IFIP newsletter
International Federation for Information Processing

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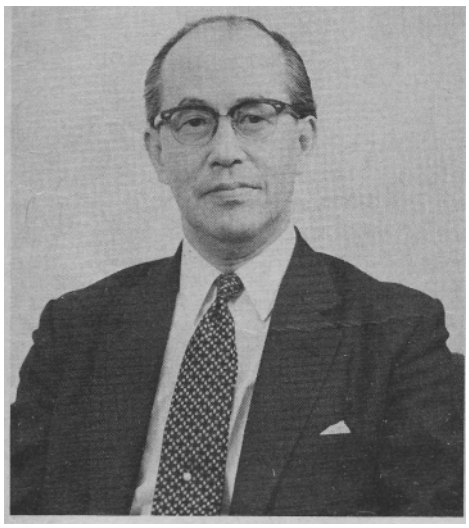
MEET DR. ANDO

New IFIP President



Dr. Kaoru Ando assumed the Presidency of IFIP at the closing ceremony of IFIP Congress '83 in September. Following is a brief biography of IFIP's new leader.

Dr. Ando was born in Tokyo. He was educated at Indiana University

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IFIP CONGRESS '83 HELD IN PARIS

9th WORLD COMPUTER CONGRESS

IFIP's most prominent activity, the triennial Congress, took place in Paris at the Palais des Congres, from Sept. 19-23. Over 2700 attended the technical sessions, while thousands visited the exhibit held in conjunction with the International Trade Show for Informatics, Telematics, Communications and Office Organization and Office Automation (SICOB).

During previous Congresses, many participants expressed the wish to see more emphasis on the practical aspects of informatics. The Program Committee (PC) accommodated these wishes by introducing new areas, e.g., application systems, office information systems, and microprocessor applications. This year's program was heavily oriented toward invited speakers and panel sessions, which occupied more than half of the program time. There were 40 invited speakers, 31 panels, and 96 submitted papers. Many notables in information processing participated. Typically, seven sessions were held simultaneously.

Information Processing 83, the Congress proceedings, were edited by Dr. Richard Mason (Canada) and published by the North-Holland Publishing Co.

The opening session was highlighted by addresses from the Prime Minister of France Mr. Pierre Mauroy and the Director General of UNESCO, Mr. Amadou Mahtar M'Bow. Also speaking were then IFIP President Prof. Pierre Bobillier (Switzerland), Organizing Committee Chairman Mr. Jacques Carteron (France), Program Committee Chairman Prof. Dionysios Tsichritzis (Canada), Organizing Committee Vice-Chairman Mr. Max Hermieu (France), and Association Francaise pour la Cybernetique Economiq ue et Technique (AFCET) President Mr. Jean - Paul de Blasis (France). In addition to the talks, the opening session was notable for its electronics: the televised images of the speakers were projected on a huge screen at the rear of the platform, and their speeches were simultaneously translated into French or English, both of which were broadcast over earphones at each attendee's seat.

The major social event of the Congress was the banquet, held in the beautiful, fourteenth century Gothic galleries of "La Conciergerie," situated in the heart of ancient Paris on l'Ile de la Cite. It was complete with musicians, balladeers, clowns, juggler and fire-eater, all in medieval raiment.

After a full week's activities, the Congress ended with a closing ceremony including addresses by Mr. Fermin Bernasconi, Director General of the Intergovernmental Bureau for Informatics, and the former President of AFCET Mr. Andre Danzin. The Silver Core awards were presented at this time. (See the separate article in this issue.) Finally, IFIP President Bobillier turned over the gavel to President-Elect Dr. Kaoru Ando (Japan), whose term continues until 1986.

The next IFIP Congress will be held in Dublin, Ireland, Sept. 1-5,1986.0

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From the Editor

The IFIP Newsletter has a threefold purpose:

1) to keep those affiliated with IFIP informed of important IFIP events,
2) to let national societies know what IFIP is doing, and
3) to publicize the work of IFIP as broadly as possible.

To succeed, it needs your help—in providing material that can be printed in these pages, and in letting me know what you like and don't like about it. Please send me material, in the form of complete articles, or suggestions for articles, or any data that can be transformed into an article.

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

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NEW IFIP ACTIVITY IN SECURITY

TC 11 CREATED

A new IFIP Technical Committee on Security (TC 11) was created by the IFIP General Assembly at its recent meeting in Paris. Mr. Kristian Beckman (Sweden) will serve as Chairman. This action is the result of the increasing worldwide awareness of the great importance of matters of computer security.

The evolution of this TC makes an interesting story. The Swedish Society for Information Processing (SSI) suggested to IFIP that a new TC for EDP security be formed. But the need for a conference on security seemed urgent, so the protagonists did not wait for a TC to be organized but proceeded to plan for IFIP/Sec'83, IFIP's First Security Conference. It was convened in just over a year, a remarkably short time for an international event of its stature. IFIP/Sec'83 was sponsored by IFIP, as well as SSI, the Swedish Agency for Administrative Development, and Honeywell Bull AB, Sweden.

It attracted 325 registrants from 20 countries to Stockholm in May, 1983. IFIP Trustee Mr. James H. Finch, Beckman, and Mr. Per Svenonius served as chairmen of the Program Committee, Organizing Committee, and Steering Group, respectively. Invited speakers included Jon Bing (Norway); Jan Freese (Sweden); and Harry DeMaio, Jerome Lobel, and Donn Parker (USA). A small exhibition complemented the program.

Mr. Beckman made the following observations in his foreword to the Conference proceedings, *Security, IFIP/SEC'83,* V. Fäk ed., published by North-Holland Publishing Co. *

The first decade of computing was characterized by the enthusiasm of pioneers—an overwhelming joy as soon as a system started to do anything similar to what it was specified to do. Errors and mishaps were like death and taxes: most people accepted them as unavoidable, while the remaining few were constantly baffled by their appearance. In the next decade, we became aware that computers should function properly and reliably; moreover, erratic behavior could and should be fought. This applied to computers and their work, as well as to disturbances in the surroundings and their effect on the computers. Now, security has become established as an area of computer specialty.

The major topics of the conference were grouped into the following areas.

Broad problems. *Computers both represent and manage immense resources. There is an urgent need not only for direct security measures but for general awareness of the situation.*

Security management. *This is the art of knowing what is in the toolbox and when to apply the different tools. It is also the art of knowing what has been done, what the effects are, what should be done next, and what should be left as it is.*

EDP security—a public concern. *Privacy is an important issue. In spite of legislation, privacy is still endangered. Misuse of confidential data is a threat to the individual's right to privacy; and for organizations in a competitive market, dissemination of such data might mean extinction.*

Access control. *This was one of the two areas in which the most papers were presented. Access control might encompass both a physical right of entry and a logical one. Papers dealt with the logical, computer-oriented aspect. Much progress has been made in this important area lately.*

Office information systems. *Office information systems create new problems concerning security. There is no central authoritative facility, little possibility to seal off secure rooms, limited storage for data and programs, a different risk pattern, etc. The distribution of computers, information, systems development, and responsibility makes it necessary to distribute security measures too. This cannot be done with old techniques.*

Facility protection. *Some knowledge in this field can be taken over directly from successful protection schemes for other valuable machines. But computers are also vital to the organization, fairly likely targets for terrorists, keepers of both secrets and "electronic money," etc.*

Education. *Security analysts must learn to do their job properly. Managers, auditors, and others must learn enough about computer security to supervise and evaluate what is done with-*

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SECURITY continued from page 2

in their fields of responsibility. Computer professionals and end users must know their responsibilities, and they must be motivated to maintain security. There is a great need for massive educational efforts. A full year university program was proposed.

Risk management. *The analysis of risk and the evaluation of measures to contain it are very important. Tools, however, have been conspicuously lacking.*

Audit. *An auditor who knows the new parts of his trade is an invaluable asset in security work. Close cooperation between auditors and security analysts is necessary.*

Cryptography. *It offers the only protection against wire-tapping, changes of data in transfer, and other similar threats. Its use in computer systems has created both new problems and new ideas in the field. A large number of papers were presented in this area.*

Contingency planning. *There must be a contingency plan in order to ensure the survival of all vital activities as far as possible, even when the impossible happens.*

Computers and the law. *Criminal activity is the classical security threat. Computers have created such enormous changes in our world that laws are no longer applicable where they should be, or they mean something different from the original intent, or they cover a situation which has changed completely. Thus, the present laws and their interpretation must be adjusted to our computerized world.*

In this changing world, computer security must evolve to support the formal and informal societal framework which we together have created. All professionals in every society must take the responsibility for their part.

TC11 plans two conferences for 1984:
- a working conference in The Netherlands in May, 1984
- a general conference in Canada in Sept., 1984. ❑

DR. ANDO continued from page 1

(USA), where he majored in Econometrics (1936); he was awarded the LL.D. degree in 1979. Indiana conferred the Distinguished Alumni Service Award on him in 1975.

From 1937-1966 he was with IBM Japan, where he became Director of Education, Personnel and Marketing and Managing Director. He also served as Advisor to GHQ, Occupation Forces from 1945-1950. Dr. Ando left IBM in 1966 to become President, then Chairman, of Fujitsu FACOM Ltd. In 1970 he became Managing Director of Fujitsu Ltd., subsequently Executive Adviser, and then Special Assistant to the President, which is his present position. Since 1967 he has been President of Fujitsu Institute of Computer Science.

From the mid 1940's until the mid 1960's, he was an instructor at Kobe, Sophia, Keio, and Konan universities. During his career, Dr. Ando has been an active member of many professional organizations with computing connections. These include honorary life membership of the DPMA (USA), executive director of the Information Processing Society of Japan, membership on Standards Committees (JIS and ISO), Agency of Industrial Science and Technology, Ministry of International Trade and Industry, Advisory Committee on Computer Education, and Japan Society for Promotion of Science, Ministry of Education.

Dr. Ando has received a number of awards, including a Blue Ribbon Medal from the Japanese Government, Meritorious Commendations by various Ministries thrice, and Distinguished Marketing Service Award by the Japan Management Association. ⊨1

IFIP ENTERS COMPUTER AGE

IBM Switzerland has donated an IBM Personal Computer to the IFIP Secretariat at the behest of IFIP's Past-President Prof. Pierre Bobillier. It is to be used to assist in office operations, such as maintenance of mailing lists. Mme. Gwyneth Roberts, Administrative Manager of the Secretariat, is delighted with the prospect of the increased efficiency to be achieved. On the other hand, skeptics who have seen the toll office automation sometimes takes say, "Good luck, Gwyneth!" ❑

IFIP AWARDS SILVER CORES

IFIP presented 35 Silver Core awards to honor those people who have rendered outstanding service to IFIP. The awards were presented at the closing ceremony of IFIP Congress '83 by then President Pierre Bobillier (Switzerland). Awards are granted by the General Assembly (GA), on recommendation of the Awards Committee. Eligible are those who have served IFIP for a period of six years or more in major roles. Awards are generally made every three years.

This year's recipients are

K. Ando (J) GA 77-83, VP 78-82, President-Elect 82-83
D. Aspinall (UK) Secy. TC10 77-81, Ch. TC10 81-83
Ø. Björke (N) VCh. WG5.3 76-83
E.K. Blum (USA) Secy. WG2.2 74-83
P. Falster (DK) VCh. & Secy WG5.7 79-83, co-Ed. 1 book
F.R. Hertweck (D) Ch. WG2.7 75-83
U. Herzog (D) Secy. WG7.3 77-82, VCh. WG7.3 83
R. Kling (USA) Ch. WG9.2 77-83
D. Kochan (GDR) Ch. WG5.3 77-83
B. Levrat (CH) Ch. PC WCCE 81
R.E.J. Lewis (UK) Ch. WG3.3 81-83, co-Ed. 4 books
F.B. Lovis (UK) Ch. WG3.1 78-83, Ar. Ch. WCCE 81
F. Margulies (A) VCh. TC9 74-83, acting Ch. TC9 82-83
R.E.A. Mason (CDN) Ed. Congress 83
G.J. Morris (UK) GA 77-83, Trustee 77-83
N. Naffah (F) Ar. Ch. Congress 83, Ed. 1 book
J.E.D. Navez (B) GA 75-83, Trustee 77-78
T.W. 011e (UK) Secy. TC8 78-83, co-Ed. 2 books
R.A. Pocock (USA) Secy. WG2.7 78-83, Secy. TC2 82-83
L. Pouzin (F) Ch. TC6 76-79
A. Pregitzer (H) Secy. WG5.2 77-83
J. Raviv (IL) GA 81-83, Ed. 2 books
P.G. Raymont (UK) Ch. WG3.4 78-83, Ar. Ch.WCCE 81
A. Rolstadås (N) Ch. WG5.6 78-83, co-Ed. 1 book
G. Sacerdoti (I) GA 77-83
D.B. Shires (CDN) co-Ed, MEDINFO 77, GA 79-83
J. Stoer (D) Ch. TC7 79-83, Ed. 1 book
T. Szentivanyi (H) Ch. PC COMNET, co-Ed. 1 book
E.D. Tagg (UK) Ed. 3 books
D.C. Tsichritzis (CDN) Ch. PC Congress 83, PC Congress 80
R.P. Uhlig (CDN) Ch. WG6.5 79-83, Ed. 1 book
A.A. Verrijn Stuart (NL) GA 80-83, Ch. TC8 77-83, Ed. 1 book
P. Voda (CDN) VCh. WG2.4 75-83
E.A. Warman (UK) Ch. WG5.2 76-81, co-Ed. 1 book
0. Zich (A) GA 77-83, IFIP Secretary 78-810

CAPE '83 HELD IN AMSTERDAM

COMPUTER APPLICATIONS IN PRODUCTION AND ENGINEERING

The First Conference on Computer Applications in Production and Engineering, CAPE '83, was held in Amsterdam this past April, organized by the IFIP Technical Committee on Computer Applications in Technology (TC5), as well as the International Federation of Computer Users in Engineering and Architecture (FACE) and the International Federation of Operational Research Societies (IFORS). Over 500 attendees from 29 countries participated. Mr. Jakob Vlietstra (The Netherlands), Chairman of TC 5, served as Chairman of the Program Committee, while Mr. S. D. Duyverman (The Netherlands) chaired the Organizing Committee.

Prince Bernhard of The Netherlands opened the program, followed by papers presented by IFIP Honorary Member Mr. Isaac Auerbach (USA) and Chairman Vlietstra. The entire program lasted 4 days and included 87 papers and 6 panel discussions. Especially great interest was shown in sessions related to Factory Automation. An exhibition held in conjunction with the conference proved valuable both to the firms displaying CAD/CAM systems and to their audience. The Conference proceedings, *Computer Applications in Production and Engineering–CAPE '83,* edited by Dr. E. A. Warman, has been published by the North-Holland Publishing Co.

Following are excerpts from the paper by Mr. Vlietstra, which summarizes the state of the art: *

Computer-aided design (CAD), computer-aided manufacture (CAM) and the use of computers in production control and material management-computer-aided logistics (CAL)---have come into their own gradually since the early 1960's, bringing about a shortening of the lead or throughput times of industrial products, a reduction of the cost-price of these products and an improvement of their quality. But there is an effect of greater importance: the advent of CAD and CAM methods has made possible the adoption of entirely new technologies.

The design process in general can be described as a succession of the following phases:

- *specification*
- *synthesis*
- *verification*
- *detailing*
- *production preparation*
- *producing the technical product documentation*

Each phase is equally important, and conceivably more and better results would have been scored if the specification and product documentation would have enjoyed the same degree of attention as the detailing phase. After all, the technical product documentation (the set of drawings in conventional terminology) presents the natural interface towards manufacture, testing (quality assurance), installation and after-sales service.

Although numerical control (NC) was mainly used for machining and forming operations, the control methods used in it were found suitable also for mechanising or automating other factory processes. And soon robots emerged. Initially the robots used were of a simple design. Programmed instructions were combined with a great many degrees of freedom of movement for picking up materials and products and carrying them to different locations, possibly with a change in spatial orientation. Later versions permitted 'human operations' to be sensed and stored in the robot's memory, enabling the robot to imitate these operations exactly. And lastly the camera was introduced to relax or overcome some of the existing constraints with regard to the location and orientation of the product to be transported or processed.

Let us summarise the principal functions that can use CAM techniques in the production environment:

- *translating technical product documentation originated in the laboratory into documentation required for manufacture and quality assurance*
- *control of manufacturing equipment (NC machines and robots)*
- *control of transportation equipment*
- *automatic testing*
- *automatic goods handling in stores.*

If CAD and CAM can be resorted to whenever required, all manufacturing activities can be timed accurately in advance. But in places where human operators still play crucial roles, allowance must, unfortunately, be made for uncertainty factors. In view of this it does strike one as somewhat absurd that many companies have included a processor or automatic machine as a standby in their production unit, yet have omitted to build a similar back-up in the form of human resources. This is particularly significant since in most cases human inventiveness and human know-how cannot just be ordered with a push of the button.

The present CAD scene shows a vast diversity of CAD programs, most of which serve for verification and detail drawing. Nothing in the way of CAD software is available in the specification and synthesis phases. Comparatively much CAD effort has been expended on product verification (simulation and analysis programs) and there is much CAD software also for detailing. This is the current situation in all engineering disciplines. Com[P]uter graphics are important and have contributed much in cash and know-how. But the new graphics culture has brought about the all-out degradation of the basis of the design process. Efforts have all focused on the automation of drawing and detailing work, and far too little CAD expertise has been addressed to the other aspects of design.

Out of the hoard of data available, much is being retrieved for production preparation. Computer programs use geometry data for the benefit of manufacturing tools (NC machines and robots). A variety of methods are used to create portions of the Technical Product Documentation. The question arises what value must be attached to a drawing, once we have the drawing information stored in a file which, although computer-oriented, can automatically generate drawings at our beck and call.

Software is going to be extended in future to include methods for specifying the product, witness the efforts already being devoted to this in the electronics industry, where attempts are beginning to be made to define the creative design process in so-called expert systems. In that development the inputting of design and specification data is still a very cumbersome task, which is performed with widely diverging computer languages. This involves the coding of information which, in the years ahead, will increasingly be offered to computers in the form of spoken words and of sketched graphics. The optical recognition of drawings is generally considered today as a great step forward.

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CAPE '83 continued from page 4

In order to obtain the ability to predict the behaviour of a future product assembly by computing procedures, it will be necessary to use computer models stored in the computer's memory. The making and handling of such models is becoming simpler and more accessible to the designer at large. Graphics work-stations are going to be indispensable in this process. Fortunately this category of equipment has already received a fair degree of acceptance in drawing offices. Expensive equipment is being replaced by cheaper devices. The advent of dedicated equipment promises to simplify the task of preparing product documentation. A point of major importance here will be the way in which the problem of integrating graphics with text will be solved in the document processors.

Since the first introduction of numerical control, using hardware which initially consisted of special controllers that were later superseded by full-fledged computers, control techniques have undergone an enormous amount of development, both for NC machines and in robotics. Among the important fruits of this development are the concept of the 'Bjorke cell', representing a computer controlling a certain number of machines, and the robot which can fetch products from a store and take them to specified machine-tools for machining. If the same computer is allowed to take care of scheduling, suh an approach makes it possible to ease the manufacturing system from one product to an entirely different product in a truly flexible manner. Flexible manufacturing systems (FMS) are currently being used only in mechanical engineering. Progress made in robotics is going to play an important role here. It will become feasible to entrust the entire task of transporting m$terials, subassemblies and finished products to robots.

Automation has entailed many social problems:

- *The know-how of designers, craftsmen and logistics experts is transferred to computer programs. This is a form of technology transfer for which those who supply their experience and knowledge receive no compensation.*
- *The working conditions, especially of graphics workstation operators, are far from ideal. Work is usually so concentrated because of the direct dialogue with an extremely fast and also extremely costly medium that, if no special precautions are taken, the operator may rapidly develop occupational stress.*
- *Working in isolation may quite well lead to major social consequences. To date most people have developed their ability to relate and communicate mainly in the occupational sphere, but now we risk depriving most of them of this valuable training ground. To many people the picture tube might develop into their principal communication medium–both at home and at work.*
- *Introducing computers means the destruction of work. The jobs created in the computer and software industry are in no way sufficient to make up for those that disappear, and the new jobs are rarely created in the same company where automation has caused jobs to disappear.*
- *We are about to be faced with the development of a huge gap between two social classes: the knowledgeable ones and those who lack this knowledge and are not even in a position to absorb it when iven access to it. In a society where the great benefits of automation consist in eliminating dumb routines, body-racking chores and dull assembly line work, we are surprised to discover people who actually did that sort of work with some measure of satisfaction.*

The biggest problem of an economic nature consists in the absence of good cost estimating and comparing methods. When will it be economically justified to computerise? In how much time will the computer and its peripherals, its crew and the concomitant changes pay for themselves? What cost factors have not been identified and what are the other numerical effects of introducing CAD, CAM, CAE?

Although mentioned last of all, probably one of the most dramatic problems is that of educating our young people and the permanent education necessary for those already active in the industry. The methods referred to in this article are still not being taught in our technical schools.0

AFIPS HONORS TANAKA

Dr. Richard I. Tanaka (USA), former IFIP President, received the 1983 Distinguished Service Award of the American Federation of Information Processing Societies (AFIPS) on May 16, 1983. The award was presented "in recognition of his many years of dedicated service to AFIPS and the international information processing community; his demonstrated leadership as chairman of the AFIPS International Relations Committee whereby he fostered a better understanding and improved relations among U.S. and foreign information processing industries, academic institutions and professional societies; and his initiative in organizing, chairing and supporting international educational and scientific conferences." Tanaka, who was AFIPS President from 1969 to 1971, is the fifth recipient of the Distinguished Service Award.

Dr. Tanaka served as IFIP President from 1974 to 1977. His work with IFIP included chairing several committees, most recently the IFIP Committee for International Liaison, which conducts relations with other information processing organizations. He also formed the IFIP Committee: Informatics for Development (ICID), under the auspices of UNESCO, to help support technologically-oriented seminars, conferences, and study programs in developing countries. In recognition of his extraordinary service to IFIP, this organization named him an honorary member in 1979, a distinction that IFIP has granted to only two other persons: Mr. Isaac Auerbach (USA) and Prof. Heinz Zemanek (Austria).

Dr. Tanaka is currently president and chief executive officer of Systonetics, Inc., a company that develops and installs project management software systems. Prior to this position, he headed a consulting firm dealing with the management and marketing of high technology products. ❑

IFIP TO CREATE STATE-OF-THE-ART REPORTS

A series of state-of-the-art reports will be created by IFIP, according to a decision of the General Assembly in Paris in September. The proposal was put forward by Mr. Gerhard Rossbach, Computer Science Editor of Springer-Verlag, Heidelberg. His plan calls for IFIP Working Groups to produce survey reports of the state of the art in their areas of interest, each report being 200 to 300 pages long. Royalties will be shared between the IFIP editors and IFIP.

These reference reports are intended to be more tutorial and less detailed than the majority of IFIP publications, which are typically conference proceedings containing papers on the latest developments in specific fields. By means of this new publication venture, IFIP plans to further disseminate its expertise in information processing. ❑

IFIP GENERAL ASSEMBLY MEETS

NEW OFFICERS ELECTED

The IFIP General Assembly (GA), comprising one representative from each of the 43 national members societies and honorary, associate, and affiliate members, met in Paris in September, just preceding IFIP Congress '83. Prof. Pierre Bobillier (Switzerland) presided, ending his second term as President. In his report he noted the new areas of technical activity in which IFIP has become involved and the conferences that have been established on a regular basis during his presidency. In addition, he called attention to *Computer Compacts* and other new 1FIP publications. The increase in national membership of IFIP was also highlighted.

Among the actions taken by the GA were the election of Mr. Ashley Goldsworthy (Australia) as Vice-President; the election of four trustees: Mr. J. Finch (Canada) for a second term, Prof. 0. Longe (Nigeria), Dr. Ing. G. Sacerdoti (Italy), and Acad. B. Sendov (Bulgaria); and Prof. R. Narasimhan (India) as an Individual Member of the GA from 1983 to 1986. The Greek Computer Society was admitted as the 44th full member of the GA, and the Federation of Associations of Computer Users in Engineering, Architecture, and Related Fields (FACE) and the International Joint Conferences on Artificial Intelligence, Inc. (IJCAII) were admitted as affiliate members, bringing the number of such affiliates to 6.

Treasurer Owen Dalton (Ireland) reported that IFIP's finances are relatively healthy. Some of IFIP's assets will be placed in the new IFIP Development Fund, which will be used to support new initiatives and stimulate existing projects. The monies will be disbursed at the discretion of the Activity Planning Committee Chairman at the request of Technical Committee (TC) Chairmen, Task Groups, and other relevant groups. Some 15 000 SFr have been allocated for each of the first two years.

TC chairmen and affiliate member representatives presented their annua reports to the GA, detailing 42 conferences and workshops sponsored by IFIP during the past year. A new area of activity for IFIP, Computer Security, was chartered in the form of TC11, with Mr. Kristian Beckman (Sweden) as its chairman. (See the separate article on TC11 in this issue.) Two new Working Groups were formed: WG3.5, Informatics in Primary/Elementary Education, and WG5.8, Product Specification and Product Documentation.

The GA approved plans for a quarterly IFIP Newsletter and appointed Dr. Jack Rosenfeld (USA) Editor. Also. it approved publication of a series of state-of-the-art reports by Springer-Verlag. (See the separate article in this issue). Kenneth Owen has completed several articles on the work of IFIP TCs, and others are planned. These reports have been well received.

New Task Groups were appointed as part of IFIP's continuing concern to insure its organization and procedures are optimum. One headed by Mr. Graham Morris (UK) is reviewing the organization of IFIP activities (the structure of TCs and affiliate members). The other, chaired by Mr. George Glaser (USA), is studying the review process by which IFIP TCs receive external guidance concerning their operations.

At the end of IFIP Congress '83, outgoing President Bobillier turned over the gavel to President-Elect Dr. Kaoru Ando (Japan) and wished him success during his presidency.

The IFIP Council will meet next March in the Republic of South Africa, and the GA will meet in September, 1984 in Bulgaria. ❑

Individual copies of this Newsletter are available from the 1F1P Secretariat at the address given below. Multiple copies may be purchased at cost; prices will be furnished upon request. Please apply to the Secretariat in order to be added to (or removed from) the mailing list.

The Secretariat can also provide other information about 1F1P.

1F1P Secretariat
3, rue du Marche
CH-1204 Geneva, Switzerland

CALLS FOR PAPERS

IFIP Second International Working Conference on Computer Applications in Food Production and Agricultural Engineering
sponsors: Computer Society of India and IFIP TC 5 and ICID
Mar 19-22 1984, New Delhi, India
papers due: Jan 1 1984
contact: Mr. R.C. Malhotra, c/o Computer Maintenance Corp. Ltd., 8-F, Hansalaya, 15 Barakhamba Road, New Delhi 110 001, India

IFIP Working Conference on Industrial Robotics in Discrete Manufacturing
sponsors: IFIP WG 5.3 and IFAC
Jun 6-8 1984, Como, Italy
papers due: Jan 15 1984
contact: Giuseppina Gini and Marco Somalvico, Dipartimento di Elettronica, Politecnico di Milano, Piazza L. da Vinci 32, 1-20133 Milano, Italy

Tenth Symposium on Microprocessing and Microprogramming, **EUROMICRO** 84
Aug 28-30 1984, Copenhagen, Denmark
scientific papers due: Feb 15 1984,
Final version: May 6 1984
contact: Bjørn Myrhaug, Tandberg Data A/S, P.O. Box 9, Korsvoll, Oslo 8, Norway
short notes due: Jun 1 1984
contact: Derek Wilson, Polytechnic of Central London, 115 New Cavendish Str. London W1M 8JS, UK
industrial papers summary due: May 20 1984
contact: Robin Gurden, Industrial Seminars Ltd., Convex House, 43 Dudley Rd., Turnbridge Wells, Kent TN1 1 LE, UK

Workshop: The Benevolent Bureaucracy: Can Information and Communication Technology be Used to Promote it?
sponsor: 1FIP WG 9.2
Sep 1984, Jouy-en-Josas (Paris), France
contact: Richard Sizer, 26 Avenue Road, Farnborough Hants, GU1 47B, UK

International Symposium on Network in Office Automation
sponsor: 1F1P TC 6
Sep 25-30 1984, Sofia, Bulgaria
abstract due: Dec 15 1983
contact: Symposium Secretariat IFIP'84 , Institute of Mathematics with Computer Center, P.O. Box 373, Sofia, Bulgaria

International Symposium on Networks 84
sponsors: Computer Society of India and IFIP TC 6
Oct 23-25 1984, Madras, India
contact: Prof. H.N. Mahabala, Computer Centre, Indian Institute of Technology, Madras 600 036, India

WCCE/85 - World Conference on Computers in Education
sponsors: IFIP TC 3 and AFIPS
Jul 29 - Aug 2 1985, Norfolk, VA, USA
papers due: Aug 1 1984
contact: John McGregor, Computer Science Dept., Christopher Newport College, Newport News, VA 23606, USA

CHANGES IN IFIP

NEW APPOINTMENTS

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NEW IFIP PUBLICATIONS*

CONFERENCE PROCEEDINGS

Information Processing 1983. Proceedings of the IFIP Congress, Paris France, Sep 1983, (R.E.A. Mason, Ed.)

Theory and Application of *Random Fields,* Proceedings of the IFIP WG 7.1 Working Conference, Bangalore, India, Jan 1982 (G. Kallianpur, Ed.), pub. Springer-Verlag 1983

Advances in CAD/CAM, Proceedings of the Fifth International IFIP/IFAC PROLOMAT Conference, Leningrad, USSR, May 1982, (T.M.R. Ellis, 0.1. Semenkov, Eds.)

CAD System Framework, Proceedings of the IFIP WG 5.2 Working Conference, Røros, Norway, Jun 1982, (K. Bø, F. Lillehagen, Eds.)

Formal Description of *Programming Languages, II,* Proceedings of the IFIP TC 2 Working Conference, Garmisch-Partenkirchen, FRG, Jun 1982 (D. Bjørner, Ed.)

Processes and Tools for Decision Support, Proceedings of the IFIP WG 8.3 and II ASA Joint Working Conference, Schloss Laxenburg, Austria, Jul 1982, (H.G. Sol, Ed.)

Mathematical Modeling in Immunology and Medicine, Proceedings of the IFIP TC 7 Working Conference, Moscow, USSR, Jul 1982, (G.I. Marchuk, L.N. Belykh, Eds.)

Modelling and Data Analysis in Biotechnology and Medical Engineering, Proceedings of the IFIP WG 7.1 Working Conference, Ghent. Belgium, Aug-Sep 1982, (G.C. Vansteenkiste, P,C. Young, Eds.)

Systems Design for, with, and by the Users, Proceedings of the IFIP WG 9.1 Working Conference, Riva del Sole, Italy, Sep 1982, (U. Briefs, C. Ciborra, L. Schneider, Eds.)

Ship Operation Automation IV, (Computer Applications in Shipping and Shipbuilding — 10), Proceedings of the IFIP/IFAC Symposium, Genoa, Italy, Sep 1982, (E. Volta, Ed.)

The Impact of New Technologies on Information Systems in Public Administration in the 80's, Proceedings of the First IFIP Conference on Governmental and Municipal Data Processing, Vienna, Austria, Feb 1982, (H. Kraus, Ed.)

Computer Applications in Production Engineering, CAPE '83, Proceedings of the IFIP TC 5/FACE/IFORS International Conference, Amsterdam, The Netherlands, Apr 1983, (E.A. Warman, Ed.)

Satellite and Computer Communications, Proceedings of the IFIP TC 6/ AFCET/SEE International Symposium, Versailles, France, Apr 1983 (J.-L. Grange, Ed.)

Security, IFIP/Sec '83, Proceedings of the First Security Conference, Stockholm, Sweden, May 1983 (V. Fåk, Ed.)

Computer Hardware Description Languages and their Applications, Proceedings of the IFIP WG 10.2 Sixth International Symposium, Pittsburgh, Pennsylvania, U.S.A., May 1983 (T. Uehara, M. Barbacci, Eds.)

Protocol Specification, Testing and Verification, III, Proceedings of the IFIP WG 6.1 Third International Workshop, organized by IBM Research, Rüschlikon, Switzerland, May-Jun 1983 (H. Rudin, C.H. West, Eds.)

Information Systems Design Methodologies, A Feature Analysis, Proceedings of the IFIP WG 8.1 Working Conference, York, U.K., Jul 1983 (T.W. 011e, H.G. Sol, C.J. Tully, Eds.)

Beyond Productivity: Information Systems Development for Organizational Effectiveness, Proceedings of the IFIP WG 8.2 Working Conference, Minneapolis, Minnesota, U.S.A., Aug 1983 (Th.M.A. Bemelmans, Ed.)

VLSI '83, Proceedings of the IFIP TC 10/ WG 10.5 International Conference on Very Large Scale Integration. Trondheim, Norway, Aug 1983 (F. Anceau, E.J. Aas, Eds.)

Medinfo 83, Proceedings of the Fourth World Conference on Medical Informatics, Amsterdam, Aug 1983, (J.H. van Bemmel, M.J. Ball, 0. Wigertz, Eds.)

JOURNALS

Computers in Industry, The International Journal of IFIP TC 5— four issues per year

Information & Management, The International Journal of Information Systems Applications—six issues per year

Microprocessing and Microprogramming, The Euromicro Journal—ten issues per year

Computer Networks, The official Journal of the International Council for Computer Communication—six issues per year

Computers & Security, The International Journal of IFIP TC I 1 —four issues per year

* published by North-Holland in 1983, unless otherwise noted

CALENDAR OF I FIP EVENTS
For the Year Ahead

Event	Dates	Location	Organized by
Symposium on *Network 84*	Feb 84	India	TC 6
Working Conference on *Stochastic Differential Systems*	12-17 Mar 84	Marseilles, France	WG 7.1
2nd Working Conference on *Computer Application in Food Production and Agricultural Engineering*	19-22 Mar 84	New Delhi, India	TC 5/CSI/ICID
General Conference on *Performance of Computer Communication Systems*	21-23 Mar 84	Zurich, Zwitzerland	WG 7.3 & TC 6, et al.
Working Conference on *Modelling for the Development of the Third World, National, Regional and Global*	Mar 84	Latin America	TC 7
Workshop on *Hardware Supported Implementation of Concurrent Languages in Distributed Systems*	Apr 84	Bristol, UK	WG 10.3
Working Conference on *Evidence of Social Change Caused by Computers in Education*	30 Apr-4 May 84	Toronto, Canada	**TC's** 3 & 9
Working Conference on *Protocol Specification, Testing and Verification*	Apr/May 84	N.Y., USA	WG 6 I
Working Conference on *Computer-Based Message Services*	1-4 May 84	Nottingham, UK	WG 6.5
Working Conference en *The Role of Programming in Teaching Informatics*	7-11 May 84	Paris, France	TC 3
Working Conference on *Impact of Informatics on Vocational Education*	14-18 May 84	Jerusalem, Israel	WG 3.4/IPAI
International Conference on *Data Communication in Developing Countries*	21-23 May 84	Tunisia	TC 6
Working Conference on *Security Management/Office Automation Security*	24-25 May 84	Netherlands	TC11
Working Conference on *Personal Control and Information System:*	28-30 May 84	Vienna, Austria	WG 9.1
Working Conference on *Industrial Robotics in Discrete Manufacturing*	6-8 Jun 84	Como, Italy	WG 5.3/IFAC
14th International Symposium on *Fault Tolerant Computing*	Jun 84	Orlando, Florida, USA	WG 10.4/IEEE
Working Conference on *Interconnected High Performance Persona Computer Systems*	2-4 Jul 84	Tromso, Norway	TC 6
Working Conference on *Knowledge Representation for Decision Support Systems*	24-26 Jul 84	Durnam, UK	WG 8.3
Working Conference on *Informatics and Teacher Training*	25-29 Jul 84	Birmingham, UK	WG 3.1
7th International Conference on *Pattern Recognition*	30 Jul-2Aug 84	Montreal, Canada	1APR, et al.
Open Conference *VLSI 84*	18-21 Aug 84	California, USA	WG 10.5
Working Conference on *Recent Advances in System Modelling and Optimization*	27 Aug - 1 Sep 84	Santiago, Chile	WG 7.1
Working Conference on *Modelling of Production Management Systems*	29-31 Aug 84	Copenhagen, DK	WG 5.7
General Conference *IFIP/Sec 84*	10-13 Sep 84	Toronto, Canada	TC 11
Working Conference on *New Generation Computer Architecture*	17-19 Sep 84	Manchester, UK	TC 10
Working Conference on *System Programming Languages Experiences and Assessment*	17-21 Sep 84	Canterbury, UK	WG 2.4/IFORS
International Conference on *Women, Work and Computerization*	17-21 Sep 84	Riva del Sole, Italy	WG 9.1
Symposium on *Network in Office Automation*	25-30 Sep 84	Sofia, Bulgaria	TC 6
Working Conference on *Security and Authentication in OSI Architecture*	Sep 84	9	TC 6/NBS
Working Conference on *Stochastic Differential Systems*	Sep 84	Baku, USSR	WG 7.1
Working Conference on *Stochastic Differential Systems*	Sep 84	Visegrad, Hungary	WG 7.1/Hung. Acd. of Sci.
Workshop on *The Benevolent Bureaucracy*	Sep 84	Jouy-en-Josas, France	WG 9.2
Workshop on *Information Society versus Energy Society*	Sep 84	Paris, France	TC 9
Working Conference on *Functional Programming Languages and Computer Architecture*	Sep 84	Nancy, France	TC 10/TC2
Working Conference on *The Role of Informatics in Health Data-Coding and Classification System*	Sep 84	Ottawa, Canada	1MIA
Symposium *Networks 84*	23-25 Oct 84	Madras, India	TC 6
Conference *ICCC 84*	30 Oct-3 Nov 84	Sydney, Australia	ICCC
Working Conference on *The Role of Informatics in the Reconstruction of Health Care Systems*	Oct 84	Brindisi, Italy	**IMIA**
Working Conference on *Stochastic Modelling and Filtering*	10-15 Dec 84	Rome, Italy	WG 7.1
Working Conference on *Conceptual Schema Design Methodology*	Dec 84	Belgium	WG 2.6
Working Conference on *Use of Graphics in Ship Design*	late 84	Copenhagen, DK	WG 5.6
Working Conference on *Expert Systems Applied in Marine Activities*	late 84	Glasgow, Scotland	WG 5.6
Working Conference on *Knowledge Based Systems for CAD*	84	Budapest, Hungary	WG 5.2

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