

Conference Information & Technical Program

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Monday, June 9th

	Schedule	Room
Opening Session	9:00-10:00	Foyer des Plaines
Plenary session	10:15-12:15	Salle des Plaines A
Hybrid vehicles Special session D. Hissel	1:30 pm- 3:15 pm	Salle des Plaines A
Computer-aided design and optimization I	1:30 pm-3:15 pm	Salle des Plaines B
Power systems I	1:30 pm-3:15 pm	Salle des Plaines C
Static Power Converters I	1:30 pm-3:15 pm	Salle du Jardin
Electrochemical systems & Hybrid vehicles	3:30 pm - 5:15 pm	Salle des Plaines A
Computer-aided design and optimization II	3:30 pm-5:15pm	Salle des Plaines B
Power systems II	3:30 pm-4:45pm	Salle des Plaines C
Motion Control	4:50 pm-5:15pm	Salle des Plaines C
Static Power Converters II	3:30 pm-5:15pm	Salle du Jardin

Tuesday, June 10th

	Schedule	Room
Power system simulation Special session J. Mahseredjian	8:15-10:00	Salle des Plaines A
Control of Induction motor drives I	8:15-10:00	Salle des Plaines B
Permanent Magnet Machine I	8:15-10:00	Salle des Plaines C
Power quality I	8:15-10:00	Salle du Jardin
Power system III	10:15-12:15	Salle des Plaines A
Control of Induction motor drives II	10:15-12:15	Salle des Plaines B
Permanent Magnet Machine II	10:15-12:15	Salle des Plaines C
Power quality II	10:15-12:15	Salle du Jardin
Control methods I	1:30 pm- 3:15 pm	Salle des Plaines A
Reluctance machine	1:30 pm-3:15 pm	Salle des Plaines B
Graphical Descriptions for Modelling of Electrical Systems I	1:30 pm- 3:15 pm	Salle des Plaines C

[Special session A. Bouscayrol](#)

1:30 pm-3:15 pm Salle des Plaines C

[Renewable Energy I](#)

1:30 pm-3:15 pm Salle du Jardin

[Control methods II](#)

3:30 pm - 5:15 pm Salle des Plaines A

[Synchronous machine](#)

3:30 pm-5:15pm Salle des Plaines B

[Graphical Descriptions for Control of Electrical Systems II](#)
[Special session B. Lemaire-Semail](#)

3:30 pm-5:15pm Salle des Plaines C

[Renewable Energy II](#)

3:30 pm-5:15pm Salle du Jardin

Wednesday, June 11th

Schedule

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Salle des Plaines A

[Identification and diagnosis](#)

8:15-10:00

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[Asynchronous Machine](#)

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[Electrical power engineering education](#)

8:15-10:00

Salle du Jardin

[Permanent Magnet Machine III](#)

10:15-12:15

Salle des Plaines A

[Thermal Modelling and simulation](#)

10:15-12:15

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[Electromechanical systems and Transformers](#)

10:15-12:15

Salle des Plaines C

[Design,Simulation, Monitoring of electromechanical systems](#)

10:15-12:15

Salle du Jardin

[Closing Session](#)

3:30 pm- 4:30 pm Inner Courtyard

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Monday, June 9th

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Opening Session

9:00-10:00 Foyer des Plaines

Plenary session

10:15-12:15 Salle des Plaines A

Chairperson *P. Viarouge LEEPCI, Laval University, Québec, Canada*

[The LHC \(Large Hadron Collider\) A complex electrical power engineering challenge. From design to commissioning – Bordry Frederick](#)

[A unified modelling of electrochemical power components and energy approach for designing power electric systems – Turpin Christophe, Astier Stéphan, Fontes Guillaume](#)

[The State of the Art in Real-Time Simulation – Bélanger Jean](#)

Hybrid vehicles Special session

1:30 pm- 3:15 pm Salle des Plaines A

Chairperson *D. Hissel L2ES, UTBM, Belfort, France*

[Thermal management of power electronics for hybrid cars – BURBAN Gwenaëli, LAGONOTTE Patrick, ALEXANDRE Alain](#)

[Global energetic modelling of different architecture Hybrid Electric Vehicles – CHEN Keyu , BOUSCAYROL Alain, BERTHON Alain, DELARUE Philippe, HISSEL Daniel, TRIGUI Rochdi](#)

[A Hybrid Electric Vehicle Modeling Approach Based on MATLAB/Simulink and ADAMS – Fan Brian, Khajepour Amir, Kazerani Mehrdad](#)

[Multi-Physics Modelling and Energy Management of a Battery Supercondensator Electric Vehicle Taking Into Account the Operating Temperature Conditions – Boulon Loïc, Hissel Daniel, Pera Marie-Cecile](#)

Computer-aided design and optimization I

1:30 pm-3:15 pm Salle des Plaines B

Chairperson *J.F. Charpentier IRENav, Brest, France*

[Computer-Aided Design and Optimization of Piezoelectric Ultrasonic Motors – Flueckiger Markus, Fernandez José, Perriard Yves](#)

[Automated preliminary sizing of electromechanical actuator architectures – Budinger Marc, Liscouet Jonathan, Orioux Stephane, Maré Jean-Charles](#)

[Optimization of Energy Conversion Loop in Switched Reluctance Motor for Efficiency Improvement – Jian Li, Choi Dawoon, Cho Yunhyun](#)

[Optimal Design of a High-Speed Generation System Using a Slotless PM Machine with SMC Stator Yoke Connected to a Rectifier – Chebak Ahmed, Viarouge Philippe, Cros Jérôme](#)

Power systems I

1:30 pm-3:15 pm Salle des Plaines C

Chairperson *J. Bélanger Opal-RT Technologies, Montréal, Canada*

Co-Chair. *I. Kamwa Hydro-Québec Research Institute, IREQ,*

Varennes, Canada

[A Generalized Three Phase Fault Location in a Doubly Terminal Fed Power Transmission line– Yusuff Adedayo A., Jimoh Adisa A., Munda Josiah L.](#)

[Calculation of Transmission Lines and HV/EHV Equipment Flashover Risks Due to Lightning Using Statistical Simulation Toolbox in EMTP-RV – Bui-Van Que, Roumy Jean-Gabriel, Saad Omar, Xémarc Alain, Dennetière Sébastien](#)

[RELIABILITY MODEL OF THE CIRCUIT BREAKERS – Adam Maricel, BARABOI Adrian, PISPIRIS Cristian Sorin, PANCU Catalin](#)

[Digital Simulation Study of Secondary Arc Current caused by Single Line to Ground Faults on the Thailand 500 kV Transmission Line from Mae Moh to Tha Ta Ko– Nqamsanroj Kanchit, Premruudeeprechacharn Suttichai](#)

Static Power Converters I

1:30 pm-3:15 pm Salle du Jardin

Chairperson *M. Dubois LEEPCI, Laval University, Québec, Canada*

[Study, Modeling and Control of a Single-Phase Power Factor Corrector Based on the Sheppard-Taylor](#)

[Topology – Kanaan Hadi Y., Havek Alfred, Al-Haddad Kamal](#)
[Hybrid Genetic Algorithm Optimized Control applied to AC/AC Converter With two different formulations of Power Factor – Chérifi Ahmed, Benkaci-Ali Hassene, Benslimma Mohamed](#)

[Stability of non linear system, Converter of Boost type, Non quadratic Lyapunov function](#)

[Marx Didier, Pierfederici Serge, Nahid-Mobarekeh Babak, Davat Bernard](#)

[Experimental Comparative Study of Quasi-Linear, Nonlinear and Model Reference Adaptive Control Techniques Applied to a Three-Phase Vienna Rectifier – Bel Haj Youssef Nesrine, Al-Haddad Kamal, Kanaan Hadi-Youssef](#)

Electrochemical systems & Hybrid vehicles 3:30 pm - 5:15 pm Salle des Plaines A

Chairperson J.P.Louis ENS de Cachan, Cachan, France

[Multi-Domain Simulation of a HEV Powertrain – Tremblay Olivier, Dessaint Louis-A., Bigras, Pascal](#)

[DYNAMIC ENERGY MODEL OF A LITHIUM-ION BATTERY – Ménard Laurianne, Fontes Guillaume, Astier Stephan](#)

[Modeling PEMFC modelling for diagnosis purpose – Steiner Nadia, Hissel David, Mocotéguy Philippe, Candusso Denis, Hernandez Andrés, Aslanides Antoine](#)

[Different energetic techniques for modelling traction drives – Zanasi Roberto, Geitner Gert-Helge, Bouscayrol Alain, Lhomme Walter](#)

Computer-aided design and optimization II 3:30 pm-5:15pm Salle des Plaines B

Chairperson J.Cros LEEPCI, Laval University, Québec, Canada

[Evaluation Of The Gain Brought By An Adaptive Remeshing Technique Insuring High Quality Meshes – Ebene-Ebene Marcel, Marechal Y., Armand D.](#)

[Design Procedure for a Very High Speed Slotless Permanent Magnet Motor – Pfister Pierre-Daniel, Perriard Yves](#)

[Study of a travelling wave linear piezomotor using analytical, finite element and lumped parameter models – Vloebergh Christophe, Collard Jean-François, Dehez Bruno, Labrique Francis](#)

[A Coupled Electromagnetic/Hydrodynamic Model for the Design of an Integrated Rim-Driven Naval Propulsion System – Drouen Laurent, Hauville Frédéric, Charpentier Jean-Frédéric, Semail Eric, Clénet Stéphane](#)

Power systems II

3:30 pm-4:45pm Salle des Plaines C

Chairperson I.Kamwa Hydro-Québec Research Institute, IREQ, Varennes, Canada

[Design and implementation of Energy Storage Systems Integrated in Wind Farms using real time simulation – Martinez C., Abbey C., Chahwan, J., Geza Joós](#)

[Supply Function Equilibrium of Electricity Forward Market using Competitive Coevolutionary Algorithms– Ladjici Ahmed Amine, Boudour Mohamed](#)

[Stochastic Load Modelling for Power Demand Assessment in an Institutional Building – Delanoë Jérôme, Miègeville Laurence, Guérin Patrick](#)

Motion Control

4:50 pm-5:15pm Salle des Plaines C

Chairperson J.P.Louis ENS de Cachan, Cachan, France

[Motion Control System Modeling and Simulation: Optimization on Tuning Procedure and Motion Profiles of a Tetra Pak Machine – Sacchetti Elena, Borghi Davide, Fantuzzi Cesare](#)

Static Power Converters II

3:30 pm-5:15pm Salle du Jardin

Chairperson F. Bordry Power Converter Group, CERN, Switzerland

[DBD lamp converter design using an electrical model of the load – Piquet Hubert, Díez Rafael, Blaquière Jean-Marc, Bhosle Sounil, Roux Nicolas](#)

[General Average Modelling for Power Electronics Systems: Automatic Building Approach – Merdassi Asma, Gerbaud Laurent, Bacha Seddick](#)

[PDM Control Applied to a Parallel Resonance Inverter: Adaptation and Interest – Sandali Abdelhalim, Chérifi Ahmed](#)

[A new mathematical tool to investigate cable characteristics influence upon inverter output pulse voltage transients and their associated Differential mode currents for PWM drives – Amarir Saïd, Al-Haddad Kamal](#)

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Tuesday, June 10th

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Power system simulation Special session

8:15-10:00 Salle des Plaines A

Chairperson J. Mahseredjian École Polytechnique, Montréal,
Canada

[Parameters Identification of a Power Plant Model for the Simulation of Islanding Transients – Borghetti Alberto, Bosetti Mauro, Nucci Carlo Alberto, Paolone Mario](#)

[Real-Time Simulation of VSC-based HVDC Systems using Rectification Capable Switching Function-Based 3-Level Inverter Models – Dufour Christian, Lapointe Vincent, Bélanger Jean](#)

[A Mixed EMT-Phasor Method Applied to Parallel Simulation of Large Power Systems – Do Van-Qué, Sybille Gilbert, Guay Francois, Barry Alpha-Oumar](#)

[A tool for steady-state and dynamic analysis of PV generation in low voltage grids – Dennetière S., Mahseredjian J., Duvauchelle C., Tounsi B.](#)

Control of Induction motor drives I

8:15-10:00 Salle des Plaines B

Chairperson M. David, LAPLACE, ENSEEIHT- INPT, Toulouse,
France

[Linear Feedback of the input DC Voltages of a Multilevel NPC Voltage Source Inverter, Application to Double Stator Induction Motors – Beriber Dalila, Talha Abdelaziz, Seqheir Boucherit Mohamed](#)

[Computer-Aided Induction Motor Vector Control FPGA Design using Altera Electronic Design Automation Tools – Perron Marc, Le-Huy Hoang](#)

[The Stability analysis of the double star induction machine supplied by voltage source inverter - Guizani Sami, Ben Ammar Faouzi](#)

[Direct Torque Control using Predictive Speed Controller and Extended Kalman Filter of Induction motor drive – Benzaïoua Ammar, Ouhrouche Mohand, Merabet Adel](#)

Permanent Magnet Machine I

8:15-10:00 Salle des Plaines C

Chairperson L.A. Dessaint Electrical Engineering Dept, ETS,
Montréal, Canada

[Two phase operation of a three phase PMSM using a control model based on a Concordia like transform associated to a classic Park transform – Labbé Thibaut, Labrique Francis Dehez Bruno](#)

[A Sensorless PMSM Drive Based on High-Frequency Test Pulses and a Discrete-Time Current Controller with Fixed Sampling Frequency – De Belie Frederik M., Sergeant Peter, Melkebeek Jan A.](#)

[Nonlinear Predictive Controller for a permanent Magnet Synchronous Motor drive – Errouissi Rachid, Ouhrouche Mohand](#)

[Control Based Reduction of Detent Force for Permanent Magnet Linear Synchronous Motor – Zhu Yu-wu, Cho Yun-hyun](#)

Power quality I

8:15-10:00 Salle du Jardin

Chairperson G.Olivier, École Polytechnique, Montréal, Canada

[Power flow analysis and new hysteresis control band of unified power quality conditioner – Fatiha Mekri, Machmoum Mohamed, Ahmed Nadia Ait, Mazari Benyounes](#)

[Assessment and Prediction of Voltage Sag in Transmission System in Northern Area of Thailand – Saninta Praturb, Premrudeepreechacharn Suttichai](#)

[Comparative evaluation of two direct frequency converter structures – Accioly André Gultavo H., Bradaschia Fabrício, Sicard Pierre, Chérifi Ahmed](#)

[Multi-drive management system to mitigate voltage sags – Cardenas Alben, Sicard Pierre, Chérifi Ahmed](#)

Power system III

10:15-12:15 Salle des Plaines A

Chairperson G. Sybille Hydro-Québec Research Institute, IREQ,
Varennes, Canada

[Optimal Placement of FACTS devices for Multi-objective Voltage Stability Problem – Benabid Rabah, Boudour Mohamed, Abido Mohammad A.](#)

[Electromagnetic Pollution Monitoring using Artificial Neural Networks – Pancu Catalin, Baraboi Adrian, Adam Maricel](#)

[Artificial Neural Network Optimisation by Genetic Algorithm: Application to Power System Transient Stability Critical Clearing Time Evaluation – Boussahoua Bouziane, Boudour Mohamed](#)

[Resonance effect of insulated negative current rail in a subway network – Hamimi Amina N., Ruelland Francois, Al-Haddad Kamal](#)

Control of Induction motor drives II

10:15-12:15 Salle des Plaines B

Chairperson P. Maussion, LAPLACE, ENSEEIHT- INPT, Toulouse, France

Co-Chair. A. Bouscayrol , L2EP , USTL, Lille, France

[Control Reconfiguration of a Doubly Fed Induction Motor drive with a current sensor fault – ABDELLATIF Meriem, PIETRZAK-DAVID Maria, Slama-Belkhdja Ilhem.](#)

[Modelling and Control of a Cascaded Doubly-Fed Induction Generator based on Dynamical Equivalent Circuits – Patin Nicolas, Monmasson Eric, Louis Jean-Paul](#)

[Doubly Fed Induction Generator Grid Connection based on DTC – Jihen Arbi, Charaabi Lotfi, Ghrobal Manel Jebali-Ben, Ilhem Slama-Belkhdja](#)

[New reactive power control scheme for asynchronous generator – Dumur Guillaume, Roy Gilles, Mahseredjian Jean](#)

Permanent Magnet Machine II

10:15-12:15 Salle des Plaines C

Chairperson S. Astier, LAPLACE, ENSEEIHT- INPT, Toulouse, France

[Analytical Modeling of the Flux Density in Permanent Magnet Motors – Koechli Christian, Perriard Yves](#)

[Reduction of Detent Force in Permanent Magnet Linear Synchronous Motor with Auxiliary Poles – Zhu Yu-wu, Do-sun Kim, Cho Yun-hyun](#)

[Application of Voltage Driven Finite Element Analyses for Position Dependent Inductances of a Permanent Magnet Synchronous Machine with an External Rotor – Eilenberger Andreas, Schmidt Erich](#)

[Modeling and FEM validation of PM Synchronous Machines under Stator Winding Inter-turn Fault – Vaseghi Babak, Takorabet Noureddine, Nahid-Mobarakeh Babak, Meibody-Tabar Farid](#)

Power quality II

10:15-12:15 Salle du Jardin

Chairperson A.Chériti, GÉGI, UQTR, Trois-Rivières, Canada

[Average Modeling and Carrier-Based Control Strategies Applied to a Three-Phase Four-Leg Shunt Active Power Filter – Kanaan Hadi Y., Hayek Alfred, Al-Haddad Kamal](#)

[Anticontrol Of Chaos Reduces Spectral Emissions – Chauveau Éric, Morel Cristina](#)

[Comparison of different DC voltage supervision strategies in a local Power Distribution System of More Electric Aircraft – Zhang He, Saudemont Christophe, Robyns Benoît, Huttin Nicolas, Meuret Régis](#)

[POWER SYSTEMS VAR CONTROL & CURRENT HARMONIC COMPENSATION USING HYBRID PASSIVE FILTER CONFIGURATION – Hamadi Abdelhamid, Al-Haddad Kamal](#)

Control methods I

1:30 pm- 3:15 pm Salle des Plaines A

Chairperson E. Monmasson SATIE, ENS de Cachan, Cachan, France

[Unmanned Aerial Vehicle Trajectory Tracking Using Type-2 Fuzzy Logic – Lemire Christian, Tarbouchi Mohammed, Labonté Gilles](#)

[Fast hand-tuning of Fuzzy PID Controllers – Faucher Jérôme D., Maussion Pascal](#)

[Application of direct controls to a variable-speed small hydro energy conversion system – Breban Stefan, Radulescu Mircea M., Robyns Benoît](#)

[Cascade Decentralized Nonlinear PID Control of Continuous Production Processes – Mokhtari Fouad, Sicard Pierre, Hazzab Aldeljebar](#)

Reluctance machine

1:30 pm-3:15 pm Salle des Plaines B

Chairperson F.M. Sargos GREEN, ENSEM-INPL, Nancy, France

[Comparison of Different Designs of Normal and Permanent Magnet Excited Reluctance Machines – Schmidt Erich](#)

[Dynamic and Steady State Behavior of a Synchronous Reluctance Machine with leading Reactive Power through an Auxiliary winding – Samson Ogunjuvaye Ayodeji, Adisa A Jimoh, Valentine Nicolae Dan](#)

[Investigation of Electromagnetic Force Using Tunable Volume Integration Method in a Switched Reluctance Motor – Ghousia Syeda Fatima, Kar Narayan C.](#)

[Reduction of Unbalanced Magnetic Force and Vibration in Switched Reluctance Motor by the Parallel Paths in Windings – Li Jian, Cho Yunhyun](#)

Graphical Descriptions for Modelling of Electrical Systems I

Special session A. Bouscayrol

1:30 pm-3:15 pm Salle des Plaines C

Chairperson A. Bouscayrol , L2EP , USTL, Lille, France

[Fuel Cell System Control Structure Development: A graphic inversion based approach using Energetic Macroscopic Representation – Chrenko Daniela, Péra Marie-Cécile, Hissel Daniel](#)

[Influence of the limitations of a traction system on energy storage design – Allègre Anne-Laure, Delarue P., Barrade P., Bouscayrol A., Chattot E., El-Fassi S.](#)

[Bond Graph modelling and analysis of an autonomous Reverse Osmosis desalination process fed by a hybrid system \(photovoltaic-wind\) – Turki Mehdi, Belhadji Jamei, Roboam Xavier](#)

Renewable Energy I

1:30 pm-3:15 pm Salle du Jardin

Chairperson S. Astier LAPLACE, ENSEEIHT- INPT, Toulouse, France

[Analysis of the performance of a Transverse Flux Permanent Magnet \(TFPM\) wind generator with passive compensated diode-bridge rectifier considering saturation – Taghizadeh Kakhki Mehdi, Dubois Maxime R.](#)

[New Modeling of Solar Modules for MPPT Control – Zandi Majid, Payman Alireza, Martin Jean-Philippe, Pierferici Serge, Davat Bernard](#)

[OPTIMIZED UNBALANCED OPERATIONS OF H-BRIDGE MULTILEVEL FRONT-ENDS FOR GRID CONNECTION OF P.V. PLANTS – Brando G., Dannier Alfonso, Del Pizzo A., Rizzo Renato](#)

Control methods II

3:30 pm - 5:15 pm Salle des Plaines A

Chairperson M. Tarbouchi Royal Military College, Kingston, Canada

[Methodology to build fuzzy logic based supervision of hybrid renewable energy systems – Courteuisse Vincent, Robyns Benoît, Petit Marc, François Bruno, Deuse Jacques](#)

[Modeling for 3-D Transfer of Liquid Tank with an Overhead Crane Considering the suppression of Liquid Vibration – Kaneshige Akihiro, Kaneshige Naoki, Miyoshi Takanori, Terashima Kazuhiko](#)

[Study and optimization of the traveling waves generation in finite-length beams – Dehez Bruno, Vloebergh Christophe, Labrique Francis](#)

[Modeling and Simulation of a Hot-swap Controller Amplifier Module for an Active Magnetic Bearing with Supreme Reliability – Schulz Alexander, Neumann Manfred, Wassermann Johann](#)

Synchronous machine

3:30 pm-5:15pm Salle des Plaines B

Chairperson Y.Perriard LAI, EPFL, Lausanne, Switzerland

[Ultra Minimization of Thrust Ripple for Permanent Magnet Linear Synchronous Motor Utilizing Two Different Techniques – Zhu Yu-wu, Cho Yun-hyun](#)

[Multi-phase Synchronous Motors: POG Modeling and Optimal Shaping of the Rotor Flux – Zanasi Roberto, Grossi Federica](#)

[Torque Ripple Minimization for a Synchronous Reluctance Motor Using Winding Function Theory and Predetermined Current Waveshapes – Hamiti Tahar, Lubin Thierry, Baqli Lotfi, Rezzoug Abderrezak](#)

[3-D RELUCTANCE NETWORK MODELLING OF A SYNCHRONOUS HOMOPOLAR MACHINE – Belalahy Christian, Rasoanarivo Ignace, Sargos François Michel](#)

Graphical Descriptions for Control of Electrical Systems II

Special session B. Lemaire-Semail

3:30 pm-5:15pm Salle des Plaines C

Chairperson B. Lemaire-Semail L2EP , USTL, Lille, France

[Different Graphical Descriptions of Clutch Modelling for Traction Systems – Lhomme Walter, Zanasi Roberto, Geitner Gert Helge, Bouscayrol Alain](#)

[Modelling and Control of a TWUM using Causal Ordering Graph – Giraud Frédéric, Lemaire-Semail Betty, Dai Zeng](#)

[Energetic Macroscopic Representation and Inversion-based Control of a Double-Inverter-Fed Wound-Rotor Induction Machine – Chen Keyu, Delarue Philippe, Bouscayrol Alain, Vidal Paul-Étienne, Pietrzak-David Maria](#)

Renewable Energy II

3:30 pm-5:15pm Salle du Jardin

Chairperson M.Dubois LEEPCI, Laval University, Québec, Canada

[An Overview of Doubly Fed Induction Generators and Their Control in Wind Energy Power Generation – Hemami Ahmad](#)

[Optimization of a small passive wind turbine based on mixed Weibull-turbulence statistics of wind – Roboam Xavier, Abdelli Abdenour, Sareni Bruno](#)

[Flicker Mitigation in a Doubly Fed Induction Generator Wind Turbine System – Hatoum Ahmad, Machmoum Mohamed, Bouaouiche Toufik](#)

[Determination of Fault Operation Dynamical Constraints for the Design of Wind Turbine DFIG Drives – Aquaglia Davide, Viarouge Philippe, Wamkeue René, Cros Jérôme](#)

Wednesday, June 11th

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Control of PM motor drives

8:15-10:00 Salle des Plaines A

Chairperson H.Le-Huy LEEPCI, Laval University, Québec, Canada

[ESTIMATION OF THE EXTERNAL PERFORMANCES OF A PMSM USING ARTIFICIAL NEURAL NETWORKS BASED ON FE RESULTS – Hadjout Larbi, Youcef Ouazir, Lamia Belquerras, Rachid Ibtouen, Noureddine Takorabet.](#)

[Wave Haptics applied on a Single Degree Of Freedom Haptic Interface based on a Permanent Magnet Synchronous Machine – Khatounian Flavia, Moreau Sandrine, Monmasson Eric, Louis Jean-Paul, Louveau Francois](#)

[Doubly-Fed Permanent Magnet Synchronous Machines Robust Control by Input-State Feedback Linearization – Nahid-Mobarakeh Babak, Meibody-Tabar Farid](#)

[Use of Removed Rotor Method to Evaluate Leakage Inductance of a claw pole machine : case of polyphase stator-Tamto Y., Mipo Jean-claude, Kobylanski Luc, Foggia A.](#)

Identification and diagnosis

8:15-10:00 Salle des Plaines B

Chairperson M.A. Ouhrouche EMICLab, UQAC, Chicoutimi, Canada

[Sensorless State and Parameters Identification of Induction Motor Complex Kalman Filter and Spiral Vector Theory – Mena Mohamed, Touhami Omar, Ibtouen Rachid, Fadel Maurice](#)

[Estimation of Synchronous Machine Parameter by Standstill Tests – Hasni Mourad, Touhami Omar, Ibtouen Rachid, Fadel Maurice, Caux S.](#)

[Voltage drop effect on the electrical discharge modelling in a polluted system – Bouazabia Slimane, Hadjout Larbi](#)

[Wavelet Transform Applied to De-noising Signals and Detecting Transients for Induction Machine Diagnostic – Ajabi Ghedamsi Médiha, Attia Sethom Houda Ben, Durieu Cécile, Ellouze Noureddine](#)

Asynchronous Machine

8:15-10:00 Salle des Plaines C

Chairperson G.Olivier École Polytechnique, Montréal, Canada

[Transient Model of Induction Machine Using Rotating Magnetic Field Approach – Tu Xiaoping, Dessaint Louis-A, Champagne Roger, Al-Haddad Kamal](#)

[Analysis of Self Excited Induction Generator Behaviour with Linear and No Linear Loads – Moulahoum Samir, Hadjout Larbi, Ait Mohamed Amer Sara, Hellou Yamina, Brahim Bouquermi, B. Douali](#)

[Steady State Analysis of Unbalanced Three Phase Stand Alone Induction Generator Using Genetic Algorithm – Alolah Abdulrahman I., Alkanhal Majeed A.](#)

Electrical power engineering education

8:15-10:00 Salle du Jardin

Chairperson J. El Hayek, UAS Western Switzerland, Fribourg, Switzerland

[Analyzing Electric Field Distribution in Non-Ideal Insulation at Direct Current – Pokryvailo Alex](#)

[Remote Control System Laboratory for Distance Learning : Experimental Evaluation – Serge Mias, Didier Peytavi, Pascal Maussion](#)

[APPLIED WORK FOR ENGINEER STUDENTS: CHARACTERISATION AND MODELLING OF A PEM FUEL CELL – Fontes Guillaume, Turpin Christophe, Ménard Laurianne, Rallières Olivier, Astier Stéphane](#)

[Design of sustainable energy systems : a new challenge for Engineering Education – Astier Stephan, Fontes Guillaume, Azzaro-Pantel Catherine](#)

Permanent Magnet Machine III

10:15-12:15 Salle des Plaines A

Chairperson J.F. Charpentier IRENav, Brest, France

[Analytical Modeling of a BLDC Drive with 120°/180° Block Commutation – Hodder André, Perriard Yves](#)

[Modeling, Simulation, and Experimental Verification of a Permanent Magnet Synchronous Machine with Dual Three-Phase Stator Winding – Kato Shinji, Michihira Masakazu](#)

[Dynamic Characteristics Investigation of permanent Magnet Linear Synchronous Motor with Detent Force Minimization – Zhu Yu-wu, Cho Yun-hyun](#)

[Optimization method to analyze Performances of Synchronous Machines fed by Inverter – Figueroa Jose, Cros Jérôme, Viarouge Philippe](#)

Thermal Modelling and simulation

10:15-12:15 Salle des Plaines B

Chairperson J.Cros LEEPCI, Laval University, Québec, Canada

[Boundary Condition Independent Star thermal network and new coupled heat source extraction method –Tounsi Patrick, Madrid Francesc, Habra Wasim, Dupuy Philippe, Dorkel Jean-Marie](#)

[MODELING AND EMT SIMULATION OF THE THERMAL PROBLEMS REGARDING ELECTRICAL EQUIPMENT CONDUCTORS – Baraboi Adrian, Adam Maricel, Pancu Catalin](#)

[Determination of the losses of an induction machine with a thermal approach – Trigeol Jean-Francois, Laqonotte Patrick, Bertin Yves](#)

Electromechanical systems and Transformers 10:15-12:15 Salle des Plaines C

Chairperson B.Dehez LEI, UCL, Louvain-la-Neuve, Belgium

[Application of an Analytic Model on a Four-Quadrant Converter for Railways Drives – El Hayek Joseph, Skarpetowski Grzegorz](#)

[Collectors Model for Simulation of Brush Machines – Sincero Geraldo, Ghannou Jamila, Cros Jérôme, Viarouge Philippe](#)

[Performance of a Cylindrical Passive Suspension System: FEM and Experimental Results – Najjar-Khodabakhsh Abbass, Vaez-Zadeh Sadegh](#)

[Modelling of the Scott Transformer and an Overview of the T-Connected Grounding Transformer – Olivier Guy, Mahseredjian Jean, Cojocaru Radu](#)

Design,Simulation, Monitoring of electromechanical systems

10:15-12:15 Salle du Jardin

Chairperson J.P.Louis ENS de Cachan, Cachan, France

[Multiobjective Design Optimization of slotless PM Motors using genetic algorithm – Lamia Belguerras, Hadjout Larbi, Mohamed Boudour](#)

[Component-oriented method supporting step-size control and multi-rate simulation of electrical parts of mechatronic system – Kasper Roland, Sintotskiy Gennady](#)

[Drives in transformer monitoring: an electronic instrument for vibrations measuring – Poza Francisco, Mariño Perfecto, Otero Santiago, Pastoriza Vicente](#)

[Eliminating harmonics in NPC five level inverter Using resultant theory, symmetric polynomial, and artificial neuron network - Khoukha Imarazene](#)

Closing Session

3:30 pm- 4:30 pm Inner Courtyard

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