WELCOME TO IFIP CONGRESS '86

On behalf of IFIP, I take great pleasure and honor in welcoming all participants to IFIP Congress '86, the Tenth World Computer Congress, held in Dublin this year. Among all the international technical conferences and seminars we sponsor (56 such conferences were held in 1985), we consider our triennial World Computer Congresses as the most important events.

The IFIP General Assembly carefully selects the site of the event, considering international needs for improving the world’s computer technology. The first Congress was held in Paris (1959), followed by Munich (1962), New York (1965), Edinburgh (1968), Ljubljana (1971), Stockholm (1974), Toronto (1977), Tokyo/Melbourne (1980), and Paris (1983). The next one is scheduled for San Francisco in 1989.

Papers and panels responding to the theme of this Congress, “Informatics—a New Awareness,” will suggest what we should be aware of for the future. The technical programme contains four major streams: System Design, Component Design, Applications, and Informatics for Developing Countries, covering ten technical areas. It aspires to bridge the gap between theory (academia) and practice (industry). IFIP steadfastly believes that our effort will eventually help increase the understanding of people of the world, professionals as well as non-professionals, who have to face the information-oriented society of the future.

I earnestly hope that you will enjoy the Congress, technically as well as socially, in the historical, beautiful country of Ireland.

A COMPUTER FOR EACH STUDENT
TC3/WG3.2 Working Conference

IFIP’s Technical Committee on Education (TC3) and its Working Group on Advanced Curriculum Projects in Information Systems (WG3.2) announce a Working Conference on A Computer for Each Student and its Impact on Teaching and Curriculum in the University, to be held in Delft, The Netherlands 21-23 April 1987. Since the use of computers is expanding so rapidly, it is expected that five years from now 70% to 80% of university students, particularly in the natural sciences will have their own personal computers. This clearly will have an impact on the curriculum and the teaching in most subjects. The purpose of this Working Conference is to determine and evaluate this impact.

The first day will be devoted to Changes in Traditional Classroom Teaching and Examinations. This will cite new methods of teaching in areas such as science and engineering, medical science, library and information science, and the management sciences. The approaches include the use of simulation and modeling, data bases, artificial intelligence (including the use of expert systems), text processing, and the use of diskettes for assignments and tests. Classroom and student management will clearly be important. For example, examinations can be automated, and student evaluation can be done in new ways.

continued on page 2

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Students with computers at their command need to be given more autonomy. This puts a premium on the development of student motivation and, thus, the development of better teaching methods. Attention will be given to the minimum amount of knowledge about computers needed in a given subject to effectively use the computer in this subject.

The second day will be devoted to Changes in the Content of Lectures. Lectures should reflect the fact that the computer is having a profound effect on problem solving approaches, and the instructors should display this in their presentations. The student environment should be enhanced by newer and more up-to-date approaches.

The current use of automatic formal mathematical manipulation packages raises the question of just how much and what traditional calculus should continue to be taught. This is somewhat analogous to the discussions raised a few years ago as to just how much and what arithmetic should be taught, since automatic calculators were becoming available. Chemical simulations give another excellent example. Simulation provides new dimensions to the teaching of chemistry. It must, however, be recognized that simulation alone is not enough to learn chemistry. Similar examples are also available in other areas.

The third day will be devoted to Problem-Solving Software Packages. These sessions will reflect first the existing packages and second those under development. What is currently on minicomputers and microcomputers will be on microprocessors in 5 years and thus will profoundly influence what is done by both instructor and student.

Database theory and applications are developing very rapidly, which is reflected in software packages. This cannot be ignored in the classroom—particularly since much of this will probably be available on micros. The fact that micros are going onto networks also enhances these developments.

Speakers from software companies and computer manufacturers will be invited to talk of their work relevant to the theme of this Working Conference.

Prof. William Atchison (USA), WG3.2 chairman, is Program Committee chairman, Prof. D. Henk Wolbers (NL) is chairman of the Organizing Committee, and Prof. Frank Lovis (GB) and Dr. Donovan Tagg (GB) will be editors of the Conference proceedings.

### Conference on Computer Security

The fourth International Conference on the Security of Information Systems (IFIP Sec'86) will be held in Monte Carlo 2-4 December. It will be preceded, on 1 December, by a day dedicated to "smart card" (a "credit card" with an embedded microprocessor) applications. This year's Conference will emphasize the practical aspects of information systems security within companies and organizations. The conference will bring to participants the state of the art in the domains of protection techniques and, at the same time, provide practical implementation ideas, case studies, exchanges of ideas, and personal contacts.

The conference will be organized so as to permit managers to compare their experiences and to meet the experts in this area of computer technology. Open working sessions organized around practical themes and led by specialists will be the occasion for informal exchanges among participants. Numerous sessions will treat information processing security from a decision and management point of view. Others will put the accent on the latest product and technical developments. Among the topics to be covered are data encryption, the "smart card," audit, risk analysis and security management, operating system and data base security, access control and identification, network security, contingency planning, security of financial transactions, computer crime, and privacy.

In parallel, an exhibition will present the state of the art in hardware, software, services, consulting, and other topics. Video presentations dedicated to information systems security will be shown throughout the conference.

Program and Organizing Committee chairmen are Andre Grissonnanche (F) and Micheline Oerlemans (F), respectively. The Conference proceedings will be published by North-Holland in the first quarter of 1987.

For additional information, please contact

Andre Grissonnanche
Agence de l'Informatique
Tour Fiat, 1 place de la Coupole
92084 Paris la Defense, France

Tel. 33-1-47.96.34.09
telex 613632 aginfor

### New Address of Secretariat

Kindly note that the IFIP Secretariat is moving. Beginning 1 October 1986, the address will be:

16 Place Longemalle
CH-1204 Geneva, Switzerland

The telephone and telex numbers will not change.

### IFIP Publications Available

New IFIP workers should be aware of the availability of the following IFIP publications from the IFIP Secretariat:

- Information Bulletin
- Statutes and Bylaws
- Standing Orders
- What Is IFIP?
- Annual Report
- Articles about Technical Committees
TC5 MEETING IN MAY

by Mr. Lars Fransson (S) *

IFIP's Technical Committee on Computer Applications in Technology (TCS) held its 24th meeting in Copenhagen on 20 May, just prior to its CAPE '86 conference. (See the article on CAPE '86 on page 4.) The meeting, well attended and lively, was devoted primarily to organizational matters; technical subjects were left to the CAPE '86 conference.

TC5 chairman Prof. Asbjørn Rolstadas (N) reported on recent IFIP activities and pointed out that increasing TC5 activities calls for better discipline in communication and documentation. He appointed Mr. Marco Tomljanovich (I) to head a Long Range Planning Task Force. Dr. Ernest Warman (GB) agreed to serve as the chairman of a Working Group that is planned for considering computer applications to agriculture.

IFIP vice-president Mr. Graham Morris (GB), who attended the meeting in order to initiate the periodic TC review process, conducted an extensive "group interview."

Dr. Joseph Hatvany (H) was honoured for his vast contributions to TC5. The committee also expressed its gratitude to Dr. Peter Falster (DK) for his extensive work in the preparation and execution of CAPE '86.

IFIP REAFFIRMS POLICIES

Certain organizations outside of IFIP have attempted to prevent individuals from a member country from attending IFIP Congress '86. In response to these actions, and to help everyone affiliated with IFIP understand thoroughly our unaltered principle and position, IFIP's president Dr. Kaoru Ando (J) addressed letters on 26 June to all General Assembly members and Technical Committee and Working Group chairmen. In the letters, he stated—

...IFIP's position is and always has been quite clear on this subject, having adopted the regulation of the International Council of Scientific Unions. Invitations to attend our Congresses are addressed to individuals and not to organizations, and our Congresses are open to all who wish to come, regardless of their country of origin or any political argument. It is a requirement for any potential host country for a Congress that it guarantees unrestricted admission. Such an undertaking was given by the Irish Government. The Executive Board met on June 17 and 18 and unhesitatingly reaffirmed IFIP's adherence to these principles.

In September 1985, the IFIP General Assembly resolved that IFIP does not take any account of the political, social, or economic aspects of its member societies, because IFIP is totally dedicated to the transfer of scientific and technical information and experience.

NEWS FROM ICCC

The International Council for Computer Communication (ICCC), an Affiliate Member of IFIP, is holding its 1986 Conference in Munich 15-19 September. The theme of ICCC '86 is New Communication Services—a Challenge to Computer Technology. Some 137 papers will be presented, and three panel sessions will be held. In addition, the Conference features technical visits to 17 locations.

On 22 April, the ICCC held the Annual Meeting of its Board of Governors in Europe and the United States, simultaneously. A transatlantic telephone link was established at Bell Atlantic headquarters in the United States and at Regie National des Usines Renault (RNUR) in France. The meeting was called to order at 7:30 A.M. in the United States and 2:30 P.M. in France. The arrangement was so successful that the Governors voted unanimously to hold similar meetings in the future. There was even mention of increasing the number of countries involved. The Governors voted to consider the formation of a European Committee to serve as a nucleus for regional programs.

ICCC President Prof. Philip Enslow, Jr. (USA) reported to the Annual Meeting that he continues to explore IFIP-ICCC cooperation and plans to appoint ICCC representatives to IFIP Technical Committees 6, 7, 8, 10, and 11.


PROF. ZEMANEK HONORED

IFIP released, in January 1986, proceedings of a Working Conference organized in tribute to Prof. Dr. Heinz Zemanek (A), an Honorary Member and a past president (1971-74) of IFIP, on his 65th birthday. The volume, Formal Models in Programming, is the proceedings of a Working Conference on the Role of Abstract Models in Information Processing. The Conference was held in Vienna from 30 January to 1 February 1985 by IFIP's Technical Committee on Programming (TC2). The proceedings were published by North-Holland.

The Program Chairman’s preface to the proceedings begins: This meeting marks the 65th birthday of Heinz Zemanek. The contributions on the first day mark a breadth of influence which is extremely rare in our age of specialization.
Large component assembly imposes severe demands on handling capacity and reach. The final assembly of passenger cars, e.g., doors, windscreen, and wheels, as well as assembly in the white goods industry (refrigerators, washing machines, etc.) are typical examples of applications in this area.

Assembly Today

On the average, about 40% of the people employed in the manufacturing industry are engaged in assembly. With automation, this could be reduced to 30%. Assembly of small products in large batches is the only area that it has been possible to automate today. The automation of small batch manufacturing and the assembly of large, complex products are extremely limited, less than 10%. The main reasons for the low degree of automation are: products have not been adapted for automation assembly; flexible equipment that is profitable for small batch manufacturing has not been available; and sufficiently fast and advanced robots are not available. There exists a great need for flexible automatic assembly, particularly when dangerous, monotonous or physically demanding processes are involved.

Where Robots Are Profitable

The cost of manual assembly is, largely speaking, independent of the production volume. With dedicated machines, the unit cost decreases with increasing volume. For production volumes between about 100,000 and 1 million units, there is an area where flexible automatic assembly with robots is more profitable than both manual assembly and dedicated machines. In these cases, robotized assembly gives the following benefits compared with a rigid assembly system:

- profitability with short batches
- copes with several product variants in the same cell
- handles complete assembly and inspection
- simple and fast reprogramming in connection with product change-overs
- may also be used for completely new applications, which gives a long economic life

Labour costs are expected to continue to rise in the future, which will lead to higher costs not only for manual assembly but also for dedicated machines (need engineering work). The price of robots, on the other hand, will drop as a result of the growing competition.
SYMPOSIUM ON INFORMATICS AND EDUCATION HELD IN TUNISIA

by Ute Brauer (D) *

IFIP and the International Committee on Mathematics in Developing Countries (ICOMIDC) held their first joint symposium 3-7 February in Monastir, Tunisia. The subject was Informatics and the Teaching of Mathematics in Developing Countries. The symposium was attended by approximately 120 people from 20 different countries around the world. This meeting had two aims: the main one was the scientific discussion of the symposium theme, and the other aim was to stimulate further ICOMIDC activity.

The symposium was opened by Mr. Habib Bourguiba, Jr. (TN), president of the Regional Institute for Informatics and Telecommunications. Mr. Y. Mentalecheta of the United Nations Economic, Scientific and Cultural Organization (Unesco) gave an invited lecture on Unesco’s new Intergovernmental Informatics Programme, which is of great importance to developing countries. (See the article Cooperation with Unesco on page 4 of the March 1986 IFIP Newsletter.)

IFIP was represented at the symposium by the chairman of its Technical Committee on Education (TC3), Prof. Dr. Wilfried Brauer (D), who gave a short address at the inaugural ceremony as well as an invited lecture: Which Informatics for Developing Countries; Which Informatics for Mathematics Education. He opened his talk as follows:

**Diversity in Developing Nations**

Since my first involvement with the problems of Computer Education for Developing Countries at the Rio Symposium on this topic in 1972, I have learned how diverse are the conditions in the approximately 100 so-called developing countries and that it is almost impossible for a European to make proposals suitable for even a rather homogeneous group of them.

We must accept the facts that in the industrialized countries, the computer is becoming an important tool in all parts of society and for all sorts of activities (even in daily life at home), and that informatics is becoming a basic supporting discipline (of almost the same importance as mathematics and physics) for all engineering and many other sciences. Developing countries must decide how and to what extent they will participate in this development, and the same decision applies to the field of mathematics.

Experience has shown that well-educated informaticians in small teams can produce rather large and complex but reliable software systems (in quite a short time) better than large teams of programmers or persons from application areas with only some programming knowledge. Therefore, the investment in setting up a good informatics curriculum is very beneficial, although in the beginning it seems to be more costly and more time-consuming than the training of programmers.

Prof. Brauer went on to define informatics and discuss what types of informaticians are needed, as well as the relationship between informatics and mathematics education. He concluded with these words:

Informatics and its applications are now in a phase of development where human and intellectual resources, theoretical investigations, and formal specifications and systematic designs are more important than hardware and programming skills. Therefore, while the interconnections between informatics and mathematics are becoming more intensive, developing countries, even if they have no computer industry, may well become competitive in the field of software production on the world market. At least, the new, low-cost hardware allows them to jump into the computing area in a suitable way, if they educate their own informaticians and are not forced to copy or adapt solutions from other regions of the world. This is a great opportunity and a great challenge.

The scientific part of the symposium comprised two parts. Half consisted of invited lectures given in plenary sessions. The other part was devoted to working group meetings on 15 different subjects, ranging from Data Structures and Graph Theory to Regional and International Cooperation. Most of the contributed papers were given and discussed in these working groups. Reports on the ideas, suggestions, and recommendations developed and prepared in the working groups were presented during the last half day of the symposium; a summary of them will appear in the final proceedings, which are being edited by Dr. Frank Lovis (UK) and published by Unesco. The preliminary proceedings contained 40 contributions.

**Intensive Discussions**

The intensive discussions during the symposium were concerned with didactic aspects of scientific questions, mainly with the following problems:

- What software and hardware are available, economically feasible, and adequate? This must be answered with respect to the education system and the culture of each country.
- In which way should know-how be transferred: by bilateral or regional cooperation, or via multinational organisations on the level of governments, universities, scientific organisations, or on an individual basis; by the transfer of students or the transfer of teachers?
- How can the experiences either of industrialised countries or of developing ones be exchanged fruitfully?

During the broad and deep discussions, it became clear again how diversified the economic, cultural, educational, and scientific situations are in different countries.

The conference programme was supplemented by demonstrations of educational software and hardware and by a large book exhibition, of which a substantial part was donated by Springer-Verlag to the Tunisian University.

The second aim of the symposium—the work within ICOMIDC—was done mostly after dinner. The main outcome of this was the acceptance of a constitution and the election of a kernel council of 7, including Dr. J. Guidy Wandja (Ivory Coast), Prof. B.L. Sharma (IND), and Dr. Asibong-Ibe (WRN). They served previously as president, vice-president, and secretary, respectively.

Support for the symposium came from the Canadian Agency of International Development, and particularly from Unesco.

This very successful first ICOMIDC-IFIP symposium has set high standards for the ones to follow.

* TC3 correspondent
The Irish Computer Society

The Irish Computer Society (ICS) represents the interests of people concerned with computers and computing in Ireland. Its membership comprises users, manufacturers, providers of services, educational bodies, and those with a special interest in the use and applications of computer technology. The Society organizes meetings and runs conferences to generate awareness and discussion on topical computing issues. The Society publishes a newsletter, supports specialist group activities, and is involved in syllabus development with educational bodies.

The principal purposes for which the Society exists are:
- to promote knowledge of the development and use of computers and computer-related techniques
- to promote the establishment and maintenance of standards in the interests of professional computer practitioners and the community as a whole
- to facilitate the exchange of information and views on computers and computer-related techniques and to inform public opinion on the subject
- to make representations to the government on all areas that affect all the Society’s members

The Society held its first meeting in 1967 and was incorporated in 1972. The current membership stands at 850. The ICS became a member of IFIP in 1978. The Society has had a close association with the British Computer Society. The president of the Society is Mr. David Kennedy, chief executive of Aer Lingus, and its chairman is Mr. Michael Sherwood-Smith. Its representative to the IFIP General Assembly is Mr. Owen Dalton, who is also IFIP’s treasurer.

The Society is very proud to be hosting the 10th World Computer Congress.

For further information about the Society, one may contact

Secretary, Irish Computer Society
Shelbourne House, Shelbourne Road
Ballsbridge
Dublin 4, Ireland

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National Abbreviations Used in Newsletter

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PROGRAM COMPLETE FOR MEDINFO 86

The technical program is now complete for the Fifth World Congress on Medical Informatics, MEDINFO 86. (See the article on page 3 of the June 1986 IFIP Newsletter.) Some 275 papers have been chosen from 650 submitted. Many of these papers are concerned with expert systems, knowledge-based systems, heuristic reasoning, knowledge management, decision support, and other topics related to artificial intelligence. In addition, a goodly number of papers will be presented on image processing and pattern recognition. Data bases and information systems will also be highlighted. Of course, there will be many papers in the more traditional fields of medical informatics: mathematical modeling of medical phenomena, computer-assisted education, and so on.

For further information about MEDINFO 86, please contact:

MEDINFO 86 Secretariat
Office of CME
George Washington University
2300 K Street, NW
Washington, DC 20037, USA
tel. 1 (202) 676-8929

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CALLS FOR PAPERS

Working Conference on Information Systems Development for Human Progress in Organizations May/June 87, Atlanta, GA, U.S.A.

papers due: 1 Oct 86
contact: Heinz K. Klein
School of Management
State University of New York
Binghamton, NY 13901, U.S.A.
tel. 1 (607) 777-6854

continued
NEW IFIP PUBLICATIONS*

CONFERENCE PROCEEDINGS

A Quarter Century of IFIP: The IFIP Silver Summary
Procs. of the IFIP 25th Anniversary Celebration
Murphy, Mark 85
H. Zemanek, Ed.

Comparative Worldwide National Computer Policies
Procs. of the Third IFIP TC9 Conference on Human Choice and Computers
Stockholm, Sep 85
H. Sackman, Ed.

Information System Design Methodologies: Improving the Practice
Procs. of the IFIP WG8.1 Working Conf.
Noordwijkerhout, The Netherlands, May 86

Decision Support Systems: A Decade in Perspective
Procs. of the IFIP WG8.3 Working Conf.
Noordwijkerhout, The Netherlands, Jun 86

Information Processing 86
Procs. of the IFIP Tenth World Computer Congress
Stockholm, Sep 86
H. Sackman, Ed.

In the June 1986 issue of the IFIP Newsletter, the new conference proceedings Foundation for Human Computer Communication should have been described as the proceedings of the IFIP WG2.7 Working Conference on The Future of Command Languages.

JOURNALS

Computers in Industry, The International Journal of IFIP TCS
six issues per year

Computers and Security, The International Journal of IFIP TC II
four issues per year

* published by Elsevier/North-Holland in 1986, unless otherwise noted

FUTURE IFIP MEETINGS

TECHNICAL COMMITTEE AND WORKING GROUP MEETINGS*

| TC2 | 6-7 Apr 87 | St. Pierre de Chartreuse (near Grenoble) |
| TC2 | 6-7 Apr 87 | Malvern, U.K. |
| WG2.1 | 22-26 Sep 86 | May 87 |
| TC3 | 3 Sep 86 | Dublin |
| TC5 | Sep 86 | Dublin |
| TC6 | 22-23 May 87 | Beijing |
| WG6.4 | 26-28 Nov 86 | Eindhoven |
| WG8.1 | 21 Oct 86 | Lisbon |
| TG10 | 3 Sep 86 | Toulouse |
| TC11 | Nov-Dec 86 | Pisa |
| WG11.4 | 23-24 Oct 86 | Monte Carlo |
| | | Stockholm |

* Please note that some meetings are scheduled in conjunction with Working Conferences, for which the conference dates are listed

GENERAL ASSEMBLY AND COUNCIL (and related meetings)

Council
9-12 Mar 87 | Singapore |
GA | 1-5 Sep 87 | Budapest |
GA | ? Aug 89 | San Francisco |

IMIA
General Meeting 23-25 Oct 86 | Washington |

CHANGES IN IFIP

NEW APPOINTMENTS

WG OFFICERS

WG2.5 Secretary
Dr. M.A. Voulk
North Carolina State University
Dept. of Computer Science
Box 8206
Raleigh, North Carolina 27695, U.S.A.
(succeeding F. Chatcin)

WG9.2 Vice-Chairman
Prof. J. Berleur
Institut d’Informatique
Faculté de la Paix
rue Grandgagnage 21
B-5000 Namur, Belgium

WG9.2 Secretary
Dr. P. Nilsson
Information and System Science
Stockholm University
Sack 5-106 91 Stockholm, Sweden

In the “Changes in IFIP” column of the June 1986 IFIP Newsletter, Mr. R.K. Sachdeva should have been listed as a new TC8 member. The Indian GA member is Maj. Gen. A. Balasubramanian.

TC AND WG MEMBERS

TC2
A. Eskennasi (BG)
(succeeding P. Burney)

TC3
B. Samways (GB)
(succeeding J.L. Alty)

TC8
R. Traunmuller (A)
(succeeding E.K. Surbock)

TG10
H. Aiso (J)

TG11
S. K. Sengupta (IN)

WG2.3
M. Broy (D)

WG2.5
M. Bercovier (IL)

WG3.5
D. H. Harkins (USA)

J. Zimmer (USA)

WG5.7
H. Jagdev (GB)

WG8.1
A. Berztiss (USA)

WG8.2
G. Fitzgerald (GB)

WG8.4
J. Kendall (USA)

WG8.4
K. Kendall (USA)

WG8.5
G. Motta (I)

WG10.2
C. Wells (USA)

WG11.4
K. Woeckener (D)

WG11.4
S. Herda (D)

ADDRESS (and other) CHANGES

Korea Information Science Society
246-104 Gueudong
Seongdongku
Seoul 133, Republic of Korea

The Computer Society of South Africa
P.O. Box 1714
Halfway House 1685
Republic of South Africa

Dr. Richard I. Tanaka (Honorary Member)
15321 Shadyridge Drive
San Jose, CA 95124, U.S.A.
tel. (714) 838-7450

Mr. J.E.D. Navez (GA Member, Belgium)
tel. 32 (2) 6479684

Mr. H.W. Le Roux (GA Memb. S. Africa, Trustee)
tel. 27 (21) 695041

(The telephone and telex numbers given in Information Bulletin 19 are no longer valid.)

Prof. G. Bracci (TC8 Chairman)
tel. 39 (02) 23993400

Prof. G. Doumeingts (WG5.7 Vice-Chairman)
tel. 33 (56) 800486

(All addresses and other changes are no longer valid.)

Prof. G. Bracci (TC8 Chairman)
tel. 39 (02) 23993400

Prof. G. Doumeingts (WG5.7 Vice-Chairman)
tel. 33 (56) 800486

tele 33 1249 public b. bordf f

Dr. J.M. Hee (WG5.6 Chairman)
G. J. Milne (GB)
K. Woeckener (D)
S. Herda (D)

Dr. Richard I. Tanaka (Honorary Member)
15321 Shadyridge Drive
San Jose, CA 95124, U.S.A.
tel. (714) 838-7450

Mr. J.E.D. Navez (GA Member, Belgium)
tel. 32 (2) 6479684

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Prof. G. Doumeingts (WG5.7 Vice-Chairman)
tel. 33 (56) 800486

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<td>First Intl. Conf. on Economics and Artificial Intelligence</td>
<td>2-4 Sep 86</td>
<td>Aix-en-Provence, France</td>
<td>IFAC/WG5.7/IFORS/AFCE/TIASC</td>
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<tr>
<td>Second European Simulation Congress</td>
<td>9-12 Sep 86</td>
<td>Antwerp</td>
<td>DBIS/IMACS/ASIM/TC7</td>
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<tr>
<td>Workshop on The Future of Information Systems-Lessons from the 80's</td>
<td>Sep 86</td>
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<td>TC10/WG10.1</td>
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<tr>
<td>Work. Conf. on Correctness by Construction in Design from HDL Sources</td>
<td>Sep 86</td>
<td>Grenoble</td>
<td>TC10/WG10.2</td>
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<tr>
<td>Work. Conf. on Stochastic Differential Systems</td>
<td>Sep 86</td>
<td>Visegrad, Hungary</td>
<td>TC7/WG7.1.A/SC</td>
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<tr>
<td>Work. Conf. on New Technologies in Computer-Based Production Management Systems</td>
<td>1-3 Oct 86</td>
<td>Tokyo</td>
<td>TC5/WG5.7</td>
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<tr>
<td>Work. Conf. on Mass Education and Informatics</td>
<td>22-23 Oct 86</td>
<td>Sweden</td>
<td>TC11</td>
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<tr>
<td>Work. Conf. on Workable Crypto Management</td>
<td>22-24 Oct 86</td>
<td>Pisa</td>
<td>TC8/CNR</td>
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<tr>
<td>Fifth World Congress on Medical Informatics-MEDINFO 86</td>
<td>26-30 Oct 86</td>
<td>Washington, DC</td>
<td>IMIA</td>
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<tr>
<td>Work. Conf. on Knowledge and Data (DS-2)</td>
<td>3-7 Nov 86</td>
<td>Algarve, Portugal</td>
<td>TC2/WG2.6</td>
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<tr>
<td>Southeast Asia Regional Computer Conference-SEARCC '86</td>
<td>17-21 Nov 86</td>
<td>Bangkok</td>
<td>SEARCC/IFIP</td>
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<tr>
<td>Workshop on CAD Engines</td>
<td>Nov 86</td>
<td>Japan</td>
<td>TC10/WG10.5</td>
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<tr>
<td>Fourth Intl. Conf. on Security of Information Systems-IFIPSec'86</td>
<td>2-4 Dec 86</td>
<td>Monte Carlo</td>
<td>TC11/ACFET</td>
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<tr>
<td>Intl. Symp. on Theory of Robots</td>
<td>3-5 Dec 86</td>
<td>Vienna</td>
<td>IFAC/WG5.3/IMACS</td>
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<tr>
<td>Workshop on Local Area Networks</td>
<td>Dec 86</td>
<td>Goa, India</td>
<td>CSH/TC6</td>
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<tr>
<td>Work. Conf. on Computers and Professional Continuing Education</td>
<td>86</td>
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<td>TC3/WG3.2</td>
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<td>Work. Conf. on The Role Of Information Systems and Of Health Informatics in the Reconstruction of Health Care Systems</td>
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<td>IMIA</td>
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<tr>
<td>Work. Conf. on Computer Law for the Policy Maker</td>
<td>Jan 87</td>
<td>Los Angeles</td>
<td>TC9</td>
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<tr>
<td>Work. Conf. on Expert Systems in Computer-Aided Design</td>
<td>17-20 Feb 87</td>
<td>Sydney, Australia</td>
<td>TC5/WG5.2</td>
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<tr>
<td>Workshop on Concepts and Characteristics of Knowledge-Based Environments</td>
<td>Feb 87</td>
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<td>TC10/WG10.1</td>
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<tr>
<td>Work. Conf. on Opportunities and Risks of Artificial Intelligence Systems</td>
<td>Mar 87</td>
<td>Hamburg</td>
<td>TC9/GIS</td>
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<tr>
<td>Workshop on High Speed Circuits</td>
<td>Mar 87</td>
<td>Munich</td>
<td>TC10/WG10.5</td>
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<tr>
<td>Seminar on Introducing Computer-Aided Techniques in Manufacturing, Engineering, and Management</td>
<td>1-2 Apr 87</td>
<td>Beijing</td>
<td>TC5</td>
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<tr>
<td>Work. Conf. on A Computer for Each Student and Its Impact on Teaching and Curriculum in the University</td>
<td>21-23 Apr 87</td>
<td>Delft</td>
<td>TC3/WG3.2</td>
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<tr>
<td>Eighth Intl. Symp. on Computer Hardware Description Languages and Their Applications-CHDL 87</td>
<td>27-29 Apr 87</td>
<td>Amsterdam</td>
<td>TC10/WG10.2</td>
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<tr>
<td>Work. Conf. on Artificial Intelligence in Education</td>
<td>27-30 Apr 87</td>
<td>Denmark</td>
<td>TC3/WG3.3</td>
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<tr>
<td>Work. Conf. on Message Systems</td>
<td>Apr 87</td>
<td>F.R.G.</td>
<td>TC6/WG6.5</td>
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<td>Seventh Symp. on Protocol Specification, Verification, and Testing</td>
<td>5-8 May 87</td>
<td>Zurich</td>
<td>TC6/WG6.1</td>
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<tr>
<td>Work. Conf. on Informatics and the Teaching of Mathematics</td>
<td>17-19 May 87</td>
<td>Sofia, Bulgaria</td>
<td>TC3/WG3.1</td>
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<tr>
<td>First Iberian Conf. on Data Communications-IBERICOM 87</td>
<td>19-21 May 87</td>
<td>Lisbon</td>
<td>API/FESI/TC6</td>
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<tr>
<td>Intl. Conf. on Children in the Information Age</td>
<td>19-23 May 87</td>
<td>Sofia, Bulgaria</td>
<td>Unesco/IAISA/L.J.F./TC3</td>
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<tr>
<td>Work. Conf. on Security Management</td>
<td>20-23 May 87</td>
<td>Canada</td>
<td>TC11/WG11.2/CIPS</td>
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<tr>
<td>Work. Conf. on Home Information Systems</td>
<td>Jun 87</td>
<td>Atlanta, GA, U.S.A.</td>
<td>TC8/WG8.2</td>
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<tr>
<td>Work. Conf. on Info. Systems Development for Human Progress in Organizations</td>
<td>Jun 87</td>
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<td>TC10/WG10.5</td>
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<tr>
<td>Workshop on Architecture for Knowledge Engineering</td>
<td>Jul 87</td>
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<tr>
<td>Third Intl. Conf. on Advances in Production Management Systems-APMS '87</td>
<td>11-14 Aug 87</td>
<td>Winnipeg, Canada</td>
<td>TC5/WG5.7</td>
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<tr>
<td>Thirteenth IFIP Conf. on System Modelling and Optimization</td>
<td>31 Aug-4 Sep 87</td>
<td>Tokyo</td>
<td>TC7/IFORS</td>
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<tr>
<td>Intl. Workshop on Hardware Design Verification</td>
<td>Aug 87</td>
<td>Edinburgh</td>
<td>TC10/WG10.2</td>
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<tr>
<td>Intl. Conf. on Very Large Scale Integration-VLSI 87</td>
<td>Aug 87</td>
<td>Calgary, Canada</td>
<td>TC10/WG10.5</td>
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<tr>
<td>Second Intl. Conf. on Human-Computer Interaction-INTERACT 87</td>
<td>1-4 Sep 87</td>
<td>Stuttgart</td>
<td>IFIP/INTACT</td>
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<tr>
<td>Work. Conf. on Governmental and Municipal Information Systems</td>
<td>15-20 Sep 87</td>
<td>Budapest</td>
<td>TC8</td>
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<tr>
<td>Work. Conf. on Computer System Design Methodologies</td>
<td>Sep 87</td>
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<tr>
<td>Intl. Workshop on Techniques and Algorithmic Complexity of Simulation</td>
<td>Sep 87</td>
<td>Torino, Italy</td>
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<tr>
<td>Intl. Workshop on Tool Integration and Design Environments</td>
<td>Sep 87</td>
<td>Paderborn, F.R.G.</td>
<td>TC10/WG10.2</td>
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<tr>
<td>Open Conf. on Information Systems for Developing Countries</td>
<td>Sep 87</td>
<td>Shima, India</td>
<td>TC8/WG8.2</td>
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<tr>
<td>Work. Conf. on Software for Factory Automation</td>
<td>19-21 Oct 87</td>
<td>Tokyo</td>
<td>TC5/WG5.3/IFORS</td>
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<td>Work. Conf. on Vocational Training for Informatics</td>
<td>Oct 87</td>
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<td>TC3/WG3.4</td>
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<td>Workshop on Process and Design for 3D Chips</td>
<td>Nov 87</td>
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<td>TC10/WG10.5</td>
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<td>Work. Conf. on Social Implications of Robotics</td>
<td>Dec 87</td>
<td>Elat, Israel</td>
<td>TC9</td>
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<tr>
<td>Work. Conf. on Computers as Tools for the Teacher- New Dimensions for the Teaching Profession</td>
<td>87</td>
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<td>TC3/WG3.3</td>
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<td>Work. Conf. on Diagnostic and Preventive Maint. Strategies in Manufac. Systs.</td>
<td>87</td>
<td>Yugoslavia</td>
<td>TC5/WG5.3</td>
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**Please see page 7 for schedule of IFIP administrative meetings.**