Technical Sessions

Session RES II: Renewable Energy Sources

Session Chairman: Dr G M Burt, University of Strathclyde, UK
Time and Place: Wednesday 3rd September, 11:30 – 13:30, Lecture Theatre D

38th
International Universities Power Engineering Conference
UPEC 2003

1 - 3 September 2003, Thessaloniki, Greece

CONFERENCE PROGRAMME

Organised by

High Voltage Laboratory
Faculty of Electrical and Computer Engineering
School of Engineering
Aristotle University of Thessaloniki, Greece

Session PSP II: Power System Protection

Session Chairman: Dr R Turri, University of Padova, Italy
Time and Place: Wednesday 3rd September, 11:30 – 13:30, Lecture Theatre B

Technical Sessions

Session RES I: Renewable Energy Sources

Session Chairman: Dr T J Hammons, University of Glasgow, UK
Time and Place: Wednesday 3rd September, 09:00 – 11:00, Lecture Theatre D

38 th International Universities Power Engineering Conference (UPEC 2003)

Organised by

High Voltage Laboratory
Faculty of Electrical and Computer Engineering
School of Engineering
Aristotle University of Thessaloniki, Greece

1 - 3 September 2003, Thessaloniki

Welcome Address

Dear friends and colleagues,

I am very glad and proud to welcome in Thessaloniki, the capital of Macedonia, all the participants and guests of the 38th International Universities Power Engineering Conference. This conference was organised this year by the High Voltage Laboratory of the Department of Electrical Energy of the Faculty of Electrical and Computer Engineering of the School of Engineering of the Aristotle University of Thessaloniki.

The International Universities Power Engineering Conference or UPEC as it is more commonly known, with a history of 38 years, has provided and hopefully still provides engineers and Academia an opportunity to find and explore the newest trends in the development of Power Engineering and the scientific methodology that is connected with it.

After a review carried out by the International Steering Committee and the Local Organising Committee, 185 papers reflecting the effort and knowledge of engineers and allied scientists from 32 countries will be published in the Proceedings. All these papers after being judged for their affinity to the subject of the conference in abstract form were then reviewed in full form by a committee of competent scientists. Further the papers will be presented by their authors and discussed in the oral sessions.

As is the custom of all the UPEC, or at least the ones I have attended, besides being scientific events helping engineers and allied scientists to get acquainted with the state of the art in Power Engineering have also a considerable social dimension not only in allowing personal contact and discussions with colleagues from various countries but also in helping them to know a few things about the country that hosts the conference. For this reason the following social events will take place.

Two receptions will take place and a guided tour of the city of Thessaloniki, a city with a 2300 year long history and a very rich collection of monuments form a very big array of cultures like Late Classical, Hellenistic, Roman, Byzantine, Post-Byzantine, Islamic and Modern. Also for those interested and after the end of the conference, two excursions were organised, the first at the Macedonian Royal tombs at Vergina, where the tomb of King Philip father of Alexander the Great can be visited with all its gold and treasures. That tomb was found intact and was excavated by the late Professor Andronikos of this University. The second will be a one day cruise around the Mt. Athos peninsula, a self governing monastic republic, were the beauty of many medieval monasteries amidst a most beautiful and unspoiled nature can be contemplated.

On behalf of the Local Organising Committee I wish to express our thanks to the members of the International Steering Committee and to the session Chairmen. Also to the Rector and Council of the University, the Dean and Council of the School of Engineering, to the President and General Assembly of the Faculty of Electrical and Computer Engineering, to the Director and General Assembly of the Department of Electrical Energy, to the President and governing committee of the "Technical Chamber of Greece", to the Public Power Corporation S.A., to CRES, the IEEE and the IEE.

I also wish to present my personal thanks to the members of the Local Organizing Committee, to the staff of the "Syntonos" agency and especially to Ass. Professor P. N. Mikropoulos and the Staff of the High Voltage Laboratory without whose selfless dedication this conference would not have been able to take place.

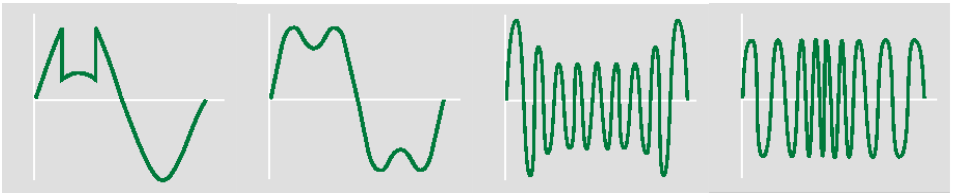
Finally let me conclude by thanking all the participants and wishing them all a very fruitful and pleasant conference and stay in Thessaloniki.

Professor C A Stassinopoulos

Conference Chairman

Session PSH: Power System Harmonics

Session Chairman: Dr H Schau, Ilmenau Technical University, Germany
Time and Place: Wednesday 3rd September, 09:00 – 11:00, Lecture Theatre C



Technical Sessions

Session PSP I: Power System Protection

Session Chairman: Prof O E Gouda, Cairo University, Egypt
Time and Place: Wednesday 3rd September, 09:00 – 11:00, Lecture Theatre B

38th International Universities Power Engineering Conference
1st, 2nd and 3rd September 2003
Aristotle University of Thessaloniki, Greece

Sponsors

The organizers are grateful to the following organizations for sponsoring UPEC 2003:

Ministry of Macedonia - Thrace

Aristotle University of Thessaloniki

School of Engineering

Faculty of Electrical and Computer Engineering

Institution of Electrical Engineers (IEE)

Institution of Electrical and Electronic Engineers (IEEE)

Technical Chamber of Greece (TCG)

Public Power Corporation SA (PPC), Greece

Centre for Renewable Energy Sources, Greece

UPEC 2003

The 38th International Universities Power Engineering Conference will be held at Aristotle University of Thessaloniki on the 1st, 2nd and 3rd September 2003. The conference will be organised by the High Voltage Laboratory of the Department of Electrical Energy of the Faculty of Electrical and Computer Engineering of the School of Engineering of the Aristotle University of Thessaloniki.

The conference provides engineers and academia with the opportunity to explore recent developments, current practices and future trends in power engineering. Young engineers and research students are especially invited to contribute.

Papers

One hundred and eighty three papers have been included in the conference proceedings. They have been consolidated into one volume. The papers represent contributions from the following 32 countries:

Algeria	Germany	Jordan	Slovakia
Australia	Greece	Kuwait	Taiwan
Belgium	Iceland	Libya	Thailand
Canada	India	Malaysia	The Netherlands
China	Iran	Pakistan	Turkey
Egypt	Ireland	Poland	United Arab Emirates
Finland	Italy	Portugal	United Kingdom
France	Japan	Romania	Yugoslavia

Oral Sessions

All UPEC 2003 papers will be presented orally in sessions of two hours in length. The Chairman of each session will allow 10 minutes per presentation followed by 5 minutes of questions. Please be present in the Lecture Theatre 15 minutes before the session starts in order to meet the Chairman and familiarize yourself with the facilities available for your presentations.

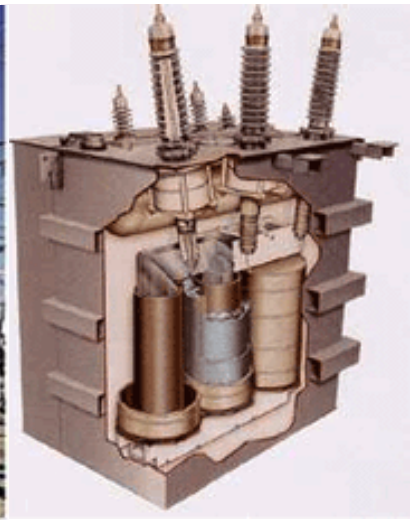
Session HVE II & LP: High Voltage Engineering and Lightning Protection

Session Chairman: Assoc Prof M Danikas, Democritus University of Thrace, Greece
Time and Place: Tuesday 2nd September, 11:30 – 13:30, Lecture Theatre D

Technical Sessions

Session PT: Power Transformers

Session Chairman: Dr M A Redfern, University of Bath, UK
Time and Place: Tuesday 2nd September, 11:30 – 13:30, Lecture Theatre C



Prizes

Two prizes will be awarded for the best papers, one for the best oral presentation by a student under the age of 30 and one for the best paper.

Language

The working language will be English. No translation service will be available

Civic Reception

The Conference Reception will be held on the evening of Monday 1st September 2003 at "Villa Bianca" that has been gracefully provided by the Municipality of Thessaloniki. Coaches will depart at 20.30 pm.

Cultural Visit

A guided tour of the city of Thessaloniki will take place, a city with a 2300 year long history and a very rich collection of monuments form a very big array of cultures like Late Classical, Hellenistic, Roman, Byzantine, Post-Byzantine, Islamic and Modern.

Banquet

The Banquet will be held on the evening of Tuesday 2nd September 2003 at the gardens of the Prefecture of Thessaloniki. Coaches will depart at 20.30 pm.

Refreshments and Lunches

Refreshments will be provided and Lunches will be served in the entrance Hall of the Main Building.

Conference Address

High Voltage Laboratory
Department of Electrical Energy
Faculty of Electrical and Computer Engineering
School of Engineering
Aristotle University of Thessaloniki
Thessaloniki GR-54124
Tel./ Fax: +30 2310 996389
e-mail: upec03@eng.auth.gr

Registration

The Conference registration desk will be open at the following times:

Sunday 31st August	5.30pm – 9.00pm
Monday 1st September	9.00am – 2.00pm
Tuesday 2nd September	9.00am – 2.00pm
Wednesday 3rd September	9.00am – 2.00pm

Program Overview

Time	Sunday 31 August	Monday 1st September	Tuesday 2nd September	Wednesday 3rd September
9.00-10.00		Registration	Sessions 4: 4a. PSOC IV 4b. TDS I 4c. PEE 4d. HVE I	Sessions 6: 6b. PSP I 6c. PSH 6d. RES I
10.00-11.00		Opening Ceremony & Keynote Address		
11.00-11.30		Refreshments	Refreshments	Refreshments
11.30-13.30		Sessions 1: 1a. PSOC I 1b. PSSA I 1c. PE I 1d. PG	Sessions 5: 5a. PSOC V 5b. TDS II 5c. PT 5d. HVE II & LP	Sessions 7: 7b. PSP II 7d. RES II
13.30-15.00		Lunch	Lunch	Lunch
15.00-15.30		Sessions 2: 2a. PSOC II 2b. PSSA II 2c. PE II 2d. EMD I	Free Evening City tour	Closing Ceremony & Prizes
15.30-17.00				
17.00-17.30		Refreshments		
17.30-19.30	Registration	Sessions 3: 3a. PSOC III 3b. PSSA III 3d. EMD II		
19.30-21.00		Steering Committee Meeting		
21.00-		Conference Reception	Banquet	

Opening Ceremony & Keynote Address: Lecture Theatre A
Closing Ceremony & Prizes: Lecture Theatre A
Sessions a: Lecture Theatre A
Sessions b: Lecture Theatre B
Sessions c: Lecture Theatre C
Sessions d: Lecture Theatre D

Session TDS II: Transmission and Distribution Systems

Session Chairman: Prof E B Hreinsson, University of Iceland, Iceland
Time and Place: Tuesday 2nd September, 11:30 – 13:30, Lecture Theatre B

Technical Sessions

Session PSOC V: Power System Operation and Control

Session Chairman: Dr G A Putrus, Nortumbria University, UK
Time and Place: Tuesday 2nd September, 11:30 – 13:30, Lecture Theatre A

Technical Sessions

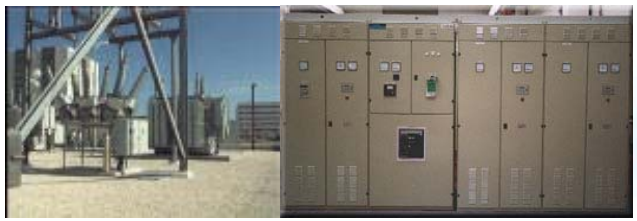
Session PSOC I: Power System Operation and Control

Session Chairman: Prof C Y Cao, Zhejiang University, China
Time and Place: Monday 1st September, 11:30 – 13:30, Lecture Theatre A

Technical Sessions

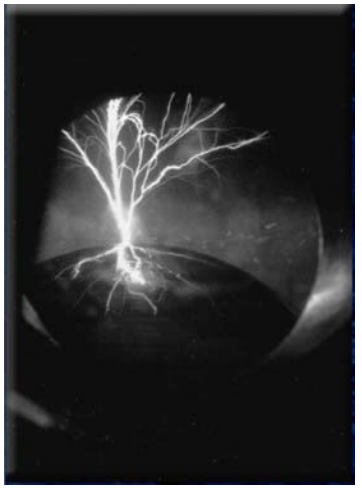
Session PSSA I: Power System Simulation and Analysis

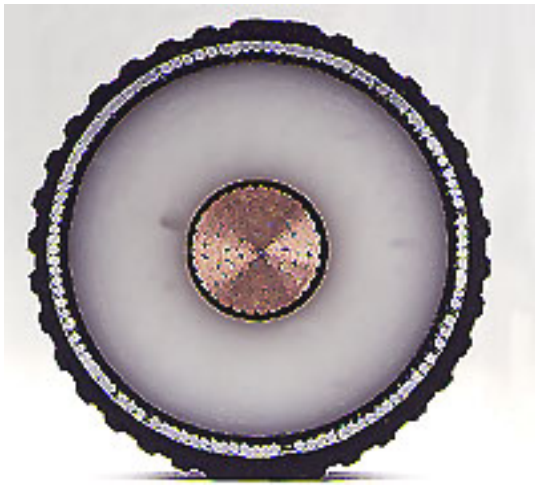
Session Chairman: Dr G Papagiannis, Aristotle University of Thessaloniki, Greece
Time and Place: Monday 1st September, 11:30 – 13:30, Lecture Theatre B



Session HVE I: High Voltage Engineering

Session Chairman: Prof I A Stathopulos, National Technical University of Athens, Greece
Time and Place: Tuesday 2nd September, 09:00 – 11:00, Lecture Theatre D





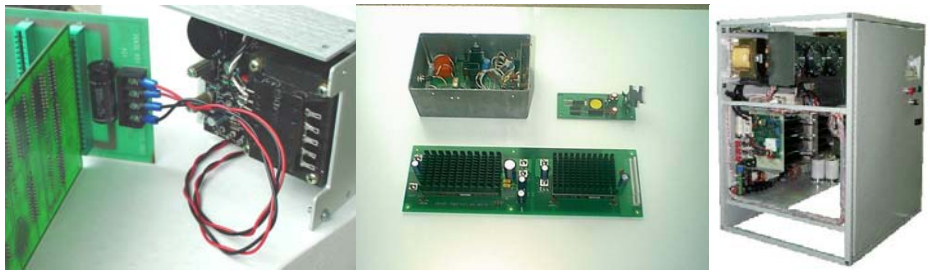
Technical Sessions

Session PEE: Power Engineering Education

Session Chairman: Assoc Prof Safigianni A S, Democritus University of Thrace, Greece
Time and Place: Tuesday 2nd September, 09:00 – 11:00, Lecture Theatre C

Session PE I: Power Electronics

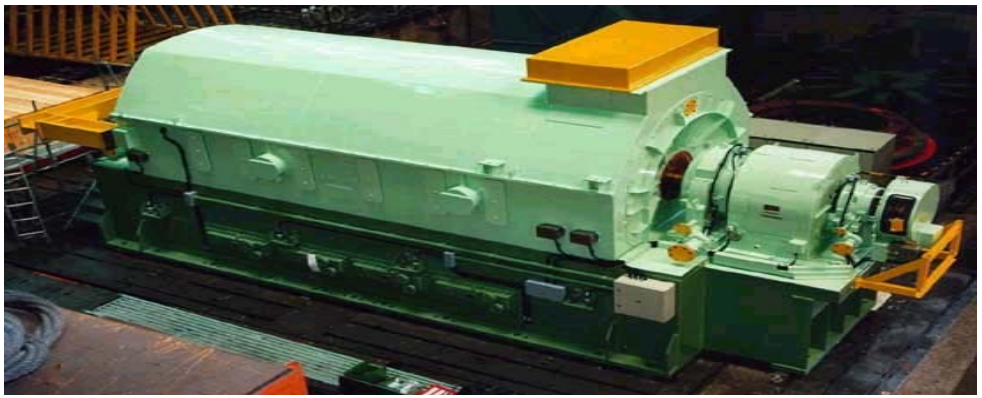
Session Chairman: Mr N Barry, Cork Institute of Technology, Ireland
Time and Place: Monday 1st September, 11:30 – 13:30, Lecture Theatre C



Technical Sessions

Session PG: Power Generation

Session Chairman: Mr D S Pinches, ALSTOM T&D Ltd, UK
Time and Place: Monday 1st September, 11:30 – 13:30, Lecture Theatre D



Session TDS I: Transmission and Distribution Systems

Session Chairman: Assoc Prof P Verde, University of Cassino, Italy
Time and Place: Tuesday 2nd September, 09:00 – 11:00, Lecture Theatre B

Technical Sessions

Session PSOC IV: Power System Operation and Control

Session Chairman: Dr T Yalcinoz, Nigde University, Turkey
Time and Place: Tuesday 2nd September, 09:00 – 11:00, Lecture Theatre A

Session PSOC II: Power System Operation and Control

Session Chairman: Prof Q H Wu, The University of Liverpool, UK
Time and Place: Monday 1st September, 15:00 – 17:00, Lecture Theatre A

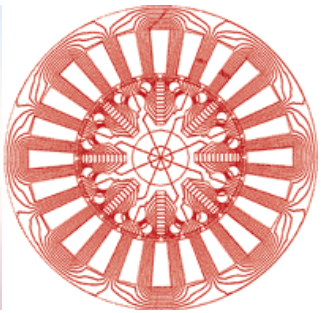
Technical Sessions

Session PSSA II: Power System Simulation and Analysis

Session Chairman: Prof J A Dias Pinto, Instituto Superior de Engenharia de Coimbra, Portugal
Time and Place: Monday 1st September, 15:00 – 17:00, Lecture Theatre B

Session EMD II: Electrical Machines and Drives

Session Chairman: Prof H Oraee, Sharif University of Technology, Iran
Time and Place: Monday 1st September, 17:30 – 19:30, Lecture Theatre D



Technical Sessions

Session PSSA III: Power System Simulation and Analysis

Session Chairman: Prof P Tusaliu, University of Craiova, Romania
Time and Place: Monday 1st September, 17:30 – 19:30, Lecture Theatre B

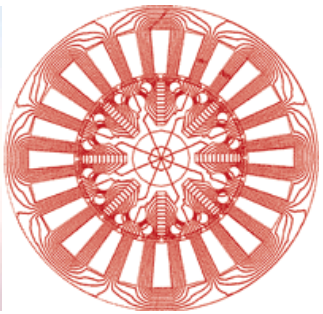
Session PE II: Power Electronics

Session Chairman: Dr N K Gupta, Napier University, UK
Time and Place: Monday 1st September, 15:00 – 17:00, Lecture Theatre C

Technical Sessions

Session EMD I: Electrical Machines and Drives

Session Chairman: Dr M S Khanniche, University of Wales, Swansea, UK
Time and Place: Monday 1st September, 15:00 – 17:00, Lecture Theatre D



Session PSOC III: Power System Operation and Control

Session Chairman:
Time and Place: Monday 1st September, 17:30 – 19:30, Lecture Theatre A