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International Federation for Information Processing

Editor:
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PLANS ANNOUNCED FOR IFIP CONGRESS '92

Prof. *Wilfried Brauer (D),* chairman of the International Program Committee (IPC) of **IFIP** Congress '92, presented plans for the Congress program to the **IFIP** General Assembly (GA) in Buenos Aires in September 1990. The 12th World Computer Congress, which will be held at the School of Medicine of the University of Madrid 7-11 September 1992, will have three major components: parallel streams, sub-conferences, and workshops. Five parallel streams will extend for the full five days of the Congress; two sub-conferences, each lasting for half the week, will take place; and five workshops will be held, at various times during the week.

The parallel streams (and their chairmen) are as follows:

Software Maintenance and Construction (Prof. A. N. Haberman [USA])

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IFIP MEETS IN BUENOS AIRES

Good News on Several Fronts

IFIP General Assembly deliberates in ornate Naval Center in Buenos Aires.

The IFIP General Assembly (GA) met in Buenos Aires 5-7 September, preceded by meetings of other **IFIP** bodies. Among the more significant matters considered were the improved state of **IFIP** finances, expanding technical activities, major **IFIP** conferences, a new publications contract, Technical Committee (TC) funds, and the election of officers.

The GA was called to order by **IFIP** president *Acad.* Blagovest *Sendov* (BG) and greeted by *Mr. Alejandro* Oliveros, president of SADIO, the host society. Mr. Oliverios noted that small information processing societies want to be part of the international informatics community and that it is important that **IFIP** understand the needs of developing countries.

IFIP's financial situation looks quite satisfactory at this time. The final, audited figures for 1989 are better than the preliminary figures announced at the Jerusalem Council. The net "operating result" for 1989 was a gain of 151 K SFr. (All numbers reported here are in thousands of Swiss francs.) After 53 K SFr. were set aside for TC funds (described in an article on page 2), the final result was a gain of 98 K SFr. The excellent results for 1989 were due in part to a major effort to reduce expenses and increase surpluses from **IFIP** events. Three events were primarily responsible

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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; and changes of address. The Secretariat is the clearinghouse for all such information; it will forward it to the *Newsletter.*

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Technical Committees Will Have Greater Control

Procedures concerning Technical Committee (TC) funds were modified by the 1990 **IFIP** General Assembly (GA) in Buenos Aires to give TCs more control over the money they "earn." This was done at the urging of the TCs, in the hope that the revised rules will give them the flexibility to use their funds as they see fit, while encouraging them to run events with fiscal responsibility.

The concept of TC funds was introduced at the 1989 Council meeting in Geneva, where a formula was devised by which some fraction of a TC's positive net financial contribution to **IFIP (PNFC** = royalties + event surpluses — operating expenses — grants dispersed and loans converted) would remain under that TC's control (see the article on page 9 of the June 1989 ***IFIP Newsletter).***

The Motivation

The aim of the initial plan was as follows:

> Some **IFIP** Technical Committees are generating significant PNFCs from their activities. At present [1989], these are turned over to **IFIP** in their entirety. Basically, these funds are used to cross-subsidize key activities of other TCs and **IFIP** bodies which are sponsoring worthwhile activities but which cannot fund those activities without financial assistance from **IFIP. In** the same way, TCs that are financially successful in their activities should be able to retain control of some of their PNFCs to cross-subsidize some of their own activities.

The principle of TC funds generally met with approval, but the details of implementation had not been viewed favorably by everyone. The Activity Management Board (AMB), meeting in September in conjunction with the GA in Buenos Aires, revised the procedures, on the basis of suggestions from the TCs. There are three major aspects to the implementation of the TC funds. The first, which is not discussed in this article, concerns the schedule for calculating the funds and maintaining the accounts; the second has to do with how the funds are calculated; and the third concerns how the funds may be used.

The new formula suggested by the AMB is as follows. For each open conference held by a TC, an agreed share of the registration and exhibition income is budgeted to be transferred as "guaranteed" proceeds to the IFIP general fund. Should the actual surplus to IFIP be larger than the guaranteed amount, 75% of any additional surplus is designated for the TC fund, and the remaining 25% goes to the general fund. Any loss is subtracted from the TC fund (until the balance becomes 0). (Royalties on proceedings of conferences run by the TCs will continue to go into the **IFIP** general fund.) The amounts in the funds may be carried over from year to year, and negative balances will not be considered.

Although the initial reactions of some TC chairmen to this proposal was that it would force them to raise registration fees, this is not the case. The TC fund mechanism is not intended as a means of transforming **IFIP** into a money-making business. It is anticipated that the net revenues will be relatively unchanged. The income from all sources and the expenses should be unaffected. It is true, however, that the TC funds offer TCs that want greater financial autonomy (to experiment, run events that are likely to lose money, and hold events in developing countries) the incentive to increase income from events and reduce expenses.

Separate Bank Accounts Not Permitted

It should be noted that TC funds are accounting mechanisms and do not represent separate bank accounts maintained by the TCs. In fact, it was stressed in the GA that no **IFIP** entity (TC, Working Group, committee, etc.) may maintain its own bank account.

The money in the TC funds may be spent in any commonly acceptable way by the TCs and will be disbursed by the **IFIP** treasurer as usual. Those TCs that have funds with positive balances will be expected to use those funds to support their events, rather than requesting grants or loans from **IFIP;** other TCs may have funds with zero balances and may be subsidized by **IFIP** in the traditional manner. The TC budgets will be little changed, except that some of the budgeted expenditures will be debited from the TC funds and others will not be.

IFIP'S STRUCTURE DISCUSSED ONCE MORE

As part of a continuing re-evaluation of **IFIP,** the Technical Assembly (TA), at its meeting in Buenos Aires in September 1990 prior to the General Assembly, discussed a radical proposal by *Prof. Dines Bjørner (DK). Prof. Bjørner,* who was chairman of the International Program Committee for **IFIP** Congress '86 and has participated in many **IFIP** activities over the years, wrote a letter to **IFIP's** president, *Acad. Blagovest* Sendov (BG) in February 1990. It was discussed by the Executive Board at the **IFIP** Council meeting in Jerusalem in March and subsequently circulated to the TA before its September meeting. The letter discussed the reasons for **IFIPs** existence, a "crisis" in **IFIP** perceived by the author, and his proposal for a restructured **IFIP** that he believes would solve the problems. Following is a very brief summary of his points.

Prof. Bjørner stated that **IFIP** should exist for these four reasons: performing research and development in informatics, focusing on professionalism in informatics, promoting activity in informatics, and encouraging international cooperation in the field. He said that although **IFIP** has been successful, it can be, "...even more successful in all of these areas. I believe **IFIP** needs a major restructuring. Time has come to revamp **IFIP.** As 'Perestroika' is needed in the east, so I believe it is needed in **IFIP.**"

He pointed out that **IFIP** is both a federation of national societies and an organization with individual members of Working Groups (WGs). He contended that this arrangement is less than satisfactory. He suggested, "I believe that **IFIP** can and should develop into both a federation — of four active, highly profiled sub-IFIPs — and within each of these, full-fledged membership societies — with their inherent set of bulletins, communications, journals, and notices." He expressed the belief that a restructured **IFIP** could publish inexpensive journals and be above national concerns.

Prof. Bjørner pointed out that GA representatives come from a variety of backgrounds, from academics to managers of non-computer activities, which leads to "contradictions" and a body that is not entirely "...interested in the professionalism of the field."

Furthermore, he complained that **IFIP** does not need to generate as much money as it now does, that non-technologists are deciding how the income from the publications created by the technologists is spent, that Congresses are too expensive to attract academic people, "...especially for Currency Constrained Country People (C C CP) ," and that **IFIP** proceedings are too expensive. He asserted that Congress attendance should be larger and that WGs "are orthogonal to the interests of a number of working groups, special interest groups, etc. of other national and international societies." With respect to WGs, he complained of their uneven quality and quantity, their overlap and "competition," and their inconsistent coverage of the field of informatics. He especially lamented low participation in IFIP activities by the "Eastern European countries."

Four Societies Proposed

Prof. Bjørner suggested that **IFIP** "...be decomposed into a Federation and 4 International Societies:

The Computation Sciences
Information Technology
Informatics Applications
Informatics Education and Training"

Each Society was described in detail.

The organization he proposed would provide each of the four Societies a Board of Governors with the authority to form TCs and WGs. The new **IFIP** Federation would "manage" the Societies and "liaise" with other Federations and manage the publication activities.

After a lengthy discussion, the TA noted several areas calling for improvement. For example, **IFIP's** present structure does not permit the formation of WGs shared by TCs, or WGs common to **IFIP** and other Federations (e.g., Affiliate Members). Also, the current rules for TC membership are not satisfactory to several TC chairmen. **IFIP** Congresses are perpetually found less than perfect (and are continually addressed in **IFIP).** TCs want more autonomy and control of their finances. All these areas will continue to be studied by task groups appointed by the TA chairman, *Prof. Asbjørn Rolstadås (N),* or by existing committees.

On the other hand, the TA felt that no crisis exists, that the diverse membership of the GA is useful, that overlap of WG activity is healthy, that the national membership of the GA and individual memberships of the WGs was not a problem, and that a major restructuring of **IFIP** is not desirable at this time. ■

FRACTAL 90

*by Mr. Luis Filipe Penedo (P) **

FRACTAL 90 took place in Lisbon from the 6th to the 8th of June 1990. Organization was handled by **API,** the Portuguese **IFIP** Member. This was an introductory activity for IFIP in this field and was certainly justified by the relationship of fractals to the information processing area.

The response to the Program Committee invitations was very good, and the final program included many of the well-know international specialists in the field. Among them was *Dr. Benoit Mandelbrot (USA),* Honorary Chairman, considered to be the Father of Fractals. *Prof. Heinz-Otto Peitgen (D)* was chairman of the Program Committee.

Registrations were more than one hundred, which was lower than the number expected. This may have been due to the location of the Conference, the fee (considered to be very high), or late dissemination of information. However, more than 15 countries were present, indicating the worldwide interest of this Conference.

The selected papers were considered to be, in general, of very high quality. From this point of view, FRACTAL 90 was a success. The proceedings will be published by Elsevier/North-Holland in 1991.

The impact of the Conference on the Portuguese press was very good, and **IFIP's** name was seen in many newspapers and magazines. At the international level, FRACTAL 90 was referred to in many international publications.

After evaluation of the situation, it was decided to proceed with this activity with a new group of people, who were prepared for it, and to broaden the international composition of the **IFIP** Task Group on Fractals. *Prof. Marques Henriques (P),* chairman of the Task Group, and *Mr. Luis F.* Penedo (P) will now pass the available information to this committee. A new plan is being formed for a conference in '92 or '93, probably in Eastern Europe.

Anybody in **IFIP** who is interested in being a part of the Task Group or participating in the next conference is invited to send his or her address to the **IFIP** Secretariat, which will send information about the progress of this work at some later time. ■

* representative of Portugal to the **IFIP** General Assembly, and chairman of the Organizing Committee for FRACTAL 90

Three Perspectives

THE OVERVIEW

*by Howard Funk (USA) **

Question: What was WCCE'90? Answer: The Fifth World Conference on Computers in Education, the most successful conference on computers in education yet. Some 2334 people from 58 countries attended WCCE'90, organized by IFIP's Technical Committee on Education (TC3) 9-13 July 1990 in Sydney. The largest delegations came from

Australia	1641
U.S.A.	215
Japan	49
The Netherlands	43
New Zealand	43

The Governor General of Australia opened the Conference and was followed by the personal computer visionary, *Alan Kay (USA),* who was the keynote speaker. IFIP was represented at the opening session by its past-president, *Mr. Ashley Goldsworthy (AUS).* Other speakers at the opening session were the WCCE'90 International Program Committee (IPC) chairman, *Ms. Sandra Wills (AUS),* Organizing Committee chairman, Mr. *John Hughes [Mrs. Toni Downes (AUS)* was vice-chairman. — Ed.], a representative of UNESCO, and *Mr. Howard Funk,* president of the American Federation of Information Processing Societies (AFIPS), who noted that AFIPS had sponsored 40 travel grants for U.S. educators.

Out of 600 proposals for papers, panels, and workshops, 370 from 38 countries were selected by the IPC; also, 17 speakers and 11 keynote speakers were invited.

During the five days of the Conference, there were 6 parallel tracks, 4 mini-conferences, evening panels, and ad hoc special-interest ("birds of a feather") meetings, called Galah Sessions. The galah is an Australian bird that gathers in large noisy flocks at dusk and dawn. In addition to the technical sessions, there was a trade show, with about 100 exhibitors. The exhibit area was crowded throughout the Conference.

The six Conference tracks covered elementary, secondary, university, and vocational education and training, research on educational applications, and other topics that were wider in scope. This last group was called the Rainbow Stream, because of the wide spectrum of topics covered.

IFIP's WCCE'90 was indeed a great event, not only because of the record number of participants, but because of the very interesting and stimulating programme, the excellent organisation, and the ideal place.

The new convention centre provided space enough for sometimes 11 events in parallel, exhibitions, "Kids and Classrooms" sessions, where youngsters worked hard and concentratedly on a variety of computer applications during real lessons (observed by many WCCE participants), and Galah Sessions, the special interest meetings which participants could convene by having them announced in the *Cooee,* the daily newspaper of WCCE'90, which was produced by seven students.

Keynote Address

In his opening keynote speech, *Alan Kay (USA)* "the father of the PC," gave his view on how to use computers. He considers a computer not simply as a tool, i.e., a specific function plus a user interface, but as a medium for extension of intellectual capabilities similar to the piano as a medium for extending the human's music-making ability. Just as nobody would assume that teaching music means putting a piano into the classroom, neither should we assume that putting a computer in the classroom means teaching informatics. He stressed that his ideas on how to build a computer were strongly influenced by the way children work with computers; his conceptions about this were greatly stimulated by *Seymour Papert (USA),* the father of LOGO, who gave the final closing keynote speech on "The Perestroika of Epistemological Politics." His message was that, analogous to the political perestroika, which crumbled structures that seemed immutable, an epistemological perestroika is needed to restructure our way of thinking about school and about the nature of knowledge.

As is usual for WCCEs, most of the streams and mini-conferences were run by TC3's six working groups. Additionally, as a special feature of WCCE'90, we had a mini-conference on "Computer-Based Training" organized by the Australian Society for Computers in Learning, a mini-conference on "New Tools in the Classroom" (the 5th international PEG meeting), and the Rainbow Stream, which served as a mutlicoloured umbrella to discuss important topics from different viewpoints and backgrounds.

Fascinating Discussions

In WCCE'90, nearly all aspects of teaching how to use computers and informatics were addressed, and many of them turned out to be of particular interest; for example the following four questions provided the basis for fascinating discussions:

• *How to motivate learning?*
Should it be by making learning easier by "natural learning" (informal learning in a natural environment), or by using investigations on human cognition to improve the process, or by "fun in the classroom." During the presentations and discussions, it turned out that "learning makes fun" is beneficial not only through entertainment in the classroom (since laughter helps to prevent stress) but also through the satisfaction of reaching a goal after hard and intensive intellectual or manual work (since overcoming stress strengthens the ego and the personality).

• *Is the field of computing a discipline?*
Does the field really have its own spe-

* U.S. representative to the **IFIP** General Assembly, and **IFIP** trustee

† ***IFIP Newsletter*** correspondent for TC3

cific subjects and methods, or is the computer only a means of looking at or working in a traditional discipline in a new way (because of its information storage and manipulation capacities)? Astonishingly, this question was not only discussed within the context of lower level school education but also with respect to the universities, since in many countries this new field has no clear definition (demonstrated by the many different names for the field: informatics, computer science, computing science, computer and software engineering, etc.).

Girls and Computers

• *How do we get girls interested in computer use and informatics?*
It has been observed worldwide that very few girls or women like computers. There was a consensus that the main reason is the traditional way of raising girls, which — often unconsciously — treats girls differently from boys according to different roles they are expected to play in society. Nevertheless, there was no agreement about how to motivate girls to be educated with and about computers. Using problems and exercises related to women or having only female teachers does not seem to help. Non-coeducational lessons in informatics might be a solution.

• *What should we do in developing countries?*
There was unanimity that it is absolutely necessary to introduce computers in developing countries. This should mean not only delivering hard- and software but also educating people. The developing countries themselves should take full responsibility for and make the decisions about the use of computers and about the ways, means, and contents of the informatics education, depending on their own cultures. However, cultural literacy should not be sacrificed to computer literacy.

The great success of WCCE'90 has shown how fruitful and stimulating it is to combine a large international conference with a major local one, as was stated at the closing session by the chairman of TC3, *Wilfried Brauer (D)*. There in Sydney, high standards were set for the next World Conference on Computers in Education, WCCE'95, which will take place in Birmingham, U.K. under the chairmanship of *Brian Samways (GB)*.

The proceedings of WCCE'90, edited by A. *McDougall (AUS)* and C. *Dowling* (AUS), were published under the title *Computers in Education* by Elsevier/North-Holland.

THE ORGANIZATION

by Wilfried Brauer (D)

[Following is an edited version of the preliminary report about WCCE'90 by *Prof. Brauer,* chairman of TC3, to the **IFIP** General Assembly in Buenos Aires. It is of special interest, since he is also the International Program Committee chairman of **IFIP** Congress '92, and many of the lessons learned from WCCE'90 may be useful for the Congress. — Ed.]

Some of the important lessons to be learned from this conference are

- It is very important to combine an international with a national or regional event; this attracts the majority of participants.
- The structuring of a large conference into substreams, subconferences, and additional events is very helpful in attracting people from many different fields of interest, since they find a focus in their own field of interest.
- It is necessary to have special sessions that help to combine the different parts of the program; at WCCE'90 the ideas of the Rainbow Stream and of the Reflection Panels (which discussed and summarized the program) proved to be quite successful.
- Having a number of main sponsors, associate sponsors, and affiliate sponsors not only provides money and enormous technical support, but it can even make the conference program more attractive in the form of special presentations by the sponsors.

WCCE'90 offered a lot to the participants who also were, to a great extent, actively involved. Quite a number of participants from developing countries got financial support from the Conference organization.

Pre- and Post-Conferences

WCCE'90 was made more attractive to overseas participants by pre-conferences in Auckland, New Zealand and Cairns, North Queensland, Australia and by a post-conference in Tokyo, as well as by an Education Visits Scheme, which gave delegates the opportunity to visit primary and secondary schools as well as universities in Australia.

The pre-conference in New Zealand focussed on "Computers in Education: National Perspectives" and, in particular, on educational philosophies and structures that may harmonise high technology with the culture of indigenous people.

The pre-conference in Cairns was the third international conference of "Computer Pals Across the World," this time with the subtitle "Making the Difference," and explored the impact of telecommunications on the teaching/learning process in schools. One of its features was to bring students from many parts of the world together by electronic mail. It was hosted by the Epson Computer Pals organization.

The post-conference in Tokyo was an "International Conference on Advanced Research on Computers in Education." Six invited and 49 submitted papers (selected from 70 submissions from 17 countries) were to be presented to an (expected) audience of 200 people. The proceedings will be published soon by Elsevier/North-Holland.

On behalf of TC3, I would like to ask the president of IFIP to express sincere thanks to all those responsible for the success of WCCE'90.

AFIPS TO TERMINATE OPERATIONS

News from Member Society

AFIPS, the American Federation of Information Processing Societies, announced on 15 October 1990 that its Board of Directors had voted to dissolve the Federation immediately.

AFIPS, which has been the U.S. member of **IFIP,** was created in 1961 as an umbrella organization of U.S. computer societies. It sponsored the National Computer Conferences and was the organizer of **IFIP** Congress '89. The 11 AFIPS constituent societies had a membership of over 240 000 individuals.

Mr. Howard Funk, who was president of AFIPS, the AFIPS representative to **IFIP,** and an **IFIP** trustee, indicated that he expects the Association for Computing Machinery and the IEEE Computer Society to form a new, broadly based organization whose sole activity will be to represent the U.S. in **IFIP.** (The ACM and the Computer Society, both members of AFIPS, together represent 150 000 computer professionals in the U.S.) That organization will apply to **IFIP** for membership.

INFORMATION TECHNOLOGY ASSESSMENT

*by Drs. Felix van Rijn (NL)**

The fourth IFIP Conference on "Human Choice and Computers — HCC4," sponsored by the Technical Committee on Relationship between Computers and Society (TC9), was held in Dublin, Ireland 8-12 July 1990. This Conference was entitled "Information Technology Assessment." The Irish Computer Society, which hosted the Conference, welcomed 150 participants from 18 countries.

Co-chairpersons of the Programme Committee were ***Richard Sizer*** (GB), outgoing chairman of the Working Group on Social Accountability (WG9.2), ***and Riccardo Petrella (I),*** head of the Forecasting and Assessment of Science and Technology (FAST) programme of the Commission of the European Communities). ***Dudley Dolan,*** president of the Irish Computer Society and its representative to IFIP, chaired the Organising Committee. The Conference chairperson was ***John Drumm,*** the Irish delegate to TC9.

During the Conference, plenary sessions alternated with parallel working sessions. Interaction between plenary and parallel sessions was stimulated by designated rapporteurs, who gave feedback from the working sessions to the plenum. In many cases, these reports gave rise to lively plenary debates.

Fostering awareness was one of the main issues of the opening address by ***Michael Smith,*** the Irish Minister for Science and Technology. ***Mr. Smith*** stressed the rapid changes in supply and demand of skills due to the rapid evolution of information technology (IT). Human capacities are threatened to become subordinated to a narrow focusing upon technology.

Next, keynote speaker ***Joseph Weizenbaum (USA)*** attacked the "Imperialism of Instrumental Reason." Human behaviour is largely determined by instrumental reasoning: people anticipate the consequences of their actions. For example, if someone finds a well-filled wallet, why doesn't he keep it? One reason might be that he fears people would ask embarrassing questions if he spent the money. However, part of human behaviour is without identifiable purpose: people act without being able to explain why. ***Mr. Weizenbaum*** argued that computing is intrinsically instrumental.

The "hard AI-people," he said, are convinced that every aspect of the human brain is computable. However, humans know much more than they can say or explain. This non-instrumental "living truth" is different for each individual. So, AI never can solve the major human problems. The "AI scene," he asserted, is dominated by the authority of instrumental ideologists. Since the legitimacy of this authority is questionable, he stated, this domination is imperialism, with no room to debate the technology itself. This is what information technology assessment (ITA) should do.

Many descriptions and definitions of ITA were put forward during the conference. Although it was obvious that a unique and universal definition of ITA is impossible, there was consensus about some elementary aspects. ITA has to be proactive rather than reactive. This means analysis, evaluation and decision support at all stages of the process of development, design, implementation and exploitation of information technology.

Mrs. Mayuri Odedra (Kenya) and other speakers from developing countries emphasised that the agendas for ITA in these countries and in industrialised countries are completely different. One of the major problems is that essential knowledge about IT is barely transferred to the developing countries.

The results of the working sessions and plenary discussions were summarised by ***Jacques Berleur (B),*** newly appointed chairman of WG9.2, along the lines of the main theme for this Conference: Awareness, Assessment and Action. **In** general, people who are ***aware*** of the necessity for ITA are, at best, minor actors in IT development (e.g., social scientists and socially concerned politicians). It is necessary to create public awareness as well as awareness among researchers, technologists, industrialists and politicians. *Assessment* of IT includes anticipation of future developments. We need more evaluation and decision support by ITA. Suggested *actions* include education, enlightenment, establishing a public debate, developing guidelines, exchange of information, networking and (international) cooperation.

Proceedings of the Conference, edited by Messrs. ***Berleur*** and ***Drumm,*** will be published by Elsevier/North-Holland by the end of 1990. ■

*** *IFIP Newsletter*** correspondent for TC9, and WG9.3 chairman.

FIVE RECEIVE IFIP AWARD

Five members of **IFIP** Technical Committees were designated to receive the **IFIP** Outstanding Service Award (OSA) by the **IFIP** General Assembly (GA) at its meeting in Buenos Aires in September. They are

TC3:
R. deCaluwe (B)

TC5:
J.P. *Crestin (F)*
G. *Karlmark* **(NL)**
F. ***Kimura (J)***

TC6:
L.** Tarouco **(BR)

The OSA **is given for services rendered** to **IFIP** by **Technical Committee (TC)** and Working **Group (WG) members. It** is granted **by the GA, on recommendation** of the TC chairmen, **after approval** by the Internal Awards **Committee.** ■

ENSLOW LEAVES ***IFIP***

We note with regret the departure of ***Professor Philip H. Enslow, Jr.*** (USA) from **IFIP.** ***Prof. Enslow*** served as the representative to **IFIP** of the International Council for Computer Communication from 1985 to 1989 and was an active participant in **IFIP** meetings during that time. In addition, he was a member of the groups that formed **IFIP's** Technical Committee on Computer Systems Technology and its Working Group on Network Management for Communication Networks and served **IFIP** in other capacities. We shall miss his support for **ICCC–IFIP** cooperation as well as the pleasure of his company. ■

BIDS DUE FOR HOSTING CONGRESS '96,

All IFIP Member societies are reminded that bids to host **IFIP** Congress '96 are due by 1 February 1991. For further information, see the article on page 10 of the June 1990 ***IFIP** Newsletter.* At the General Assembly in Buenos Aires in September, these Full Members expressed their intention to bid for the Congress:

Australia (Canberra)
Austria (Vienna)
and Hungary (Budapest)
China ■

IFIP HAS NEW PUBLICATIONS CONTRACT

Elsevier/North-Holland Is Primary IFIP Publisher

After several months of negotiations, **IFIP** now has a new contract for publications. Five publishers were contacted, and the contract was eventually awarded to Elsevier/North-Holland, designated as the primary **IFIP** publisher. The contract, which will begin July 1991 when the present contract expires, contains several departures from the current one. The key changes are that **IFIP** proceedings will be published as a soft-covered series, the minimum size will be reduced to 100 pages, and publication time will be drastically reduced. The new contract has a minimum duration of three years. Any time after the first 18 months, either party **— IFIP** or Elsevier — may give the other a 11/2 year notice of termination; otherwise the contract will continue indefinitely.

The aspect of the new agreement that involves publication as a series of soft-covered books will take effect in January 1992. After that time, each proceedings will appear as one of an **IFIP** series. They will be bound with high-quality soft covers, using the Technical Committee (TC) color scheme already in use. Various names have been proposed ***(IFIP Series, IFIP Proceedings, IFIP Transactions);*** a decision will be made at the time of the Council meeting in March 1991. Libraries and others may subscribe to the series at a discount of approximately 40% from the cost of the individual volumes. (Other discounts will be available to **IFIP** event participants and members of **IFIP** Member societies.) It is anticipated that this will increase sales substantially. Sub-series in various technical areas may also be offered. In addition, of course, volumes will be available for purchase individually.

At the same time, the minimum size of proceedings will be reduced from the present 300 pages to 100 pages. Thus, the number of **IFIP** publications is expected to increase significantly. This will permit the publication of work of high quality from small **IFIP** conferences, which has not been practical previously.

Speedy Publication

From now on, **IFIP** will endeavor to deliver to the publisher completed manuscripts of proceedings within two to six weeks of the events, and Elsevier will publish the books within two months of receipt of the complete manuscripts at the agreed deadlines. This quick turnaround is expected to make **IFIP** books much more timely, enhance their value, and improve sales. On too many occasions, **IFIP** books have appeared long after the events and have thus been "stale" even before their publication. On the other hand, at several recent conferences, final versions of proceedings have been available for distribution to event participants. That procedure is highly recommended. New *Editor's Guidelines* will be issued to explain the process.

A provision of the new contract encourages some experimentation by permitting either **IFIP** or Elsevier to propose exceptions to the contract. Either party may propose up to five such exceptions per year. However, both parties must agree before any such deviation is undertaken. The Publications Committee will be responsible for controlling this.

A small number of **IFIP's** TCs or Working Groups have traditionally published their proceedings with other publishers. In those cases, the groups are permitted to continue this practice with those publishers. All other proceedings must be published according to the provisions of the new contract. **IFIP** plans to negotiate a master contract with Springer-Verlag, since the majority of these historical exceptions have been published by Springer.

Other provisions of the new contract are that Elsevier will continue to print the ***IFIP Newsletter*** free of charge and that royalties will be paid at a fixed rate on Elsevier's net sales receipts (rather than the more complicated formula in the present contract). ■

CONGRESS '92 continued from page 1

From Architecture to Chips: Latest Achievements and New Prospects (Prof. G. L. Reijns [NL])
Algorithms and Data Structures (Prof. **J.** van Leeuwen [NL])
Informatics and Education (Dr. P. Bollerslev [DK])
Diminishing the Vulnerability of the Information Society (Prof. K. Brunnstein [D])

The parallel streams will appeal to those delegates who have a special interest in one or more of these topics or who would like to sample several of them.

The two sub-conferences are
A Computer for Everybody (Prof. F. A. Vogt [D])
Intelligent Information Systems (Prof. G. Davis [USA])

They are designed for participants who wish to devote their attention to these topics and who may not have the time to attend the entire Congress.

These workshops are planned:
Informatics and Personal/Organizational Productivity
Large National and Regional R&D Programs Informatics and Ecology
Computational Techniques in Modeling and Control of Large Space Structures

In general, they will be one-day events.

Prof. *Brauer* pointed out that although the topics given above are subject to change, the overall structure of the Congress is relatively firm.

The parallel streams and sub-conferences will consist of submitted papers, invited papers by noted speakers, panel sessions, and poster presentations. There will be opening and closing plenary sessions, with keynote speakers. Some papers will be general survey papers and others specific and specialized. Most delegates will choose to sample talks from every category.

Other aspects were also discussed in Buenos Aires: The proceedings will be printed by Elsevier/North-Holland in three soft-covered volumes. A workshop or seminar will be held during the Congress for chairmen of **IFIP's** TCs and WGs. The title will be "Informatics in the 21st Century." In addition, the seminar is designed to answer the attendees questions about **IFIP,** bring them closer to the Federation, and express our gratitude for their hard work.

The 1989 GA, held in San Francisco following Congress '89, directed the IPC of Congress '92 to satisfy the following two goals: To maintain the Congress as **IFIP's** premier event; and To uphold the role of the Congress as an important international event. To this end, the GA also instructed the IPC to reduce the number of different, parallel streams **(IFIP** Congress '89 had 11 tracks) and to involve **IFIP's** TCs heavily in planning the program. The Congress '92 IPC has clearly followed the GA's request. The TC participation in planning this Congress has been strong.

With this good start, we expect to see an excellent **IFIP** Congress in 1992. ■

IFIP MEETS continued from page 1

for the surpluses: a WG8.1 working conference "Computer Assistance during the IS Life Cycle," the TC3 "European Conference on Computers in Education," and the TC6/ICCC conference "ISDN in Europe."

The results for 1990 are difficult to ascertain at this time. A conservative prediction is that the net gain will be less than that for 1989. However, the large surplus from IFIP Congress '89, to be received in 1990, should help, and a significant loss on investments due to currency exchange fluctuations (48 K SFr.) will decrease the surplus. In order to eliminate exchange losses in the future, IFIP will convert all its investments to financial instruments based on Swiss Francs. The 1991 budget approved by the GA calls for expenditures of 627 K SFr., approximately 8% more than the 1990 budget figure, and a net operating loss of 19 K SFr., a relatively modest amount.

Mr. Jacques Fourot (F), IFIP's secretary, reported that in 1990, UNESCO provided $9000 for a curriculum development workshop and to support participants from developing countries at the World Conference on Computers in Education (WCCE '90). TC chairmen are urged to suggest to him projects UNESCO might be interested in supporting in 1991.

New Publications Contract

After several months of discussion, **IFIP** has signed a new publication contract with Elsevier/North-Holland. It contains several novel features, which are discussed in the article on page 7. In addition, the GA formed a task force to investigate the creation of **IFIP** journals.

Officers Elected

Mr. Aage Melbye *(DK),* former vice-president, was elected treasurer, and *Mr. Fourot* (F) was re-elected secretary. *(Mr. Fourot* has served as **IFIP** secretary since 1981.) *Prof. Asbjørn Rolstads* (N) was re-elected vice-president, and *Maj. Gen. A. Balasubrahmanian (IND)* was elected vice-president for the first time. Elected as trustees were Mr. *Howard Funk (USA), Mr. Robert /au (SEA* RCC), and *Prof. Dr. Kurt Bauknecht* (CH). (Because he did not attend the Jerusalem or Buenos Aires Council meetings, *Mr. Iau,* elected trustee in 1986 and 1989, was deemed to have resigned, according to **IFIP** statutes. In order to preserve representation of a Southeast Asia viewpoint among the trustees, however, the GA elected him once more.) All the above were elected to 3-year terms, except for Professors *Rolstads* and *Bauknecht,* who were elected for uncompleted 2-year terms.

Congresses and Conferences

Five **IFIP** Congresses received attention by the *GA. Prof. Steven Yau (USA),* chairman of the Organizing Committee for Congress '89 (in San Francisco), presented his final report, in which he stated that the share of the surplus to be paid to **IFIP** is anticipated to be $166,000. The good attendance figures were partly due to the efforts of the Japanese Full Member to encourage its members to attend. The attendance figures printed in the December 1989 ***IFIP** Newsletter* were incorrect. The final figures are

Total attendance-1257

Largest numbers of delegates:

U.S.A.	366	Canada	29
Japan	266	U.K.	29
W. Germany	79	China	28
France	54	Finland	28
Netherlands	39	Italy	28
Hungary	32		

The GA applauded *Prof. Yau,* his Committee, and the International Program Committee (IPC), headed by *Prof. Hervé Gallaire (F).* Plans for the program of Congress '92 (in Madrid) are presented on page 1. The GA discussed the report of the Congress '92 Organizing Committee (OC) and the revised budget — a conservative budget based on a worst-case attendance of 1100. Representatives to the GA expressed concern that societies that bid to host Congresses are too optimistic in their financial projections and may be unable to fulfill their promises. For future Congresses, the Site Evaluation Committee is urged to evaluate the ability of the bidders to satisfy their commitments. President *Sendov* stated that he planned to name the IPC chairman for Congress '94 (to be held in Hamburg) in time for that person to attend the 1991 GA (in Harare, Zimbabwe). Bids for hosting Congress '96 are due by 1 Feb 1991, as described in an article on page 6. Finally, the OC of Congress '86 (in Dublin) indicated that it anticipated making final payments due **IFIP** by the end of 1991.

The World Conference on Computers in Education (WCCE '90), which was held in July in Australia, was discussed by the GA. It was noted that its attendance (over 2300) exceeded that of the two most recent **IFIP** Congresses. Its technical program was also reported to have been excellent. Although the attendance was large, the net proceeds are not expected to be significant, because the registration fees were set low to encourage the attendance of teachers and others without access to significant funds to support their participation. Also, some of the budget was used to assist delegates from developing countries to attend. WCCE '90 is described in an article on page 4.

Other recent successful conferences were also mentioned: "Human-Computer Interaction (INTERACT '90)," sponsored by TC13 on Human-Computer Interaction, and "Information Technology Assessment (HCC4)," sponsored by TC9 on Relationship between Computers and Society.

New and Continuing Activities

New **IFIP** activities were discussed in the Technical Assembly (TA) and GA. The Specialist Group (SG) on Foundations of Computer Science reported that it is organizing activities, while being careful not to conflict with those of TC2 (Software: Theory and Practice). Two study groups have been formed: "Continuous Algorithms and Complexity" and "Descriptional Complexity." Well-respected scientists are interested in these activities. The SG hopes to attract workers in theoretical computer science from places outside of Europe and North America. A conference is planned for 1992, to take place in Latin America. Prof. *Klaus Brunnstein (D),* chairman of TC9, reported on the formation of a task group on "Informatics and Ecology." Other TCs are urged to participate in its work. The TA approved formation of WG9.6 on "Computer Security Law," which will include the work formerly performed by WG11.7. The latter has been discontinued.

The evolution of an **IFIP** Code of Ethics continues, albeit slowly. Prof. *Hal* Sackman (USA), former chairman of TC9, submitted an extensive report (by mail) to the TA and GA on the current status of the Code. The latest version is a revision, primarily editorial, of the preliminary code, based upon suggestions from ***IFIP** Newsletter* readers. The TA thanked *Prof. Sackman* for the "extraordinary work" he performed during the two years of the project. The Code is now called the *Draft **IFIP** Code of Ethics.* TC9 will continue the activity, encouraging further discussion in **IFIP** Full Member societies, TCs, and Working Groups, and eventually developing a final code.

Mr. Melbye, in his role as chairman of the Activity Management Board, re-

ported on the improvements in the **IFIP** event database, maintained by **IFIP** Activity Secretary *Dr. Peter Falster (DK).* The database is being enlarged, and many useful reports are being generated from it. He also described modifications being made in the procedures for calculating the TC funds (see the article on page 2).

Major Discussions

A major discussion, which took place primarily in the TA, was in response to a suggestion by *Prof. Dines Bjørner (DK),* chairman of the IPC for **IFIP** Congress '86 and participant in other **IFIP** activities, who proposed a major restructuring of **IFIP.** Although the TA saw no need for reorganizing, many of the ideas proposed will be considered further by **IFIP.** The discussion is summarized in an article on page 3.

The GA engaged in a lengthy discussion of **IFIP's** relationship with the countries of Southeast Asia, as a result of complaints received from the South East Asia Regional Computer Confederation (SEARCC). A good relationship is a significant concern to **IFIP,** since the Southeast Asia economy is growing rapidly, and **IFIP** wants to help with the information processing aspects of that growth. The GA established a commission to determine the needs of the Southeast Asia Full Members, determine what **IFIP** can do, establish a structure for appropriate actions, and monitor the activity.

Another discussion of regional informatics activity concerned CEPIS (the Council of European Professional Informatics Societies). This regional organization was recently formed to coordinate European informatics activities. **IFIP** is interested in establishing a good working relationship with CEPIS, and all European Full Members of **IFIP** are urged to investigate in what ways cooperation can be achieved.

More than one TC chairman expressed frustration with the regulations concerning TC membership (one member per **IFIP** Full Member, recommended by the Member). One TC chairman would prefer members with greater technical expertise. Another would like to be able to appoint members himself. Still another would prefer easier means for replacing inactive members. On the one hand, **IFIP** wants to provide any Full Member that wishes access to a TC the opportunity to have such access; on the other hand, in order to have productive, technically valuable TC meetings, it is important to have competent, active members. *Prof. Rolstadås,* TA chairman, appointed a task group to investigate this issue and propose solutions.

Other Reports

Mr. James Finch (CDN), chairman of the Marketing Committee and **IFIP** vice-president, reported on various activities of that committee: several plans related to placing news of **IFIP** in the international press, planned changes in the ***IFIP** Newsletter,* and an updated version of the **IFIP** presentation *What is* **IFIP?,** available on diskette. **IFIP** event organizers are encouraged to display *What is* **IFIP?** before their events and to use material from it in their event announcements, calls for papers, and programs.

Prof. Angel Alvarez - Rodriguez (E), an **IFIP** trustee, reported on the annual reports submitted by Full Member societies. As a result of suggestions made in these reports by some Members, TC9 will undertake to organize an activity related to informatics for handicapped persons. Several other suggestions urged increased **IFIP** activity in developing countries.

It was noted that the Developing Countries Support Committee (DCSC) has been relatively inactive lately and that a significant amount of money is available in the DCSC Fund to support activities in developing countries.

The GA passed the following resolution, proposed by President *Sendov:*

> Whereas *Prof. Dr. Heinz Zemanek* has served **IFIP** with distinction and devotion for many years, as representative of Austria, fourth **IFIP** president, chairman and member of many **IFIP** committees and other groups, organizer of many **IFIP** events, and Honorary Member; and whereas he has recently resigned from his most recent positions in **IFIP:**
>
> The General Assembly of **IFIP,** meeting in September 1990 in Buenos Aires, expresses
> - its regret at his resignation,
> - its desire that he continue his participation in Council and General Assembly meetings, and
> - its hope that he continue to offer his wisdom to his friends and colleagues in **IFIP.**

It was brought to the attention of the GA that computer viruses and similar destructive mechanisms still pose a threat. The 1989 GA in San Francisco issued a warning about viruses (see the December 1989 ***IFIP** Newsletter,* page 1), and all **IFIP** Full Members are urged to bring the warning to the attention of their national leaders.

Because Yugoslavia had not paid its dues for more than 3 years, its membership was terminated; however, it will remain in **IFIP** as a Corresponding Member. As a result, Yugoslavia no longer may have representation on TCs, but TCs are free to grant observer status to former members. Cuba, too, is in arrears with respect to its dues, and its membership will be terminated if they are not paid by the end of 1990.

Because the venue of the GA meeting was relatively remote from a large number of Full Member countries, only 25 representatives attended the GA. On the other hand, 8 TC chairmen were present. It was regrettable that the chairmen of the two newest TCs were unable to attend, since it is especially crucial for the new TCs to have as much advice and assistance as possible from experienced TC chairmen and other **IFIP** officials. One of the new TCs, in fact, neither submitted an Annual Report, communicated with its Cognizant Officer, nor submitted Scopes and Aims for its proposed Working Groups.

Lectures in Developing Countries

Six GA representatives and TC chairmen gave talks in Argentina, Brazil, and nearby countries before or after the GA in Buenos Aires. This is one way in which **IFIP** GA and Council meetings can provide a significant benefit to developing countries (and to developed countries as well). Many participants of these meetings are experts in their fields and are willing to spend a few days before' or after the meetings to give lectures at universities and other institutions in the host country or neighboring nations. If meeting participants are contacted well in advance of an IFIP meeting (giving them adequate time to make or modify travel arrangements and personal commitments), they are frequently happy to oblige.

President *Sendov* adjourned the GA with thanks to the hosts and *Mr. Hector* Monteverde, Argentina's representative to **IFIP,** for their efforts in supporting the GA.

GREETINGS

At this time of holidays and the new year, we send greetings to all our **IFIP** friends and wish you joyful holidays and a year of health, happiness, and peace.

WHY SHOULD MATURE TCS REMAIN IN THE IFIP FAMILY?

At the recent **IFIP** General Assembly in Buenos Aires, at least one Technical Committee (TC) chairman raised the question, "Why should my TC remain in **IFIP?** The royalties for our books go to **IFIP.** Profits from our conferences go to **IFIP.** What do we get in return?"

In brief, the answer is that the TCs receive back from **IFIP** the greater part of the monies that the TCs contribute to **IFIP.** The TCs benefit from the international makeup and the administrative support of **IFIP,** as well as the cooperation of other TCs and **IFIP** entities. Also, the financially profitable, mature TCs discharge their obligation to the non-profitable TCs, new TCs, and developing countries by continuing to participate in **IFIP.** This is an oversimplified summary, which is elaborated below.

How Is the Money Spent?

First is the matter of how the money generated by the TCs is spent. Most of this income is from royalties on the books produced by the TCs, primarily proceedings of conferences run by the TCs. The other major component is the net receipts of the TCs' conferences. Expenditures by the TCs include administrative expenses, travel expenses, support to activities in developing countries, and grants given to the TCs for specific events. There are also other expenses to **IFIP** attributable to the TCs, including part of the following: Secretariat expenses, **IFIP** officers' expenses, and some committee expenses.

Aage Melbye (DK), **IFIP** treasurer (who was then chairman of the Finance Committee), presented the following figures to the Technical Assembly (TA) in Buenos Aires in September. They show, for the past five years, the net income to **IFIP** from TCs and the net expenses associated with TCs (in thousands of Swiss Francs).

	'85	'86	'87	'88	'89
Royalties:	158	137	194	158	159
Event proceeds:	51	31	14	27	148
TC income:	209	168	208	185	307
Expenses:	196	158	192	174	139

The figures for 1989 are unusual, because of extra efforts taken last year to increase income and reduce expenses. Except for 1989, it can be seen that the amount spent for TCs approximately equals the amount earned by the TCs. Of course, some TCs produce more than their expenses and others less; the numbers above represent the total for all TCs. (The remainder of **IFIP's** expenses are met primarily by income from Members' dues and the proceeds of Congresses. The net **IFIP** income is relatively small.)

Benefits to TCs

The TCs that receive money from **IFIP** would have a difficult time surviving outside the **IFIP** family, but the others surely ask what benefits they receive from **IFIP.** The international nature of **IFIP** enables them to call upon the national Member societies of **IFIP** to organize **IFIP** activities, nominate members, furnish contacts, and provide other assistance. **IFIP** is an international "network." Also, the broad spectrum of **IFIP** activities provides TCs the opportunity to cooperate with other groups outside their immediate areas of expertise. The benefit of the **IFIP** name is of value to many TCs. The name and logo are symbols of quality. (Preserving the **IFIP** name is one reason the Activity Management Board (AMB) takes care in authorizing events.)

Support to TCs comes in many forms. The Secretariat furnishes mailing lists and labels, mails notices, answers inquiries about TC events, provides information, and performs many other tasks. The Contracts Officer provides assistance in special cases. Useful publications are available, e.g., the *Bulletin,* ***IFIP*** *Newsletter,* and *Working Group Chairman's Handbook.* An event database is maintained. The treasurer assists with fiscal management. An awards program is available. The **IFIP** publications procedure facilitates the publication of conference proceedings and guarantees publication and advertising, through the official **IFIP** publisher. And the vast experience of the **IFIP** organization is at the disposal of event organizers.

Increased Stress on TCs in IFIP

It is surprising that these questions are being heard at this stage of **IFIP's** development. During the past decade, the focus in **IFIP** has been increasingly upon TC activity. Through a series of entities (Activity Planning Committee, Activity Development Board, AMB, and TA), **IFIP** has been placing greater stress upon facilitating the work of TCs and solving their problems. (See the article on page 8 of the December 1987 ***IFIP Newsletter.)*** TCs are being given greater authority. For example, the TA (the majority of whose membership comprises TC chairmen and Affiliate Member [AM] representatives) now approves the formation of new Working Groups, a function formerly performed by the GA, and the TCs have greater control over their funds (see the article on TC funds on page 2).

It would undoubtedly be a significant loss to **IFIP** if any of its TCs left. The cross-fertilization of TC chairmen's discussions, joint TC sponsorship of activities, common participation in Congresses, and other cooperative activities would decline.

Concerning Affiliate Status

It has been suggested that mature TCs might assume Affiliate Member (AM) status, but that is not likely to keep a former TC close to **IFIP.** Although the TA was originally designed with a goal of providing an attractive forum for AMs — a means of bringing them closer to **IFIP —** it has not succeeded in that regard. For example, the International Medical Informatics Association (IMIA) began as **IFIP's** TC4 and is now an AM, and there has been little close cooperation between IMIA and **IFIP** since IMIA became independent. Although IMIA representatives frequently appear at GA meetings, no IMIA representative has ever participated in a meeting of the TA (or its predecessors), where cooperative work is discussed. In fact, none of the **IFIP** AMs was represented at the September TA in Buenos Aires. (Nevertheless, some participation has taken place over the years.) Although **IFIP** continues to thrive without this **AM** participation, the absence of the cross-fertilization is regrettable.

Of course, the income from mature, monetarily strong TCs that now goes to support new TCs, other new technical initiatives, TCs that are fiscally weak by their very nature, and **IFIP's** work in developing countries would be missed should any "wealthy" TC leave **IFIP.**

IFIP must certainly address the concerns of the TCs by making changes that will make membership in **IFIP** even more appealing to mature, financially strong TCs that could survive independently of **IFIP.**

To Organizers **of IFIP** Conferences:
Please send several copies of your Calls for Papers to the **IFIP** Secretariat, in order that the staff may be able to handle queries.

NEW IFIP PUBLICATIONS FROM NORTH-HOLLAND

Programming Concepts and Methods

Proceedings of the IFIP Working Group 2.2/2.3 Working Conference, Sea of Gallilee, Israel, 2-5 April 1990

edited by **M. Broy,** *Institut far Informatik, Technische Universität München, FRG, andC.B.* **Jones,** *Department of Computer Science, The University of Manchester, UK*

1990 viii + 582 pages
Price: US $115.50/Dfl. 225.00
ISBN 0-444-88545-5

Computer Networking

Proceedings of the IFIP TC6 Conference (COMNET '90), Budapest, Hungary, 8-10 May 1990

edited by **L. Csaba,** *Computer & Automation Institute, Hungarian Academy of Sciences, Budapest, Hungary,* **T. Szentiványi,** *Computer Applications and Services Company, Budapest, Hungary, and* **K. Tarnay,** *Central Research Institute for Physics, Budapest, Hungary*

1990 xii + 508 pages
Price: US $112.75/Dfl. 220.00
ISBN 0-444-88872-1

Decentralized Systems

Proceedings of the IFIP WG10.3 Working Conference, Lyon, France, 11-13 December 1989

edited by **M. Cosnard,** *Ecole Normale Supérieure, Lyon, France and* **C. Girault,** *University Paris 6, Paris, France*

1990 viii + 452 pages
Price: US $102.50/Dfl. 200.00
ISBN 0-444-88898-5

Protocol Specification, Testing, and Verification, X

Proceedings of the IFIP WG 6.1 Tenth International Symposium, Ottawa, Ontario, Canada, 12-15 June 1990

edited by **L. Logrippo, R.L. Probed** *and* **H. Ural,** *University of Ottawa, Computer Science Department, Ottawa, Ontario, Canada*

1990 xii + 418 pages
Price: US $102.50/Dfl. 200.00
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Formal Methods for VLSI Design

IFIP WG10.5 Lecture Notes

edited by J. **Staunstrup,** *Department of Computer Science, Technical University of Denmark, Lyngby, Denmark*

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CHANGES IN IFIP

NEW APPOINTMENTS

COMMITTEE (and other group) CHAIRMEN

Technical Assembly: A. Rolstadas (N)
Activity Management Board: A. Melbye (DK)
Admissions Committee: M. Ozeki (J)
Congress Guidelines Committee:
A. Alvarez-Rodriguez (E)
Developing Countries Support Committee:
A. Balasubrahmanian (IND)
Finance Committee: K. Bauknecht (CH)
IFIP Committee for International Liaison:
R. Tanaka (USA)
Internal Awards Committee: J.C. Fourot (F)
Marketing Committee: J. Finch (CDN)
Publications Committee: A.A. Verrijn-Stuart (NL)
Site Evaluation Committee:
A. Alvarez-Rodriguez (E)
Statutes and Bylaws Committee: P.A. Bobillier (F)
Nominations Committee for Officers:
A. Melbye (DK)
Nominations Committee for Trustees:
J.C. Fourot (F)
IFIP-Unesco Liaison Officer: J.C. Fourot (F)

GA REPRESENTATIVE

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(succeeding Dr. P. Knezu)

TC AND WG OFFICERS

(the following TC3 appointments are effective 1 January 1991)
TC3 chairman: Mr. P. Boilerslev (DK)
TC3 vice-chairman: Mrs. Rita de Caluwe (B)
TC3 vice-chairman: Mr. B. Samways (GB)

TC5 secretary: Mrs. G. Karlmark
Philips Lighting B.V., Bldg. EK-p
P.O. Box 80020
NL-5600 JM EINDHOVEN, The Netherlands
tel: 31 (40) 7574495 or 757051
fax:31 (40) 755861

WG2.4 chairman: U.Kastens (D)
(succeeding W.Waite)

WG6.5 chairman:
Einar Stefferud (USA), former vice-chairman
(succeeding P. Schicker)

WG6.5 vice-chairman: Mr. Christian Huitema
GIPSI - SM90, c/o INRIA
P.O. Box 105
F-78153 LE CHESNAY CEDEX, France
(succeeding H. Santo)

WG7.4 acting chairman:
M. Lucertini (I), (succeeding M. Padberg)

WG9.1 secretary: Mr. P. van den Besselaar
University of Amsterdam
Dept. of Social Sc. Informatics
Herengracht 96
NL-1016 BS AMSTERDAM, The Netherlands

WG9.4 chairman: Dr. S.C. Bhatnagar
Inf. Systems & Computer Group
Indian Institute of Management
Vastrapur, AHMEDABAD 380 056, India

(WG9.6 on Computer Security Law was established by the TA in September 1990, and WGll.7 was dissolved)
WG9.6 chairman: R. Sizer
26 Avenue Road
FARNBOROUGH, Hants.
United Kingdom GU14 7BL

WG9.6 vice-chairman: Mr. P.J. Kratz
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8657-51 Avenue
EDMONTON, Alberta, Canada T6E 6AB
tel: 1 (403) 4683300, fax: 1 (403)4684377
telex: 037 2966

WG9.6 secretary: Martin Wasik

CLEI has two more members: Panama and Mexico

NEW TC AND WG MEMBERS

TC2: R.K. Shyamasundar (IND)
(succeeding K.V. Nori)
TC5: Ing. B.B. Jezieniecki (RA)
TC8: Mr. J. Miller (ZA)
(succeeding N.M. Duffy)
TC9: Mr. K. Mathison (ZA)
(succeeding P.C. Pirow)
TC13: Prof. Dr. H.J. Bullinger (D)
Mr. Chiu Kok Lan (SGP)
Mr. P. Lehtio (SF)
Dr. G.C. van der Veer (NL)

WG2.1: Dr. D.R. Smith (USA)
WG2.2: Dr. Pnueli (IL)
WG2.3: Dr. C. Morgan (GB)
WG2.8: Prof. J.T. O'Donnell (USA)
WG5.9:
Mr. F. Belvalette (F) M. Y. Maiden (MAL)
Dr. R.K. Datta (IND) Dr. C.T. McCabe (ZW)
Dr. L.N. Harte **(IRL)** Mr. D. Pedersen **(DK)**
Mr. D. Haskew (GB) Dr. D. Tomic (YU)
Mr. P. Mahon (IRL) Mr. S.R. Vedro (USA)
WG7.2: Prof. Dr. M.C. Delfour (CDN)
Dr. G. Leugering (USA)
Prof. Dr. F. Troeltzsch (D)
WG9.2: Mr. C. Beardon (GB)
Mrs. J. Cameron (AUS)
Esq. W. Daul. (USA)
Prof. J. Weizenbaum (USA)

ADDRESS AND OTHER CHANGES

OFFICERS

GA representative of Australia:
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GA representative of Zimbabwe:
G. Fairall, tel: 263 (4) 706725

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FUTURE IFIP MEETINGS

GENERAL ASSEMBLY AND COUNCIL (and related meetings)

Council	4-8 Mar 91	Barcelona
GA	2-6 Sep 91	Harare, Zimbabwe
Council	2-6 Mar 92	Trondheim, Norway
GA	after **IFIP** Congress '92	Madrid
GA	before or after **IFIP** Congress '94	Hamburg

TECHNICAL COMMITTEE AND WORKING GROUP MEETINGS*

TC2	24-25 Jun 91	Queensland, Australia
WG2.1	7-11 Jan 91	Louvain, Belgium
WG2.2	Jul 91	Darmstadt, Germany
WG2.3	10-14 Dec 90	Santa Catalina Island, California
	Sep 91	Southern France ?
WG2.4	Jan 91	Munich
WG2.5	mid Sep 91 (with working conference)	Karlsruhe, Germany
WG2.6	Mar 91	Braunschweig, Germany
	Oct 91	Vienna
WG2.8	Apr 91	Paris
TC3	29-30 Jun 91	Alesund, Norway
TC5	21-22 Jan 91	Rome
WG5.3	5 Jun 91	Nancy, France
WG5.7	11 Nov 91	Bremen, Germany
TC6	24-25 May 91	Tunis (under study)
	Oct 91	Australia (under study)
	20-21 Mar 92	Helsinki
	24-25 Sep 92	Nice
	Mar 93 (with conference)	Capetown
TC7	2-6 Sep 91 (with working conference)	Zurich
TC8	25-26 Aug 91	Helsinki
	5-6 Sep 92	Madrid
WG8.1	1 Nov 91 (during conference)	Quebec City
WG8.2	Dec 90 (with ICIS conference)	Copenhagen
WG8.4	10-12 Sep 91 (with WG8.3 conference)	Canterbury, U.K.
WG10.4	22-24 Feb 91	Grand Canyon, Arizona
	28 Jun-1 Jul 91	Quebec City
	Jan 92	Hawaii
	Jun 92	Cape Cod, Massachusetts
	Jan 93	
	Jun 93	Sweden

* Some meetings are scheduled in conjunction with Working Conferences, for which the conference dates are listed.

Will TC and WG chairmen kindly keep the Secretariat advised of the dates and locations of their future administrative meetings and also send a copy of the minutes to the Secretariat.

COMNET '90

*by Mr. TiborSzentiványi (H) **
and Mr. Csaba Gergely (H)t

From 8 to 10 May 1990, IFIP's Technical Committee on Data Communication (TC6) sponsored an international conference on Computer Networks, COMNET '90, in Budapest. This was the fourth event of the COMNET series (dating back to 1977). As usual, it was organized and hosted by Hungary's computer society, the John von Neumann Society. *Mr. Tibor Szentiványi (H)* was governor of the conference, aided by Ms. *Kati Tarnay (H)* and *Mr. Csaba Gergely (H),* chairpersons of the Program and Organizing Committees, respectively.

The conference attracted 207 participants, 85 from Hungary and the rest from abroad, including 20 people from developing countries. Attendees included not only academics but network-providers and end-users. The three-track program involved the presentation of 49 papers in eight topic areas and a panel discussion on timely issues in the development and usage of networks.

The rather broad scope of COMNET will probably evolve into a more specific direction, and/or it might be split into tutorial sessions with a broad orientation and highly specific technical workshops.

The remarks by TC6 vice-chairman *Prof. Otto Spaniol (D)* at the closing plenary session expressed, beside the above points, some of the lessons and critical observations that had been articulated during the technical sessions and had become especially discernible in the panel discussion — namely that in today's networking, technological improvements are sometimes devoted to parameters not of primary significance; user needs are not taken into account to a sufficient extent; therefore, problems with user acceptance are unavoidable. Consequently, it is not enough to develop fundamental methods and suitable tools for their own sake. User needs must be identified, and consequences of technological progress should be predicted beforehand.

The next COMNET will, in all probability, be scheduled for 1995. ▪

* governor of COMNET '90, and Hungarian representative to TC6

t chairman of the Organizing Committee of COMNET '90, and vice-president of the J. v.Neumann Society

CALLS FOR PAPERS

WG8.1 Working Conf. on The Object-Oriented Approach in Information Systems
28-31 Oct 91, Quebec City
papers due: 1 Jan 91
contact: Prof. Frans Van Assche
Conference IFIP-Québec'91
c/o James Martin Associates
Genèvestraat 10 - B4
Brussels, Belgium
fax: +32 - 2 - 242 1592

Fifteenth IFIP Conf. on System Modelling and Optimization
2-6 Sep 91, Zurich
extended abstracts due: 10 Jan 91
contact: Dr. K. Frauendorfer
Institute for Operations Research
Univ. of Zurich
Moussonstrasse 15
CH-8044 Zurich, Switzerland
tel: +41-l-257 37 71
fax: +41-1-252 1162 UNIZH IOR
telex: 817 260 unit ch
e-mail: ifip9l at czhrzula (earn or bitnet)

Seventeenth IFAC/IFIP (WG5.4) Workshop on Real-Time Programming and eighth IEEE Workshop on Real-Time Operating Systems and Software
15-17 May 91, Atlanta
papers due: 15 Jan 91
contact: Prof. Wolfgang A. Halang
Dept. of Computing Science
Univ. of Groningen, P.O. Box 800
NL-9700 AV Groningen, The Netherlands
e-mail: halang@cssug.nl
tel: +31-50-633939, fax: +31-50-633976
telex: 53410 rugro nl

Seventeenth Intl. Conf. on Very Large Databases
3-6 Sep 91, Barcelona
papers due: 15 Feb 91
contact: Prof. Dr. Amilcar Sernadas
INESC
Rua Alves Reodol, 9, 7o, Apartado 10105
P-1017 LISBOA Codex, Portugal
Internet (US): inesc!acs% solo@relay.EU.net
(Europe): acs% solo@inesc.uucp or ace@inesc.ctt.pt
or
Dr. Guy M. Lohman
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650 Harry Road
San Jose, CA 95120-6099, U.S.A.
Internet: lohman@ibm.com
Bitnet: lohman@almaden

WGl0.5 Intl. Conf. on VLSI 91
20-22 Aug 91, Edinburgh
papers due: 28 Feb 91
contact: Prof. Arne Halaas
Div. of Computer Science and Telematics
Univ. of Trondheim
Norwegian Institute of Technology/NTH
N-7034 Trondheim, Norway

Fourth WG7.5 Working Conf. on Reliability and Optimization of Structural Systems
11-13 Sep 91, Munich
extended abstracts due: 15 Mar 91
contact: Prof. P. Thoft-Christensen
Dept. of Building Technology and Structural Eng.
Univ. of Aalborg
Sohngaardholmsvej 57
DK-9000 Aalborg, Denmark

Seventh World Congress on Medical Informatics **— MEDINFO 92**
6-10 Sep 92, Geneva
papers due: 15 Nov 91
contact: MEDINFO 92 Administrative Office
Symporg SA
108, route de Frontenex
CH-1208 GENEVA, Switzerland
tel: (+41.22) 786 37 44
fax: (+41.22) 786 40 80 ▪

CHANGES IN IFIP cont. from p. 13

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IFIP Specialist Group on Foundations of Computer Science chairman:
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WG 3.1 chairman :
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WG 3.4 chairman: Dr. B. Barta
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fax:972 (4) 353754 or 353714

WG 9.1 chairman: Prof. Dr. K. Fuchs-Kittowski
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fax:37 (2) 648 9305

TC2 **name** was changed to "Software: Theory and Practice"
WG2.1 name was changed to "Algorithmic Languages and Calculi"

WG10.1 was dissolved by the TA in September 1990 (its conference planned for the first quarter of 1992 will not be held).

CORRECTIONS

corrections to e-mail addresses:
TC8 chairman: GDAVIS@UMNSOM
TCll chairman: W_CAELLI@QUT.EDU.AU
WG9.2 chairman:
JBERLEUR@BNANDP51.BITNET or
JBE@FUN.CS.UUCP ▪

National Abbreviations Used in Newsletter

AUS Australia
B Belgium
BG Bulgaria
BR Brazil
CDN Canada
CH Switzerland
D Germany
DK Denmark
E Spain
F France
GB United Kingdom
H Hungary
I Italy
IND India
IRL Ireland
J Japan
MAL Malaysia
N Norway
NL The Netherlands
P Portugal
RA Argentina
SEARCC South East Asia Regional Computer Confederation
SF Finland
SGP Singapore
USA U.S.A.
YU Yugoslavia
ZA South Africa
ZW Zimbabwe

CALENDAR OF EVENTS

(continued from page 16)

Event	Date	Location	Sponsored by
Fourth Work. Conf. on *Reliability and Optimization of Structural Systems*	11-13 Sep 91	Munich	WG7.5
Conf. on *Info. Syst. Concepts—Improving the Understanding-ISCO*	17-19 Sep 91	Nanjing, Jiangsu, P.R.C.	WG5.3
Work. Conf. on *Security and Reliability in Distributed Systems*	18-20 Sep 91	Prince Edward County	WGl0.3/ Inf. Tech. Rsch. Cent., Toronto
Work. Conf. on *Pgmg. Environments for High-Level Scientific Problem-Solving*	23-27 Sep 91	Karlsruhe, Germany	WG2.5
Intl. Conf. on *Computers in Automation of Shipyard Operations—ICCAS '91*	Sep 91	Rio de Janeiro	WG5.6
Work. Conf. on *Shaping Organizations and Shaping Technology*	Sep 91	Gold Coast, Australia	TC9/ ACS
Intl. Conf. on *CAD/Computer Graphics-CAD/GRAPHICS '91*	Sep 91	Hangzhow, P.R.C.	Chinese Comp. Fed./ WG5.10
Fourth Workshop on *Intelligent CAD-INTCAD '91*	30 Sep-3 Oct 91	Columbus, Ohio	WG5.2
Intl. Purdue Workshop on *Industrial Computer Systems*	21-24 Oct 91	West Lafayette, Indiana	WG5.4/ Purdue
Work. Conf. on *The Object-Oriented Approach in Information Systems*	28-31 Oct 91	Quebec City	WG8.1
Work. Conf. on *Management of Complex One-of-a-Kind Production*	12-14 Nov 91	Bremen, Germany	WG5.7
Work. Conf. on *Process Planning for Complex Machining with Al Methods*	27-29 Nov 91	Dresden, Germany	WG5.3
Work. Conf. on *Programming Environments for Concurrent Systems*	91		WGl0.3
Work. Conf. on *Stochastic Programming: Stability and Numerical Methods*	Mar 92	Wendisch-Rietz, Ger.	WG7.7/ Humboldt Univ.
Intl. Purdue Workshop on *Industrial Computer Systems*	6-9 Apr 92	West Lafayette, Indiana	WG5.4/ Purdue
Work. Conf. on *Stochastic Optimization: The State of the Art*	12-19 Apr 92	Havana	WG7.7/ Univ. of Havana
Work. Conf. on *Information System Concepts—Improving the Understanding—ISCO*	13-15 Apr 92	Alexandria	WG8.1
Seventh Symp. on *Information and Control Problems in Manufacturing*	25-28 May 92	Toronto	IFAC/ TC5
Eighth Intl. Conf. on *Computer Security—IFIP/SEC '92*	*May* 92	Singapore	TC 11
Fifth Symp. on *Man-Machine Systems*	9-11 Jun 92	The Hague	IFAC/ TC5 IFORS
Eighth Conf. on *Software for Discrete Manufacturing—PROLAMAT*	24-26 Jun 92	Tokyo	WG5.3/ IFAC
Work. Conf. on *Professional Development of Information Technology*	Jul 92	Singapore	WG3.4/NGEE ANN Polytechnic, C.S. Cent. Singapore Comp. Soc.
Seventh IFAC Conf. on *Dynamic Modelling of National Economies*	18-20 Aug 92	Beijing	IFAC/IFORS IIASA
Work. Conf. on *Integration in Production Management*	26-28 Aug 92	Eindhoven, Netherlands	WG5.7
Seventh World Congress on *Medical Informatics Informatics—MEDINFO '92*	6-10 Sep 92	Geneva	IMIA
***IFIP** Congress '92—Twelfth World Computer Congress*	**7-11 Sep 92**	Madrid	IFIP
ICCC '92	27 Sep-2 Oct 92	Genoa	ICCC
Workshop on *Geometric Modelling*	92	Budapest	TC5
Eleventh IAPR Open Conf. on *Pattern Recognition*	92	The Netherlands	IAPR
Conf. on *Feature Modelling and Recognition for CAD/CAM Systems*	Jan 93	Valenciennes, France	WG5.3/ AFCET
Work. Conf. on *Computational Techniques of Stochastic Programming*	Feb 93	Seregelyes, Hungary	WG7.7
Ninth Intl. Conf. on *Computer Security—IFIP/SEC '93*	*1 May* 93	Tokyo	TCll
Work. Conf. on *Comp.-Based Training and Hypermedia in Vocational Educatn.*	Jul 93	Soest	WG3.4
VLSI '93	Aug 93	Grenoble	WG10.5
Work. Conf. on *Statistical Aspects of Stochastic Programming*	Aug 93	Prague	WG7.7
Thirteenth Intl. Joint Conf. on *Artificial Intellligence—IJCAII '93*	29 Aug-3 Sep 93	Chambery, France	IJCAII
Workshop on *Large Scale Stochastic Programs: Applications and Solutions*	Oct 93	Jalta	WG7.7
Twelfth *IFAC Congress*	93	Sydney	IFAC
Workshop on *Stochastic Methods and Global Optimization*	*Mar* 94	Lithuania	WG7.7
IFIP Congress '94-7hirteenth World Computer Congress	**29 Aug-2 Sep 94**	**Hamburg**	**IFIP**
Workshop on *Expert Systems in Computer Integrated Manufacturing*	94	Kiev	WG5.3
World Conf. on *Computers in Education—WCCE '95*	24 **Jul** 95	UK	TC3/BCS
Thirteenth *IFAC World Congress*	96	San Francisco	IFAC

Please see page 13 for schedule of IFIP administrative meetings.

The IFIP Secretariat can furnish details of most of the events listed.

CALENDAR OF EVENTS

Event	Date	Location	Sponsored by
Work. Conf. on *The Information Systems Research Arena of the 90s: Challenges, Perceptions, and Alternative Approach*	14-16 Dec 90	Copenhagen	WG8.2
Eleventh Annual Intl. Conf. on *Information Systems-ICIS '90*	16-19 Dec 90	Copenhagen	ICIS/TC8
Workshop on *Formal Methods in VLSI Design*	9-11 Jan 91	San Juan, Puerto Rico	WG10.2/ ACM
Second Work. Conf. on *Dependable Computing for Critical Applications*	18-20 Feb 91	Tucson, Arizona	WG10.4/ TC 11, IEEE CS TC on FTC, EWICS TC-7, UoA
Fifth Workshop on *High-Level Synthesis*	3-6 Mar 91	Buehlerhoehe, Germany	WGl0.5
Work. Conf. on *Low Quality Information*	*10-12* Mar 91	Montpellier, France	TC 12
Workshop on *Material Data for Computer Aided Engineering*	19-22 Mar 91	Petten	CEC, CODATA/ TC5
Second Open Conf. on *Integrated Network Management '91*	1-5 Apr 91	Arlington, Virginia	WG6.6/ IEEE
Conf. on *Modelling in Computer Graphics*	8-12 Apr 91	Tokyo	WG5.10
Intl. Purdue Workshop on *Industrial Computer Systems*	15-18 Apr 91	West Lafayette, Indiana	WG5.4/ Purdue
Intl. Symp. on *Computer Hardware Description Languages and Their Applications—CHDL '91*	22-24 Apr 91	Marseille	WG10.2
Work. Conf. on *Computer Graphics and Education '91*	Apr 91	Barcelona	WG5.10
Workshop on *CAD/CAM Interfaces in Mechanical Engineering*	2-4 May 91	Darmstadt	TC5/ WG5.2/5.3/5.10
Work. Conf. on *Stochastic Partial Differential Equations*	3-6 May 91	Charlotte, N. Carolina	WG7.1
Work. Conf. on *Constructing Programs from Specifications*	13-16 May 91	San Francisco	WG2.1
Seventh Intl. Conf. on *Information Security—IFIP/SEC '91*	15-17 May 91	Brighton, U.K.	TC 11
Seventeenth Workshop on *Real-time Programming*	15-17 May 91	Atlanta, Georgia	IFAC/Computer Society TC5
AFRICOM '91 / CCDC '91	21-23 May 91	Tunis	TC6/ ICCC
Workshop on *Dependability of Artificial Intelligence Systems—DAISY '91*	27-29 May 91	Vienna	WG5.4/ IFAC AWICS
Workshop on *Computer Software Structures Integrating Al/KBS Systems*	29-30 May 91	Bergen, Norway	IFAC/ TC5 NFA
Twenty-third Intl. Seminar on *Manufacturing Systems*	6-7 Jun 91	Nancy, France	CRAN/CIRP WG5.3 AFCET CNRS
Eleventh Work. Conf. on *Protocol Specification, Testing and Verification*	9-12 Jun 91	Stockholm	WG6.l/ SICS
Conf. on *Partial Evaluation and Semantics-based Program Manipulation*	17-20 Jun 91	New Haven,Connecticut	ACM SIGPLAN/ TC2
Work. Conf. on *Approximations and Applications in Stochastic Programming*	17-21 Jun 91	Tallinn, U.S.S.R.	WG7.7/ IIASA
Work. Conf. on *Human Jobs and Computer Interfaces*	26-28 Jun 91	Tampere, Finland	WG9.1
Work. Conf. on *Change-Point Detection*	Jun 91	Vilnius, U.S.S.R.	WG7.1
Workshop on *Hybrid Expert System in Manufacturing*	Jun 91	Genoa	WG5.3
Work. Conf. on *The Teacher and Computing: Why, What, How and When ?*	1-5 Jul 91	Aalesund, Norway	WG3.5
Work. Conf. on *Training—from CAD to CIM*	8-12 Jul 91	Aalesund, Norway	WG3.4
Fifth Symp. on *Computer-Aided Design in Control and Engineering Systs.*	15-17 Jul 91	Swansea, U.K.	IFAC/ TC5
Thirteenth IMACS World Congress on *Computation and Applied Mathematics*	22-26 Jul 91	Dublin	IMACS
Seminar on *Social Citizenship in the Information Age*	28 Jul-2 Aug 91	Brighton, U.K.	WG9.2
Work. Conf. on *Impacts of Informatics on the Organization of Education*	5-9 Aug 91	Santa Barbara, Calif.	WG3.1
Twelfth Intl. Joint Conf. on *Artificial Intelligence—IJCAII '91*	18-23 Aug 91	Sydney	UCAII
VLSI '91	20-22 Aug 91	Edinburgh	WG10.5
Work. Conf. on *Collaborative Work, Social Communication and Info. Systs.*	27-29 Aug 91	Helsinki	TC8/ FIPA
Fifteenth Open Conf. on *System Modelling and Optimization*	2-6 Sep 91	Zurich	TC7/ AFCET IFORS OeGOR SVI/FSI SVOR/ASRO
Seventeenth Open Conf. on *Very Large Databases—VLDB '91*	3-6 Sep 91	Barcelona	VLDB
Conf. on *Computer Application in Production and Engineering—CAPE '91*	*10-12* Sep 91	Bordeaux	TC5
Workshop on *Supporting Functionality in the Office Environment*	10-12 Sep 91	Canterbury, U.K.	WG8.3/WG8.4

(continued on page 15)

IFIP Congress '92 — 12th World Computer Congress	7-11 Sep 92	Madrid	**IFIP**
IFIP Congress '94 - 13th World Computer Congress	29 Aug-2 Sep 94	Hamburg	**DIP**

Please see page 13 for schedule of **IFIP** administrative meetings.

The **IFIP** Secretariat can furnish details of most of the events listed.