IFIP newsletter
International Federation for Information Processing

Editor:
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CONGRESS 86 PROVIDES EXCELLENT PROGRAM

IFIP Congress '86, the 10th World Computer Congress, was held 1-5 September at Trinity College, in the heart of Dublin. In an effort to change the "egress from being mostly papers written by specialists for other specialists in their fields, the Program Committee had invited speakers who could address a wide spectrum of interests in their audiences. The Congress consisted of 95 sessions (47 sessions with invited speakers and responders, 24 panel sessions, and 24 sessions comprising 71 refereed papers) in seven parallel streams plus one plenary session. Highlights of the Congress will be presented in future issues of the *IFIP Newsletter.*

This Congress's program contained more invited addresses and panel sessions and fewer submitted paper sessions than previous Congresses. Thus, it had more appeal to generalists interested in comprehending the state of the art of information processing than to specialists. Prof. Dines Bjørner (DK) was chairman of the Program Committee and responsible for the direction taken by the committee.

One innovation of this Congress was inviting a responder to present a reply to each invited speaker. In many cases, responders were reluctant to contradict their colleagues and instead gave complementary (but not necessarily complimentary) talks. In a few cases, however, the two engaged in a genuine debate.

Information Processing 86, the proceedings of the Congress, were edited by Mr. Hans-Jurgen Kugler (IRL) and will be published by North-Holland in December, 1986.

Opening Session

The Congress opened Monday morning, 1 September. Mr. Dudley Dolan, chairman of the Congress Organizing Committee, acting as emcee, introduced Mr. David Kennedy, president of the Irish Computer Society and Chief Executive and Director of Aer Lingus, who spoke of the importance of computers to the Irish airline and to other industries in Ireland. Mr. Jim Mitchell, Irish Minister for Communications, next pointed out that no one is untouched by the computer and communications revolution. Then, IFIP's president Dr. Kaoru Ando (J) described IFIP to the audience and thanked the Program and Organizing Committees. Mr. Amole Owolabi of the United Nations Economic, Scientific and Cultural Organization (Unesco) spoke of the close cooperation of IFIP and

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GENERAL ASSEMBLY MEETS IN DUBLIN

IFIP's General Assembly (GA) met in Dublin, 29-31 August, immediately preceding the 10th World Computer Congress. Major actions taken at this meeting included elections of vice-presidents and trustees, admission of the Fiji Computer Society as a Full Member and the Very Large Data Base (VLDB) Endowment as an Affiliate Member, and reinstatement of Brazil as a Full Member. Interest was expressed in having IFIP involved in the process of standards creation in information processing but not having IFIP itself generate standards. (An article about IFIP's standards. activity will appear in the next *IFIP Newsletter.)* Also, new committee assignments were made (see the lists on page 8).

The GA was welcomed to Ireland by Mr. Michael Sherwood-Smith, chairman of the Irish Computer Society, which provided excellent facilities and services for the GA.

The GA reelected Mr. Graham Morris (GB) vice-president and elected Mr. Aage Melbye (DK) to fill a new vice-presidency created by the 1985 GA, to help carry the increased workload of the Executive Body. Mr. Luis Penedo (P)

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NEW LOCATION OF SECRETARIAT

Kindly note that the IFIP Secretariat moved on 1 October 1986. The new address is given in the masthead, on page 2. The telephone and telex numbers have not changed.

CONGRESS '86 continued from page 1

Unesco. Next, Mr. Maurice O'Grady, president of the Irish Business Equipment Trade Association (IBETA), sponsor of the exhibition held in conjunction with the Congress, expressed his desire that participants would be "led into temptation" to attend the exhibit.

Next, Prof. Bjørner discussed informatics: "...a wonderful universe of intellectual quality. Informatics poses one of the greatest intellectual challenges, comparable in this century, I believe, only to that of nuclear physics." He introduced keynote speaker Mr. Michael Jackson (GB), of Michael Jackson Systems, who spoke on *Software Creation.* It was refreshing to see Mr. Jackson as an active participant in the Congress (as a responder in one session and attending others), rather than the more typical keynote speaker who comes to deliver his addresses and departs immediately.

The computer show contained 80 exhibits, whose products ranged from computers to general office equipment. It was the largest show ever organized by IBETA, staged at Ireland's largest exhibition hall. The show was opened by the Irish Minister for Finance, and the Lord Mayor of Dublin visited the show and met with the press.

Among the added touches that made this Congress special were—the previewing of slides by the Program Committee and the re-drafting of those that were not of satisfactory quality; free international telephone calls provided by the Irish telephone service; extensive coverage of the Congress in the press and on television; Congress sessions organized by some of IFIP's Technical Committees; and the courteous and exceptionally warm assistance of the Irish organizers. Mr. Dolan, especially, was tireless. Throughout the Congress, he could be seen with his walkie-talkie, checking that things were going smoothly, and cheerfully solving problems that arose.

Low Registration

The high quality of the Congress, however, was not reflected in the attendance. Only 1100 people registered for the Congress, the smallest number in recent years (1750 had been projected). On the other hand, 55 countries were represented, making it a truly international event. Countries with the largest registration were Ireland, United States, United Kingdom, France, Federal Republic of Germany, Denmark, Japan, and The Netherlands.

Among the reasons put forward for the disappointing attendance were: worldwide recession in the computer industry, low international travel, competing events, lower tourist appeal of the venue, high registration fee, need for more publicity, anti-apartheid threats in Dublin, and decreasing interest in large, general conferences.

IFIP is interested in putting on Congresses that attract large numbers of registrants. Otherwise, the immense effort that goes into organizing a Congress is not well spent. Also, IFIP uses the surplus funds received from its Congresses to support other technical programs, especially in developing countries. Although IFIP can afford to sustain a deficit on an occasional Congress, it cannot do this regularly.

Closing Ceremony

At the Congress closing ceremony on Friday afternoon, a well attended event, IFIP's Silver Core awards were presented by Dr. Ando (see page 6). Awards were also presented to seven people who have attended all ten IFIP Congresses (see page 7). Speeches were heard from Prof. Bjørner, Mr. Dolan and Prof. Steven Yau (USA). The latter, chairman of the Organizing Committee for **IFIP** Congress '89, promised an outstanding Eleventh World Computer Congress in San Francisco. For further information, one may contact-

11th World Computer Congress
c/o AT&T
30 Knightsbridge Road
Piscataway, NJ 08854
USA
attn. A.J. Basili

Dr. Ando officially adjourned the **IFIP** General Assembly, which had convened before the Congress (see page 1), and passed the gavel to the new **IFIP** president, Mr. Ashley Goldsworthy (AUS), who delivered an address concerning the future course of **IFIP** (see page 3). Finally, Mr. Owen Dalton (IRL), **IFIP** treasurer and vice-chairman of the Congress Organizing Committee, thanked all present for their support. The Congress closed with everyone joining hands and singing *Auld Lang Syne.*

IFIP PUBLICATIONS AVAILABLE

New IFIP workers should be aware of the availability of the following IFIP publications from the 1FIP Secretariat:

- Information Bulletin
- Statutes and Bylaws
- Standing Orders
- *What Is **IFIP?***
- Annual Report
- articles about Technical Committees

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The Secretariat can also answer inquiries about IFIP.

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Kindly submit material for the *Newsletter* three months before the publication date.

Please send the following IFIP information directly to the Secretariat: announcements of conferences, workshops, and other meetings; calls for papers; appointments to committees and other positions; changes of address; and new publications. The Secretariat is the clearinghouse for all such information; it will forward it to the *Newsletter.*

IFIP COUNCIL

Executive Board

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H.W. Leroux	ZA	84-87
L. Penedo	P	86-89
A.A. Verrijn-Stuart	NL	85-88
R. Iau	SEARCC	86-89
P. Kovacs	H	86-88

MEMBER SOCIETIES REPORT

Twenty-four reports on the activities of Member societies of **IFIP,** reports prepared for the **IFIP** General Assembly (GA) in Dublin, make interesting reading, illustrating the range of size, activities, organization, and other features that exists among **IFIP's** Members. The 1985 GA decided that it would be useful for **IFIP** Members to have an appreciation of what the other Members do, how they are organized, and what are their concerns. The 24 reports (of the 41 Full Members at that time) are in response to that decision.

In some cases, a Member is the single computer society in its county. At the other end of the spectrum, some Members are federations of many national cieties. In some cases, these federations are organized solely to provide liaison with **IFIP,** and in other cases, they have extensive activities for their member societies. In addition, some Members are appointed by their nations' academies of sciences to cooperate with **IFIP.** The sizes of the organizations covered by the reports range from a society with 650 members to a federation with over 200 000 members.

The financing of the Members' **IFIP** activities also reflects their organization. In most cases, monies come from the general funds of the member society or the member federation of societies; in some cases, the national government supports the **IFIP** activities; and in other cases, the funds are contributed by the individual member societies of a

Varied Activities

Most Members (except for those that exist solely for liaison with **IFIP)** publish technical journals and other computer-related periodicals. Many also run conferences, seminars, and courses. Some organize trade shows, and at least one sponsors product presentations by hardware and software companies. Technical Committees are frequently organized. Many Members present awards.

Professional certification and competence tests are managed by some Members. Some have prepared codes of ethics and professional behavior for their memberships. Professional development and career guidance is a service provided by some Members for their individual members, as well as career guidance for those planning careers as information processing professionals. Some Members have computer science libraries. At least one prepares training packages.

Some Members prepare suggested curricula in information processing for universities and other educational institutions. In some cases, the Members participate in university accreditation. With regard to young people, some members hold programming competitions. One has organized an Association of Young Computer Enthusiasts, and another holds a computer literacy program for secondary school students.

Public relations is a significant activity of some members. Some activity exists in increasing public awareness of information processing. Television programs have been produced by Members. Some Members advise their governments on issues relevant to information processing; others prepare position papers. One Member that is a federation of national societies coordinates long-range planning of member societies.

Members' Concerns

The Member reports expressed some concerns with regards to their affiliation with **IFIP.** Many are working to increase the degree of cooperation and to organize more **IFIP** events. Several reports expressed the wish that **IFIP** be better known in their countries.

Many small countries in remote parts of the world find it difficult to finance participation in **IFIP.** It is costly for them to send representatives to the **IFIP** General Assembly and to pay for the travel of national representatives to **IFIP** Technical Committee (TC) meetings. In some cases, the Members have too little funds to support the ambitious programs they would like to carry out. In the cases in which the Member is organized solely for the purpose of collaboration with **IFIP,** it is difficult to have useful feedback from TC members to the member societies.

The Activity Development Board is reviewing the Member reports carefully, in order to identify opportunities for **IFIP** to take actions that will be beneficial to the Members as well as **IFIP.**

GOLDSWORTHY ADDRESSES IFIP

[IFIP's president Mr. Ashley Goldsworthy (A US) addressed IFIP Congress '86 (see the article on page 1) at its closing session. In his address, parts of which are printed here, he outlined his vision for the future of IFIP.]

IFIP is a unique collection of people—people with a diversity of backgrounds, a variety of cultures, and a bewildering array of interests and skills. **IFIP** is also a family—a family dedicated to improving the lot of mankind, by enhancing the understanding of and the application of computers and related technologies.

IFIP can be, and should be, a vision for the future. The aggregation of intellectual skills fostered by **IFIP** must not be endangered or squandered by the diversion of the present or the distraction of trivia. At the same time, **IFIP** must keep its feet firmly on the ground of reality, by addressing issues of importance and significance to its various communities—and it has a variety of communities.

As president, I have certain goals I would like to achieve.

Firstly, we must enhance IFIP's visibility and stature amongst computer professionals world-wide, as a pre-eminent and authoritative body in the development and effective application of informatics and information technology.

Secondly, we must continue to broaden **IFIP's** geographical impact and influence, especially in developing countries.

Thirdly, we must develop an appropriate organisational structure to-
- effectively respond to a rapidly changing environment,
- more effectively anticipate new developments, and
- provide a more useful vehicle for close interaction and mutually beneficial co-operation between kindred organisations, such as our Affiliate Members.

I repeat: we must never lose sight of the role we can play in developing a vision for the future.

GENL. ASSEMBLY cont. from page 1

and Dr. Ing. Giorgio Sacerdoti (I) were reelected as trustees, and Mr. Robert Iau (SEARCC) and Dr. Peter Kovács (H) were elected trustees to 3 and 2 year terms, respectively.

Along with the GA's decision to admit Fiji and the VLDB Endowment, came a decision to invite the newly formed International Federation for Computer Graphics (IFCG) to apply to **IFIP** for Affiliate Membership. It was decided to defer the creation of a Working Group in graphics, recommended by **IFIP's** Council last March, until the situation with regard to the IFCG is clearer. It was noted that, according to **IFIP** rules, Fiji will actually become a member of **IFIP** when it sends a representative to the GA and pays its dues.

Activities in Developing Countries

The work of the **IFIP** Committee: Informatics for Development (ICID), which concentrates on activities in developing countries, was discussed. Complaints were heard from TC chairmen to the effect that grants for **IFIP** events awarded by the United Nations Economic, Scientific and Cultural Organization (Unesco) have been awarded so late and burdened with such administrative restrictions that it has been impossible to use them, and the intended benefits have not been achieved.

Further steps in the creation of the African Regional Computer Confederation (ARCC) were presented by **IFIP** trustee Mr. Hennie Leroux (ZA) (See the article on page 6.)

The International Medical Informatics Association of **IFIP** (IMIA) reported an active program and prospects for a successful Congress. (See the article on MEDINFO 86 in the September 1986 ***IFIP*** *Newsletter* on page 6.)

One new feature of the Dublin GA meeting was the collection of reports of the member computer societies (see page 3). GA members regretted that insufficient time was available to discuss the activities of members and their problems, as presented in these reports. Hopefully, future GA meetings will see time allocated for this.

Congresses

Much time was devoted to discussions of Congresses. The disappointing attendance projected for **IFIP** Congress '86, **IFIP's** main technical convocation, was thoroughly analyzed. Further deliberations will be held on what type of Congress **IFIP** should hold in the future; appointment of the chairman of the Program Committee (PC) for Congress '89 is being deferred until a decision has been reached. The Organizing Committee chairman for Congress '89, Dr. Steven Yau (USA), presented his report. The Congress will be held 28 August-1 September 1989 in San Francisco.

Mr. James Finch (CDN), chairman of the Site Selection Committee, presented its report, which included a recommendation, adopted by the GA, that each country proposing to be host to an **IFIP** Congress guarantee that all bona fide registrants will be granted entry visas. Mr. Finch pointed out that the deadline for receipt of proposals to be host for Congress '92 is 1 February 1987—not 31 December 1986, as reported earlier, although receipt by the December date would be appreciated. (See the article on site selection on page 9 of the June 1986 ***IFIP*** *Newsletter.)*

Publications

Publications Committee chairman Mr. Hans-Rainer Schuchmann (D) presented its report, including a proposed policy document. Publications policy has never existed in written form before, and its codification is a significant step. On the average, one **IFIP** book is printed every two weeks. Royalties from IFIP's publications provide approximately one third of **IFIP's** income. *Computer-Aided Production Management,* edited by Prof. Asbjorn Rolstadås (N) is almost complete and will be published by Springer-Verlag in August 1987, as the second in the **IFIP** State-of-the-Art series. Proposals for two more books in this series were mentioned.

IFIP Honorary Member Prof. Dr. Heinz Zemanek announced publication of *A Quarter Century of* ***IFIP,*** which he edited (see page 7.) He also reported that the **IFIP** History Commission has started work. (Its aims and scope are contained in the article on page 9).

A new award was approved for those who have served **IFIP** on TCs and Working Groups. Also discussed was a proposal for a periodic **IFIP** award to individuals outside of **IFIP** who have made significant contributions in information processing.

Finances

The **IFIP** budget for 1987, with a deficit of 382 000 Sfr., was approved. Previously, it should be noted, small surpluses have been realized in some years whose budgets provided for losses. The reason is that often money allocated for expenses is not spent. Treasurer Mr. Owen Dalton (IRL) told the GA that a realistic loss expected for 1987 would be 100 000 Sfr. Even this lower deficit caused concern. The funds **IFIP** spends to support its activities should be maintained at their current levels or be increased, and administrative expenses are reasonable. Thus, efforts must be made to increase **IFIP's** income, to enable it to continue its work. An increase in dues, associated with inflation, was announced. Another action in the realm of finances was the amendment of col ference guidelines to state that, in general, loans rather than grants are made for **IFIP** conferences, unless special circumstances call for the award of a grant.

Because of the increased workload on the **IFIP** Secretariat, the GA approved the use of 50 000 Sfr. for moving the Secretariat to larger quarters in Geneva and the hiring of a second full-time employee, as well as part-time employees, as needed. The GA recognized the immense burden that has been so capably sustained by Mme. Gwyneth Roberts, Manager of the Secretariat.

In keeping with tradition, the GA meeting ended officially at the end of I Congress '86, at which time **IFIP's** pre.' ident, Dr. Kaoru Ando (J), thanked the Irish Computer Society for showing the GA the renowned Irish hospitality and for organizing the successful and memorable 10th World Computer Congress. As his term of office ended, Dr. Ando spoke of his efforts during the past three years to adjust **IFIP's** structure to be most effective in accommodating to changes in the dynamic world of information processing, to revitalize TC activities, and to increase **IFIP's** work in developing countries. At that time, the IFIP presidency was assumed by Mr. Ashley Goldsworthy (AUS), who thanked Dr. Ando on behalf of the GA and expressed appreciation for his many accomplishments and hard work in behalf of **IFIP.** Mr. Goldsworthy closed the meeting with a speech concerning the challenges **IFIP** will face in the future (see page 3).

CONFERENCE ON PROGRAMMING FOR ROBOTS

WG5.3 Working Conference

On 2-3 June, a Working Conference on *Off-line Programming of Industrial Robots* was held by IFIP's Working Group on Discrete Manufacturing (WG5.3). Off-line programming is the process by which robot programs are developed without requiring the use of the robot itself. Forty-eight invited participants from 12 countries attended the Conference, in Stuttgart, F.R.G. Thirteen papers were presented, each followed by discussion. Visits to laboratories concerned with the programming and applications of robots were organized on the day following the Conference.

One of the papers, *Off-line Programming Using the GRASP Robot* (GB) et al., contained a good summary of the current activity in the area of off-line programming of robots. Parts are quoted below.* (See also the discussion of robotics and assembly on page 4 of the September 1986 ***IFIP*** *Newsletter.)*

> Most industrial robots in use today are programmed using the "teach" method. This involves driving the robot to required positions using a teach pendant [a keyboard for moving the robot by pressing keys] or physically moving the robot arm with a "teach arm" [a lightweight arm, similar to the actual robot arm, but without drives]. Successive position steps in the program are thus created and stored using the actual robot. Teaching a robot can be very time consuming, except for simple tasks, and during programming, the robot (hence often the complete production line) is inoperative. This is not a severe problem with mass production operations, where reprogramming is infrequent. However, for small and medium batch manufacturing situations, the proportion of teaching time to production time can be high, thus bringing into question the economic viability of the installation.

Advantages

Off-line programming, the process by which robot programs are developed, partially or completely, without requiring the use of the robot itself, allows the robot to remain in production while the next task is being programmed and so makes the use of robots economic for smaller batch manufacture. Off-line programming, which includes the generation of positional coordinate data, has the following potential advantages:

- Improved robot safety—the programmer is remote from potentially hazardous environments.
- A single programming system can be used to program a variety of robots.
- Verification of robot programs—this verification is extremely important and is greatly assisted by using a graphical simulation system.

Off-line programming of industrial robots is only now beginning to become realistically feasible. This is due mainly to recent developments in robot hardware and control systems, few of which have had the capability of accepting remotely generated data. Even those robots that could accept remotely generated data tended to have very poor positional accuracy, i.e., the ability of the robot to reach a specified position. Furthermore, many of the inaccuracies in the real robot cell can be compensated for by the use of sensors, and only recently has sensor technology been able to provide sufficiently accurate and cost effective solutions for use in the robotics environment. The latest generation of robots, having more sophisticated control systems and better physical construction, has resulted in systems which, when combined with suitable sensors, allow for the effective and economic use of off-line programming techniques.

Textual and Graphical Methods

Off-line programming systems tend to use either a textual or a graphical method for creating the program. The textual approach involves the use of a high-level programming language. This usually provides powerful data manipulation and arithmetic capabilities. A significant drawback of these systems is the lack of graphical simulation facilities. On the other hand, graphical simulation allows one to verify the program in terms of reach constraints and collision avoidance. The verified program would then be converted to a suitable intermediate format and then postprocessed for particular robot controllers.

Another advantage of the graphical simulation approach is that it is possible to use interactive CAD techniques to specify the robot program. Immediate visual feedback is available at all stages of program generation. If a 3D solid modeller is used to build the model, additional benefits available are automatic collision detection and a realistic visualization of the complete cell created on the graphics terminal screen. Cycle time estimations, optimisation of the layout, synchronisation of the robot with other robots or equipment, and verification of the logic contained in the program are all important features which can be made available in graphical simulation systems used for off-line programming.

Positional Information

The task of generating the positional information within a robot program is much simplified and quicker when using a sophisticated off-line programming system than when "teach" programming a robot. In some systems, positions are saved relative to the positions of objects in the workplace. This means, therefore, that the location of these reference objects, and of the robot itself in the work cell, may be changed without invalidating the program. Such rearrangements are invariably required in order to overcome reach, collision or timing problems arising from an initial cell layout. Usually no modification is required to be made to the program itself. Thus, in addition to providing the important verification and visual feedback about the robot program, the graphical simulation is also an extremely effective planning and design tool which can be used to help optimise the installation.

Prof. Dr.-Ing. Alfred Storr (D) was chairman of the Working Conference Program Committee. He and Mr. John McWaters (GB) are editors of the proceedings, which will be published by North-Holland in January 1987.

* © IFIP

NEWS FROM IMIA

IFIP's Special Interest Group, the International Medical Informatics Association of IFIP, held its general meeting in Washington 23-25 October, preceding MEDINFO 86. Prof. Shigekoto Kaihara (J) assumed the presidency following this meeting.

Plans are under way for MEDINFO 89, the Sixth World Congress on Medical Informatics, to be held in Beijing 16-20 October 1989. Dr. Deng Guojun (PRC) is chairman of the Organizing Committee; Prof. Phil Manning (USA) is Program Committee chairman.

SILVER CORE AWARDS

Fifty-three Honored

On 5 September, the Silver Core Award for service to **IFIP** was made to 53 people by Dr. Kaoru Ando (J), then president of **IFIP.** Certificates were presented at the closing ceremony of **IFIP** Congress '86 in Dublin.

The Award may be conferred on those who have served **IFIP** as General Assembly members, committee officers, members of Congress Program Committees, and editors of proceedings of major **IFIP** conferences. Required length of service varies with the role. The president of **IFIP** may also propose others who have given exceptional service to **IFIP.**

The recipients are—

A. Avizienis (USA) WG10.4 ch. 80-86
M.R. Barbacci (USA) WG10.2 ch. 80-86, ed.
D. Beech (USA) WG2.7 ch. 82-86, ed.
J.H. van Bemmel (NL) PC MEDINFO '80, ed. x 3
D. Bjørner (DK) PC ch. C86, PC C83, ed.
D. Borrione (F) WG10.2 vch. 80-86
G. Bracchi (I) TC8 ch. 83-86, ed. x 2
W. Brauer (D) TC3 ch. 84-86, vch. 79-83
U. Briefs (D) WG9.1 ch. 81-86, ed. x 2
C. Carrez (F) WG10.1 sec. 80-86
L.R. Carter (USA) WG2.4 sec. 81-86
A. Costes (F) WG10.4 vch. 81-86
O.M. Dalton (IRL) GA 81-86
A. Danthine (B) TC6 ch. 79-85, ed.
P.A. Dewar (GB) TC 10 sec. 80-86
B. Einarsson (S) WG2.5 ch. 78-83, vch.74-78
J.H. Finch (CDN) GA 81-86
J. Fourot (F) GA 80-86
J.S. Gerö (AUS) ed. x 3
W.H. Giloi (D) WG10.1 ch. 81-86
G. Glaser (USA) GA 80-86
A.W. Goldsworthy (AUS) GA 81-86, ch. C80
P.-X. Guo (PRC) GA 78-86
R.W. Hartenstein (D) WG10.2 sec. 80-86, ed.
J. Hawgood (GB) WG8.3 sec. 81-86, ed.
P. Henderson (GB) GA 74-76, WG2.3 sec. 77-86
K. Hernaes (S) GA 78-86
S.M. Jain (IND/IFIP Secretariat) President's nominee
S. Kaihara (J) IMIA trustee 79-83, v.p. 83-86
R.E. Kalman (H) GA 82-83, ed. x 3
P.R. King (CDN) WG2.1 ch. 82-85, sec. 78-81
V. Kotov (SU) PC C83, C86
H.J. Kugler (IRL) ed. C86, ed. x 2
C. Kuo (GB) WG5.6 ch 79-86, ed. x 4
H.W. Leroux (ZA) GA 81-86
D.A.B. Lindberg (USA) IMIA trustee 80-86, ed.
N.E. Malagardis (F) WG5.4 ch. 79-86
A. McKenzie (USA) WG6.1 ch. 79-81, sec. 82-86
A. Melbye (DK) GA 78-86
L.B. Methlie (N) WG8.3 ch. 81-86, ed.
S. Michaelson (GB) WG10.5 ch. 81-86
R. Mori (J) PC C83, C86
P.I. Penkov (BG) TC3 sec. 73-79
H. Peterson (S) IMIA president 83-86, v.p. 79-83
C.J. Potter (NZ) GA 80-86
J.K. Reid (GB) WG2.5 ch. 83-86, sec. 79-81, ed.
H. Sackman (USA) TC9 ch. 83-86, ed. x 2
T.R.H. Sizer (GB) WG9.2 vch. 81-86, ed.
S. Smit (USA/North-Holland) President's nominee
A. Sølvberg (N) GA 79-82, WG8.1 ch. 82-86
R. Sprague (USA) WG8.3 sec. 81-86, ed.
A.I. Wasserman (USA) WG8.1 sec. 80-81, vch. 82-86, ed.
G. Wiechers (ZA) TC3 sec. 80-86, ed.

GA = General Assembly representative
IMIA = International Medical Informatics Association of IFIP
TCn = Technical Committee n
WGn.n = Working Group n.n
ch. = chairman
vch. = vice-chairman
sec. = secretary
v.p. = vice-president
ed. = editor (or co-editor)
ed. x n = editor of n books
Cnn = **IFIP** Congress nn
PC = Program Committee ■

TC8 PRESENTS "MANIFESTO"

At its June meeting in Vienna, **IFIP's** Technical Committee on Information Systems (TC8) took stock of its activities, asking questions such as, "Is TC8 on the right course?" "Are the right issues being addressed?" "Are the right people involved?" "Is there overlap with the activity of other organizations?" and "Are the right documents being produced?" Ultimately, the following "manifesto" was prepared, which may have relevance for **IFIP's** other TCs.

• TC8 will encourage people to take initiative in introducing new activities.
• TC8 will not seek growth for growth's sake, but controlled growth will be encouraged.
• TC8 must develop a classification scheme to detect new areas not covered by existing TC8 activities.
• TC8 will be "mission-oriented" when designating the work of new task groups [i.e., will charter groups only when the need is strongly felt].
• TC8 will require Working Groups to identify their objectives and deliverables [e.g., conferences and publications].
• TC8 will adjust and promote its activities with the aim of attracting new people of an established caliber and also younger people of clear potential.
• TC8 will strive to improve communication between its Working Groups and the TC8 community at large (using electronic mail, bulletin boards, and other media).
• TC8 will improve its communication with other **IFIP** TCs.
• TC8 will hold both closed working conferences and professionally organized open conferences. ■

AFRICAN REGIONAL COMPUTER CONFEDERATION

Gradual progress is being made in the formation of the African Regional Computer Confederation (ARCC) and in the establishment of its program. (See the article on ARCC on page 4 of the June 1986 ***IFIP*** *Newsletter.)* Representatives of the computer societies of Kenya (Mr. George Okado), Nigeria (Prof. Sam Jaiyesimi), Republic of South Africa (Mr. Hennie Leroux), and Zimbabwe (Mr. Geoff Fairall) met during the **IFIP** General Assembly (GA) meeting in August in Dublin (see the article on page 1) to further plans for ARCC and to coordinate these plans with **IFIP** activities on the African continent.

IFIP Trustee Leroux reported to the GA that ARCC will be divided into four regions, each coordinated by one of **the** aforementioned ARCC participant" Central African Region (Malawi, Zambia, **Zimbabwe),** Eastern **(Kenya, Tanzania, Uganda), Southern (Botswana, Lesotho, Namibia, Republic of South Africa,** Swaziland), and Western (Benin, Gambia, Ghana, Liberia, **Nigeria,** Sierre Leone). This division is deemed desirable, because the size of Africa creates severe problems in communication and travel.

In March, Dr. Ronald Uhlig (USA), chairman of **IFIP's** Technical Committee on Data Communication (TC6), conducted a tutorial in data communication for approximately 40 computer professionals in Nairobi. Technical conferences in 1987 are planned by ARCC for Johannesburg, South Africa; Harare, Zimbabwe; and Nairobi, Kenya. ■

A

MORE HONORS TO ZEMANEK

On 5 June, the state of Vienna (Vienna is both the capital and one of the nine states of Austria) awarded Prof. Dr. Heinz Zemanek (A), a past president and Honorary Member of **IFIP,** the *Goldenes Ehrenzeichen ftir Verdienste urn das Land Wien (Golden Award in Gratitude for Services to the State of Vienna).* On 18 June, the Institute of Electrical and Electronics Engineers (USA) presented him the Computer Pioneer Award. Finally, on 14 July, he was granted a second Honorary Doctorate from the University of Erlangen (D). We congratulate Prof. Zemanek warmly and wish him many more honors in the future. ■

News from Member Society:

AFIPS HOLDS QUARTER CENTURY SYMPOSIUM

To commemorate a quarter-century of service to the computer industry, the American Federation of Information Processing Societies (AFIPS) was host to a policy symposium in Washington, DC, on 14 May. Entitled *The Prospects for the Next 25 Years of the Information Revolution,* the forum was attended by approximately 200 people, including representatives of the U.S. government and key industry and association leaders.

Established in 1961, AFIPS is composed of 11 national organizations engaged in the design and/or application of computers and information processing systems. It is the United States' member of I

The forum was highlighted by two panel discussions. Panelists included a Nobel Prize winner, a member of Congress, a university president, and corporation executives. The first panel was chaired by Mr. Erich Bloch, director of the National Science Foundation. The discussion centered on the impact of information processing on science, engineering, and education. One speaker noted that information processing was changing the national economy by adding a huge service and information component. Another addressed the growing cost of using high technology in the classroom. He contended that, unless this growth is stemmed, the increasing tuition costs—to pay for high technology—will lead to an increasing polarization between the education of the wealthy and the poor. (In the U.S., most private universities are supported to a greater or lesser extent by students' tuition payments.) A third panelist compared the new horizons and the expanding bounds of complexity of the computer's abilities to the cultural and technological strides of the Renaissance.

The second panel was moderated by Dr. D. Bruce Merrifield, assistant secretary for Productivity, Technology, and Innovation at the U.S. Department of Commerce. Discussions dealt with the impact of government policies on the information processing industry and profession. One speaker said that scientists, and computer science professionals in particular, when attempting to influence government, spend too much time with the officials who already share their concerns, and not enough time recruiting converts. Another speaker discussed the need to retrain the work force to new standards and addressed the role of the government in funding this retraining.

As part of AFIPS' 25th anniversary events, the Smithsonian Institution held a reception at the National Museum of American History, where a description of a forthcoming exhibit, called *The Information Revolution,* was provided. ■

A QUARTER CENTURY OF IFIP

New Book Published

An amazing feat of publication has been achieved by Prof. Dr. Heinz Zemanek (A) and the North Holland Publishing Co. In only eighteen months from the time of the **IFIP** 25th anniversary celebration in Munich in March 1985, a book capturing that event and containing a wealth of additional information about **IFIP** has been produced and is now available. That book is *A Quarter Century of* ***IFIP:*** *The* ***IFIP*** *Silver Summary,* edited by Prof. Zemanek, an Honorary Member and a past president of **IFIP.** The editor's preface describes the book as follows:

> What you have in your hands is more than the proceedings of the Symposium that was held to celebrate the 25th Anniversary of **IFIP—it** does include the papers read there, but it also includes papers invited and submitted for being printed only in this volume, and it includes information on **IFIP,** a summary of its people and bodies. Many dimensions of the Federation are touched, none is completely worked out. There is an amount of redundancy in the papers. Again—the editor could have aimed at some form of systematic completeness and compactness. He did not. It is left to the imagination of the reader to fill obvious holes and to develop the picture of **IFIP** that conforms to the alterations coming up every couple of years. And the redundancy reflects an unavoidable aspect of **IFIP** life.
>
> This book is neither a scientific proceedings volume nor a reading book nor an **IFIP** handbook—it is a combination of all, and it is left to the reader to pick what he looks for or what he likes when he opens the book. Here is a live abstract monument of **IFIP** and of the people who were involved in **IFIP.** It should be possible to enjoy this monument.

The book contains the tribute to the first six presidents of **IFIP** delivered at the 25th Anniversary Symposium by **IFIP** President Mr. Ashley Goldsworthy (AUS), papers on the history of **IFIP,** general papers on information processing, reminiscences of **IFIP** by a number of **IFIP** workers and discussions of **IFIP's** Technical Committees' work and origins, followed by obituaries of notable **IFIP** workers. In addition to the almost 500 pages in the main body of the text are an additional hundred pages with charts and lists giving names and data of **IFIP** membership, officers, committee officers, meeting venues, publications, and much more. Dozens of photographs, mostly of **IFIP** workers, are scattered throughout the text.

Readers of the ***IFIP*** *Newsletter* may order *A Quarter Century of* ***IFIP*** at a special 33% discount. The discount price of 100 Dutch guilders is available if one writes to the publisher and mentions the ***IFIP*** *Newsletter.* For prepaid orders, there is no charge for postage. The publisher's address is—

Elsevier Science Publishers
Attn: Book Order Department
P.O. Box 211
1000 AE Amsterdam,
THE NETHERLANDS

For orders from the United States and Canada, the price is $33.75 (US) plus postage and taxes. Write to—

Elsevier Science Publishing Co., Inc.
P.O. Box 1663
Grand Central Station
New York, N.Y. 10164-0028, USA ■

CONGRESS REGULARS HONORED

At the closing ceremony of **IFIP** Congress '86 (see the article on page 1), seven people who had attended all ten World Computer Congresses were presented gifts by **IFIP** president Dr. Kaoru Ando ***(J).*** They are—

Mr. Francois Genuys (F)
Prof. Calvin Gotlieb (CDN)
Mr. Herbert Grosch (USA)
Mr. Graham Morris (GB)
Dr. William 011e (GB)
Prof. Robert Piloty (D)
Prof. Dr. Heinz Zemanek (A) ■

NEW COMMITTEE ASSIGNMENTS

New committee assignments were announced by Mr. Ashley Goldsworthy (AUS), IFIP's new president, effective at the close of the General Assembly in September (see the article on page 1). In addition, the responsibilities of IFIP Council members were changed. The committee assignments are as follows:

Activity Development Board (ADB)
- G. GLASER (USA), chairman
- K. Ando (J)
- A.A. Dorodnicyn (SU)
- R. lau (SEARCC)
- G. Sacerdoti (I)
- A.A. Verrijn-Stuart (NL)
- L. Penedo (P), as Developing Countries Support Committee chairman
- H.W. Leroux (ZA), as Publications Committee chairman
- J.E.D. Navez (B), as Conference Officer
- H. Peterson (S), as IMIA representative
- TC chairmen
- Affiliate Member representatives

Admissions Committee
- P.-X. GUO (PRC), chairman
- R. Iau (SEARCC)
- N.J. Lehmann (DDR)
- A. Melbye (DK)

Congress Guidelines Committee
- J.H. FINCH (CDN), chairman
- D. Bjørner (DK)
- D. Dolan (IRL)
- G.J. Morris (GB)
- S. Smit (USA)

IFIP Committee for International Liaison (ICIL)
- R.I. TANAKA (USA), chairman
- J. Fourot (F), vice-chairman
- P.A. Bobillier (CH)
- J. Flint (CDN)
- R. Iau (SEARCC)
- L. Penedo (P)
- C.J. Potter (NZ)
- R.P. Uhlig (USA)
- TC chairmen

Finance Committee
- A.A. VERRIJN-STUART (NL), chairman
- O.M. Dalton (IRL)
- J. Fourot (F)
- H. Haglund (SF)
- J. Navez (B)
- L. Penedo (P)
- L. Uncovsky (CS)

Developing Countries Support Comm. (formerly ICID)
- L. PENEDO (P), chairman
- A. Alvarez-Rodriguez (E)
- A. Balasubrahmanian (IND)
- R. Cioglia (BR)
- R. lau (SEARCC)
- S.B. Jaiyesimi (WRN)
- H.W. Leroux (ZA)
- H. Monteverde (RA)
- C.J. Potter (NZ)
- E. Robertson (USA)

IFIP Unesco Liaison Committee
- J. FOUROT (F), chairman
- L. Penedo (P)
- BI. Sendov (BG)
- R.I. Tanaka (USA)

Internal Awards Committee
- J. FOUROT (F), chairman
- P.A. Bobillier (CH)
- R.I. Tanaka (USA)
- H. Zemanek (A)

Marketing Committee (formerly PIC)
- H.W. LEROUX (ZA), chairman
- A. Alvarez-Rodriguez (E)
- R. Cioglia (BR)
- R. Iau (SEARCC)
- S.B. Jaiyesimi (WRN)
- G. Karlmark (NL)
- G.J. Morris (GB)
- L. Penedo (P)
- C.J. Potter (NZ)
- J.L. Rosenfeld (USA)
- L. Uncovsky (CS)

Publications Committee
- H.W. LEROUX (ZA), chairman
- K. Duncan (USA), as Publications Officer
- J.E.D. Navez (B), as Conference Officer
- K. Bauknecht (CH)
- H. Haglund (SF)
- S.B. Jaiyesimi (WRN)
- H.-R. Schuchmann (D)
- L. Uncovsky (CS)
- H. Zemanek (A)
- representative of North-Holland
- representative of Springer-Verlag
- TC chairmen

Statutes and Bylaws Committee
- C.J. POTTER (NZ), chairman
- J.H. Finch (CDN)
- G.J. Morris (GB)
- R.I. Tanaka (USA)

Site Selection Committee
- J.H. FINCH (CDN), chairman
- W. Brauer (D)
- O.M. Dalton (IRL)

Nomination Committee for Officers
- A. MELBYE (DK), chairman
- H. Haglund (SF)
- P. Kovács **(H)**

Nomination Committee for Trustees
- O.M. DALTON (IRL), chairman
- A. Balasubrahmanian (IND)
- J. Raviv (IL)

Long Range Planning Committee (LRP)
- R.I. TANAKA (USA), chairman
- K. Ando (J)
- P.A. Bobillier (CH)
- J.H. Finch (CDN)
- G.J. Morris (GB)
- BI. Sendov (BG)
- H. Zemanek (A)
- G. Glaser (USA), as ADB chairman

IFIP Commission for the History of **IFIP** and Information Processing
- H. ZEMANEK (A), chairman

Congress Committee
- BI.SENDOV (BG), chairman
- D. Bjørner **(DK)**
- A. Rolstadas (N)
- A.A. Verrijn-Stuart (NL)
- S. Yau (USA)
- vice-presidents

Executive Board members will be responsible for the committees indicated here:

President (A. Goldsworthy)—Nominations for Officers, Nominations for Trustees, Congress Chairmen
VP for ADB (G. Glaser)—ADB, LRP
VP for Technology (BI. Sendov)—TCs, Affiliate Members, Specialist Group Committee, Unesco
VP for External Affairs (G.J. Morris)—Admissions, **ICIL,** Developing Countries Support, Publications, Marketing
VP for Internal Affairs (A. Melbye)—Statutes and Bylaws, Finance, Congress Guidelines, Internal Awards, IMIA
Secretary (J. Fourot)—Secretariat
Treasurer (O.M. Dalton)—finances, Site Selection

Trustees will have the following responsibilities as committee chairmen or Technical Committee Cognizant Officers:

A.A. Dorodnicyn—TC7
P.-X. Guo—Admissions
R. lau—TC9, TC II
P. Kovács—TC6, TC10
H.W. Leroux—Publications, Marketing
L. Penedo—Developing Countries Support, TC8
G. Sacerdoti—TC2, TC5
A.A. Verrijn-Stuart—Finance, TC3 ■

CRIS CONFERENCE PLANNED

Computerized Assistance during the Systems Life Cycle

IFIP's Working Group on Design and Evaluation of Information Systems (WG8.1) announces a conference on Computerized Assistance During the Systems Life Cycle, to be held 19-22 September 1988 in London. This conference will have three separate, but closely related, themes:

*Automatic aids for systems analysis **and** design—The* first theme concerns the phase in the systems life cycle concerned with business analysis and systems design.

Approaches to automated system generation—The second theme is intended to stimulate both research and industrial effort on the problem of cost-effective construction of an information system starting from a complete design.

Integrated and automated analysis, design, and construction—The third theme is the most challenging, because it integrates the analysis and design of the first theme with the automated construction of the second theme.

This conference is the latest in the series of conferences on the Comparative Review of Information Systems Design Methodologies (CRIS), which began in 1982.

The conference chairman is Alex Verrijn-Stuart (NL); Review Committee chairman is T. William 011e (GB); and the Organizing Committee chairman is Love Bhabuta (GB). For further information, contact-

BISL Conference Department (CRIS 88)
The British Computer Society
13 Mansfield St.
London W I M OBP
tel. +44 I 637 0471 ■

At its meeting in September (see the article on page 1), IFIP's General Assembly approved the following Working Groups (WGs) and committees. Their Scopes and Aims are given here.

WG5.9—Computers in Food Production and Agriculture

To promote and encourage the advancement and promote the application of computers in all areas of food production and agriculture and the related ecological and environmental aspects that impact upon all aspects of food production.

The scope of the work includes, but is not limited to the following items:

1) large systems modelling
2) computer control and monitoring of machines, processes and systems
9o* data bases and data banks
(*food and crop distribution
5) economic systems
6) plant and animal genetics
7) molecular modelling—particularly related to pesticides, pollution and fertilizers
8) pest and disease control
9) special purpose hardware and software
10) environmental control and irrigation systems
11) to incorporate such capability and expertise as available in developing nations
12) the transfer of the relevant technology to developing nations

Where relevant, the WG will maintain liaison with the other groups.

It will maintain liaison with other national and international organizations.

It will further its aim and scope by organizing workshops and working conferences in the field and by stimulating and sponsoring reich, investigations and studies.

WG6.6—Network Management for Communication Networks

SCOPE

Current communication networks consist of an array of office systems, computers and networks to interconnect the systems. Network management systems must interact with these different components. Agreement is needed on what information is required for network management and tools for network control. Some initial topics will include: status indicators, diagnostic information, performance data, statistics for accounting, directory services, and information for network reconfiguration. The scope of this WG will encompass network management for both public and private networks.

AIMS

The aim of WG6.6 will be to identify what information should be collected, what forms of controls are required and to obtain agreement on the formats of information to be exchanged. It is expected that this will lead to protocols and standards for network management. Work will be done in the context of layered protocols such as OSI. The results of the work will be made available to individuals and organizations concerned, such as users, manufacturers, common carriers, PTTs, and public standards forums.

WG7.4—Working Group on Discrete Optimization

The purpose of the WG is-

- to promote theoretical contributions on the fundamental issues of discrete mathematics, such as graph theory, finite algebras, polyhedral combinatorics, discrete probability, etc.
- to promote methodological contributions in specific fields of discrete optimization, like topological network design, network optimization problems, scheduling and routing, game theory, combinatorial problems on graphs, etc.
- to encourage the exchange of information and the cooperation between algorithm designers and computer scientists on the issues of problem solving and artificial intelligence
- to promote the definition of standards for combinatorial optimization algorithms software production
- to promote the definition of standards for combinatorial optimization software performance evaluation

WG7.5—Working Group on Reliability and Optimization of Structural Systems

The purpose of the WG is-

- to promote modern structural system optimization and reliability theory
- to advance international cooperation in the field of structural optimization and reliability theory
- to stimulate research, development and application of structural system optimization and reliability theory
- to further the dissemination and exchange of information on reliability and optimization of structural system optimization and reliability theory
- to encourage education in structural system optimization and reliability theory

WG8.4—Office Information Systems

SCOPE

The scope of the WG encompasses the study and development of information systems for office work. Such systems are concerned with the support of, and communication in connection with, human activities in an organization. They are characterized by, among other things, variety, informality and irregularity, but often interact strongly with the more orderly, formal and predictable computer-based information systems used in that organization.

AIMS

a) to develop concepts and formalisms applicable to the office system
b) to further design methodology in the field of office systems, covering the entire range from preliminary study to implementation and system evolution, and to consider approaches to planning strategy
c) to contribute to the building of automated tools and the adoption of standards of value in the office environment
d) to study methods for evaluating design products and working systems, including the interaction with traditional data processing systems
e) to exchange experience and disseminate research findings

Marketing Committee (replaces PIC)

AIMS AND OBJECTIVES

The overall objective of the Marketing Committee is to maintain, develop and implement ways and means of promoting IFIP and furthering the Aims and Objectives of IFIP.

More specifically, this Committee has the following Aims and Objectives:

1) to develop and institute additional and new initiatives for the implementation of marketing support mechanisms as formerly performed by the Public Information Committee
2) to develop and implement an on-going marketing plan, including—
   a. review of current definition of IFIP target markets
   b. review of ways and means of marketing existing and proposed IFIP products and capabilities
3) to review dissemination of information mechanisms in IFIP Member societies
4) to develop new dissemination mechanisms via Affiliates and other appropriate organizations

IFIP History Commission

The IFIP History Commission shall collect information and material on-

1) the history of IFIP
2) the history of its constituents
3) the people active in IFIP and its bodies
4) the history of computers and computing, of programming and computer applications
5) the history of automata and pre-computer calculating devices

The bigger part may be meta-information: WHERE CAN ONE FIND WHAT? Essentially, the work shall be done by correspondence. Conferences will be organized.

*by Prof. Gerrit Wiechers (ZA) **

IFIP's Technical Committee on Education (TC3) held its 35th meeting 26-28 May in Ghent, Belgium. Two major events were discussed—the *World Conference on Computers in Education (WCCE '90),* to be held in Sydney, Australia in August 1990, and the *European Conference on Computers in Education (ECCE '88),* to be held in Lausanne 23-31 July 1988—as well as a number of working conferences.

In 1988, TC3 will be 25 years old. To celebrate the occasion, the following will be organised:

• An anthology of important papers from conference proceedings will be compiled. Prof. Robert Lewis (GB) and Dr. Donovan Tagg (GB) were appointed to be the editors.

• A special session as part of ECCE '88 will be organised to reflect on historical developments in the area of interest to TC3.

A dilemma facing TC3 was discussed: At any time, there are a number of "hot" topics for which a Working Conference (WC) may be organised. The outcome of such a WC is often that a Working Group (WG) is established (if one does not already exist), composed of some of the participants of the WC. If this is done, one usually finds that the interest in the topic is waning after a few years, and the formal structure of the WG that now exists finds itself flogging a dead horse. It would perhaps be more effective not to have permanent WGs but to charge motivated members of TC3 with the organisation of one WC at a time on a specific topic.

[Prof. Dr. Wilfried Brauer (D), TC3 chairman, added the following notes.]

At TC3's meeting in Ghent, Mr. Brunswic from the United Nations Economic, Scientific and Cultural Organization (Unesco) gave a detailed account of Unesco's activities relevant to TC3 and expressed Unesco's interest in cooperating closely with TC3.

For the first time, TC3 will hold its annual meeting in a developing country: 12-13 March 1987 in Bombay. It will be held in conjunction with the WCCE '90 Program Committee and a workshop on national informatics education policies and practices. ■

* TC3 secretary

CALLS FOR PAPERS

WG6.1 Symp. on Protocal Specification, Testing and Verification
5-8 May 87, Zurich
papers due: 1 Feb 87
contact: IFIP Protocol Symposium
IBM Zurich Research Lab
8803 Rüschlikon , Switzerland

TC7 Working Conf. on Reliability and Optimization of Structural Systems
6-8 May 87, Aalborg, Denmark
abstracts due: 1 Jan 87
contact: Prof. P. Thoft-Christensen
Inst. of Building Technology and Structural Eng.
Univ. of Aalborg
Sohngaardsholmsvej 57
DK-9000 Aalborg, Denmark

First TC6 Iberian Conf. on Data Communications—IBERICOM
19-21 May 87, Lisbon
papers due: 15 Dec 86
contact: IBERICOM-87 Secretariat
Jose Queiroz
TAP Air Portugal - Edificio 19
Apartado 5194
1704 Lisboa CODEX, Portugal
tel. 351 (1) 806047
telex AEROTAP 12231 LIS P

TC9 Working Conf. on Social Implications of Home Interactive Telematics (HIT)
24-27 Jun 87, Amsterdam
contact: Felix van Rijn
Ruysdaelkade t.o. 225
1072 BA Amsterdam, The Netherlands
tel. +31 (20) 620681

IFIP Conf. on System Modelling and Optimization
31 Aug-4 Sep 87, Tokyo
abstracts due: 31 Dec 86
contact: Dr. K. Yajima
Inst. of JUSE
5-10-11 Sendagaya, Shibuya-ku
Tokyo, Japan 151
telex: 232-5286 jusehn

WG5.3 Working Conf. on Diagnostic and Preventive Maintenance Strategies in Manufacturing Systems
1-4 Sep 87, Dubrovnik
papers due: 31 Jan 87
contact: Mr. Vidosav Majstorovic
Mechanical Engineering Faculty
27 mart 80
11000 Belgrade, Yugoslavia
tel. (011) 322-125 or (011) 328-651, ext 210
telex 11276 or 12090.

TC8 Conf. on Governmental and Municipal Information Systems
8-11 Sep 87, Budapest
papers due: 31 Dec 86
contact: Conference Secretariat
c/o John V. Neumann Society
P.O.B. 241
H-1360 Budapest 5, Hungary
tel. 36 (1) 329-390
telex 225369

Symposium on **Microprocessing and Microprogramming—EUROMICRO 87**
14-17 Sep 87, Portsmouth, U.K.
papers due: 15 Jan 87
contact: Harald Schumny
PTB Lab 7.14
Bundesallee 100
3300 Braunschweig, W. Germany
tel. (49) (531) 592 7410
telex 952822 ptb d

WG 10.3 Conf. on Distributed Processing
5-7 Oct 87, Amsterdam
papers due: 13 Apr 87
contact: Prof. E.L. Dagless
Electrical and Electronic Eng.
The University
Bristol BS8 1TR, U.K.
tel. 44 (272) 303260
telex 444174 buphys g

WG5.3 Working Conf. on Software **for Factory Automation**
19-21 Oct 87, Tokyo
papers due: 31 Jan 87
contact: Mrs. Michiko Takata
c/o Prof. Fumihiko Kimura
Dept. of Precision Machinery Eng'g.
Faculty of Eng'g., Univ. of Tokyo
7-3-1 Hongo, Bunkyo-ku
Tokyo 113, Japan
tel. Tokyo 03-812-2111, ext. 6455
telex 272-2111 FEUT J

TC9 Working Conf. on the Social Implications of Robotics **and Industrial Automation**
14-17 Dec 87, Eilat, Israel
abstracts due: 30 Apr 87
contact: Conf. on the Social Implications of Robotics
P.O. Box 29313
61292 Tel Aviv, Israel
tel. 03 654541

ANNOUNCEMENT

Symposium: **Towards Fifth Generation Computer System**
25-27 Feb 87, Madras, India
(preceded by educational pgm. on expert systems)
contact: T.V. Natarajan
1 First Cross St.
Ramakrishna Nagar
Madras 600 028, South India
tel. 416 333 telex: 033554 ■

CHANGES IN IFIP

NEW MEMBERS

Fiji Computer Society (Full Member)
P.O. Box 4027
Samabula, Suva, Fiji

(Affiliate Member)
Very Large Data Base (VLDB) Endowment
c/o Prof. Alfonso Cardenas
Dept. of Computer Science
3731 Boelter Hall
Univ. of California
Los Angeles, CA 90024 U.S.A.

NEW APPOINTMENTS

GA MEMBERS

Dipl.-Ing. P. Knezu
c/o Austrian Computer Society
Wollzeile 1-3
A-1010 Vienna, Austria
(succeeding **0.** Zich)

Mr. R.J Cioglia
c/o SUCESU-NACIONAL
Av. W-3 Norte, Quadra 504
Ed. Mariana, Sala 205
70730 Brasilia, D.F., Brazil

TC AND WG OFFICERS

TC9 Vice-Chairman
Dr. Dan Milian (IL)

TC I 0 Chairman
Prof. G.L. Reijns
Technische Hogeschool
P.O. Box 5031

2600 GA Delft, The Netherlands
tel. 31 (15) 786250
(succeeding D. Aspinall)

WG5.9 Chairman
Dr. E.A. Warman
52 Vere Rd.
Peterborough PEI 3EA, U.K.

WC7.5 Chairman
Prof. P. Thoft-Christensen
Aalborg Univ. Centre
Inst. of Bldg. Technology and Structural Eng.
P.O. Box 159
DK-9100 Aalborg, Denmark

WG8.3 Secretary
Dr. Anna Vari
Bureau for Systems Analysis
P.O.Box 565
11-1374 Budapest, Hungary
(succeeding J. Hawgood)

WG9.1 Chairman
Prof. Klaus Fuchs-Kittowski (DDR)
(succeeding U. Briefs)

WG10.3 Chairman
Prof. E.L. Dagless
Electrical and Electronic Eng.
The University
Bristol BS8 1TR, U.K.
tel. 44 (272) 303260
(succeeding G.L. Reijns)

"`G11.3 Chairman
.r. C.E. Landwehr
¦923 Kenbar Ct.
McLean, VA 22101, U.S.A.

TC AND WG MEMBERS

TC3	S.B. Jaiyesimi (WRN)
TC6	S.B. Jaiyesimi (WRN) D. Basu (IND) (succeeding P. Jayant)
TC7	M. Reis (P)
TC9	F. Saez-Vacas (E) R.A. Clarke (succeeding A. Goldsworthy)
1C10	C. Delgado-Kloos (E) (succeeding E. Valderrama)
UCH	T. Kurokawa (J) (succeeding H. Miyagawa)

ADDRESS (and other) CHANGES

CLEI (Full Member)
Dr. J. L. Vidart
ESLAI
Casilla de Correo 3193
J00) Correo Central
Buenos Aires, Argentina

Nigeria (Full Member)
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5 Akinhanmi Street
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FUTURE IFIP MEETINGS

TECHNICAL COMMITTEE AND WORKING GROUP MEETINGS*

TC2	6-7 Apr 87	St. Pierre de Chartreuse (near Grenoble)
WG2.1	May 87	Montreal
WG2.7	27 Mar-3 Apr 87	St. Pierre de Chartreuse (near Grenoble)
TC3	12-13 Mar 87 21-23 Jul 88	Bombay Lausanne
WG3.5	Jul 87	Gent, Belgium
TC5	3 Apr 87	Beijing
WG5.2	Feb 87	Australia
TC6	22-23 May 87	Lisbon
WG6.4	26-28 Nov 86	Toulouse
TC9	28-29 Jun 87	Amsterdam
TC 11	30 Nov 86	Monte Carlo

* 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
Council	1st week Mar 88	New Zealand (tentative)
GA	1st week Sep 88	New Delhi
GA	last week Aug 89	San Francisco

NEW IFIP PUBLICATIONS *

CONFERENCE PROCEEDINGS

Automation for Safety in Shipping and Offshore Petroleum Operations
Procs. of the IFIP/IFAC Symposium
Trondheim, Norway, Jun 85
C. Kuo, A.J. Thunem, N.P. Sundby, Eds.

Office Systems
Procs. of the IFIP TC8 Working Conf.
Helsinki, Sep/Oct 85
A.A. Verrijn-Stuart, R.A. Hirschheim, Eds.

Wafer Scale Integration
Procs. of the IFIP WG10.5 Workshop
Grenoble, Mar 86
G. Saucier, J. Trilhe, Eds.

Highly Parallel Computers
Procs. of the IFIP WG10.3 Working Conf. on Highly Parallel Computers for Numerical and Signal Processing
Sophia Antipolis, France, Mar 86
G.L. Reijns, M.H. Barton, Eds.

Protocol Specification, Testing and Verification, VI
Procs. of he IFIP WG6.1 Sixth International Workshop
Montreal, Jun 86
B. Sarikaya, G. Bochmann, Eds.

Local Communication Systems: LAN and PBX
Procs. of the IFIP TC6/WG6.4 In-Depth Symposium
Toulouse, Nov 86
J.P. Cabanel, G. Pujolle, A. Danthine, Eds.

LECTURE NOTES

Lecture Notes in Computer Science, vol. 234 t
Concepts in User Interfaces. A Reference Model for Command and Response Languages
by members of IFIP WG2.7, D. Beech, Ed.

Lecture Notes in Control and Information Sciences, vol. 84 t
System Modelling and Optimization
Procs. of the 12th IFIP Conf.
Budapest, 2-6 Sep 85
A. Prekopa, B. Strazicky, J. Szelersan, Eds.

Lecture Notes in Control and Information Sciences, vol 87 t
Recent Advances in System Modelling and Optimization
Procs. of the IFIP WG7.1 Working Conf.
Santiago, 27-31 Aug 84
L. Contesse, R. Correa, A. Weintraub, Eds.

JOURNALS

Computers in Industry, The International Journal of IFIP TC5
six issues per year

Computers and Security, The International Journal of IFIP TC 11
four issues per year ■

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National Abbreviations Used in Newsletter

A Austria	F France	P Portugal
AUS Australia	GB United Kingdom	PRC China
B Belgium	H Hungary	RA Argentina
BG Bulgaria	Italy	S Sweden
BR Brazil	IL Israel	SEARCC South East Asia Regional Computer Confederation
CDN Canada	IND India	SF Finland
CH Switzerland	IRL Ireland	SU U.S.S.R.
CS Czechoslovakia	Japan	USA U.S.A.
D Fed. Rep. of Germany	N Norway	WRN Nigeria
DDR German Demo. Rep.	NL The Netherlands	ZA South Africa
DK Denmark	NZ New Zealand	
E Spain		

CALENDAR OF EVENTS

Event	Date	Location	Organized by
Fourth Intl. Conf. on *Security of Information Systems-IFIP/Sec'86*	2-4 Dec 86	Monte Carlo	TC11/AFCET
Intl. Symp. on *Theory of Robots*	3-5 Dec 86	Vienna	IFAC/WG5.3/IMACS
Workshop on *Local Area Networks*	Dec 86 ?	Goa, India	CSI/TC6
Work. Conf. on *Computers and Professional Continuing Education*	86 ?		TC3/WG3.2
Work. Conf. on *The Role of Information Systems and of Health Informatics in the Reconstruction of Health Care Systems*	86 ?	Brindisi, Italy	IMIA
Workshop on *High Speed Local Area Networks*	16-17 Feb 87	Aachen, F.R.G.	TC6/WG6.4/TUA
Work. Conf. on *Application of Expert Systems in Computer-Aided Design*	17-20 Feb 87	Sydney, Australia	TC5/WG5.2
Workshop on *Concepts and Characteristics of Knowledge-Based Environments*	Feb 87		TC10/WG10.1
Workshop on *National Informatics Education Policies and Practice*	12-13 Mar 87	Bombay	TC3/IIT
Workshop on *Fast Prototyping*	17-19 Mar 87	Grenoble	TC10/WG10.5/ IPG/AFCET
Workshop on *High Speed Circuits*	Mar 87 ?	Munich	TC10/WG10.5
Seminar on *Introducing Computer-Aided Techniques in Manufac., Eng., and Mgmt.*	1-3 Apr 87	Beijing	TC5
Work. Conf. on *Fourth Gen. Programmg. Systs. in the Med. and Public Health Field*	1-6 Apr 87	Amsterdam	IMIA
Work. Conf. on *A Computer for Each Student and Its Impact on Teaching and Curriculum in the University*	21-23 Apr 87	Delft	TC3/WG3.2
Intl. Symp. on *Information Systems*	22-24 Apr 8	Johannesburg	TC8/CSSA
Eighth Intl. Symp. on *Computer Hardware Description Languages and Their Applications-CHDL 87*	27-29 Apr 87	Amsterdam	TC10/WG10.2
Work. Conf. on *Message Handling Systems: State of the Art and Future Directions*	27-29 Apr 87	Munich	TC6/WG6.5/GI
Seventh Symp. on *Protocol Specification, Verification, and Testing*	5-8 May 87	Zurich	TC6/WG6.1
Work. Conf. on *Reliability and Optimization of Structural Systems*	6-8 May 87	Aalborg, Denmark	TC7
Work. Conf. on *Temporal Aspects of Information Systems-TAIS 87*	13-15 May 87	Sophia-Antip., France	TC8/WG8.1
Work. Conf. on *Informatics and the Teaching of Mathematics*	16-18 May 87	Sofia, Bulgaria	TC3/WG3.1
Intl. Symp. on *Computer Arithmetic-ARITH'87*	18-21 May 87	Como, Italy	TC2/WG2.5/IEEE
First Iberian Conf. on *Data Communications-IBERICOM 87*	19-21 May 87	Lisbon	API/FESI/TC6
Intl. Conf. on *Children in the Information Age*	19-23 May 87	Sofia, Bulgaria	Unesco/IIASA/ L.J.F./TC3
Work. Conf. on *Progress in Biological Function Analysis*	19-23 May 87	Berlin, G.D.R.	IMIA
Work. Conf. on *Security Management*	20-23 May 87	Canada	TC11/WG11.2/CIPS
Work. Conf. on *Artificial Intelligence Tools in Education 1987*	26-28 May 87	Frascati, Italy	TC3/WG3.3
Work. Conf. on *Recent Advances in Communication and Control Theory*	23-26 Jun 87	Washington, DC	TC7
Work. Conf. on *Social Implications of Home Interactive Telematics (HIT)*	24-27 Jun 87	Amsterdam	TC9/NGI
Work. Conf. on *Info. Systems Development for Human Progress in Organizations*	Jun 87	Atlanta, GA, U.S.A.	TC8/WG8.2
Work. Conf. on *Optimal Control of Systems Governed by Partial Differential Eqns.*	6-7 Jul 87	Santiago d.C., Spain	TC7/WG7.2/CAYCIT
Work. Conf. on *Teacher Training Evaluation and Research: the Young Child. the Teacher and the Computer*	6-9 Jul 87	Gent, Belgium	TC3/WG3.5
Workshop on *Architecture for Knowledge Engineering*	Jul 87 ?		TC10/WG10.5
Third Intl. Conf. on *Advances in Production Management Systems-APMS* '87	11-14 Aug 87	Winnipeg, Canada	TC5/WG5.7
Thirteenth IFIP Conf. on *System Modelling and Optimization*	31 Aug-4 Sep 87	Tokyo	TC7/IFORS
Intl. Workshop on *Hardware Design Verification*	Aug 87	Edinburgh	TC10/WG10.2
Intl. Conf. on *Very Large Scale Integration-VLSI 87*	Aug 87 ?	Calgary, Canada	TC10/WG10.5
Work. Conf. on *Opportunities and Risks of Artificial Intelligence Systems*	Aug 87	Hamburg	TC9/GIS
Second Intl. Conf. on *Human-Computer Interaction-INTERACT 87*	1-4 Sep 87	Stuttgart	IFIP/INTACT
Work. Conf. on *Diagnostic and Preventive Maint. Strategies in Manufac. Systs.*	1-4 Sep 87	Dubrovnik	TC5/WG5.3
Seminar *AFRICOM'87*	8-10 Sep 87	Harare, Zimbabwe	TC6/ARCC
Work. Conf. on *Governmental and Municipal Information Systems*	8-11 Sep 87	Budapest	TC8
Work. Conf. on *Computer System Design Methodologies*	Sep 87		TC10/WG10.1
Intl. Workshop on *Techniques and Algorithmic Complexity of Simulation*	Sep 87	Torino, Italy	TC10/WG10.2
Intl. Workshop on *Tool Integration and Design Environments*	Sep 87	Paderborn, F.R.G	TC10/WG10.2
Work. Conf. on *Distributed Processing*	5-7 Oct 87	Amsterdam	WG10.3
Work. Conf. on *Software for Factory Automation*	19-21 Oct 87	Tokyo	TC5/WG5.3/IFORS
Work. Conf. on *Computers and the Law for Policy Makers*	21-23 Oct 87	Santa Monica, CA, USA	TC9
Work. Conf. on *Vocational Training for Informatics*	Oct 87 ?		TC3/WG3.4
Workshop on *Process and Design for 3D Chips*	Nov 87		TC10/WG10.5
Work. Conf. on *Social Implications of Robotics and Industrial Automation*	14-17 Dec 87	Eilat, Israel	TC9
Work. Conf. on *Computers as Tools for the Teacher- New Dimensions for the Teaching Profession*	87		TC3/WG3.3
Workshop on *Human Factors in CAD*	87 ?	The Netherlands	TC5/WG5.2
Work. Conf. on *Large Scale Computation in Science and Engineering*	87 ?	Dublin	TC7
Work. Conf. on *Impact of Information Systems in Developing Societies*	Jan 88	Ahmedabad, New Delhi	TC9/TC8
Textbook Conf.	Jan 88	Namur, Belgium	TC9/WG9.2
Workshop on *Concepts and Characteristics of Declarative-Based Environments*	Feb 88		TC10/WG10.1
Intl. Symp. on *Info. Systems as a Resource to Support Managerial Decision Making*	29 Feb-2 Mar 88	Sydney, Australia	TC8/WG8.3/ACS
Work. Conf. on *Computational Issues in Combinational Optimization*	Mar 88	Capri	TC7
Work. Conf. on *Artificial Intelligence. Data Bases and Information Systems*	4-8 Apr 88	Guangzhou, China	TC2 & 8/WG2.6 & 8.1
Work. Conf. on *Parallel Computing: Algorithms. Languages and Architectures*	Apr 88	Pisa	TC10/WG10.3

IFIP 89 - I I th World Computer Congress	28 Aug-I Sep 89	San Francisco	IFIP

Please see page I I for schedule of IFIP administrative meetings.