

EURO

THE ASSOCIATION OF EUROPEAN
OPERATIONAL RESEARCH SOCIETIES WITHIN IFORS



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Brussels, October 10, 1988

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Dear EURO friends,

I hope you had a nice holiday time.

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Enclosed I am sending you the report of Professor J. WIJNGAARD on the 7th EURO Summer Institute. A nice present has been offered to Professor WIJNGAARD.

It was a great institute again. That EURO Instrument is getting more and more audience. It is a beautiful instrument for our young European O.R. people.

ESI VI will take place in Portugal on Expert Systems.

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Yours friendly,

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Report on ESI-V: Production Planning and Control,
Eindhoven, June 17 - July 3

The fifth Euro Summer Institute has been organized by the Dutch Society for Operational Research. The programme committee consisted of

J.K. Lenstra
A.H.G. Rinnooy Kan
J. Wijngaard (chairman).

The organizing committee consisted of

A.G. de Kok
J. Wijngaard.

The organisation of the Summer Insitute started in December '87. The announcements were sent out January '88 (see enclosure). This led to a (too) tight preparation schedule. The people from the UK complained about this and were right.

There were 15 applicants from 9 different countries. All applicants were accepted. We had expected more applicants, but maybe that was also due to the tight preparation schedule.

ESI-V has taken place in two locations (hotels) in the neighbourhood of Eindhoven, one week in each location.

The programme consisted of:

- Presentation of delegate's papers
- Talks of 10 invited speakers
- One-day visit to a factory
- Working group activities
- Two whole-day excursions.

See the programme, the list of delegate's papers and the list of invited speakers for more details.

The working group activities mainly consisted of more detailed discussions of each others papers. Time has been spent also on further discussions with invited speakers and on discussing the scheduling problem presented during the factory visit.

The following four persons acted as chairmen:

A.G. de Kok
J.K. Lenstra
J. Wijngaard
W.H.M. Zijm.

There was some overlap of presence, but not much.

The special issue for EJOR is in preparation. The deadline for receiving final papers has been set on October first, 1988. For all papers there are concrete plans for major or minor revisions.

According to the participants ESI-V has been a success. Some minor points of critique were:

- A too heavy programme, especially during the first week.
- Too many different chairmen. This led to a certain lack of continuity with respect to discussions and organisational points.

J. Wijngaard, September 1988



EURO: the Association of European Operational
Research Societies Within I.F.O.R.S.

FIFTH EURO SUMMER INSTITUTE

Eindhoven, The Netherlands, June 17 - July 3, 1988

THEME FOR 1988: PRODUCTION PLANNING AND CONTROL

Every year EURO organizes a summer institute for the most promising young persons, working in a particular field of O.R.

Admittance: Limited to 20 promising young persons (age 25-35) in the field of Production Planning and Control from different European countries.

Activities: Each participant will present a research paper. Invited lectures by prominent speakers will be given. Problems from practice will be presented and discussed. A special issue of EJOR (European Journal of Operational Research) will be prepared jointly during the stay.

Application: Applicants should send their curriculum vitae together with an unpublished paper in the field of Production Planning and Control to their national O.R. Society. These societies will select their national candidates and submit them before April 1 to the coordinator of the Fifth EURO Summer Institute: Prof. J. Wijngaard, University of Technology, P.O.Box 513, 5600 MB Eindhoven, The Netherlands. The final choice of the 20 participants will be made by the scientific committee.

Location: neighbourhood of Eindhoven.

Accommodation: offered by the EURO Summer Institute organization.

Information: available at your national O.R. Society.

Scientific Committee: J.K.Lenstra, A.H.G.Rinnooy Kan, J. Wijngaard.

Advisory Committee: J.P.Brands, J.Spronk.

Organizing Committee: A.G. de Kok, J. Wijngaard.

Name and address of your national O.R. Society:	Applications requested before:
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Participants ESI-V

Ömer Kirca
Department of Industrial Engineering
Middle East Technical University
06531, Ankara
Turkey

An efficient algorithm for the single
item G/G/G/G/ dynamic lot-size problem

Cemal Akyel
Department of Industrial Engineering
Bilkent University
06572 Ankara
Turkey

Some Results on Scheduling in
Parallel Machine Flow Shops

Tibor Illés
Research Institute of Computer
Sciences and Automatization
Hungarian Academy of Science
Department of Operational Research
MTA SZTAKI
Vicor Hugo u. 18-22
H-1132 BUDAPEST
Hungary

The Complex Production Planning
of a Company and about its
Prognostic Submodel

Gyula Vastag
Karl Marx University of Economics
Dimitrov tér 81
H-1093 Budapest
Hungary

Planning for CIM in Hungary:
Facts and Beliefs about the
Present and the Future

Karen Aardal
Department of Mathematics
Linköping Institute of Technology
S-581 83 Linköping
Sweden

A Benders Decomposition based
heuristic for the
hierarchical production
planning problem

Peter Ovrin
Department of Mathematics
Linköping Institute of Technology
S-581 83 Linköping
Sweden

Computer-Based Manufacturing
Planning and Control Systems
in Small Companies

Philippe Solot
Département de Mathématiques
Ecole Polytechnique Fédérale de
Lausanne
CH-1015 Lausanne
Switzerland

Flexible manufacturing system
with several pallet types

Jean-Luc Deleersnyder
Leopold II-laan 179
B-9000 Gent
Belgium

Stochastic models for
evaluating the Effects of
Information Flow Structures
On the Hybrid Push/Pull
System Performance

Jean Bernard Laserre
Laboratoire d'Automatique et
d'Analyse des Systèmes du CNRS
7 Avenue du Colonel Roche
31077 Toulouse Cedex
France

Robust Hierarchical
Production Planning under
Uncertainty

José Fernando Gonçalves
Gein, Department of
Mechanical Engineering
University of Porto
Rue des Bragas 4099
Porto Cedex
Portugal

A Hybrid Heuristic and Linear
Programming Approach to
Multi-Item machine Scheduling

Joanna Józefowska
Instytut Organizacji i
Zarządzania
Politechnika Poznańska
Strzelecka 11
60-965 Poznań
Poland

Scheduling Unit-Length Two-
machine-Flow Shop to minimize
Schedule Length

Marc Salomon
Erasmus University Rotterdam
School of Management
P.O. Box 1738
3000 DR ROTTERDAM
The Netherlands

The Multilevel Lotsizing
Problem: Evaluation of a
Stochastic optimization
Heuristic

Willem Selen
Catholic University Brabant
P.O. Box 90153
5000 LE TILBURG
The Netherlands

A New Heuristic for
Capacitated Single Stage
Production Planning

Karel van Donselaar
Eindhoven University of Technology
Department of Industrial Engineering
Paviljoen E8
P.O. Box 513
5600 MB EINDHOVEN

Imbalance in divergent
systems with lot-sizes and
its impact on safety stock

Mario van Vliet
Erasmus University Rotterdam
Econometric Institute
P.O. Box 1738
3000 DR ROTTERDAM
The Netherlands

Machine Allocation Problems
in Manufacturing Networks

Final Programme

Friday, June 17

Arrival of delegates

Saturday, June 18

10.00-12.00 A.H.G. Rinnooy Kan "Heuristic Solution Methods: Design, Analysis and Implementation"

14.00-15.30 Delegate's paper (Laserre)

16.00-18.00 J. Wijngaard "Models in Production Planning and Control"

Sunday, June 19

Whole-day excursion

Monday, June 20

09.30-11.00 Delegate's paper (Illés)

11.30-13.00 Delegate's paper (Selen)

14.00-15.30 Delegate's paper (Vastag)

16.00-17.30 Delegate's paper (Van Vliet)

17.30-18.00 Introduction to visit Philips Roosendaal (A.G. de Kok)

Tuesday, June 21

Visit to Philips Roosendaal Lighting Factory

(case in production planning and scheduling)

Wednesday, June 22

09.30-11.00 J.J. Kanet "An Alternative Approach to Manufacturing Logistics"

11.00-12.30 Delegate's paper (Solot)

14.00-17.30 W.H.M. Zijm "Flexible Manufacturing"

Thursday, June 23

09.30-11.00 U.S. Karmarkar "Production Control"

11.30-13.00 U.S. Karmarkar "Kanban Systems"

14.00-15.30 Delegate's paper (Deleersnyder)

16.00-18.00 Working groups

Friday, June 24

09.30-11.00 Delegate's paper (Akyel)

11.30-13.00 Delegate's paper (Józefowska)

14.00-16.00 J.K. Lenstra "Scheduling"

16.30-18.00 Working groups

Saturday, June 25

Free day

Sunday, June 26

Whole-day excursion

Monday, June 27

09.30-11.00 L.N. van Wassenhove "Lot-sizing"

11.30-13.00 Delegate's paper (Salomon)

14.00-15.30 Delegate's paper (Kirca)

16.00-18.00 Working groups

Tuesday, June 28

09.30-11.00 Delegate's paper (Çonçalves)
11.30-13.00 Delegate's paper (Ovrin)
14.00-15.30 Delegate's paper (Aardal)
16.00-18.00 Working groups

Wednesday, June 29

09.30-11.00 Delegate's paper (Van Donselaar)
11.00-13.00 A.G. de Kok "A Case in Hierarchical Planning"
14.00-18.00 Working groups

Thursday, June 30

09.30-11.00 J.W.M. Bertrand "Work Load Control"
11.30-13.00 Working groups
14.00-18.00 Free afternoon/Working groups
19.00-21.00 Reception by Dutch Society of Operational Research

Friday, July 1

09.30-11.00 C.V. Jones "User Interfaces for Production Planning and Control Tools"
11.30-13.00 C.V. Jones "Graphical Modelling for Production Planning and Control"
14.00-18.00 Working groups

Saturday, July 2

10.00-12.00 Closing session.
Evaluation of the Summer Institute.
Discussion of future plans.

List of external speakers ESI-V

A.H.G. Rinnooy Kan	Erasmus University Rotterdam
J.K. Lenstra	Center for Math. and Comp. Science, Amsterdam
J.J. Kanet	Clemson University, Clemson
W.H.M. Zijm	Philips Industries, Eindhoven
U.S. Karmarkar	University of Rochester
L.N. van Wassenhove	Catholic University Leuven
A.G. de Kok	Philips Industries, Eindhoven
J.W.M. Bertrand	Eindhoven University of Technology
C.V. Jones	University of Pennsylvania, Philadelphia
J. Wijngaard	Eindhoven University of Technology