



**THE ASSOCIATION OF EUROPEAN  
OPERATIONAL RESEARCH SOCIETIES**



**FINAL REPORT**

**14TH EURO SUMMER INSTITUTE - ESI XIV  
GREECE, JUNE 7-21, 1996**

**THEME: ENVIRONMENTAL PLANNING**

## Editorial

The 14th EURO Summer Institute (ESI XIV) on Environmental Planning has been organised by the Hellenic OR Society and the University of Piraeus from 7 to 21 June 1996, at the Hotel XENIA Lagonissi, 40 km from Athens. ESI XIV has been EURO's response to an existing need of the OR community. Namely, to give young and senior researchers in this field the opportunity to gather and present their work on issues of the methodology and applications of OR concerning environmental decision making.

ESI XIV has been a fruitful, enjoyable and rich experience for all those who participated, thanks to a very successful scientific part and a very attractive social one, with many events.

During the Summer Institute, each young researcher presented a research paper on a specific topic within the theme while lectures were given by invited experts. Topics covered include environmental decision support systems, issues in production management and control, locational analysis, forecasting, life cycle analysis, etc. Almost all papers referred to practical OR applications in real life problems of environmental planning.

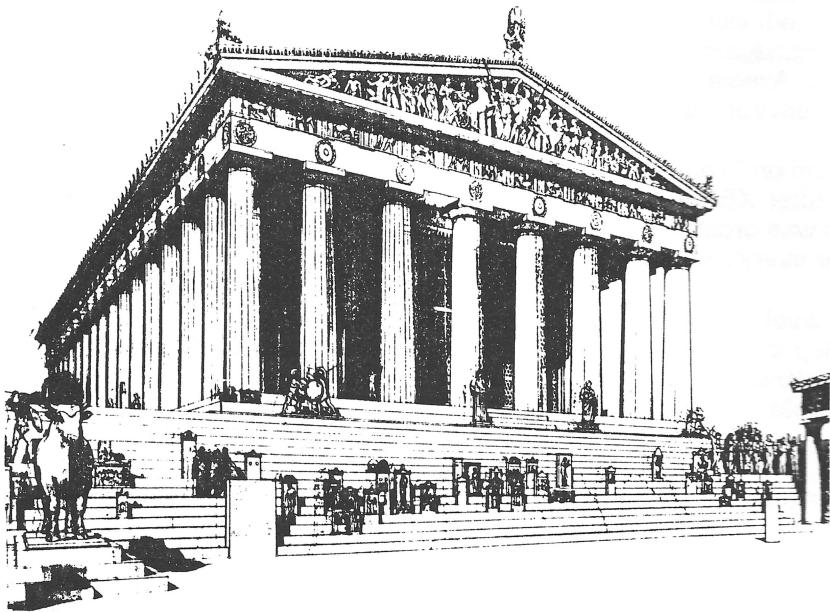
A Symposium on "Tourism and Environmental Planning" was organized on June 13 in the Hotel XENIA Lagonissi with 12 distinguished invited speakers. The symposium was organized as part of the ESI programme. However, participation was free for everybody wishing to attend.

During two weeks, a relaxed atmosphere and good working and friendly relations were developed, thanks to a rich and varied social programme, which included cruises to islands of the Aegean sea, night parties with lots of wine, dinners under Acropolis and also at the beach, visits to archaeological sites etc.

I would like to express my gratitude to all those who helped to organise the Summer Institute. In particular, I am indebted to EURO for giving all of us the opportunity to participate in what will remain in our memories among our most creative and beautiful experiences. I am also indebted to the coorganisers of the event, the University of Piraeus and the Hellenic OR Society (the Executive Committee, management and staff) for their valuable help. I would like to warmly

thank the members of the Organising and Programme Committees Professors N.Blesseos, D.Diakoulaki C.Dzidonu, P.Miliotis, P.Nijkamp, M.Salomon, R.Tadei, M.Vujosevic, L. van Wassenhove and Dr.N.Karacapilidis (most of them also helped, by acting as referees, to prepare the special issue of EJOR on Environmental Planning, which will include papers presented during the Summer Institute). Also, I would like to offer my gratitude to those who supported financialy the event, particularly the Hellenic Tourism Organisation. Finally, my sincere thanks go to Dr.M.Dimopoulou and my collaborators S. Daniel, A.Darzedas, and T.Voutsinas who helped me to cope with the extensive organisational work involved in preparing and carrying out the Summer Institute.

Professor Costas Pappis



**EURO  
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WITHIN IFORS**

**14TH EURO SUMMER INSTITUTE - ESI XIV  
PIRAEUS, GREECE, JUNE 7-21, 1996**

**THEME: ENVIRONMENTAL  
PLANNING**

**FINAL ANNOUNCEMENT**

**SCOPE**

During the last decades, environmental problems have given rise to complex decision issues, which are receiving increasing social attention and are becoming more and more important, not only for human welfare, but even for human survival. Involvement in environmental planning decisions has become a major challenge for OR.

The EURO Summer Institute on Environmental Planning will focus on issues of methodology and applications of OR concerning environmental decision making. In particular, topics to be covered will include:

- Environmental decision support systems
- Environmental impact assessment

- Environmental issues in business strategy
- Environmental issues in production management and control
- Environmental forecasting
- Monitoring networks
- Locational analysis
- Risk and reliability
- Environmental review, auditing and reporting
- Life cycle analysis
- Ecodesign
- Environmental marketing and communication.

## **ACTIVITIES**

Each participant will present a research paper on a topic within the theme. In addition to these activities, the Scientific Committee will also organize lectures by invited experts. A special issue of EJOR (European Journal of Operations Research) will be prepared based on papers presented at the Institute. To facilitate network building among the participants, the Organizing Committee will prepare a rich and varied social programme, including cruises and visits to islands of the Aegean sea!

## **LOCATION AND ACCOMMODATION**

Scientific activities and accommodation will be sited at the beautiful port of Piraeus. Free accommodation and registration will be provided for the selected participants.

## **APPLICATIONS**

Admittance is limited to 20 young scientists (age < 35) from different European countries. A limited number of scientists over 35 (but less than 40), with less than 5 years of seniority in academia may be also admitted. Applicants should submit their CV together with an unpublished paper within the theme of the Institute to their national OR society before February 1st, 1996. The societies will select their candidates and submit their applications to the organizers of the ESI before March 1st, 1996. The final choice will be made by the Scientific Committee and the selected candidates will be notified by April 1st, 1996.

## **SCIENTIFIC COMMITTEE**

C.Dzinonu, Trinity College, Ireland  
Panagiotis Miliotis, Athens University of Economics and Business,  
Greece  
Peter Nijkamp, Vrije Universiteit, Belgium  
Costas Pappis, University of Piraeus, Greece  
Marc Salomon, Erasmus University, The Netherlands  
Roberto Tadei, Politecnico di Torino, Italy  
Luc van Wassenhove, INSEAD, France.

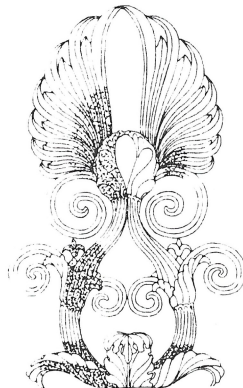
## **ORGANISING COMMITTEE**

Nicolas Blesseos, University of Piraeus, Greece  
Stavros Daniel, University of Piraeus, Greece  
Danai Diakoulaki, National Technical, University of Athens  
Maria Dimopoulou, Athens University of Economics and Business, Greece  
Costas Pappis, University of Piraeus, Greece  
Theodoros Voutsinas, University of Piraeus, Greece.

## **INFORMATION**

Available from the Organizing Committee in the following address:

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# XIV EURO SUMMER INSTITUTE ON ENVIRONMENTAL PLANNING

## PROGRAMME

<b>Friday, June 7</b>	Welcome Day
19.00 - 20.00	Reception of Participants
20.00 - 22.00	Welcome Party
<b>Saturday, June 8</b>	Visit to Acropolis and Plaka
<b>Sunday, June 9</b>	Excursion to Mycenae, Epidauros, Nafplio
<b>Monday, June 10</b>	Lecture Day
09.30 - 11.00	Prof.Clement Dzidonu (Lecturer 1) A methodological framework for Environmental Planning and Monitoring
11.00 - 11.30	Coffee Break
11.30 - 12.30	S.Daniel (Participant 1) Operational Research and Environmental Planning
12.30 - 13.30	P. Borges (Participant 2) Strategic approaches to climate change at country level
13.30	Lunch
<b>Tuesday, June 11</b>	Lecture Day
09.30 - 11.00	Prof.Luk Van Wassenhove(Lecturer 2) Environment and Remanufacturing
11.00 - 11.30	Coffee Break

11.30 - 12.30	E. Avogadro (Participant 3) A Decision Support System for Environmental Planning in Water Resources sharing Problems
12.30 - 13.30	I. Moualek (Participant 4) An Interactive decision making approach based on intelligent systems to redraw new districts boundaries in regional planning
13.30	Lunch

**Wednesday, June 12**

Lecture Day

09.30 - 11.00	Dr N.Karacapilidis (Lecturer 3) Collaborative Environmental Planning with GeoMed
11.00 - 11.30	Coffee Break
11.30 - 12.30	N. Videira (Participant 5) Multicriteria evaluation, GIS and EIA: Tools for an integrated coastal management framework
13.30 - 14.30	Lunch

**Thursday, June 13**

**Symposium on Tourism and Environmental  
Planning**

**Friday, June 14**

Lecture Day

09.30 - 11.00	Prof.P.Nijcamp (Lecturer 4) Multicriteria decision support methods for sustainable agriculture
11.00 - 11.30	Coffee Break
11.30 - 12.30	S. Mirasgedis (Participant 6) Multicriteria analysis and environmental externalities of electricity generation
12.30 - 13.30	Workshop 1
13.30	Lunch



**Saturday, June 15**

Excursion to Delft

**Sunday, June 16**

Cruise in the Saronic Gulf

**Monday, June 17**

Lecture Day

09.30 - 11.00

Prof.R.Tadei (Lecturer 5)  
The management of natural recreational resources

11.00 - 11.30

Coffee Break

11.30 - 12.30

N. Japundzic (Participant 7)  
Environmental impact of railway modernization

12.30 - 13.30

Workshop 2

13.30

Lunch

**Tuesday, June 18**

Lecture Day

09.30 - 11.00

Workshop 3

11.00 - 11.30

Coffee Break

11.30 - 12.30

M. Dolores (Participant 8)  
Semi-Obnoxious location models: A global optimization approach

12.30 - 13.30

S. Welch (Participant 9)  
The P-Obnoxious facility network location problem with facility interaction

13.30

Lunch

**Wednesday, June 19**

Lecture Day

09.30 - 11.00

Prof.M.Salomon (Lecturer 6)  
Reverse Logistics

11.00 - 11.30

Coffee Break

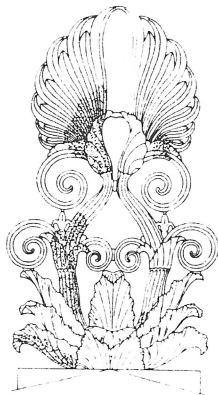
11.30 - 12.30

E. Laan (Participant 10)  
Planning and control over the Life Cycle of remanufacturable and disposable products

12.30 - 13.30

P. Miettinen (Participant 11)

13.30	How to benefit from decision analysis in environmental Life Cycle assessment Lunch
<b>Thursday, June 20</b>	Lecture day
09.30 - 11.00	Prof.M.Vujosevic (Lecturer 7) Quantitative and qualitative methods in risk assessment in decision making processes
11.00 - 11.30	Coffee Break
11.30 - 12.30	G. Kumbaroglu (Participant 12) Long-term air quality prediction and development of efficient control strategies
12.30 - 13.30	B. Bueler (Participant 13) Modelling CO <sub>2</sub> - emission certificates and solving the resulting equilibrium problem.
13.30	Lunch
19.00 - 20.00	Closing Session
20.00 - 24.00	Banquette
<b>Friday, June 21</b>	Good Bye



**Tourism and Environmental Planning**  
**XENIA Lagonissi, June 13, 1996**  
**PROGRAMME**

9.30 - 10.00

Opening session

10.00 - 11.30

Chairman : C. Pappis (University of Piraeus)  
M. Mulvey (Dublin Institute of Technology) "Tourism facility management and environmental planning within the context of sustainable development"

A. Loukatos (General Secretariat of the Council of Ministers) "The interaction of Tourism and Environment : the case of insular systems"

H. Coccossis (University of the Aegean) "Tourism and Sustainable Development"

M. Giaoutzi (Technical University of Athens) and V. Sotiriadou (Ministry of National Economy) "Environment and Tourism : for a happy, lasting marriage"

11.30 - 12.00

Break

12.00 - 13.30

Chairman : G. Lachanas (XENIA Lagonissi)  
P. Nijkamp (Free University) "The use of Meta-analysis for assessing tourism impacts for Greek islands"

P. Komilis (KEPE) "Environmental Values in Tourism's Planning and Policy Making system"

M. Maraka-Romanou (National Tourism Organisation) "The relevance of the landscape and urban design to the sustainability or tourist resources"

S. Markopoulou (Ministry of Environment, Land Planning and Public Works) "The policy of the Ministry of Environment, and Planning and Public Works for Environmental Protection"

Lunch

13.30 - 14.30

Chairman : N. Blesseos (University of Piraeus)

A. Parpairis (University of the Aegean) "Environment and Tourism Life-Cycle : impact issues"

S. Papagrighoriou (ENVECO) "Eco-auditing in the Hotel Industry : An Application in Crete"

14.30 - 16.00

D. Dalis (University of Athens) "Eco-tourism in Greece - A pilot application in the area of N. Plastira's Lake"

## List of participants

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## QUESTIONNAIRE

Participants rated different aspects of the ESI as follows :

<b>Scientific</b>	A	B	C	D
Significance of the papers of participants	0%	0%	86%	14%
Significance of the papers of invited speakers	0%	7%	79%	14%
Degree to which the ESI broadened your view in Environmental Planning	0%	0%	64%	36%
Degree to which the ESI helped you in your work	0%	21%	50%	29%

<b>Social</b>	A	B	C	D
Chances to meet people with similar interests	0%	0%	36%	64%
Social activities	0%	0%	7%	93%
General human atmosphere	0%	0%	7%	93%

<b>Organization</b>	A	B	C	D
Accommodation	0%	0%	71%	29%
Board	0%	39%	8%	62%
Transport	0%	0%	29%	71%
ESI placement and facilities	0%	0%	50%	50%
Conducting and administrating convention and workshops	0%	0%	36%	64%

A = Poor B = Moderate C = Good D = Distinguished



## FINANCES

Income	(x1,000 drachmas)
EURO	4.006
National Organisation of Tourism	6.495
University of Piraeus	500
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	11.001

## Expenditure

Accomodation and food	7.150
Travel	766
Social activities	1.169
Administrative costs etc.	919
Communication	533
Symposium on Tourism and Environm.Planning	464
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	11.001





On Friday, October 11, 1996, our beloved friend and colleague Elisabetta Avogadro, participant in the XIV ESI, was killed in an accident. We will never forget her. She will always hold a place in our hearts.

