase motor drive
Three-phase system
Threshold voltage instability
Threshold voltage shift
Thyristor
Tight voltage regulation
Time resolution
Time-domain analysis
Torque sharing function
Traction application
Traction loss minimization
Transducer
Transformer
Transformerless PV inverter
Transient analysis
Transistor
Transmission of electrical energy
Transport
Transversal flux motor
Tri-port isolated DC/DC converter
TS/EMT co-simulation
TSEP
T-type inverter
Two-phase cooling
Ultra capacitors
Unbalanced AC grid
Uninterruptible Power Supply (UPS)
Vacuum micro-electronic device
Variable speed drive
Variable Switching Point
Vector control
Vibration suppression
Vienna rectifier
Virtual impedance
Virtual instrument
Virtual prototyping
Virtual Synchronous Generator (VSG)
Virtual Synchronous Machine
Voltage control
Voltage recovery
Voltage Regulation
Voltage Regulator Modules (VRM)
Voltage sag compensators

September 6-10, 2021

Ghent, Belgium

<http://www.epe2021.com>



EPE'21 ECCE Europe

The 23rd European Conference on Power Electronics and Applications



Voltage sensor
Voltage Source Converter (VSC)
Voltage Source Converters (VSCs)
Voltage Source Inverter (VSI)
Voltage Source Inverters (VSIs)
Volume reduction
VSP3CC
V-type
Water transport
Wave energy
Wear-out failure
Wide bandgap
Wide bandgap devices
Wide range operation
Wind energy
Wind-generator systems
Winding topology
Wiper motor
Wireless control
Wireless power transmission
Wireless sensors
ZCS converters
ZCZVS converters
Zero frequency
Zero sequence voltage
Zero speed
Zero speed estimation
Zero-voltage switching
Z-source converter
ZVS converters