

INTERNATIONAL CONFERENCE ON ELECTRICAL SYSTEMS DESIGN & TECHNOLOGIES ICEEDT'08

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Dr. Abderrazek OUALI (Tunisia)

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M. Samet (Tunisia)
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WELCOME

Dear Participants,

As the technical program committee, it is our honor and pleasure to welcome you to the International Conference on Electrical Systems Design & Technologies, ICEEDT'08. The conference takes place at Melia El Mouradi – Hammamet five stars hotel, Tunisia for two days starting from Nov 08, 2008. The technical program involves four Invited Keynotes, three poster sessions and twenty oral sessions. This booklet is intended to guide you throughout the conference. You can find lots of useful information including contents of the technical sessions, presentation times and places. Members of the conference committee will also be at your disposal to help you.

Being a part of this major event has been a memorable and rewarding experience for us. We hope all the participants will find the conference enjoyable and informative.

Technical program Chair

Dr. Noureddine GOLEA (Algeria)

INFORMATION FOR SESSION CHAIRS, ORAL PRESENTERS, AND POSTER PRESENTERS

SESSION CHAIRS:

Session chairs are listed by name on each session in the technical program. Please check to see if you are a session chair, and if so, please identify the session(s) you are scheduled to chair. If you have a conflict with another presentation or event you must attend and cannot fulfill your duties as session chair, please ensure that another person will be present to assume those responsibilities.

It is important that session chairs maintain the schedule as indicated in the technical program to allow the participants to see the papers that they want to see at the time they want to see them. If you are a session chair, please do your best in the following areas:

1. Come to the room for your session early and if possible identify each of the speakers before the session begins.
2. Provide each speaker with 10 minutes of presentation time and 5 minutes to allow for questioning and transitioning to the next speaker.
3. Do not allow speakers to extend over their time slot, nor allow questions to extend into the next speaker's time. If there are additional questions, these can be handled during a break between sessions. Use your best judgment to balance the need to be fair to the presenter's time and to the participants' time.
4. In the case of paper for which no author or surrogate is available to present ("no-show"), please either use the time for an open discussion of previous paper or questions, or break for 10 minutes and then reconvene. Although significant effort has been made to reduce the number of no-shows, it is always possible that some will occur.

ORAL PRESENTERS:

*You'll find your presentation time(s) in the technical program in this booklet. Please locate your times and places and ensure that you know where to go and when to be there. Please ensure that you show up early for your oral presentation and identify yourself to the session chair. Please also ensure that you are as prepared as possible to make your presentation when it is your time. Do not go over 10 minutes for your presentation, allowing for 5 minutes of questions and transitioning to the next speaker. Follow the instructions of the session chair. **In the event that a session chair does not show for a session, the last speaker should serve as session chair. In the event that this is not possible, please identify a volunteer in the audience to serve as session chair, or at a minimum identify someone for each speaker to ensure that each presentation stays within the allotted time.***

POSTER PRESENTERS:

The poster sessions are scheduled in the Poster Hall. There are no other technical presentations scheduled during these times. Poster boards are already prepared, and you

**INFORMATION FOR SESSION CHAIRS, ORAL PRESENTERS,
AND POSTER PRESENTERS**

will be able to start assembling your poster presentations during the **coffee breaks**. Each poster board will have a number pinned to it. To find the number that corresponds to your poster, please go to the poster paper index in this book. This is also printed next to the paper entry in the main program.

COFFEE AND REFRESHMENT BREAKS

Coffee and refresh will be available for the break each day at 10:30 and 17:00 at the poster Hall.

SOFT COPIES OF THE PROCEEDINGS

Each registrant receives a soft copy (CDROM) of the ICEEDT'08 proceedings. These CDs are fully searchable.

IF YOU HAVE A PROBLEM

For any conference-related problem, please contact any organization committee member, the general chairs, the technical program chairs, or the registration desk.

SATURDAY, Nov 08, 2008

09:00 12:00: REGISTRATION
10:30 – 11:00 Coffee Break

12:00 – 14:00 LUNCH

14:00-14:30: OPENING CEREMONY
Location: Conference Salle

14:30-15:30: INVITED KEYNOTE I

“Electricity Load Forecasting Techniques and applications: the Irish and Algerian Experience”

Dr. Med Tarek Khadir

Dept. of Informatics, Laboratoire de Gestion Electronique de Documents
(LabGED) Université Badji Mokhtar, Annaba Algeria.

Location: Conference Salle.

Abstract

In many developing countries the understanding of electric power supply as a public service is being replaced by the notion that a competitive market is a more appropriate mechanism to supply energy to consumers with high reliability and low cost. In such environment, power producers and consumers need, on one hand, accurate load forecasting tools. These tools will ensure an a-priori knowledge on the amount of energy needed for production. Electricity demand is influenced (among other things) by the day of the week, the time of year and special periods, all of which must be identified prior to modelling. Data analysis, day type identification and clustering become paramount in order to define a successful forecast approach. Some applications concerning load day type identification using a two level clustering approach using Self Organising Maps (SOM) and discriminant analysis techniques will be presented for the Irish and the Algerian national electricity load. A comparison between obtained results (clusters) will be discussed, including the influence of weather and socio-cultural parameters. Examples of load forecasting models using Artificial Neural Networks (ANN) as well as Fuzzy Logic based on the obtained clusters will be presented.

Biography:

Mohamed Tarek Khadir was born on the 5th of July 1972 in Annaba Algeria. After succeeding in the baccalaureat, majoring in Maths and Technology in 1989, he graduated from the University of Badji Mokhtar Annaba, Algeria, with a state Engineering degree in Electronics Majoring in Control, in June 1995. After two years' work in the computer industry, he undertook an M.Eng. at Dublin City University, Ireland Graduating with First class honors and classified 2nd among the 1998 promotion. He later received a Ph.D degree from National University of Ireland, Maynooth, in 2002 in the field of advanced model based control. He continued with

SATURDAY, Nov 08, 2008

this institution as a post-doctoral researcher until September 2003 when he joined the department of computer science in his original university of Badji Mokhtar Annaba, Algeria, as a senior lecturer. He succeeded in obtaining the HDR (Habilitation to Direct Research) in January 2005 and since then he is directing a research team focusing on multi-models, forecasting and knowledge management in industry, with a special interest for energy production and pollution issues. Dr. Tarek Khadir is also part of several EU-MEDA joint research and training projects.

15:30-17:00 Oral Sessions
Location: Rooms A, B, C & D

INTELLIGENT CONTROL SYSTEMS

Location: Room A

Chairs: Dr Lotfi Krichen & Dr Kamel Kara

15:30-15:45: On the observer based stabilization of T-S systems with immeasurable premise variables

Abdallah SALEM, Zohra KARDOUS

Laboratoire d'Etude et Commande Automatique de Processus (LECAP) Ecole Polytechnique de Tunisie, BP. 743, 2078, La Marsa, Tunis.

15:45-16:00: Model-based Fuzzy Control of an Inverted Pendulum on a Cart: Fuzzy Controller and Fuzzy Observer Design via LMIs

Ibtissem Abdelmalek, Noureddine Goléa,

Electronics Department, Batna University, Algeria.

16:00-16:15: Two Optimal Control Strategies Based on Particle Swarm Optimization for a Hybrid Two-Tank System

Sahbi BOUBAKER, Faouzi M'SAHLI

High Institute of Technological Studies of Nabeul, Campus Universitaire, Merazka, 8000, Nabeul, Tunisie.

National School of Engineers of Monastir, Rue Ibn Eljazzar, Monastir, 5019 Tunisie.

16:15-16:30: Enhancement of an Autopilot Dynamic Stability Based on Fuzzy Logic Controller

Almabrok E. Almabrok, Saad M. Issa, Muftah M. Bakush, Nasr Emhemed A. Shtawa

Electrical Engineering Department, Al-Jabal Al-Gharbi University, Gharian-Libya

Aeronautical Engineering Department, AL-Fateh University, Tripoli-Libya

Electrical Engineering Department, AL-Fateh University, Tripoli-Libya .

16:30-16:45: Optimization of PID controller parameters by genetic algorithms

S. Kermiche, H.A. Abbassi

Automatic and signals laboratory Department of Electronics University of Annaba, Algeria.

16:45-17:00: Monitoring under uncertainty: Fuzzy Approach

Y. Najar, R. Ketata, M. Ksour

High Institute of management in Tunis (ISG) –Informatics Department- Tunisia.

National Institute of Applied Sciences and Technologies in Tunis-Physics Department- Tunisia.

National School of Engineering in Tunis-Electrics Department- Tunisia.

ELECTRICAL DRIVES CONTROL

Location: Room B

Chairs: Dr Naceur Hadj Braik & Dr Tahar Bahi

15:30-15:45: Sensorless Control of Permanent Magnet Synchronous Motors

A.G. Aissaoui, M. Abid, A. Tahour, A.C. Megherbi

IRECOM Lab., Electrical department, University of Sidi Bel Abbes, 22000, Algeria.

Electrical department of University of Bechar, 08000, Algeria.

Electrical department of the University of Biskra, 07000, Algeria.

15:45-16:00: Sensorless Speed Control of Permanent Magnet Synchronous Motor Drive Using Extended Kalman Filter With Initial Rotor Position Estimation

A. Chbeb, M. Jemli, M. Boussak, O. Khlaief, M. Gossa

Unité de recherche en Commande, Surveillance et Sûreté de fonctionnement des Systèmes « C3S » Ecole Supérieure des Sciences et Techniques de Tunis (ESSTT) 5 Avenue Taha Hussein –BP 56, Bab Manara 1008 Tunis – Tunisia

Laboratoire des Sciences de l'Information et des Systèmes (LSIS) – UMR CNRS 6168.

Ecole Centrale de Marseille (ECM) – 13451 Marseille Cedex 20 – France

16:00-16:15: Switched Reluctance Motor Control SRM by Using Emotional Learning (BELBIC)

F. Tahvili Pour Fard, GH. Shahgholiyan, E. Daryabeigi

Islamic Azad University, Najafabad branch, electrical Engineering Department, Esfahan, Iran

Yang Researcher Club Esfahan, Iran

16:15-16:30: Fuzzy MRAS Speed Estimator for Vector Control of an Induction Motor

K. Kouzi, M-S. Naït –Saïd, M. Hilaret, E. Berthlot

Materials Laboratory, Electrical Engineering Department, Laghouat University, Algeria.

Electrotechnic Laboratory, Batna University, Chahid Boukhlof Street, Algeria.

Laboratoire de Génie Electrique de Paris, LGPE/SPEE Labs; CNRS UMR8507; SUPELEC; Univ. Pierre et Marie Curie-P6; Univ Paris Sud-P11 91192 Gif sur Yvette France.

16:30-16:45: Modelling and Control of electromechanical multi-machine system for Railway traction

Wiem BEN MABROUK, Jamel BELHADJ, Maria PIETRZAK DAVID

LSE-ENIT, BP37 belvédère 1002 Tunis,

ESSTT, 5 Avenue Taha Hussein, BP 56 Bab Mnara, Montfleury 1008 Tunis.

Université de Toulouse, LAPLACE, INPT, UPS, CNRS, 2 rue Camichel BP7122, 31071 Toulouse CEDEX 7, France.

16:45-17:00: Interconnected High gain observers for a DFIG sensorless control in a WECS

L. JERBI L. KRICHEN A. OUALI

Advanced Control and Energy Management research unit ENIS, 3038 Sfax, Tunisia.

SEMICONDUCTORS

Location: Room C

Chairs: Dr Lazhar Hadjeris & Dr Abdelhamid Ounissi

15:30-15:45: Modelling of Quantum Well (GaAsAl/GaAs), Using Green's Function

A. Ounissi

Laboratory Advanced Electronics (L.E.A), Dept. Electronics, University of Batna 05000 Algeria.

15:45-16:00: Electrical Properties of Metallophthalocyanine Thin Films

B. Boudjema M. Mordjaoui R. Daira M. Meziri

Lab: LRPCSI University of Skikda Algeria.

16:00-16:15: Thermal sensing with Al/CH_x/P-Si/Si structure encapsulated in CO₂ gas.

A. CHIALI1, N. GHELLAI1, N. GABOUZE, N.E. CHABANE SARI

URMER, Abou Bekr BELKAID University, Bp 119, Tlemcen, ALGERIA.

UDTS - 02, Bd. Franz FANON, BP 140, Alger, 7 Merveilles, ALGERIA

16:15-16:30: Structural, Optical and Electrical Properties of Semiconducting and Transparent ZnO Thin films Grown by Spray Pyrolysis

L. Hadjeris, L. Herissi, M. Benbouzid, A. Mahdjoub, N. Attaf, M.S. Aida T. Easwarakhanthan, M.B. Assouar, J. Bougdira

LMSSEF, Univesity of Larbi ben M'Hidi 04000-Oum El Bouaghi, Algérie.

LCMI, Faculté des Sciences, Université Mentouri, 25000-Constantine, Algérie.

LPMIA, UMR 7040 CNRS, Université Henri Poincaré Nancy1, B.P. 239, 54506 Vandoeuvre les-Nancy, France

16:30-16:45: Analysis and Performance of an Amorphous Silicon Thin-Film Transistor Inverter

Z. Hafdi

Advanced Electronics Laboratory, Department of Electronics, University of Batna, ALGERIA.

16:45-17:00: Modelled Profiles of the Ionic Boron in Thin Films Silicon Si-LPCVD

S. Merabet, M. Boukezzata, P. Temple-Boyer

Electronic Department, Faculty of Science engineering, University of Jijel –18 000 Jijel, Algeria.

Electronic Department, Faculty of Science engineering, University of Mentouri of Constantine, Constantine, Algeria.

LAAS du CNRS, 7 avenue du Colonel- Roche, Roche, 31077, cedex 4, France

RENEWABLE ENERGY

Location: Room D

Chairs: Dr Mohamed Néjib MANSOURI & Dr Mohamed Bourahla

15:30-15:45: Study of the costs of power supply of the small systems of pumping by hybrid systems PV/Wind/Diesel: Optimization and analyzes costs

F. SALAH, M.N. Mansouri, M.F. Mimouni

Ecole Nationale d'Ingénieurs de Monastir, Tunisie.

15:45-16:00: Study of the Performances of Small Powers Aerogenerators Production: Application on Tunisian Sites

M. MANSOUR, M. N. MANSOURI, M. F. MIMOUNI

National Engineering School of Monastir (ENIM) – Tunisia

16:00-16:15: The study of a wind turbine at variable speed equipped with a double star induction generator connected to the electrical supply network

R. Kacem M. N. Mansouri A. Khedher M. F. Mimouni

Monastir Engineering National School-Tunisia

High Institute of Applied Sciences & Technology (ISSAT) –Tunisia

16:15-16:30: Sliding mode observer based sensorless Maximum Wind Energy Capture

Jemaa BRAHMI., Lotfi KRICHEN, Abderrazak OUALI

Advanced Control and Energy Management research unit ENIS, 3038 Sfax, Tunisia.

16:30-16:45: MIMO Modelling Approach for a Small Photovoltaic Reverse Osmosis Desalination System

A. B. Chaâbène, R. Andoulsi, A. Sellami, R. Mhiri

SATURDAY, Nov 08, 2008

Unit Research on Power System and Electrical Machines RME, INSAT Centre Urbain Nord, BP 676, 1080 Tunis Cedex.

LaNSE/CRTEn Borj cedria BP95, Hammam Lif , 2050 Tunisia

ESSTT, 05 AV Taha Hussein Montfleury, 1008, Tunis, Tunisia

Faculté des Sciences de Tunis, 1020, Belvédère, Tunis Tunisia

16:45-17:00: Sliding mode control of a photovoltaic three-phase grid connected system

Y. Weslati, F. Bacha, A. Sellami, R. Andoulsi

LPVS, Centre de Recherche et Technologies des Énergies, Borj Cedria Technopark, B.P.95 Hammam-lif 2050 Tunisia.

ESSTT, 5 Avenue Taha Hussein, Tunis, B.P. 56, 1008 Bab Menara, Tunisia.

Unité de recherche RME, INSAT, Tunisia

LPVS, Centre de Recherche et Technologies des Énergies, Borj Cedria Technopark, B.P.95 Hammam-lif 2050 Tunisia.

17:00 – 17:15 Coffee Break

Location: Poster Hall

17:15-18:00 Poster Session I

Chairs: Dr Rafik Neji & Dr Fateh Krim

Location: Poster Hall

P1 1- Optimization of Ultrasound Excitation for Improved Harmonic Imaging

M. Bahaz, K. Benmahammed, N.Benoudjit, A. Bouakaz

Laboratoire d'Electronique Avancée (LEA), Département d'Electronique, Université de Batna, Algérie.

Département d'Electronique, Université de Sétif, Algérie.

UMR Inserm U930 CNRS FRE 2448, Université François Rabelais, Tours, France

P1 2- Design and Layout of Finite State Machine Using C2MOS Latch in CMOS 0.35 μ m technology

S. Barra N. Bouguechal A. Dendouga O. Manck

Advanced Electronic Laboratory, Batna University Algeria

Technique University of Berlin Germany

P1 3- Recurrent Neural Network for Multi-steps ahead prediction of PM10 concentration

Ghazi sabri, Khadir Tarek

LabGed, Department of computer science, University Badji Mokhtar Annaba, Algeria.

P1 4- Harmonics Signals Detection using the Bispectrum

H. Maalem

Department of electronic, University of Skikda, Bp 26, Route El hadaiek, University of Skikda Fax: 038 70 10 04. L.A.I. University of Guelma Algeria

P1 5- Improvement Characterization Resulting from the Losses Reduction in a Linear Stepping Motor

Hajri sondes, Ben Amor Abdessattar, Gasmi Moncef

Unité de Recherche en Automatique et Informatique Industrielle, (URAII). Ecole Nationale d'Ingénieurs de Tunis, (ENIT).

Institut National des Sciences Appliquées et de Technologie, (INSAT).

P1 6- DC Flashover Discharge of Polluted Insulator

M. Hamouda, S. Flazi

Department of computer science , faculty of science University African Ahmed Draia of Adrar, Algeria

Department of electrotechnic,faculty of electrical engineering university USTO-MB of Oran, Algeria.

P1 7- The study of the miscibility degree of two new insulating mineral oils for power transformer

I. Khelfane , T. Laceb

CREDEG-SONELGAZ, 36 Route de Ouled Fayet, El Achour, Algeria.

P1 8- Robust Hybrid Current-Controlled PMSM Drive: Design and Parameters Analysis

M. Kadjoudj C. Ghennai N. Golea

Department of Electrical Engineering, Batna University Algeria.

Electrical Engineering Department, Gizan University KSA.

Electrical Engineering Department, Oum Bouaghi University Algeria,

P1 9- The Behavior of Three-Level Inverter Supplying a squirrel Motor

S. Kelaiaia M. S. Kelaiaia T. Mesbah

Department of Electrical Engineering, University of Souk Ahras, 41000 Algeria

Department of Electrical Engineering, F.S.I., Univ. of Annaba , BP12; 23000 Algeria

P1 10- Integration of the Wind Energy in the Development of the Electric Production Park in Tunisia

M. N. MANSOURI M. MANSOUR M. F. MIMOUNI

National Engineering School of Monastir (ENIM) – Tunisia.

P1 11- Comparison of Field-Oriented Control and Direct Torque Control for Permanent Magnet Synchronous Motor (PMSM)

M. S. Merzoug F. Nacéri

LEB-Research Laboratory, Department of Electrical Engineering, University of Batna
Algeria

P1 12- The Capacitance of Two Wire Line with Rectangular Cross Section

A. M. Milovanovic, B. M. Koprivica, M. D. Veskovic

Technical Faculty of Cacak, Department of Electronic and Electrical Engineering, Sv.
Save 65, Serbia.

P1 13- Adaptive Backstepping Control of Doubly Fed Induction Motor (DFIM)

Messaoud Mokhtari Nouredine Goléa

Department of electronics, Batna University, 05000 Batna, Algeria,
EE Institute, Oum El-Bouaghi University, 04000 Oum El-Bouaghi, Algeria.

P1 14- Contribution to the control of a photovoltaic pumping system

M.I. Chergui, M. Bourahla

University of Sciences and Technology of Oran, Electrical Engineering Faculty,
Department Electrotechnics, Laboratory of Electrical Drives, Power Electronics, and
Industrial Applications. BP 1505 31000 Oran, ALGERIA.

P1 15- Efficiency of Online Expert System in Monitoring Hydraulic Process

Y. Najjar R. Ketata M. Ksouri

High Institute of management in Tunis (ISG) – Informatics Department- Tunisia.

National Institute of Applied Sciences and Technologies in Tunis-Physics Department-
Tunisia.

National School of Engineering in Tunis-Electrics Department-Tunisia

P1 16- Tuning and leakage currents compensation by the three coils method

M. BOUKHENAF, N. GUERSI, A. SAADOUN

Laboratoire LSE, Laboratoire LASA, Faculté des Sciences de l'ingénieur Université
Badji Mokhtar Annaba, Algeria.

P1 17- Adaptive Fuzzy Control for chaotic system

B. Bourouba K. Khettab K. Babouche

Intelligent Systems Laboratory (LSI) University of Ferhat Abbas-Sétif (UFAS),
Algeria.

Intelligent Systems Laboratory (LSI), University of 20 August 55, Skikda- Algeria.

**P1 18- The Power Flow with the Unified Power Flow Controller (UPFC) device in
the Power Network System**

O. L. BEKRI, M.K. FELLAH

Institute of Sciences and Technology. Saïda University, Algeria.

ICEPS laboratory (Intelligent Control & Electrical Power Systems). Electrical Engineering Department, Engineering Sciences Faculty Sidi Bel-Abbes University, Algeria

P1 19- Influence of patch dimensions and substrate parameters on the radiation of a rectangular microstrip patch antenna

F. Chebbara T. Fortaki M. Amir L. Djouan

Electronics Department, University of Batna, 05000 Batna, Algeria.

P1 20- Genetic algorithm identification of induction motor parameters

Dhaoui M, Sbita L, Abdelkrim M. N

Research unit of Modeling, Analysis and Systems Control. National Engineering School of Gabes (ENIG) Zrig 6029 Gabes, Tunisia.

P1 21- Averaged modeling of a DC/AC converter for electric vehicle application

M. A. Fakhfakh, S. Tounsi, R. Neji

Laboratoire d'Electronique et des Technologies de l'Information –LETI, Ecole Nationale d'Ingénieurs de Sfax Route de la Soukra km 3.5, B.P.1173, 3038 Sfax – Tunisie

P1 22- Dynamic modeling and control strategy of a hybrid power source: Fuel cell - Supercapacitor

D. KETATA, L. KRICHEN

Ecole Nationale d'Ingénieurs de Sfax Route de la Soukra km 3.5, B.P.1173, 3038 Sfax – Tunisie.

P1 23- Nonlinear Fusion of colors to face authentication

M. Fedias, D. Saigaa

Automatic Department, University Mohamed khider B.P 145 RP Biskra (07000), Algeria,

P1 24- Nonlinear Predictive Control NGPC for Induction Motor Drive

Zakaria Lammouchi, Kamel Barra

Department of Electrical Engineering, Larbi Ben M'hidi university, Oum El Bouaghi, 04000. Algeria

SUNDAY, Nov 09, 2008

08:30-10:00: ORAL SESSIONS
Location: Rooms A, B, C & D

ELECTRICAL MACHINES DESIGN & ANALYSIS

Location: Room A

Chairs: Dr Najiba Mrabet & Dr Kamel Srairi

08:30-08:45: Electromagnetic Study of Hybrid Excitation Synchronous Motor

B. Ben Salah, N. Chaker, R. Neji

LETI-Ecole Nationale d'Ingénieurs de Sfax, Tunisie E.N.I.S. B.P. W 3038 Sfax
TUNISIE.

08:45-09:00: 3D Finite Element Analysis of Piezoelectric Coupling Model Applied for Linear and Rotary Piezoelectric Ultrasonic Micromotor

Hakim BENS Aidane, Abderrazak GUESSOUM

Département d'Electrotechnique, Université des sciences et technologies Houari Boumediene, Alger, Algérie.

Département d'Electronique, Université SAAD DAHLEB de Blida, Algérie.

09:00-09:15: Rotary Ultrasonic Motors: Daimler-Benz AWM 90-X TWUSM motor, experimental and simulation mechanical characteristics

F.Z. Kebbab, M. Djaghoul, Z. Boumous, S. Belkhiat

Université de Sétif, Algérie.

09:15-09:30: Improvement of the Dynamic Performances of a Tubular Linear Stepping Motor

M. Zaouia, N. Benamrouche, M. Rachek

Faculty of Electrical and Computer Engineering, Mouloud Mammeri University of Tizi-Ouzou, B.P 17 R.P Tizi-Ouzou, 15000, Algeria.

09:30-09:45: Accurate Coupled Magnetic Mutli-Turns Model of Induction Motors Under Turn-to-Turn Stator Short Circuit

M. Rachek, Y. Méssaoudi, B. Oukacine

Mouloud Mammeri University, BP 17 RP, Tizi-Ouzou, Algeria.

09:45-10:00: Influence of Design Parameters on Magnetic Performances in Permanent Magnets Motors

N. Ben hadj M. Chaieb S. Tounsi R. Neji F. Sellami

MATERIAL STUDIES

Location: Room B

Chair: Dr Faramarz E. Seraji & Dr Rachid Dhifaoui

08:30-08:45: One Dimensional Continuum Model for DC Glow Discharge

A. Bouchikhi, A. Hamid
Centre Universitaire de Saida, Algérie.
Université des Sciences et de la Technologie d'Oran, Algérie

08:45-09:00: Study of radiation of a low pressure mercury lamp supplied with various waves of current : pulsed, continuous and sinusoidal

M. Ben Mustapha, L. Bouslimi, B. Mrabet, A. Chammmam, M. Stambouli
Ecole Supérieure des Sciences et Techniques de Tunis (ESSTT) 05 Avenue Taha Hussein 1008 Tunis.

09:00-09:15: Optical Switching Effects on Nonlinear Fiber Bragg Grating

F. Emami, A. Keshavarz, M. Hatami, A. H. Jafari
Optoelectronic Research Center of Shiraz University of Technology Airport Road, Shiraz University of Technology, Shiraz, Iran

09:15-09:30: Decay of Electrical Charge on Polymer Films

L. Herous, M. Nemamcha, M. Remadnia, S. Saad
Laboratoire de Génie Electrique de Guelma (LGEG). Université 08 Mai 1945, B.P. 401 – 24000. Guelma, Algérie.
Laboratoire des Systèmes Electromécanique, Université de Annaba 23000, Algérie

09:30-09:45: Simulation of the radiation damage by disintegration of Iodine 125 in situ in chromosomal fiber.

H. Oudira, M.E.K. Abdeelmoumene, A. Saifi
Department of Electronic University Mentouri of Constantine, Algeria.

09:45-10:00: Mono-Beam Propagation in Low and High Loss Er-Doped Optical Fiber

Maryam Karimi, Faramarz E. Seraji
Physics Group, Razi University, Kermanshah, Iran
Optical Communication Group, Iran Telecom Research Center, Tehran 14399, Iran

ROBOTICS

Location: Room C

Chairs: Dr Mohamed F. MAIMOUNI & Dr Hadj Ahmed Abbassi

08:30-08:45: Stabilization of a Four Rotors Mini-Flying Robot Using Sliding Mode Controller

M. Tahar, K. M. Zemalache and A. Omari
Université des Sciences et de la Technologie d'Oran Mohamed Boudiaf (USTO-MB),
Laboratoire de Developpement des Entrainements Electriques (LDEE) B.P. 1505 Oran
El M'Naouer, Algérie

08:45-09:00: Telerobotic tasks realization using passive stereovision

SUNDAY, Nov 09, 2008

A. LOUKIL and D. MECHELI

Laboratoire de Recherche en Systèmes Intelligents (LARESI), Department of Electrical Engineering, USTO University, Oran, Algeria

09:00-09:15: Tracking of Cartesian Trajectory Near Singularities for Redundant Robot

M. BENZAOUI, H. CHEKIREB

ENP, LCP BP 182, 10 avenue Hassan Badi, El-harrach Alger.

09:15-09:30: HMM Based Voice Command System, A Way to Control a Manipulator Arm

Mohamed FEZARI, H. A. ABBASSI, B. BOULEBTATECHE, M. BOUGHAZI

Faculty of Engineering, Department of Electronics, University of Annaba. Laboratory of Automatic and Signals, Annaba, BP.12, Annaba, 23000, ALGERIA.

09:30-09:45: Controller Parameters Optimization by Using Genetic Algorithm for the control of robot manipulator

K. Saidi, D. Chaouch, M. F. Khelifi

Faculté du Génie Electrique, Université des Sciences et de Technologie d'Oran - Mohamed Boudiaf BP1524 El Menaouer- 31000, Oran, Algérie.

09:45-10:00: Artificial Immune System to Estimate Joint Angles

Serrat Amel, Benyettou Mohamed

Laboratoire de Modélisation et d'Optimisation des Systèmes Industriels Faculté des Sciences Université des Sciences et de la Technologie d'Oran, 31000.

SPECIAL SESSION: Signals and images in medical applications

Location: Room D

Chairs: Dr Ayache Bouakaz

08:30-08:45: A Pattern Recognition Method for Arrhythmia Detection in ECG Signals

F. Melgani, Y. Bazi

Dept. of Information Engineering and Computer Science, University of Trento, Via Sommarive 14, I-38050, Trento, Italy.

College of Engineering, Al Jouf University, 2014 Sakaka, Saudi Arabia.

08:45-09:00: Signal Processing Methods for Pulsed Ultrasound Velocimetry

H. Djelouah, N. Bahbah

Faculty of Physics, Houari Boumediene University of Sciences and Technology B.O. 32, El Allia, Bab-Ezzouar, 16111, Algiers, Algeria

09:00-09:15: Emotional face perception in autism: visual scanning and brain activations

SUNDAY, Nov 09, 2008

Joëlle Martineau, Nadia Hernandez, Frédéric Andersson, Christophe Destrieux
UMR Inserm U 930 ; CNRS Fre 2448; University François Rabelais de Tours ; IFR
135 ; CHRU de Tours ; 37044 Tours Cedex ; France

09:15-09:30: **BOLD technique to extract the neuronal activity of IRMf**

Kaouther EL KOURD

Electronic Institute, University of Med Kheider Biskra, Algeria.

09:30-09:45: **Microemboli Classification using Radial-Basis Function Network**

N. Benoudjit, P. Palanchon, M. Bahaz, A. Bouakaz

Electronics Department, University of Batna, Algeria.

UMR Inserm U930 CNRS FRE2448, Tours, France.

09:45-10:00: **Ultrasound Tomography: Application to Breast and Bone Imaging**

S. Mensah, P. Lasaygues

CNRS- Laboratoire de Mécanique et d'Acoustique, Marseille, France.

10:00 10:15 Coffee Break

Location: Poster Hall

10:15-11:00 Poster Session II

Chairs: Dr Hsan Hadj Abdallah & Dr Mohamed Boudour

Location: Poster Hall

P2 1- A Novel Color Image Watermarking Scheme Using DWT

A. Bakhouch, N. Doghmane

Département d'informatique université Badji Mokhtar Annaba, 23000, Algérie

P2 2- Improvement of the Starting and Braking Times of an Induction Motor Including Magnetic Saturation

Dj. Aouzellag, K. Ghedamsi, R. Diche

Department of Electrical Engineering, A.Mira University, Bejaïa, Algeria

Department of Electrical Engineering, M.MAMMERI University Tizi Ouzou, Algeria.

P2 3- PCA-based Face detection in images sequence

Ayeche FARID, Abdallah BOUKERAM

Computer science Dept., Sétif University, 19000, Algeria.

P2 4- Domain Study Reduction and Modeling of the Induction Matrix of a Multi Winding Actuator

M. Bouharkat, K. Bouharkat and F. Adjadj

Electrical Machines and Actuators Laboratory Engineering Science faculty, Electrical Engineering Department Batna University, Algeria.
Sciences faculty, Physic Department Batna University, Algeria.

P2 5- Sidelobe Reduction in Array-Pattern Synthesis Using Circular Antenna Arrays

N. Fadlallah, R.Ghayoula, A.Gharsallah, M.Rammal

Laboratoire de physique de la matière molle, Unité de recherche : Circuits et systèmes électroniques HF Faculté des Sciences de Tunis, Campus Universitaire Tunis EL-manar, 2092, Tunisie.

Equipe RADICOM, Institut Universitaire de Technologie de Saida Université de Liban, P.O.Box #813 36, Liban.

P2 6- Water sorption of flexible networks based on 2-hydroxypropyl methacrylate-tetra (ethylene glycol) dimethacrylate copolymers

A. Fasla, S. Ould Kada1, Z. Seghier, A. Périchaud

Macromolecular Physical Chemistry Laboratory, Faculty of Sciences, University of Oran, BP1524, El Mnaouer 31000, Oran, Algeria,

Department of Industrial Chemistry, Sciences and Technology University of Oran, BP1505, El Mnaouer, Oran, Algeria

Macromolecular Chemistry Laboratory, University of Provence, Case55, 3PI.V.Hugo, 13331, Cedex 03, Marseille, France.

P2 7- Sensorless PMSM Robust Control for Electric Vehicle Steering Based on References Generation

K.Tabti, M. Bourahla, L. Mostefai

Faculty of Electrical Engineering University of Science and Technology of Oran BP 1505 El-Mnaouar Oran, Algeria

P2 8- Neural networks and Fuzzy C-Means (FCM) for Tissue Segmentation in Magnetic Resonance Imaging.

LALAOUI. L, MOHAMADI. T and ROGER. L

Université Farhet Abas de Sétif Faculté des sciences de l'ingénieur Département d'Electronique.

P2 9- A new Genetic Crossover Operator applied in the Evolutionary Cryptography

L. K. Oulad djedid, N. Lagraa, M. L. Bensaad, M. Yagoubi

Dept. Computer science, University of Laghouat Ghardaia route, BP 37G, Laghouat 03000, Algeria.

P 2 10- Computational Estimation of Electrical Fiber Composite Conductivity

D. Mezdour, S. Sahli, S. Merabet

Laboratoire de Microsystèmes et Instrumentation Département d'Electronique Faculté des Sciences de l'Ingénieur Université Mentouri de Constantine Route d'Ain El Bey, Constantine 25000, Algérie.

Département d'Electronique Faculté des Sciences de l'Ingénieur Université de Jijel Ouled Aissa, Jijel 18000, Algérie.

P2 11- Study of a Parallel Active Filter Using Three Levels Inverter

Nadhir Mesbahi, Ahmed Ouari

Department of electrical engineering, University Badji Mokhtar, Annaba.

P2 12- Transfers of Electromagnetic Energy to Plasma

N. G. Sabri, T. Benouaz

Department of Genie Electrique, Bechar University Algeria.

Department of Physics, Tlemcen University Algeria

P2 13- Comparison of Fuzzy Logic and Proportional Controller of Shunt Active Filter Compensating Current Harmonics and Power Factor

S. Saad, L. Zellouma, L. Herous

Laboratoire des Systèmes Electromécaniques, University of Annaba-Algeria.

Laboratoire des Systèmes Electromécaniques, University of Annaba-Algeria.

Département Electromécaniques, University of Annaba-Algeria.

P2 14- Hysterisis Vector Control for Active Filters

T. Bahi, A. Boukadoum, M. Mohammedi, H. Bouzekri

Department of Electrotechnical, Faculty of Sciences Engineering. Laboratory LASA, Annaba University, Algeria Skikda University, Algeria

P2 15- Measuring and Modeling Electrical Charge Decay of Corona Charged Polyimide

Z. Ziari, S. Sahli A. Bellel

Université Mentouri de Constantine, Laboratoire de Microsystèmes et Instrumentation (LMI), Faculté des Sciences de l'Ingénieur, Constantine, Algeria.

Université Mentouri de Constantine, Laboratoire d'Etude des Matériaux Electroniques pour Applications Médicales (LEMEAMED), Faculté des Sciences de l'Ingénieur, Constantine, Algeria

P2 16- Performance Analysis of Two Viable Speed Control: Direct Torque and Vector Control for Permanent Magnet Synchronous Motor Drive

R. Souad, H. Zeroug, L. Hocine and K. Boudjit

University of Sciences and Technology HB, Dpt of Electrical Engineering, Algiers, Algeria.

P2 17- A novel adaptive hysteresis band current control with constant switching frequency of three-phase PWM rectifier

S. Begag N. Belhaouchet L. Rahmani K. Babouche

Department of Electrotechnic, Faculty of Engineering, University of Ferhat Abbas Sétif 19000 Algeria.

P2 18- Performance assessment of power system with SVC using MATLAB.

O. L. BEKRI, M.K. FELLAH

Institute of Sciences and Technology. University of Saïda, Algeria.

ICEPS laboratory, Electrical Engineering Department, Engineering Sciences Faculty University of Sidi Bel-Abbes, Algeria.

P2 19- Effect of the thickness of the superconductor patch on the characteristics of rectangular microstrip Antenna

M. AMIR, T. FORTAKI, F. CHEBBARA, L. DJOUANE

Electronics Department, University of Batna, 05000 Batna, Algeria.

P2 20- Linearization and compensation of Gas Sensor response

H. Baha, Z. Dibi, S. Kouda

Laboratoire d'Electronique Avance Université de Batna Algérie.

P2 21- Topologic model of active power filter for reactive power compensation

L. Merabet

Department of Electrical Engineering, University of JIJEL, Ouled Aissa, BP No. 98.

P2 22- Switcher Based Cancelling Noise Structure CMOS 0, 25 µm technology

F. Meddour Z. Dibi S. Kouda M. A. Abdi O. Manck

Laboratoire d'Electronique Avancée, Batna university Algeria
Technique University of Berlin Germany.

P2 23- SRM Modeling and Torque Control Analysis Using Matlab-Simulink

R. TOUDJI, H. SAHRAOUI, H. ZEROUG, M. BOUCHERIT

Laboratoire de Commande des Processus, Department of Electrical Engineering, National Polytechnic School, El-Harrach, Algiers, Algeria

Laboratoire des Systèmes Electriques Industriels, Department of Electrical Engineering, University of Sciences and Technology Houari Boumediene, BP32, Bab-Ezzouar, 16111, Algeria.

P2 24- Efficient face location operator based on motion detection techniques

M. Mostefai, S. Akhrouf, A. Bouzienne

LMSE Laboratory CUBBA – Algeria -

SUNDAY, Nov 09, 2008

11:00-12:00: INVITED KEYNOTE II

"The Impact of Renewable Energy Power Systems on Power Quality"

Dr M S Khanniche

School of Engineering, Swansea University, UK.

Location: Conference Salle.

Abstract:

An overview of renewable energy power systems and recent developments in Power Quality solutions will be given. Related topics which will be covered in the presentation include:-

- European harmonic standards and the recommended G4/5 directive.
- Smart Electricity Metering.
- Case study of typical power quality issues in the steel industry.
- The impact of power quality solutions on the cost of new installations and compliance of existing systems.

Finally potential solutions, limitations and the need for further developments will be highlighted.

Biography:

Dr Salah Khanniche is a senior lecturer, School of Engineering University of Wales Swansea. He obtained his BSc, MSc and PhD from Swansea University in 1981, 1982 and 1985 respectively.

He is specialised in Power Electronics.

Research Interests

Power Electronics

Real time embedded Control for Power Electronics Systems

Thermal Analysis

Variables Speed Drives

Renewable Energy Systems

Power Quality

12:00 – 14:00 LUNCH

SUNDAY, Nov 09, 2008

14:00-15:30: ORAL SESSIONS
Location: Rooms A, B, C & D

COMPUTER SYSTEMS

Location: Room A

Chairs: Dr Mostafa Eltokhy & Dr Zaki Sari

14:00-14:15: CMMS*net: A distributed and object-oriented Data Manipulation Language using CORBA

A. Bouziane S. Akrouf M. Mostefai

LMSE Laboratory, Bordj Bou Arréridj University, Algeria

14:15-14:30: A Load Balancing Policy Based on a Diffusion Scheme for Grid Computing Environments

A. Drif, A. Boukerram

Department of computer science, University of Setif, Algeria

14:30-14:45: Automatic Verification Tool for Real Time UML Models

A. Bouamari

LAS Laboratory, University of Setif – Algeria.

14:45-15:00: High-Level Context-Driven Composition for Pervasive Applications

Mejdi Kaddour, Abdelkader Dekdouk

Département d'Informatique Université d'Oran BP 1524 El-Menaouer, ORAN 31000 ALGERIE.

15:00-15:15: Bluetooth Performance Improvement Using Convolutional Codes

M. A. M. Mohamed, A. E. Abu El-Azm, N.A.El-Fishawy, M. A. R. Eltokhy F. Shawki and F. E. Abd El-Samie

Faculty of Industrial Education, Helwan University, Cairo, Egypt.

Faculty of Electronic Engineering, Menoufia University, Menouf, Egypt.

15:15-15:30: Performance Modeling and Estimation along an MPSoC Flow

Kamel SMIRI, Abderrazak JEMAI, Imed BENNOUR

LIP2 Laboratory, Faculty of Science of Tunis, Campus University, 2092 Manar 2, Tunisia.

µE Laboratory, Faculty of Science of Monastir, 5019 Monastir, Tunisia.

ELECTRICAL ENGINEERING MATERIALS MODELING & ANALYSIS

Location: Room B

Chairs: Dr Kamel Srairi & Dr Mohamed ELLEUCH

14:00-14:15: Transformer Differential Protection Performance Analysis using Dynamic Modeling Method

Abdelsalam Omar Ahmed Omar
GECOL, Libya.

14:15-14:30: Finite Volume Magnetic Modeling for Jiles-Atherton Scalar Hysteresis Model Optimizing by a Genetic Algorithm

S. Azzaoui, K. Srairi, M.E.H. Benbouzid

Electrical Engineering Department, Djelfa University, Djelfa 17000, Algeria.

LESM Lab. Electrical Engineering Department, Biskra University, 07000, Algeria.

Lab. LIME, IUT of Brest, University of Western Brittany Brest Cedex 3, France.

14:30-14:45: Prediction of XLPE Insulation Cable Properties under Thermal Aging using Self-Organizing Neural Networks

L. Boukezzi S. Benkaida Z. Hamza

Département d'électrotechnique, Centre Universitaire de Djelfa, Algeria

14:45-15:00: Behavior of Naphtenic Transformer oils submitted to thermal stress

I. Khelfane, D. Rebbouh H. Moulai, A. Nacer, L. Lasmi, A. Belazzoug

Centre of Research and Development of Electricity and Gas (CREDEG)-SONELGAZ, 36 Route de Ouled Fayet, El Achour, Algiers, Algeria.

Laboratory of Electrical and Industrial Systems, University of Sciences and Technology H.B., FEI, BP 32, Bab Ezzouar, Algiers, Algeria.

15:00-15:15: Thermal radiation effect on the extinction properties of electric arcs in HV circuit breakers

A. Ziani, H. Moulai

USTHB, Electrical and Industrial Systems Laboratory, FEI, BP 32, Bab Ezzouar, Algiers, Algeria.

15:15-15:30: General Modelling of Magnetic Saturation in Uniform Air-Gap Undamped Synchronous Machines

Khlaifi Mohamed Larbi, Habib Rehaoula

C3S Lab, university of Tunisia - Ecole Supérieure des Sciences et Techniques, 5, Avenue Taha Hussein Montfleury Tunis 1008, Tunisia.

POWER SYSTEMS

Location: Room C

Chairs: Dr M S Khanniche & Dr François Bruno

14:00-14:15: Control of Distributed Generation Units in Stand-Alone Industrial Networks

Ali Asghar Ghadimi, Hassan Rastegar, M. G. Hosseini Aghdam

Department of Electrical Engineering, Amirkabir University of Technology, Tehran, IRAN.

14:15-14:30: A Novel Algorithm for Determination of Reactive Currents in STATCOM for Voltage Flicker Mitigation

Jawad Faiz, Ali Zafari

School of Electrical and Computer Engineering, Faculty of Engineering, University of Tehran, Tehran, Iran

Department of Electrical Engineering, Islamic Azad University of Najafabad Young Researchers Club, Isfahan, Iran.

14:30-14:45: Robust VSC–HVDC Systems Based on Sliding Mode Control

H. S. Ramadan, H. Siguerdidjane, M. Petit, R. Kaczmarek

SUPELEC, 3 rue Joliot Curie, Plateau de Moulon, 91192, Gif-sur-Yvette cedex, France.

14:45-15:00: Computer Program for Placing and Designing Static Var Compensators Based on Modal Analysis Method

J. S. Abdulmalek, A. S. Husain

Electrical Engineering Department, Faculty of Engineering, 7th October University-Misurata-Libya.

15:00-15:15: Assessing Harmonic Distortion to Comply with IEEE STD 1459-2000 Recommendations

O. Boudebbouz, K. Zehar, A. Medoued

Department of Electrical Engineering, Skikda University, Algeria.

Department of Electrical Engineering, Setif University, Algeria.

15:15-15:30: Virtual Flux Direct Power Control - Space Vector Modulation Based STATCOM

Sonnati Venkateshwarlu, Bishnu Prasad Muni, A.D. Rajkumar

Sreenidhi Institute of Science & Technology, Hyderabad, India

BHEL Corporate R&D, Vikas nagar, Hyderabad, India

CVR College of Engineering, Hyderabad.

SMART TECHNOLOGIES & AUTOMATION

Location: Room D

Chairs: Dr Ahmed Hammad & Dr Taher. M. El-Shiekh

14:00-14:15: Using the profile UML4SoC for Modeling a Smart Surface

Ahmed Hammad, Hassan Mountassir, Bruno Tatibouet

University of Franche-Comté 16, route de Gray F-25030 Besançon, France

14:15-14:30: Leak Detection Based on External Measurements in Pipelines and Error Sources

Taher. M. El-Shiekh

Processing Development Department Egyptian Petroleum Research Institute – Nasr City, Cairo, Egypt

14:30-14:45: Methodology of upgrading and automation of complex industrial systems

M. N. LAKHOUA

UR : Systématique, Energétique, Productique et Environnement ISSAT, Route de Tabarka, Mateur 7030, Tunisie.

14:45-15:00: ASCI Methodology for Modeling Operating Theatre

L. Dekhici, K. Belkadi

LAMOSI, Computer Science department, Sciences Faculty, University of Sciences and Technology of Oran U.S.T.O.M.B., BP. 1505 Oran, M'Naouer 31000 , Algeria.

15:00-15:15: Timing Characterization and Layout of a Low Power Differential C2MOS Flip Flop in 0.35µm Technology

A. Dendouga, N. Bouguechal, S. Barra, O. Manck, B. Lakehal

Advanced Electronic Laboratory, Batna University Algeria.

Technique University of Berlin Germany.

15:15-15:30: Contextual and Non Contextual Evaluation of Disparity Estimators

M. Ouali, A. Dekdouk, and K. Bouazza

Université d'Oran, Département d'Informatique, BP1524 Elmenaouer, Oran, Algérie

15:30-16:30: INVITED KEYNOTE III

"Harmonic treatment in industrial power systems"

Dr Ahmed Faheem Zobaa

Senior Lecturer in Renewable Energy, University of Exeter, United Kingdom.

Location: Conference Salle.

Abstract:

The proliferation of harmonic-producing loads on the power system continues to increase. Industrial customers are using adjustable speed drives (ASD) throughout facilities to provide improved process control and energy efficiency. Commercial facility loads are dominated by electronic loads and fluorescent lighting, as well as increased application of ASD in HVAC systems. Even residential loads have a continually increasing percentage of electronic equipment (TVs, computers, compact fluorescent lights, etc.). The result is increasing levels of harmonic currents on power supply systems. These harmonic currents combine with the impedance characteristics of the supply system to cause voltage distortion.

There is a need for general guidelines for evaluating system harmonic problems, designing power systems to avoid these problems, and implementing standardized solutions for the problems when they occur. In addition, guidelines for applying limits to equipment and individual customers are ' needed with standardized language for

contracts with customers. With deregulation and the separation of transmission and distribution systems, it is also becoming important to develop guidelines for harmonics at transmission interface points. Finally, a method of applying economic penalties for customer injection of harmonics is needed, similar to approaches used by utilities for penalizing customers with low power factor. Harmonics problem is an international problem. Standards for harmonic distortion have been developed. Working groups are working on revisions to these standards to reflect the changing nature of customer loads and the power system characteristics. International participation in this project will provide input to these standards development organizations to improve the applicability of future standards and to provide a consistent framework for international standards.

Different system designs throughout the world will help in identifying important factors that are affecting harmonic levels on all systems. It is important to identify the best locations for harmonic control, the effects of cancellation from different harmonic sources on the system, and the importance of the system response characteristics.

This plenary session presents the available methods to reduce the harmonic distortions in the industrial power systems.

Biography:

Ahmed Faheem Zobaa received the B.Sc.(hons.), M.Sc. and Ph.D. degrees in Electrical Power & Machines from the Faculty of Engineering at Cairo University, Giza, Egypt, in 1992, 1997 and 2002. Currently, he is a Senior Lecturer in Renewable Energy, University of Exeter, United Kingdom. He has been an Assistant Professor in the Department of Electrical Power & Machines, with the Faculty of Engineering at Cairo University from 2003 to 2007, an Instructor in the Department of Electrical Power & Machines, with the Faculty of Engineering at Cairo University from 1992 to 1997 and Teaching Assistant from 1997 to 2002. His main areas of expertise are power quality, photovoltaic energy, wind energy, and marine renewable energy.

Dr. Zobaa is an Editor-In-Chief for *International Journal of Renewable Energy Technology*. Also, He is serving as Editorial Board member, Editor, Associate Editor, and Editorial Advisory Board member for many international journals.

Dr. Zobaa is a registered Chartered Engineer. Also, he is a Registered Member of the Egyptian Society of Engineers, and the Engineering Council UK.

Dr. Zobaa is a senior member of Institute of Electrical and Electronics Engineers. Also, he is a senior member of the Association of Energy Engineers (AEE), the Alternative & Renewable Energy Development Institute, and the Facility Manager Institute of AEE. Also, he is a member of Institution of Engineering and Technology, International Solar Energy Society, European Society for Engineering Education, European Power Electronics & Drives Association, UK Solar Energy Society, and IEEE Standards Association.

16:30 – 16:45 Coffee Break

Location: Poster Hall

SUNDAY, Nov 09, 2008

16:45-18:15 Oral Sessions
Location: Rooms A, B, C & D

COMMUNICATION & NETWORKS

Location: Room A

Chairs: Dr Ahmad S. Al-Mogren & Dr Mostafa Eltokhy

16:45-17:00: A Flexible Dissemination-Based Architecture to Fit the Telecommunication Network

Ahmad S. Al-Mogren

Riyadh College of Technology, Saudi Arabia.

17:00-17:15: Modeling scenarios for open system for multimedia mobile phone exchange

A. Saighi N. Ghoualmi-Zine Ph. Roose

Computer sciences department, Badji Mokhtar University, Annaba, Algeria.

Computer sciences departement, Pau, IUT Bayonne University, France.

17:15-17:30: New technique to enforce a fair behaviour in accessing the medium in the control area network

Tamer A Beitelmal, Ahmed M. El-Mahdi, Hassan S. Abdulkarim

Department of Electrical Engineering, Faculty of Engineering, GECOL - Libya
Garyounis University Garyounis University.

17:30-17:45: A Study of Non-Ideal Effects on DS-CDMA Wired Bus Interface

Mostafa Aly Refay Eltokhy

Electronics Technology Department, Faculty of Industrial Education, Helwan University, Cairo, Egypt.

17:45-18:00: Design considerations for wireless underwater communication transceiver

Nejah NASRI, Laurent ANDRIEUX, Abdennaceur KACHOURI, Mounir SAMET

LETI-ENIS, B.P.868-3018- SFAX-TUNISIA.

LATTIS-IUT Blagnac Toulouse – France.

18:00-18:15: Intelligent Search on Mobile Devices Oriented to mCommerce

Abdelkader Dekdouk and Mohamed Ouali

Département d'Informatique, Université Es-Sénia, Oran, Algeria

IMAGE PROCESSING

Location: Room B

Chairs: Dr Ithem Belkhouja & Dr Ayache Bouakaz

16:45-17:00: Feature selection and classification of Breast Cancer on Dynamic Magnetic Resonance Imaging Using Genetic Algorithm and Artificial Neural Networks

Mahyar Nirooei, Parviz Abdolmaleki, Abdolreza Tavakoli, Masoumeh Gity
Department of Electrical Engineering, Islamic Azad University - Lahijan Branch, Iran.
Department of Biophysics, Tarbiat Modares University, Tehran, Iran.
Tehran University of Medical Science, Tehran, Iran..

17:00-17:15: Image Encrypted System Using 2-D Reconfigurable Von Neumann Cellular Automata

Guitouni Zied, Machhout Mohsen, Tourki Rached
Department of Physics Faculty of sciences of Monastir Monastir, Tunisia.

17:15-17:30: Non-parametric Motion segmentation In Soccer Video Images

Mourad Moussa Jlassi, Ali Douik, Hassani Messaoud.

17:30-17:45: Block Matching Monomodal Image Registration using Robust Similarity Measure and a combination of optimization and interpolation

A. Kharrat, M. Abid
National Engineering School of Sfax Road Soukra km 3,5 Computer & Embedded Systems Laboratory (CES) B.P.: w -- 3038 Sfax TUNISIA.

17:45-18:00: Diagnosis of Lumbar Disc Hernia from Images using Artificial Neural Network

B. Karlık, S. Kul, M. Özateş
Fatih University, Department of Computer Engineering, Istanbul, Turkey.
Radiology Department of Dr. Lütü Kırdar Hospital, Istanbul, Turkey.

18:00-18:15: Chirp reversal for ultrasound contrast imaging

A. Novell, S. M. van der Meer, M. Versluis, N. de Jong and A. Bouakaz
UMR Inserm, U930 CNRS FRE 2448, 37000 Tours, and Université F. Rabelais, Tours, France.
Physics of Fluids, University of Twente, THE NETHERLANDS.
Department of Biomedical Engineering, Erasmus MC, Rotterdam, THE NETHERLANDS.

POWER ELECTRONICS

Location: Room C

Chairs: Dr Houria Sigurdidjane & Dr Mihaela Popescu

16:45-17:00: Asymmetrical Duty Cycle control of full bridge series resonant inverter for induction cooking applications

M. HELAIMI, M. BENGHANEM, B. BELMADANI

Dept. of electrical engineering, University of Hassiba Ben Bouali, Chlef Algeria.

Dept. of automatic control, University of Mohamed Boudhialf, Oran Algeria.

17:00-17:15: Comparison of Some Current Decomposition Methods for Active Filtering Reasons

Mihaela Popescu, A. Bitoleanu, M. Dobriceanu

University of Craiova, Decebal Bd. 107, 200440, Craiova, Romania.

17:15-17:30: Performance Evaluation of Sub-Harmonic PWM Techniques for a Hybrid Cascade Multilevel Inverter Using a Single DC Source

R. Seyezhai, B.L. Mathur

Department of EEE, SSN College of Engineering, Chennai, India.

17:30-17:45: Averaging Modeling of PWM-Switch for the Large Time-Scale dynamic Electro-Thermal Simulation

Slim Abid, Lassaad Elleuch, Kaiçar Ammous, Anis Ammous

Groupe de recherche PEG : Power Electronic Group DGE ; ENIS – SFAX.

17:45-18:00: Comparative Study and FPGA Implementation of Two Multicarrier PWM Methods for Cascaded Multilevel Converter

I. Jaafar, F.B. Ammar, M. Elleuch

Research unit on Electrical Systems Ecole Nationale d'Ingenieurs de Tunis, BP 37-1002, Tunisia.

18:00-18:15: Harmonic Analysis of VFDP-SPWM Three Level Converter based STATCOM

Sonnati Venkateshwarlu, Bishnu Prasad Muni, A.D. Rajkumar

Sreenidhi Institute of Science and Tech. Hyderabad. A.P. India.

BHEL Corporate R&D, Vikasnagar, Hyderabad, India.

CVRCE, Ibrahim patnam Hyderabad, India.

SPECIAL SESSION : Modeling and Simulation of Manufacturing Systems

Location: Room D

Chairs: Dr Zaki Sari

16:45-17:00: Optimal Scheduling in Flexible Manufacturing System Using Timed-Petri Nets

Djamel Benazzouz, Nazim Takkouk & Smail Adjerdid

LM2S Laboratory – University of M'hamed Bougara Boumerdes, 35000, Algeria.

17:00-17:15: A simulation testbed for evaluating self-organizing heuristics for holonic and isoarchic manufacturing control system

P. Blanc, P. Pujo, F. Ounnar

LSIS – UMR CNRS 6168, Campus de Saint Jérôme, Av Escadrille Normandie-Niemen, 13397 Marseille Cedex 20, France.

17:15-17:30: Travel Time Mathematical Expressions for Multi Aisles Automated Storage and Retrieval Systems

Latefa GHOMRI, Zaki SARI, Amine GUEZZEN, Tewfik SARI

Equipe Productique Laboratoire d'Automatique de Tlemcen BP 230 Faculté des sciences de l'ingénieur Université Abou-Bekr Belkaïd – Tlemcen, Algérie
Laboratoire de mathématiques, Informatique et applications, Mulhouse, France,

17:30-17:45: Electromagnetism Metaheuristic Applied to the Problem of Scheduling in FSHs

K. Zerrouki, K. Belkadi, M. Benyettou

LAMOSI, Department of Computer, Faculty of Science, USTOran-Algeria .

17:45-18:00: Optimization of the dimensions of a multi- aisle AS/RS for the minimization of the single cycle time

S. Kouloughli, Z. Sari, T. Sari

Automatic Control Laboratory of Tlemcen BP. 230 Faculté des sciences de l'ingénieur Université Abou – Bekr Belkaïd – Tlemcen.

Laboratory of mathematics, computer sciences and applications Université de Haute Alsace Mulhouse France.

18:00-18:15: Evaluation of metaheuristics performances in manipulation of alternative routing

M. Souier, A. Hassam, Z. Sari

Laboratory of Automatic of Tlemcen, University of Abou bekr Belkaïd, PoBox 230, Tlemcen.

MONDAY, Nov 10, 2008

08:30-10:00: ORAL SESSIONS
Location: Rooms A, B & C

AI IN PROWER SYSTEMS

Location: Room A

Chairs: Dr Taoufik Guesmi & Dr Jamel Belhadj

08:30-08:45: SPEA2 for Multi-objective Dynamic Dispatch

Housseem BEN ARIBIA, Hsan HADJ ABDALLAH, Abderrazak Ouali
ENIS Sfax, TUNISIA.

08:45-09:00: Kohonen Map Combined to the K-Means Algorithm for the Identification of Day Types of Regional Algerian Electricity Load

F. Benabbas, M. T. Khadir, D. Fay, A. Boughrira
University of Badji Mokhtar, Annaba, Algeria
University of Cambridge, Computer Laboratory, United Kingdom
National Company Sonelgaz, Department of Dispatching, Annaba, Algeria.

09:00-09:15: Computing Equilibrium of Oligopolistic Electricity Markets using Cooperative Coevolutionary Algorithms

A. Tiguercha, A.A. Ladjici, M. Boudour
Electrical Engineering Department University of Sciences & Technology of Algiers (USTHB), El-Alia BP. N°32 Bab Ezzouar 16111, Algiers, Algeria.

09:15-09:30: Application of Genetic Algorithms in Voltage / Reactive Power Dispatch

F. Laouafi, S. Leulmi, S. Boukadoum, A. Maache, F. Bouhennoufa, S. Kissar
Department of Electric Power Engineering, University of 20 August 1955, Skikda, 21000, Algeria.
Department of Mathematics, University of Ferhat Abbes, Setif, 19000, Algeria.

09:30-09:45: Different Approaches for Wind Farm Production Forecasting Using ANN

BOUZIDI Lotfi, MRABET BELLAAJ Najiba, ELLEUCH Mohamed
LSE-ENIT, B.P. 37 le Belvédère 1002 Tunis-Tunisia.
I.S.I, 2 Rue Abou Raihane Bayrouni 2080 Ariana, Tunisia.

09:45-10:00: Design of PSS and TCSC Controller Using Genetic Algorithm Technique

T. Guesmi, O. Kahouli, H. Hadj Abdallah and A. Ouali
ENIS Sfax, Tunisia.

MONDAY, Nov 10, 2008

CONTROL SYSTEMS

Location: Room B

Chair: Dr Med Tarek Khadir & Dr Naceur Hadj Braik

08:30-08:45: Chaotification of Synchronized Discrete Chaotic Systems

A. Ikhlef, N. Mansouri

Laboratoire d'Automatique et de Robotique. Département d'électronique, Faculté des Sciences de l'Ingénieur, Université Mentouri Route de Ain-El-Bey., 25000. Constantine, Algérie.

08:45-09:00: Constrained Nonlinear Predictive Control of Hybrid Dynamic System

Nabil Barhoumi, Salim HadjSaid, Faouzi M'sahli

ENIM TUNISIA.

09:00-09:15: Kalman Estimator of the Delay for Networked Control Systems

K. Chabir, D. Sauter, M. Koni Ben Gayed, M. Naceur Abdelkrim

Ecole Nationale d'Ingénieur de Gabes, MACS Rue Omar Ibn El khatb-6029 Zeric, Gabes, Tunisie.

Nancy University, CRAN -CNRS UMR 7039 BP239, 54506 Vandoeuvre Cedex , France.

09:15-09:30: State Estimation of a Quadruple Tank Process Using Discrete-Time Nonlinear Filters

Abderraouf Gaaloul and Faouzi M'Sahli

National Engineering School of Monastir, Department of Electrical Engineering, street Ibn Eljazzar, 5019, Monastir, Tunisia.

09:30-09:45: MIMO Dynamic Matrix Control and Generalised Predictive Control for Sendzimir Steel Mills

Khadir Med Tarek, Meharzi Karim

Dept. of Informatics, Badji Mokhtar University, Annaba Algeria

Dept. of Electronic Engineering, Badji Mokhtar University, Annaba Algeria.

09:45-10:00: Nonlinear Tracking Speed Control for the PMSM using an Adaptive Backstepping Method

Ahmed LAGRIOUI, Hassan MAHMOUDI

Département Génie Electrique Laboratoire d'Electrotechnique et d'Electronique de Puissance Ecole Mohammadia d'Ingénieurs Avenue Ibn Sina B.P 767 Agdal Rabat, Maroc.

FAULTS DIAGNOSIS

Location: Room C

Chairs: Dr Mohamed N. MANSOURI & Dr Bachir Bensaker

08:30-08:45: An Observer-Based Approach for Stator and Rotor Faults Diagnosis in Induction Machines

B. Bensaker, M. N. Saadi, H. Kherfane

Département d'Electronique Laboratoire des Systèmes Electromécaniques, BP.12
23000 Université de Annaba, Algérie.

08:45-09:00: Availability and reliability of voltage inverter with FMEA and Fault tree methods

B. Nadji, F. Khelifi, I. Habi

Laboratoire d'Electrification des entreprises industrielle, Université M'hamed Bougara, Boumerdès, Algérie.

09:00-09:15: Monitoring of the discrete dynamics of the hybrid systems: Application to a multicellular converter

Ezzeddine Khadri, Moncef Tagina

The LACS , ENIT, B.P.37, the Belvédère 1002 Tunis.

Laboratoire Li3, E.N.S.I.– 2010 the Manouba.

09:15-09:30: A two stages diagnosis method with neural networks

Y. Kourd, N. Guersi, D. Lefebvre

Department of Control Engineering; Mohamed Khider University, Biskra Algeria.

Dép. Electronique Université Badji Mokhtar Annaba, Algérie.

GREAH – Université Le Havre – 25 rue Philippe Lebon – 76058 Le Havre – France

09:30-09:45: Mode Identification and Fault Detection for Hybrid Dynamical Systems using Luenberger Observers

A. Takrouni, N. Zanzouri, V. Cocquemot, M. Ksouri

Laboratory ACS Department of Electrical Engineering Box 37, 1002 Tunis Belvedere.

LAGIS-CNRS, UMR 8146, University of Sciences and Technologies of Lille, 59655
Villeneuve d'Ascq cedex, France.

09:45-10:00: Induction machine-Gearbox compound tooth fault diagnosis using Hilbert spectrum

SAADAQUI Wajdi, JELASSI Khaled

Electric System Laboratory (LSE) National School of engineers of Tunis (ENIT).

SIGNAL PROCESSING

Location: Room D

Chairs: Dr Nabil Benoudjit

08:30-08:45: Support Vector Regression in Spectrophotometry: An Experimental Study

L. Douha, N. Benoudjit, F. Melgani

Laboratoire d'Electronique Avancée, Université de Batna, Avenue Boukhlof Med El Hadi, 05000 Batna, Algeria,

Department of Information Engineering and Computer Science, University of Trento, I-38050 Trento, Italy.

08:45-09:00: Decomposition of Signal from a Textile Surface Tester by using the Fourier Transform

N. Maâtoug, M. Sahnoun, F. Sakli

Textile Research Unit of ISET Ksar-Hellal, BP 68 Ksar-Hellal 5070, Tunisia.

09:00-09:15: Joint Quadratic Regularization in Wavelet-based Deconvolution Scheme for Improvement of Depth Resolution in Secondary Ion Mass Spectrometry Analysis

M. Boulakroune, D. Benatia, N. Slougui

Electronics and Mechanics Department, Faculty of Sciences and Engineer sciences, Université Kasdi-Merbah de Ouargla, Ouargla (30000), Algeria.

Electronics Department, Faculty of Engineer sciences, Université colonel Hadj-Lakhdar de Batna, Batna (05000), Algeria.

Physics Department, Faculty of Sciences and Engineer sciences, Université Kasdi-Merbah de Ouargla, Ouargla (30000).

09:15-09:30: Noise Reduction Based on a Combination of Spectral Subtraction and Wiener Filter in Wavelet Domain

Farid Ykhlef, Fayçal Ykhlef, Abderrezak Guessoum

LATSI Laboratory, Department of Electronic, University of Blida, Algeria.

Multimedia & System Architect Department, CDTA Center, Algiers, Algeria.

LATSI Laboratory, Department of Electronic, University of Blida, Algeria.

09:30-09:45: Comparison of Clustering Methods in a Two Stage Meteorological Day Type Identification Approach for the Region of Annaba –Algeria.

Soufiane Khedairia, Mohamed Tarek Khadir

Laboratoire sur La Gestion Électronique du Document (LabGED), Annaba University, Alegria.

09:45-10:00: A PROBABILISTIC APPROACH IN INTRUSION DETECTION SYSTEMS

M. Mehdi, S. Zair, A. Anou and M. Bensebti

MONDAY, Nov 10, 2008

Electronics Department, University of Blida, Algeria.

10:00 10:15 Coffee Break
Location: Poster Hall

10:15-11:00 Poster Session III
Chairs: Dr Ouali Abderrazak & Dr Tarrek Bouktir
Location: Poster Hall

P3 1- Optimization by Genetic Algorithms of an Inductor for Induction Heating Cooking

A. Kanssab, M. Feliachi, A. Zaoui, B. Mazari

Université Hassiba Ben Bouali. Chlef. BP 152. 02000. Algeria.

IREENA-IUT,CRTT, BP406,44602-St Nazaire . France.

Université des Sciences et Technologies d'Oran, Mohamed Boudiaf, BP 1505 31000, Algéria.

P3 2- An information acquisition system applied to expert system for a diagnosis process

A. Khireddine, J. P. Salvertrini

Electric engineering Laboratory, faculty of sciences, university of Bejaia, Algeria.

LMOPS laboratory, SUPELEC, CNRS, University of Metz, 57000, France.

P3 3- Two dimensional numerical resolution of the drift-diffusion equation: application to negative streamer propagation

A. Flitti, A. Hamid

Faculty of Electrical Engineering, University of Science and Technology of Oran.

BP1505ELM'naouer.Algeria.

P3 4- A Numerical Method to Simulate Continue Glow Plasma Discharges

A. Berkane, S. Rebiaï, S. Sahli

Laboratoire de Microsystèmes et Instrumentation, Université Mentouri de Constantine
Algerie.

P3 5- Impact of the SVC in the Electrical Network

N. Aouzellag Lahaçani, L. Benkhellat, S. Mahloul, B. Mendil

Department of Electrical Engineering. Department of Electronic. Faculty of
Technology Faculty of Technology. University A. Mira, Bejaia, Algeria.

P3 6- Simulation of water pumping using photovoltaic energy

M.L. Benzaoui, F. Youcef Ettoumi, A. Adane

University of Science and Technology Houari. BOUMEDIENE (USTHB).

Faculty of Electronic & Computing BP 32, El-Alia, Bab-Ezzouar 16111, Algiers,
Algeria

P3 7- Numerical Modelling of the Reflection and Absorption Ozone Molecule on walls Corona Discharge

B. Mennad, A. Benmoussa, K. Yanallah and A. Belasri

Department of Physics, Laboratory of Plasma Physics, Conducting Materials and their Applications, University of science and technology Mohamed Boudiaf, El M'Naouer, BP 1505 Oran, Algeria.

P3 8- Realization and characterization of a band rejection filter based on fiber Grating

L. Cherbi, Y. Bouslimani

Polytechnic National school 10 Avenue Hassan Badi, BP 182 El-Harrache, Algiers 16200, Algeria.

University of Moncton, Canada,

P3 9- Comparison of PI and fuzzy DC voltage controller for three - phase Active Power Filter

S. Kerrouche, F. Krim, A. Chaoui

Laboratory of Power Electronics and Industrial control (LEPCI) UFA-SETIF 19000.

P3 10- Method To improve Transient Stability Of Power System

A. Guerroui, K. Bounaya, N. Guerroui

P3 11- Thermal behaviour of an N-Doped silicon resistor

F. Kerrou, A. Boukaabache, P. Pons

Microsystems & Instrumentation laboratory, Electronics Department, University Mentouri Constantine Algeria.

LAAS-CNRS 7, Avenue du Colonel Roche, 31077, Toulouse, Cedex 4, France.

P3 12- Minimizing Transfer Energy Between Areas to be Feeding & Source Placement

T. Mesbah K. Bounaya H. Labar

Department of Electrical Engineering, F.S.I., University of Annaba , BP12;23000, Algeria.

Department of Electrical Engineering, F.S.I., University of Guelma , Algeria

P3 13- Relliability of the starting of mechanisms with asynchronous actionner powered by asynchronous generating diesel

Y. Naoui, H. Maglouli, S. Abudura

P3 14- A Novel Idea of the Speed Control of the Induction Machine Using An Inverse Fuzzy Model

Sid-Ali AMAMRA, Linda BARAZANE, Mohamed S. BOUCHERIT

Université Abdelhamid Ibn Badis Mostaganem Faculté des Sciences & Sciences de l'Ingenieur Département d'Electronique Site I, Route de Belahcel BP 300 - Mostaganem – Algérie.

Université des Sciences et Technologies Houari-Boumédiène (USTHB) Faculté d'Electronique – Departement de Génie Electrique BP 32, El Alia – Bab Ezzouar - Alger – Algérie.

Process Control Laboratory, Ecole Nationale Polytechnique 10, Avenue pasteur, Hassen Badi – El Harrach, Alger – Algérie.

P3 15- Series –Facts devices influence on the distance relay protection zones

A. Ziane-Khodja; M. Adli; S. Bacha and Y. Zebboudj

Laboratoire de Génie Electrique de Béjaïa (Université A.Mira – Béjaïa 06000 Algérie)

Laboratoire G2ELab Grenoble – BP46, 38.402 St Martin d’Hères (France)

P3 16- Simulation of a centrifugal pump to adapt for the left ventricle

K. BABOUCHE, R. KADRI, N. KETFII

Université Ferhat Abbas, 19000, Sétif, Algeria

P3 17- Process of optimal maintenance at constellations station

F. Chebbara, M. Amir, T. Fortaki, M. Benslama

Electronics Department, University of Batna, 05000 Batna, Algeria.

Laboratory of electromagnetism and telecommunications. University of Constantine

P3 18- Computation of the Voltage Collapse Point in Power Systems

O. Khira, F. Bacha, R. Dhifaoui

Unit Research on Power System and Electrical Machines RME Centre Urbain Nord, BP 676, 1080 Tunis Cedex ESSTT, 05 AV Taha Hussein Montfleury, 1008, Tunis, Tunisia.

National Institute of Applied Sciences and Technology INSAT Centre Urbain Nord, BP 676, 1080 Tunis Cedex.

P3 19- ANN Modeling of Resistive Humidity Sensor

S. Kouada, Z. Dibi, F. Meddour

Laboratoire d’Electronique Avancée, Batna university Algeria.

P3 20- A study of active power filter for harmonics compensation

L. Merabet

Electrical department, JIJEL University, Ouled-Aissa city B.P. 98 JIJEL, ALGERIA.

P3 21- Strategy for Dynamic Control of UPFC to Enhance Power System Security

B. Mahdad, T. Bouktir, and K. Srairi

Biskra University, Algeria.

P3 22- Linear Discriminant Analysis LDA and logic fusion of Color decisions to face authentication

M. Fedias, D. Saigaa

Automatic Department, University Mohamed khider B.P 145 RP Biskra (07000), Algeria,

P3 23- Phase-locked Loop Identifier Module : Diagnosis and control by GMC structure

THABET ASSEM, CHABIR KARIM, M. K. BEN GAYED, MOHAMED NACEUR ABDELKRIM

National school of Engineers of Gabés Street Omar iben elkhatab Zrig-Gabés

Unit Modeling, Analyzes and Control of Systems National school of Engineers of Gabés

11:00-12:00: INVITED KEYNOTE IV

" Control design for power regulation and optimization of variable speed wind turbines, is it a key factor?"

Dr Houria Siguerdidjane

SUPELEC, 3 rue Joliot Curie, Plateau de Moulon, 91192, Gif-sur-Yvette cedex, France.

Location: Conference Salle.

Abstract:

The potential of wind power may contribute to electricity production in significant proportions all over the world. Since, wind power is free, clean and endless, so then wind energy conversion systems have quickly evolved over the last decades thanks to the technological progress.

Variable-speed wind turbines have been introduced to overcome the inconveniences of fixed speed wind turbines and have led to increase the annual energy production and to attenuate power fluctuations. As, more and more wind turbines farms are being installed in several countries, it brings more focus on wind turbine control research studies in order to improve the wind turbines performance.

In particular, it may be shown that the control strategies have a major effect on the wind turbine and the electric grid loads, and whatever the kind of the wind turbine, the control strategy remains crucial. Although, classical controllers are extensively used, efficient and reliable exploitation tools are necessary to make these installations more profitable. For this purpose, advanced control algorithms are developed by the scientific researchers for variable-speed wind turbines to reach the required performance in terms of power production and to ensure good quality electrical energy.

Indeed, the main control objective is to optimize the electrical power below the rated power and to regulate it above the rated power while reducing the mechanical transient

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loads and the power fluctuations as well. So then, various control strategies are described and the related performance are compared.

Finally, future perspectives are discussed with regards to political requirements, with regards to environmental and social impacts and with regards to modern wind generation systems.

Biography:

Houria Siguerdidjane received the Engineering degree from SUPELEC located nearby Paris. She joined EDF (French Electricity Board) for a couple of years before be back to SUPELEC and to receive the Doctorate degree in Automatic Control and Signal Processing from University Paris XI in 1985. Her research interests include linear and nonlinear control systems and applications to power systems, mechanical and aerospace problems.

In 1984-1985, she was on sabbatical leave at the Company ALSTOM T&D, where her main interest was the application of new concepts to improve the relaying protection performance in high voltage electrical networks. In 1998, she received the Habilitation degree in Physics Sciences from University Paris XI. She is currently Professor at SUPELEC and has been in charge of the project *Wind Energy Power Prediction*, within the project Energie launched in 2001 by SUPELEC under industrial support. Houria Siguerdidjane is an associate editor of the IFAC Journal *Control Engineering Practice*, besides other activities as Chair within the International Federation of Automatic Control.

12:00-12:30: CLOSING CEREMONY
Location: Conference Salle

12:30 LUNCH



**Journal of
Electrical
Systems**

Journal of Electrical Systems

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**International Conference on Electrical Engineering Design and Technologies ICEEDT'08
Hammamet Tunisia, Nov 08-10 2008**

PROGRAM AT A GLANCE

TIME	SATURDAY (08/11)	TIME	SUNDAY (09/11)	TIME	MONDAY (10/11)
08:30-12:00	REGISTRATION COFFEE BREAK 10:30	08:30-10:00	ORAL SESSIONS 2	08:30-10:00	ORAL SESSIONS 5
		10:00-10:15	COFFEE BREAK	10:00-10:15	COFFEE BREAK
		10:15-11:00	POSTER SESSION II	10:15-11:00	POSTER SESSION III
		11:00-12:00	INVITED KEYNOTE II	11:00-12:00	INVITED KEYNOTE IV
12:00-14:00	LUNCH	12:00-14:00	LUNCH	12:00-12:30	CLOSING CEREMONY
14:00-14:30	OPENING CEREMONY	14:00-15:30	ORAL SESSIONS 3	12:30-14:00	LUNCH
14:30-15:30	INVITED KEYNOTE I	15:30-16:30	INVITED KEYNOTE III		
15:30-17:00	ORAL SESSIONS 1	16:30-16:45	COFFEE BREAK		
17:00-17:15	COFFEE BREAK	16:45-18:15	ORAL SESSIONS 4		
17:15-18:00	POSTER SESSION I				
--	DINNER	--	DINNER		