



## 13<sup>th</sup> International Conference on OPTIMIZATION OF ELECTRICAL AND ELECTRONIC EQUIPMENT

**OPTIM 2012, Brasov Romania, May 24-26, 2012**

**Sponsored by: "Transilvania" University of Brasov,  
University "Politehnica" of Timisoara, Technical University of Cluj-Napoca  
Technically sponsored by: IEEE-IES, -IAS, -PELS & IEEE Romania Section,  
IET - The Institution of Engineering and Technology & IET Romania Section**

### Honorary Chairs:

**Bogdan WILAMOWSKI**, Auburn University, USA

**Dushan BOROYEVICH**, Virginia Tech, USA

### Conference Chair:

**Marcian CIRSTEA**, Anglia Ruskin University, Cambridge, UK

### Conference Vice-Chair:

**Ion BOLDEA**, University Politehnica of Timisoara, RO

### Conference Program Co-Chairs:

**Luminita Roxana CLOTEA**, Transilvania Univ. of Brasov, RO

**Carmen GERIGAN**, Transilvania University of Brasov, RO

**Mihai CERNAT**, Transilvania University of Brasov, RO

### IT Chair

**Antonio LUQUE ESTEPA**, University of Sevilla, ES

**Gheorghe Victor PAMFIL**, RO

### International Steering Committee (Past Honorary Chairs)

**Thomas A. LIPO**, Wisconsin State University, USA

**Michel POLOUJADOFF**, Pierre et Marie Curie University-Paris VI, F

**Dierk SCHRÖDER**, Technical University of Munich, D

**Toma DORDEA**, Romanian Academy, RO

**Manfred STIEBLER**, Technical University of Berlin, D

**Amir MIRI**, Karlsruhe University of Technology, D

**Rik DE DONCKER**, Aachen University of Technology, D

**Robert D. Lorenz**, Wisconsin State University, USA

### Local Technical Committee Co-chairs

**Sorin MORARU**, Transilvania University of Brasov, RO

**Nicolae MUNTEAN**, University Politehnica of Timisoara, RO

**Radu CIUPA**, Technical University of Cluj-Napoca, RO

### Treasurer

**Carmen GERIGAN**, Transilvania University of Brasov, RO

### For more information contact:

**Luminita Roxana CLOTEA**, Program Co-Chair,

[luminita.clotea@unitbv.ro](mailto:luminita.clotea@unitbv.ro),

**Carmen GERIGAN**, Program Co-Chair, [gerigan@etc.unitbv.ro](mailto:gerigan@etc.unitbv.ro)

**Marcian CIRSTEA**, Chair, [marcian@ieee.org](mailto:marcian@ieee.org)

### OPTIM Secretariat

Transilvania University of Brasov,  
Bd. Eroilor 29, 500036 Braşov,  
Romania, Tel./Fax: +40-268-474718

### Technical Tracks

**T1: Power Systems and Electromagnetics.** Electric Circuits and Networks, Electromagnetic Field, Electromagnetic Materials, Components and Applications, EMC/EMI, Power Systems, Transmission, High Voltage, Electrical Apparatus, Electric Arc, Plasma, Power Quality, Utility Applications, Safety and Reliability in Power Engineering.

**Track chairs: Prof. Kay Hameyer (DE), Prof. Mihai Cernat (RO)**

**T2: Electrical Machines, Industrial Drives and Control.** AC/DC Motor Drives, Motion and Drive Control, Sensorless Control, Electric Propulsion, Automotive Applications, Electrical Machines Design and Modelling, Thermal, Noise and Vibrations Issues, Electric Generators and their Control, Testing and Diagnostics.

**Track chairs: Prof. Andreas Steimel (DE), Prof. Ion Boldea (RO).**

**T3: Power Electronics and Power Conversion.** Power Electronics Modelling, Simulation, Design, Control, DC/DC Conversion, AC/AC Converters, Rectifiers, Inverters, PWM Systems, Converters for Electric and Hybrid Electric Vehicles, Power Electronic Devices and Systems, Semiconductors, UPS, Active and Hybrid Filtering, Power Line Conditioning, DSP and Microcontrollers for Power Electronics and Control.

**Track chairs: Dr. Mariusz Malinowski (PL), Prof. Remus Teodorescu (DK).**

**T4: Renewable Electric Energy Conversion, Processing and Storage.** Wind Energy, Photovoltaics, Hydro and Micro-hydro Power, Battery Technologies, Fuel Cells and Hydrogen Storage, other Energy Storage Technologies, Distributed Generation Systems. SmartGrids, Intelligent Environment, Building Management Systems.

**Track chairs: Dr. Marco Liserre (IT), Prof. Corneliu Marinescu (RO).**

**T5: Mechatronics, Industrial Automation and Control.** Mechatronics, Robotics, Human-Machine Interface Technology, Computer Vision, Remote Sensing, Process Automation, Flexible Manufacturing Systems, Industrial Agents, Factory Automation, Safety and Reliability, Signal Processing, Modelling, Simulation, Neural Networks, Fuzzy Logic, Genetic Algorithms, Control of Linear and Non-linear Systems, Adaptive, Robust and Variable Structure Control.

**Track chairs: Prof. Seta Bogosyan (USA), Prof. Francisc Sisak (RO)**

**T6: Applied Electronics and System Integration.** Image Processing, Audio and Video Signal Processing, Multimedia Applications, Networking Applications, Communication Systems, Measurements and Data Acquisition, Metrology, Microelectronics, Nanoelectronics, HDL or High Level Language Hardware Design, System-on-chip Design, FPGAs, Embedded Systems.

**Track chairs: Prof. Kiyoshi Ohnishi (JP), Prof. Alexandru Isar (RO).**

**T7: Electrical Engineering Education and Emerging Technologies.** New Educational Tools, Continuous Learning, New Educational Materials and Methods, Distance Learning, Information and Communication Technologies in Laboratories, University-Industry Collaboration, Symbolic Approaches in Electronics, Novel Holistic Systems Modelling (Modelica, System-C, etc.), other Technologies.

**Track chairs: Prof. Luis Gomes (PT), Prof. Gheorghe Scutaru (RO)**

**Special Sessions.** Industry news, Others (subject to proposals received)

**Track chair: Dr. Dan Ionel (USA), Prof. Elena Helerea (RO)**

### Plenary Session Speakers:

**Bogdan (Dan) Wilamowski**, USA, IEEE Fellow, past Pres. of IEEE IES, EIC of IEEE TIE E1 and T11.

**Leopoldo Franquelo**, Spain, IEEE Fellow, President of IEEE IES

**Kouhei Ohnishi**, Japan, IEEE Fellow, past President of IEEE IES

**Andreas Steimel**, Germany, IEEE Senior Member, Ruhr University Bochum.

**Eric Monmasson**, France, IEEE Senior Member, University of Cergy-Pontoise, Paris.

**Kaushik Rajashekara**, USA, IEEE Fellow, Chief Technologist, Rolls-Royce Corporation, Indianapolis.

**Submission of papers:** A full paper proposal describing work not previously published or presented has to be electronically submitted in PDF file through the conference website no later than the deadline. Selection will be based upon full length 6-8 A4 pages paper proposals in IEEE double column format.

### Important dates:

*Special session proposals:* December 15, 2011 *Final submissions due:* April 5, 2012

*Contributed full papers:* February 1, 2012 *Early registration closes:* April 17, 2012

*Notification of acceptance:* March 15, 2012 <http://www.info-optim.ro>



## LOCATION

The OPTIM 2012 Conference location is Cheile Gradistei Holiday Complex, situated in Moieciu, at 7 km from Bran Castle (Dracula's Castle) and at 30 km from Brasov city.

CHEILE GRADISTEI Holiday Complex, Moieciu, Cheia

<http://www.cheilegradistei.ro>

Phone, Fax: +40-(0)268-237.419

Mobile: +40-(0)723.315.582



### Potential excursions: Poiana Brasov and Peles Castle

Poiana Brasov (12 km away from Brasov) and Peles Castle (Sinaia, 40 km away from Brasov) are two of Romania's main attractions. Both lie in Brasov's neighbourhood and are most worthy a visit.

**Poiana Brasov** is the favourite tourist destination in Romania. Only 12 km away from Brasov, up in the mountains lies the unique winter and summer resort: "Poiana Brasov" with about ten major ski slopes, two cable rails, and lots of Romanian style restaurants. Tennis courts, and swimming pools open in the warm season, and boat rides, mountain climbing, horse riding and many other great sports activities can be enjoyed. A public transportation service offers bus transport from near the Brasov County Library.



### Peles Castle

Located in Sinaia (40 km, 1 hour drive or train trip from Brasov), Peles Castle, Romania's most famous royal castle, was built between 1875 and 1883, when it was inaugurated as the summer residence of King Carol 1st of Romania. Both at the end of the 19th century, and nowadays, Peles Castle was and is considered to be one of the most beautiful castles in Europe. Its dominating architectural style is German neo-Renaissance.



It was the first entirely electrified edifice on the continent. Its own power station was located on the banks of Peles Brook. Further, the building was equipped from the beginning with an interior elevator, vacuum cleaner, and central-heating system. The castle has 170 rooms, of which only 10 can be visited by tourists. It shelters various valuable collections of paintings, sculptures, armours, carpets, furniture, tapestries, statues, pottery, gold, silver and China dishes, stained-glasses and so on.

The visiting hours are from 9 a.m. to 5 p.m. Wednesday through Sunday. On Mondays the castle is closed and on Tuesdays the hours are from 11 a.m. to 5 p.m. The admission fee is between 15 – 50 RON.

### Estimated registration fees (bank transfer tax not included):

**350 EUR/400 EUR** for each participant (author or non author), includes attendance to all conference sessions, conference bag (conference programme, proceedings on CDROM, volume of Abstracts), invitations to the welcome reception and the banquet, 3 meals per day for 3 days, transport by bus organized from and to the Bucharest International Airport, one trip from those listed on conference website.

**250 EUR/300 EUR** for each companion, includes invitation to the welcome reception and the banquet, 3 meals per day for 3 days, transport by bus organized from and to the Bucharest International Airport, three trips from those listed on conference website.

