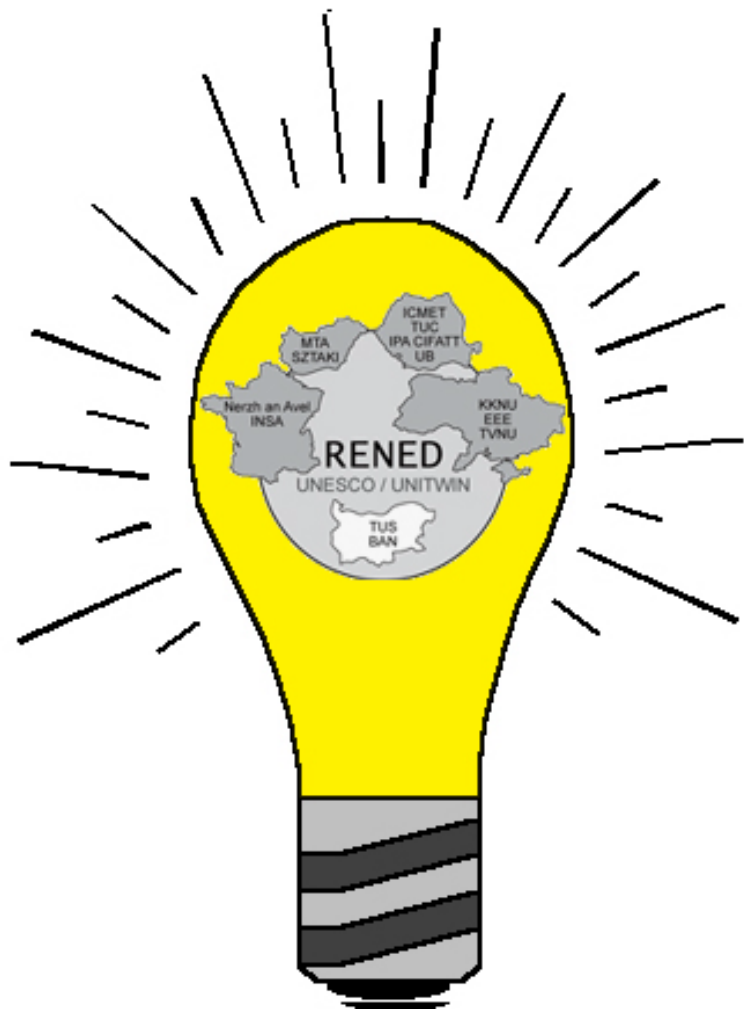


SUB-REGIONAL SEMINAR on EDUCATION and TRAINING IN  
RENEWABLE ENERGY SOURCES (RES) within the FRAMEWORK of the  
EUROPEAN NETWORK on EDUCATION and TRAINING (EURONETRES)

Third International School on Optimisation of  
Production and Energy Management” (OPEM 2003)



SEPTEMBER 18-24, 2003, SOFIA, SOZOPOL, BULGARIA

## **DEAR PARTICIPANT,**

Organized by UNESCO UNITWIN RENED – Technical University (Sofia, Bg) in the frames of the International PhD School, this traditional event has been established to train undergraduate, postgraduate and PhD students, young engineers and researchers. It will promote awareness of the environmental, cultural, economical and social dimensions of conventional and renewable energy issues as well as knowledge of those technical aspects.

A special attention will be given to the major obstacle for the development of renewable energies which is the paucity of relevant information available to engineers and technicians (who often lack the necessary know-how and skills) as well as to decision-makers and users. One of UNESCO priorities in this domain is to promote training and information aimed at sensitizing specialists and general public to possible uses of renewable energy sources with particular regard to environmental concern and the requirements of sustainable development.

Technical University - Sofia

## **PURPOSE AND GOALS**

The Sub-Regional Seminar on Education and Training in RES within the framework of EURONETRES is being organised by the third school of UNESCO UNITWIN RENED (**RE**gional **N**etwork of **E**ngineering for **D**evelopment) at the Technical University-Sofia and it is addressed to undergraduate and postgraduate students, young researchers and power engineers to meet today's and tomorrow's challenges in this exciting field. Expectations are about 40 participants from the East European and the Balkan countries to attend the sessions.

The goals of the school shall be:

- To provide for a large exchange of scientific information and to provoke discussions on advantages and constraints of the different energy sources (coal, oil, natural gas, nuclear, renewables) and their optimisation.
- To provide an overview of engineering curricula in Renewable Energy Sources (RES) for the capacity building in their extended use – recommendations on their improvement.
- To ensure a possibility for young researchers from different countries to accumulate additional knowledge in the field of energy production and management.

## **MAIN TOPICS**

- Conventional and nuclear power plants: advantages and constraints, new technologies.
- Renewable energy sources – advantages and constraints, new technologies.
- Evaluation of existing engineering curricula related to Renewable Energy Sources in universities and engineering institutions of South-Eastern European countries.

## **KEY SPEAKERS**

A team of invited lecturer involved in production and energy management will introduce the subjects during the sessions of the international school. These overview lectures will set the stage for sessions to discuss in detail specific technical, economical and political issues over the different themes.

## **PRELIMINARY PROGRAM**

It should be noted that the approach for this event involves the presentation of papers on the critical topics of "Optimisation of Production and Energy Management" (OPEM) with special attention to RES management and related teaching activities.

Presentations will provide detailed information on important OPEM topics.

Each speaker will have 30 min. for its presentation and then time will be given for discussion and questions.

**Day 1: Friday, September 19, 2003**

Nuclear Power Plants – advantages and constraints, new technologies:

- Global Overview
- National Overview
- Regulatory Economic / Financial, Political Issues

**Day 2: Saturday, September 20, 2003**

Other Conventional Energy Sources – advantages and constraints, new technologies:

- Global Overview
- National Overview
- Regulatory Economic / Financial, Political Issues

**Round Table Discussion:** How to select the energy forms to be provided on national level – uncertainties and milestones.

**Sunday, September 21, 2003: sightseeing tours and outings will be organised.**

**Day 3: Monday, September 22, 2003****EURONETRES SESSION**

Renewable Energy Resources – advantages and constraints, new technologies.

Recommendations on the improvement of engineering curricula in RES for the capacity building in extended use of RES in South-Eastern European countries (SEEC).

**Day 4: Tuesday, September 23, 2003****EURONETRES SESSION**

Renewable Energy Resources – orientation of postgraduate education and Research activities towards implementation of RES.

Former and Current Training and Research Projects, Examples, Discussions.

**Round Table Discussion:** Education and Renewable Energies – new generation of engineers urgently needed.

**GENERAL INFORMATION****Location**

The International School will be held in the framework of the UNESCO UNITWIN RENED in Sofia and Sozopol, Bulgaria.

There's nothing better than a trip out of Sofia. Only 10 – 12 km. Away from the city centre, a hint of the unspoilt beauty of the Bulgarian countryside is revealed. Vitosha Mountain offers plenty of well-marked hiking trails for all levels. It is a popular escape from the pollution of Sofia and can be accessed by several routes. From the Golden Bridges the stone river – huge boulders trickling down the mountain can be seen. Kopitoto is the television tower, where there is a restaurant and excellent views over the city, particularly attractive at night.

Sozopol is one of the loveliest towns along the picturesque Black Sea coast. Watersport lovers can enjoy a trip by yacht, speedboats and launches, water ski, etc. at reasonable prices.

**Hotel accommodation**

Hotel accommodation for the participants will be provided in accordance with the application form. The organising committee will not take any responsibility to provide hotel accommodation for those who have not submitted the application form in due time.

**Social Events**

During the weekend (Saturday, September 20 and Sunday, September 21, 2003) sightseeing tours and outings will be organised upon request.

### **Publication of Papers**

The proceeding will be produced in a CD form registered in ISBN. It is important that the papers should be send in English or French language in electronic form typed in Microsoft Word 97-2000 with Times New Roman font.

You can distribute copies of your paper among the participants on the spot.

### **Working Languages**

English, French and Bulgarian - Interpretation will be provided.

### **Registration Fee**

The participation fee is 250 EUR. It includes:

- A CD-ROM version of the proceedings
- Coffee breaks
- Welcome reception

### **SPECIAL INFORMATION**

Some grants will be distributed for undergraduate, postgraduate students and young researchers in order to participate in the school (covering their bed and board costs during the school, as well as the travel costs: bus, railway or air at reduced fares).

The applicants will be selected by their home institution partner UNESCO UNITWIN RENED.

### **DATES TO REMEMBER**

Deadline for Application form: AUGUST 20, 2003

Submission of Full Text Papers: SEPTEMBER 5,2003

### **PLEASE SEND ALL KIND OF INFORMATION FOR THIS EVENT TO THE FOLLOWING KEY ADDRESS:**

OPEM'2003  
UNESCO Chair  
Technical University-Sofia  
8, blvd. "Kliment Ohridsky"  
bl. 12, VI floor  
1000 Sofia, Bulgaria  
Tel.: +359 2 965 23 73  
Tel./Fax: +359 2 68 40 42  
e-mail: [dgeorg@tu-sofia.bg](mailto:dgeorg@tu-sofia.bg)  
web site: <http://unesco.tu-sofia.bg>

### **ORGANISED BY:**

Technical University - Sofia /TUS/ (Bg)  
UNESCO ROSTE Venise (It)  
UNESCO CEPES Bucharest (Ro)  
Bulgarian National Commission for UNESCO /BNC/ (Bg)  
Institut National des Sciences Appliquées - Rennes /INSA-R/ (F)  
Groupe AREVA (F)  
Bulgarian Academy of Sciences /BAN/ (Bg)

# OPEM 2003

## APPLICATION FORM for PARTICIPATION

Family name: .....  
First name: .....  
Title (Prof., Dr., Eng., Mr., Mrs., etc.): .....  
Affiliation: .....  
Address: .....  
City: ..... Postal code: .....  
Country: .....  
Phone: ..... Fax: .....  
Email: .....  
Title of the Paper: .....  
.....

### HOTEL RESERVATION DATES

(Fill "Yes" or "No")

18.09.03	19.09.03	20.09.03	21.09.03	22.09.03	23.09.03	24.09.03

Date: ..... Signature: .....

This Form legibly filled should be received till **AUGUST 20, 2003**  
on the following address:

UNESCO Chair  
Technical University-Sofia  
8, blvd. "Kliment Ohridsky"  
bl. 12, VI floor  
1000 Sofia, Bulgaria  
e-mail: [dgeorg@tu-sofia.bg](mailto:dgeorg@tu-sofia.bg)  
Tel.: +359 2 965 23 73  
Tel./Fax: +359 2 68 40 42