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International Federation for Information Processing
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TC3 Holds Conference in Zimbabwe on Building Computer Infrastructure for Education

*Dr. Deryn Watson (GB) **

It is clear that developing countries experience problems of capacity and access in relation to physical infrastructure, skilled manpower, technology, and knowledge. These all hinder progress in the use of information technology **(IT)** in education. But it is also clear that many developed countries experience similar problems. In order to address these problems, the **IFIP** Technical Committee on Education (TC3) and three of its Working Groups (WGs) organized a working conference to bring together people from all environments to share and discuss the specific needs of developing countries.

One hundred twenty delegates from 33 different nations met in Harare, Zimbabwe, in the last week of August 1997 for the conference, entitled Capacity Building for Information Technologies in Education in Developing Countries — CapBIT 97. Many of the delegates, from as far afield as Thailand and Namibia, Botswana and Nepal, China and Iceland, Nigeria and Australia, were attending an **IFIP** event for the first time. The conference was the subject of many TV and radio broadcasts in Zimbabwe and was featured in the main TV news.

CapBIT addressed the whole education and training cycle — from research, materials, and courseware development, delivery, records management, and testing to support and consultancy. The focus was on the environment in developing countries, where the physical and technical resource infrastructure poses particular challenges. The programme was built around 30 invited papers, from delegates representing a range of developed and developing nations, and ten discussion groups, which met daily to share experiences and reflections on needs and practice. By the end of five days, these groups had produced a series of reports and recommendations for strategic planning at national and regional levels.

A particular feature of these reports was the emphasis placed on professional development and networking during, rather than after, the development of technical infrastructures. The experience of many from the more developed nations was that failure to incorporate curriculum and professional concerns into policy initiatives contributed to a lack of success. The conference was addressed by the Minister for Education of Zimbabwe, who was most interested to see the initial suggestions from the panels posted up in the information market place. We concluded with a panel where members from a number of donor agencies, including UNESCO, discussed with delegates the issues that influence their support for IT projects in education in developing countries.

A Milestone

This conference was a milestone in many ways — it was the first time a TC3 working conference had taken place in the developing world and the first time that three TC3 WGs (those for IT in elementary, secondary, and professional and vocational education) had joined forces to mount an event. All three WGs held their annual general meetings during the con-

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* vice-chair of **IFIP** Working Group 3.1 and chair of the CapBIT International Program Committee

Symposium on Network Information Processing Systems Was Held in Bulgaria Last October

*by Prof. Kiril Boyanov (BG) **

The fourth **IFIP** symposium on Network Information Processing Systems was held from 14 to 16 October 1997 in Sofia, Bulgaria, organized by the Bulgarian Academy of Sciences and sponsored by the **IFIP** Technical Committee on Communication Systems (TC6), with financial support from the Open Society Foundation. The major topics of the symposium were Network Standards and Protocols, Network Management, Network Interconnection and Network Applications, Broadband Networks, and Wireless Communications.

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• member of TC6 and chair of the Symposium International Program and Organizing Committees

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Please send announcements of conferences, workshops, and other meetings directly to the Secretariat, which prepares the Calendar of Events. Calls for papers should be sent to both the Secretariat and the *Newsletter* editor.

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The British Computer Society

*by Dr. Roger Johnson (GB) **

The British Computer Society is celebrating its 40th birthday. From its inception, it has combined the role of being both a learned and a professional society. It has sought to provide leadership to a profession that, collectively, is permanently transforming our society and doing it in a timescale far quicker than the last great changes of the industrial revolution of the 18th and 19th centuries. While focused primarily on the UK, the BCS has always been active internationally, through both formal and informal relationships. The BCS was a founder member of both **IFIP** and, more recently, the Council of European Professional Informatics Societies (CEPIS). With 35,000 members, it is much the largest society in Europe.

For the past decade, the BCS has committed itself to promoting informatics as an engineering activity. Building large-scale, integrated information systems is a skilled and challenging profession in the heroic engineering tradition more readily recognised by the public in the great structures of the later industrial revolution. With greater public understanding will come public support for the insistence of the BCS on high professional entry standards as a necessary guarantee of the public interest and the profession's good standing.

Membership

The BCS membership structure covers both professionals and non-professionals and includes 10,000 student members. However, the strength of the society is in the 20,000 people in its three professional grades. Associate Member, Member, and Fellow are open to those suitably qualified on the basis of academic achievement, training and experience. The length of training and experience depends upon the level and informatics content of the academic qualification held, but the minimum requirement for Member grade is two years' post-university training plus two years' relevant experience. Working in informatics at the end of the 20th century is a rare privilege because of our ability to transform the world we live in. However, that power to change needs to be exercised in a disciplined manner. No other industry is so international. Software specified in one country can be written in another and run on machines in a third by users in a fourth. The BCS

BCS

believes that if humanity is to enjoy the benefits of high-quality information systems, it is essential to achieve high professional standards worldwide. The BCS invites all its fellow member societies in **IFIP** to join it in that important endeavour.

Professional Formation and Career Development

The BCS has accredited university courses for many years, ensuring that each course is a suitable blend of engineering skills with scientific knowledge. As our profession has matured, the BCS has stressed the need for lifelong career development. This has been promoted through what is surely one of its greatest single successes — the Professional Development Scheme and the Industry Structure Model (ISM). Through the European Informatics Skills Structure, which was developed from the ISM, it continues to spread around Europe, Canada, and elsewhere, having been translated into five other European languages.

Learned Society

The BCS has always recognised up-to-date technical expertise as essential for its members. The BCS currently has over 50 specialist groups bringing together individuals with a shared interest in some aspect of our technology or its application. They are a reflection of the ever-changing pattern of our industry, with old groups withering away as new ones rise to support new interests.

At the frontiers of knowledge, the *Computer Journal* is the leading European academic informatics journal, supported in recent years by other more specialised journals. Access to more general technical knowledge has been provided in a number of ways, including the *Computer Bulletin* magazine and the *Practitioner* book series.

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***** **IFIP** trustee and former president of the British Computer Society

DR. KAORU ANDO

11 May 1914 — 20 November 1997

A Tribute

I regret to announce the passing of **Dr. Kaoru Ando** in November, at the age of 83. He was formerly president of **IFIP,** director and member emeritus of the Information Processing Society of Japan (IPSJ), executive director of Fujitsu Limited, and president of Fujitsu FACOM Information Processing Corporation.

In his lifetime, he held a point of view and an abundance of experience that could be termed nothing less than "global," making him something of a rarity among his contemporaries. In 1937, after graduating from the Department of Management Studies of Indiana University in the U.S., he joined the Watson Statistical Accounting Machines Corp. of Japan (now IBM Japan Ltd.), where he was involved in the sale of punched card systems. Immediately following the end of the Second World War, **Dr. Ando** became a consultant to the General Headquarters of the Allied Powers in such areas as social statistics, economic statistics, and social analysis and simulations.

He then returned to IBM Japan Ltd. and helped launch the Japanese general-purpose-computer business. Following this, he became an executive director and served as a special advisor to IBM Asia Ltd. After joining Fujitsu FACOM Information Processing Corporation in 1966, he was broadly successful in the information processing industry, not only in Japan but also on an international scale. In the autumn of 1974, he was awarded the Medal with Blue Ribbon from the Japanese Government for his contribution to industrial computerization in Japan.

In 1977, the IPSJ appointed him to he the Japanese representative to **IFIP,** and during his first General Assembly, he was elected **IFIP** trustee. The next year, he was elected vice-president, and in 1983 he became the first Japanese president of **IFIP.**

Following this successful career, he was quite active as the chairman of the international committee of the IPSJ.

While meeting his obligations in the highly responsible role as president of **IFIP, Dr. Ando** was also involved in establishing and running such international organizations as the Japan-America Institute of Management Science (JAIMS). His work helped to encourage more internationally oriented viewpoints and attitudes among the people in the Japanese information processing industry.

With his great, magnanimous personality, **Dr. Ando** advocated, from early on, the importance of information literacy and cross-cultural understanding — through **IFIP,** JAIMS, and his personal computer network. I cannot help but admire him all the more for the visionary ideas he shared with us.

Dr. Ando worked very hard to realize the information processing society of the future. He was a global citizen about whom Japan could proudly boast, and a man who was still very much needed by his country. I regret that the world will no longer be able to benefit from his contributions to the information industry.

Takuma Yamamoto
President Emeritus, Fujitsu Limited

Some Personal Remembrances

With the death of **Dr. Kaoru Ando,** Japan lost an effective spokesman and representative, **IFIP** lost a distinguished alumnus, and we who knew him lost a friend.

Although a man's legacy is often measured in terms of material success and public acclaim (and on this basis, **Kaoru Ando** ranked well), perhaps more important are issues of family and children and the esteem and respect of those who knew him — and on that basis, **Dr. Ando** ranks at the top.

Dr. Ando started his career focused primarily on moving his country forward in computer technology. He described his job change of years ago, from a senior position with an American computer company to a position of responsibility with a Japanese company, in patriotic terms: that the opportunity was presented to him to do "what was good for the country." In a society where employment changes were almost never made, this was a major event.

But as time went on, he became increasingly involved in the international aspects of computer technology. He had deep-seated convictions as to the importance of international cooperation. His basic abilities, coupled with his proficiency in the English language, qualified him uniquely as a spokesman and representative. Through IPSJ, he became the delegate to **IFIP,** which led eventually to his election as an **IFIP** President.

Some fundamental differences in approach soon surfaced, because his roots were in a consensus-driven society, where decision-making was a building process, an approach different from the confrontational behavior often found in Western organizations. He and I had many discussions about these differences, and even as he made progress in learning the art of working with a varied and colorfully different international General Assembly, it distressed him that the bounds of courtesy and consideration were sometimes less evident than he would have liked. He was, at all times, a gentleman ... and a gentle man. Perhaps the General Assembly recognized his dedication to the "high road" he traveled by voting him an Honorary Member soon after he finished his term as President.

He came to **IFIP** with the charter of raising the level of Japan's support and commitment to **IFIP,** and he was instrumental in overseeing the reorganization of IPSJ into Technical Committees that directly mirrored the **IFIP** organization. I believe that this was the first instance of a national society so strongly aligning itself with the **IFIP** structure.

In recent years, **Dr. Ando** and I met frequently, usually for dinner during my business trips to Tokyo. On one occasion, we met soon after his wife, **Ayako,** who usually accompanied him to the major **IFIP** events, had passed away. This was, of course, a major loss. They were a devoted couple. While he had the dedicated support of his children and grandchildren, he preferred to maintain his independence. Even so, it seemed to me, in subsequent visits, that he seemed progressively more frail and detached.

Dr. Ando accomplished much in his lifetime, for his country and also for the international community. Yet, there were aspirations and hopes and dreams not fully realized. He wanted to do more, and I believe he was successful in communicating these unrealized objectives to his colleagues, in industry as well as in IPSJ. So, even as we celebrate his considerable accomplishments, we should also remember him for what he stimulated others to do. This is his legacy ... to his beloved country and to the world at large.

Good-bye, old friend. We miss you now, and will miss you in times ahead.

Rickard I. Tanaka
IFIP Honorary Member
IFIP President: 1974-1977
U.S. Representative: 1969-1979

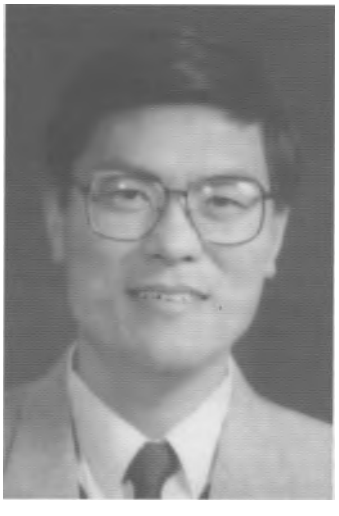
Tutorials, Social Events, and Fees Are Announced for IFIP Congress '98

Within the next few weeks, the program for the 15th **IFIP** World Computer Congress (31 August — 4 September 1998 in Vienna and Budapest) will be available both on the Web and in a printed version. (Addresses can be found at the end of this article.) The International Program Committees of the seven component conferences of the Congress have been reviewing a large number of papers and poster presentations and setting up the different tracks and sessions, with invited speakers, the presentation of submitted contributions, and plenary sessions. The seven conferences of **IFIP** Congress '98 are as follows:

14th International Information Security Conference (SEC '98)
6th International Conference on Computers Helping People with Special Needs **(ICCHP '98)**
2nd International Conference on Intellectual Property Rights **(KnowRight '98)**
Telecooperation: The Global Office, Teleworking, and Communication Tools
Distance Learning, Training and Education **(Teleteaching '98)**
Information Technology and Knowledge Systems **(IT & KNOWS)**
Fundamentals: Foundations of Computer Science

Keynote Speakers

The International Program Committee for the Congress has already announced the names of keynote speakers and the tutorial program for the Congress, as well as other information of interest to potential delegates.



Keynote speaker Prof. Yunhe Pan (PRC)
*(The photograph was received too late for inclusion in a prior **IFIP** Newsletter.)*

As mentioned in the September 1997 ***IFIP*** *Newsletter,* each Congress day will start with a keynote presentation, by a renowned speaker, to the participants of all conferences:

Monday, 31 August 1998:
Dr. Gordon Moore (USA)
Tuesday, 1 September 1998:
Prof. Yunhe Pan (PRC)
Thursday, 3 September 1998:
Dr. George Metakides (GR)
Friday, 4 September 1998:
Prof. Andries van Dam (USA)

Tutorials and Workshops

The tutorial program in Vienna on 30 August (Sunday) is as follows:

High-Level Issues in Internet Security by **E. B. Fernandez** (USA)
Structured Design of Hypermedia Applications by **Tomas Isakowitz** (USA)
The Engineering and Re-engineering of Information Systems: From Formalized Descriptions of Business Processes to Automatic Workflow Applications by **Michael Sherwood-Smith** (IRL), **Jean-Loup Chapelet** (CH), and **Christine Poupa** (CH)
Mobile Networks and Intelligent Computing by **Ben Wah** (USA) and **V. Bharghavan** (USA)
Formal Specification of Computer Systems: Selected Methods and Supporting Software Tools by **Jan Madey** (PL)

The tutorial program in Budapest on 5 September (Saturday) is as follows:
Electronic Commerce by S. H. **von Solms** (ZA)
Collaborative Technologies by **Lisa Neal** (USA)
Building Usable and Useful Tools for Software Maintenance and Evolution by **Anneliese von Mayrhauser** (USA)
Document Design, Document Markup, and the Converging Worlds of Computer Typesetting and Electronic Publishing by **Philip Taylor** (UK) and **Jiri Zlatuska** *(CZ)*
Formal Software Engineering: From Domain Engineering via Requirements Engineering to Software Design — a Formal Specification and Design Calculi Approach by **Dines Bjørner** (DK)

Workshops will also be held before and after the Congress. There will be two categories of workshops: the component conferences of the Congress have announced workshops on relevant topics; in addition, workshops with topics of general interest will be organized in both Vienna and Budapest. Details will be available via the Congress home pages.

Fees

The tutorial fees will be the very low amount of 600 ATS per tutorial for registered Congress delegates and 3600 ATS for others. (ATS Austrian shillings; on 26 January, $1 US = 12.6 ATS, £1 UK = 20.7 ATS.)

The registration fees (in ATS) for the Congress have also been announced:

	Before 12 June	After 12 June
Members *	6700	7700
Students	3300	3800
Others	7500	8500

* Individuals belonging to Member societies of **IFIP** or CEPIS.

An additional 5% discount from the early registration fee is offered to those who register before 10 April. For speakers and participants from developing countries or countries with emerging economies, special funds will be provided, on request. E.g., organizers have received a grant from the European Union to support speakers and participants from Eastern European countries and developing countries in the Mediterranean area. Also, a special discount is offered for groups.

In addition to permitting the delegate to attend plenary sessions and sessions of all the individual conferences, the registration fee includes the printed proceedings of the conference the delegate has registered for, a CD-ROM with the proceedings of all conferences, and coffee-break refreshments on all Congress days.

Social Events

The registration fee also includes the cost of the following social events:

- welcome cocktail party on Sunday, 30 August
- reception by the Lord Mayor of Vienna, with music and dancing, on Monday, 31 August
- reception by the Council of European Professional Informatics Societies (CEPIS), celebrating its tenth anniversary, on Tuesday, 1 September, in the late afternoon
- Hungarian evening in Budapest, on Thursday, 3 September
- the Vienna-Budapest transfer by train and ship on the picturesque Danube River, on Wednesday, 2 September

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Plans Are under Way for IFIP Congress 2000

IFIP Delegation Visits China

*by Mr. Plamen Nedkov**

An **IFIP** delegation, comprising President **Kurt Bauknecht** (CH), President-Elect **Peter Bollerslev** (DK), Publications Committee Chair **Roger Johnson** (GB), and Executive Director **Plamen Nedkov,** visited China to meet on 14 and 15 December 1997 with leaders and senior representatives of the Chinese hosts of **IFIP** Congress 2000: the Chinese Institute of Electronics, the Chinese Computer Federation, and the Chinese Communication Society.

The consultations demonstrated the strong intent of both sides to energize Congress 2000 preparations. The 16th **IFIP** World Computer Congress, endorsed and supported by the Chinese government and leading national institutions, will take place 21-25 August 2000 in the Beijing International Convention Center under the general theme "Information Processing: Beyond the Year 2000." It will convene as an umbrella organization of pre- and post-Congress tutorials, exhibitions, technical visits, and eight parallel conferences in the following fields:

- Computer Applications in Manufacturing and Management
- Artificial Intelligence and Neural Networks
- Communication Technologies
- Signal Processing
- Software: Theory and Practice
- Integrated Circuit CAD and Application-Specific Integrated Circuits
- Computers in Education
- Computer Security

The conferences will be co-chaired by **IFIP** Technical Committee (TC) representatives and Chinese specialists. **IFIP** TCs are encouraged to take an active role in the program and conference design, which is intended to reflect regional priorities and geared towards world issues.

A representative Chinese delegation will attend the March 1998 **IFIP** Council in Manchester, U.K., to consult with **IFIP** officials, committees, and TC chairs on issues relating to program design and co-chair appointments, and to report to Council on progress. It is the intention of the **IFIP** president to appoint a new Congress 2000 International Program Committee (IPC) chair during Council '98.

The **IFIP** delegation visited the Congress locale and the on-site hotel facilities and was pleased to observe the advanced technological and service infrastructure. These facilities, along with the strong cultural attraction, the Chinese hospitality, and the organizational commitments of our hosts, will be important factors for a successful **IFIP** Congress 2000. ■

*IFIP delegation and Chinese hosts in Beijing. Front row, from left to right: Prof. Sha (Congress OC chair), Mr. Nedkov (IFIP Executive Director), Prof. Yang (Congress IPC Vice-Chair), Prof. Bauknecht **(IFIP** President), Prof. Sun (CIE President), Dir. Bollerslev **(IFIP** President-Elect), Prof. Yan **(IFIP** Trustee)*

* Executive Director of **IFIP**

CONGRESS '98 cont. from prior page

For accompanying persons, these events will be available for a fee of 1400 ATS. Please contact the organizers for details.

Contact Information

For the latest and continuously updated information about the Congress and its associated events, please refer to the Web page at

http: //www. ocg.or.at/ifip98.html

or

http : //www. nj szt.iif.hu/ifip98.html

On-line registration is provided on a secure server under

https: //www. ocg . or. at/regform.html

or contact the organizers at the following locations:

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BRIT. COMP. SOC. continued from p. 2

The BCS Awards provide an annual celebration of success by our profession and reach their 25th birthday this year. In a profession where the weekly trade press enjoy knocking the small minority of failures, the BCS has chosen three projects each year that the selection panels have decided reach a special level of attainment.

The Future

Let me conclude by looking forward briefly. If you have surfed the Web, you may have seen how the BCS has successfully adopted the new technology. The WWW pages provide visibility for the BCS message. The BCS is widely accepted as the leading informatics society in the world on professional issues. We will continue to offer leadership in how our ideals can be taken up by other societies.

The BCS is pleased to welcome the **IFIP** Council to Manchester for its March 1998 meeting. ■

IFIP Policy on Cryptography Is Proposed

The **IFIP** Technical Committee on Security and Protection in Information Processing Systems (TC 11) presented a draft Statement on Cryptography to the March 1997 **IFIP** Council, the final version of which was endorsed by the TC in May. This document was then submitted to the September **IFIP** General Assembly (GA) for approval. By accident, no vote was taken to endorse the policy statement at the GA, so the decision will be deferred until the 1998 GA in Budapest. In the meantime, we print the draft statement here, in order that it can be considered by Member societies of **IFIP** in advance of the vote in the GA. (Preceding work on cryptography policy is described in the September 1996 ***IFIP*** *Newsletter,* page 4.)

IFIP TC11 Position on Cryptopolicies

a) IFIP TC11 recognizes the highly important role of cryptographic mechanisms. In the Global Information Infrastructure (GII) and in Electronic Commerce, these mechanisms will influence acceptability, usage, and competitiveness.

b) IFIP TC11 takes notice that for the convenience of discussion it is helpful to distinguish among the differing objectives for the use of cryptographic mechanisms — preservation of confidentiality, provision of the ability to authenticate people/organisations, provision of the ability to prove the integrity/completeness of data, etc.

c) IFIP TC11 is fully convinced that a range of cryptographic mechanisms are required to meet the security needs of the GII. Users may select the most effective for their specific purposes.

d) At the same time, **IFIP** TC recognizes that cryptography is prone to potential abuse by criminals. In this context, law enforcement also plays an important role, and we face the situation that different countries exhibit different attitudes.

e) Being aware that responsibilities for crime prevention and detection lie with national governments and that business is less and less related to national borders, **IFIP** TC 11 recognizes that cryptographic services and cryptographic applications cannot be bound to a nation's territory.

f) IFIP TC 11 recognizes the technical consensus that forbidding or restricting the use of strong cryptography is ultimately unfeasible, from a technical standpoint.

Taking the above said into account, **IFIP** TC11 takes the following position on the use and regulation of cryptography:

(I) Cryptography has equal impact and importance when data are stored or transmitted. A distinction is unrealistic in a world of networked computers.

(II) It is the prime goal that, whoever is involved in the process, cryptographic procedures and keys are handled in a way that full confidence of all partners, including the public at large, is assured.

(III) It is desirable that voluntary and free use be in place for all types of cryptography.

(IV) While a business will generally take precautions to protect itself against lost/forgotten/stolen keys, such considerations should be carefully separated from the law-enforcement considerations, even though the mechanisms for each may be the same or overlap.

(V) When key-management and cryptography infrastructures are established, this should be primarily driven by the users' needs and not by regulatory requirements.

(VI) Law enforcement shall not establish methods in the cryptography context that infringe on a citizen's expectations of personal privacy and integrity within a country.

(VII) IFIP TC11 assumes that organised and major crime will successfully avoid or evade any requirement to comply with a key-deposit scheme. Law enforcers must therefore not rely primarily on key-deposit schemes when addressing the issue of criminal intelligence gathering. Research should be conducted, which results in a set of appropriate, acceptable, and well focused alternative methods.

(VIII) In cases where keys are deposited at third parties, it is necessary that commercial and privacy interest as well as commercial liabilities be guaranteed in all phases. This is particularly necessary if such systems allow law enforcement to access data in clear or keys, under proper legal constraint.

(IX) There is a great need that cryptographic methods and especially digital signatures be recognized by national and international law. Such recognition carries with it responsibilities for assuring availability of relevant keys throughout any legally specified retention period and liabilities for improper disclosure of or change to keys whilst they are being kept.

(X) Any legal or regulatory arrangement between two nations with respect to cryptography and access to relevant materials must be symmetric. ■

Conference on Information Networks and Data Communications Will Be in Portugal in June

The trend towards integrated broadband communications is being fostered by continual advances in network technologies and architectures as well as by the ever-growing requirements from the users. In order to explore the issues involved in these developments, the **IFIP** Technical Committee on Communication Systems and the International Council for Computer Communication (ICCC) have organized the seventh Conference on Information Networks and Data Communications — INDC'98, which will focus on the technical, social, economic, and political aspects that are shaping the present and the future of global communications.

Development in Base Technology

Advances in converging technologies (networking, computing, signal processing, etc.) have enabled a wide range of interactive services and distributed applications that will benefit from the new high-speed integrated networks. In such an environment, the production and testing of flexible and reusable software is of paramount importance. New architectures and service models are necessary to deal with the bandwidth and stringent quality-of-service requirements placed by real-time services and to manage network resources in an efficient way; they should also allow interworking with legacy networks and applications and seamless migration to integrated solutions. Conference papers in this area are expected to describe new technologies, test-beds, and field trials as well as results of basic research.

Policy on Security and Privacy

The many new, cross-sector alliances resulting from convergence are leading to pressures for the adoption of regulatory frameworks. Serious concerns have been raised about how, or even whether, to govern the nature of the content disseminated. Also, concerns over publishing and access rights to the new forms of media have been expressed. The conference will focus on policies in information technology, nationally or otherwise, in strategic terms, as they exist in different societies, in order to stimulate governments and industry into serious, well-structured action. Contributions may include studies on information technology

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Professor Wilfried Brauer Is Honored by Friends, Colleagues, and Students

In November, **Prof. Dr. Dr. h.c. Wilfried Brauer** (D), an **IFIP** vice-president and a former chairman of the Technical Committee on Education (TC3), was feted by friends, colleagues, and students on the occasion of his 60th birthday. A book was published in his honor, and two seminars were held — the first at the University of Hamburg and the second at the Technical University of Munich. The latter was opened by the President of the University and the Dean of the faculty. Short congratulations and presents were given by the **IFIP** president, **Prof. Kurt Bauknecht** (CH), the President of the German Informatics Society (GI), and others. The laudatory address was given by **Prof. Grzegorz Rozenberg** (NL), the predecessor of **Prof. Brauer** as president of the European Association for Theoretical Informatics (EATCS). All speakers also congratulated **Ute Brauer, Prof. Brauer's** wife, who not only supports him but also stimulates him, cooperates with him, and is active in the politics and management of science — especially within GI and **IFIP —** and in the support of young people, e.g., the informatics Olympiads. (She also served for several years as TC3 correspondent to the ***IFIP*** *Newsletter.)*

A highlight of the Hamburg seminar was the surprise presentation to **Prof. Brauer** of a book, *Foundations of Computer Science: Potential, Theory, Cognition,* published by Springer—Verlag as part of the *Lecture Notes in Computer Science* series. The three editors, **Christian Freksa, Matthias Jantzen,** and **Rüdiger Valk,** formerly assistants of **Prof. Brauer,** are now professors at Hamburg University. We quote here parts of their preface, which indicate the role **Prof. Brauer** has played in computer science in Germany.

> Computer science is motivated by the need to explain the nature of information, knowledge, computation, and computers. The field is also strongly influenced by technological progress and commercial impacts. More than in other disciplines, foundations are required to allow for systematic approaches, to introduce formal methods, to verify results, to integrate various fields of application, and last but not least, to operationalize the concepts developed....

By their contributions to this volume (49 papers by 70 authors), the authors acknowledge the work of **Wilfried Brauer** on the occasion of his sixtieth birthday. **Wilfried Brauer** has devoted his scientific life to improving the foundations of computer science by opening up the view to new developments in the area and by critically reviewing the existing foundations. Having a background in pure mathematics (algebra and group theory), he belonged to the first authors contributing to the emerging field of computer science in the 1960s by publishing on the theory of finite automata (transition monoid, cascade decomposition). This work is documented in his well known monograph on automata theory published in 1984.

In the 1970s, **Brauer** pursued his scientific work by studying various types of (non-finite) automata and formal languages. In those days, he extended his field of interest to distributed systems, in particular to Petri nets. Already during his stay in Hamburg in the 1970s and early 1980s, and with enhanced emphasis after moving to Munich in 1985, he contributed to the foundations of artificial intelligence with numerous publications, ambitious research projects, and valuable advice to other researchers in the field.

From a methodological perspective, this research includes symbolic representation of knowledge and of processes as well as connectionist and neural net approaches. The topics treated include mathematical foundations and questions of theoretical language and knowledge processing. His interests reach all the way to the applications, for example, in medicine. Through these activities, **Wilfried Brauer** has helped improve the exchange between the theoretical computer science and artificial intelligence communities considerably.

Further publications of **Wilfried Brauer** deal with the future development of computer science and its potential, with its place in the landscape of sciences, with an appropriate name for the discipline, and with educational issues. Last but not least, **Wilfried Brauer** is well known in international and national organizations like IFIP (vice president), EATCS (president), and GI (former president). By his engagement in such organizations, he successfully contributed to making computer science a mature discipline.

Another important impact of **Wilfried Brauer's** work in the field is due to his students, about twenty of whom are professors today. Besides students, friends and colleagues have contributed to this volume, thus reflecting — in some sense — the impact of **Wilfried Brauer's** work in different areas of computer science.

We are grateful for the privilege of working with **Winded Brauer** and receiving his valuable advice. We congratulate him on his birthday and send him all our best wishes!

INDC '98 continued from prior page

and society; the impact on public administration; the consequences for national and international legal frameworks; economic, commercial, social, and ethical issues; case studies of governmental and industrial practices; and educational efforts.

New Ways to Work, Learn, Play, Trade, and Socialize

Convergence offers massive opportunities for the development of new services and the expansion of consumer choice, and is making possible changes in the way we work, play, trade, learn, and socialize. The outlook for new interactive services, such as interactive TV or selling via the Internet, is the subject of intense research and a multitude of field trials.

The Conference will be held 15-17 June in Aveiro, Portugal. **Prof. Jorge Alves** (P) is chair of the Organizing Committee, and **Prof. Jose Ruela** (P) is chair of the International Program Committee. For further information, please consult the World Wide Web page at

http://www. inesca.pt/indc 98

or contact

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3810 Aveiro, Portugal
tel: +351 34 370503, fax: +351 34 370545
e-mail: anabela@inesca.pt

IFIP Takes Major Role in UNESCO

*by Mr. Plamen Nedkov**

The December issue of the ***IFIP Newsletter*** (page 1) reported that **IFIP** is now in formal consultative relations with UNESCO and outlined in broad terms the privileges and obligations of such a relationship. We report here further good news. Namely, on 21 November 1997, during the Extraordinary NGO—UNESCO Conference in Paris, **IFIP** was elected a member of the NGO—UNESCO Liaison Committee, a body of nine with the mandate to

- represent the interests of UNESCO-centered NGOs with regard to UNESCO
- cooperate with the UNESCO Director General
- implement the resolutions adopted by the international Conference of NGOs
- ensure appropriate exchange of information
- make preparations for subsequent sessions of the Conference
- ensure that the interests and opinions of NGOs taken collectively are reflected by UNESCO
- inform NGOs of possibilities open to them to participate in such conferences

This is another major recognition of **IFIP** as a leader in the field and is helpful in further promoting our visibility and our mission within the NGO community — a powerful coalition of several hundred NGOs with thousands of national member organizations and millions of individual members worldwide. The **IFIP** community will be kept informed as the NGO—UNESCO Liaison Committee proceeds with its work.

In the meantime, we wish to encourage our Member societies to contact their National Commissions in order to investigate possibilities for support of **IFIP** events and other IFIP-related activities, with particular attention given to the needs of specialists and institutions from developing countries. A list of National Commissions of UNESCO, with detailed coordinates, is available from

http://www.unesco.org/general/eng/partners/commission/index.html

Also, the **IFIP** Secretariat can provide addresses of other UNESCO units. ■

* Executive Director of **IFIP**

Work Continues on Standards for Professional Qualification

In 1994, **Ms. Pat Glenn** (CDN) encouraged **IFIP** to initiate work on the rationalization of international standards concerning the qualifications of professionals in the Information Technology (IT) professions. She argued that in this era of international treaties promoting free trade and free movement of workers from one country to another, the establishment of standards for the qualifications of professionals is very important. In response to her recommendation, the Technical Assembly created a task force on Harmonisation and Acceptance of International Standards for IT Professionals. **Ms. Glenn** led this activity and most recently reported on its progress to the 1997 **IFIP** General Assembly (GA) in Canela, Brazil, which indicated its desire that the project continue. The Executive Board decided to move the activity into TC3, the **IFIP** Technical Committee on Education. **Mr. Ian Mitchell** (NZ) has been appointed chair of a Working Party on Harmonisation of Professional Standards, which is to continue the work. In December, **Mr. Mitchell** sent a memorandum to all Member societies of **IFIP,** which requested the identification of individuals who would participate in the activity. In addition, the memorandum outlined the future activity of the Working Party. We print here most of that memorandum, because of its interest to the **IFIP** community.

Purpose

The purpose of this work is to agree upon a document that clearly sets out the standards of tertiary education, experience or practice, ethics, and continuing education that a customer might expect from a practitioner offering services to the public. This document will then become a Standard in the sense of the ISO (International Standards Organisation), and the standards bodies within individual countries would adopt it. It is expected that the **IFIP** Member societies would administer it within their countries, giving the Member societies increased status and authority.

Why Have Professional Standards?

The long-standing professions such as accounting, medicine, and engineering have long had standards that enable a qualification gained in one country to be recognised in another. The benefits of this are that

- The public is assured that critical work is performed by competent individuals.
- A client knows that a certified person is competent to carry out tasks in specific documented areas.
- Professionals are assured that they will be able to work in other countries without having their qualifications reexamined (except possibly for being up-to-date).

This will ensure that the IT profession gains a reputation for competency and that individual practitioners can seek work in the international arena. It is expected that the standards set would be adopted as one level of standards for the Member society for their practitioner members and would be administered by the Member society. Please note that this activity is about practitioners. It is not about academics, who in general will be much more qualified but possibly in a narrow discipline; nor is it about school teachers, who in general will be qualified to teach rather than to develop IT systems; nor is it about users, who have input into the designs of computer systems but who do not construct them. Neither is it about electronic engineers, who design computers but who would normally be qualified as engineers. But of course the edges are "fuzzy."

The Survey

The following type of information is being gathered from Member societies:

- The structure of membership in the society (or any other that fills a similar role) and analysis of the membership between the following: scientists, practitioners, teachers, users, and others
- Any widely adopted Code of Ethics
- Any widely adopted Code of Good Practice or methodologies or requirements that such methodologies be used
- The level of formal education expected pre-service — that is, before beginning paid work (The Working Party will deal only with curriculum by discussing the level and total hours rather than the detail, which will remain in **IFIP** Working Group 3.4.)
- Any expectation of the number of years work — supervised or with a responsibility requirement — subsequent to pre-service education
- Any set of topics in any curriculum used in that training
- Any requirements to maintain an annual level of training (continuous

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Conference on Distributed Applications and Interoperable Systems Was Held in Germany

*by Prof Hartmut König (D) and Prof. Kurt Geihs (D) **

Experts from 19 countries met from 30 September to 2 October 1997 at the Brandenburg University of Technology in Cottbus, Germany, to participate in the **IFIP** Working Conference on Distributed Applications and Interoperable Systems — DAIS'97 and to discuss challenges and solutions for the development of distributed applications in increasingly powerful communication networks. Sponsored by the **IFIP** Working Group on Architecture and Protocols for Computer Networks of the Technical Committee on Communication Systems, the conference was chaired by **Prof. Hartmut König (D)** and **Prof. Kurt Geihs** (D). It continued two series of national German workshops that took place between 1993 and 1996. This year, the conference was organised for the first time under the auspices of **IFIP.**

DAIS'97 established a milestone, even in the preparations for the conference, by organizing one of the first online International Program Committee (IPC) meetings via the World Wide Web. A special review and voting system was implemented, which provided the review results of the submitted papers to all IPC members and gave them the opportunity to discuss these evaluations and to vote on the final conference programme. Thus, cost and time for travelling to an IPC meeting were saved. The majority of the IPC members, including participants from Australia, Japan, Hong Kong, Canada, and the United States, who would probably not have been able to travel to a PC meeting, participated in the online meeting.

DAIS'97 offered the 75 participants from industry and research an interesting programme, consisting of eight sessions, two invited talks, and a working session. In addition, exhibitions by two companies informed the participants about new products in the subject area of the conference.

The conference was opened with an invited speech by **Prof. Dr. Samuel Chanson (HK),** which was an overview of the development of Internet technology in Hong Kong — an area that possesses one of the best communication infrastructures in the world. In particular, he reported on the activities of the Cyberspace Center which had, for instance, just introduced a video-on-demand service. Furthermore, he described the activities surrounding the introduction of Internet technology to mainland China. The second invited talk, by **Dipl.-Ing. Heinz Diebold (D),** discussed a new trend in telecommunication: Community Networking, in which modern telecommunication services can be used by individuals who are not , computer specialists to optimally carry out group interactions. Another highlight of the conference was the working session on mobile agents, chaired by **Prof. Kurt Rothermel** (D). After a short overview of the state of the art given by the session chair, a lively discussion on hot research topics and open issues took place.

The contributions to the conference were thematically divided into sessions on management of distributed systems, mobile agents and Internet applications, CORBA (Common Object Request Broker Architecture), language support for the design of distributed applications, and security and reliability aspects. Further, there were two sessions with short papers on ongoing projects. The presentations provided a broad opportunity for discussions, which continued during breaks and the evening events.

Because of the productive atmosphere during the conference, the international attendance, and the rapid technological progress, several participants suggested continuing the DAIS conference series. Consequently, it is planned to organise the conference on a two-year cycle. DAIS'99 will take place in Helsinki.

The proceedings of the conference, entitled *Distributed Applications and Interoperable Systems*, edited by **Prof. König, Prof. Geihs** (D), and **Dipl.-Inf. Thomas PreuB** (D), have been published by Chapman & Hall.

* co-chairs of DAIS'97

Conference on Human Choice and Computing

Information and communication technologies (ICTs) are major factors in stimulating global economical and social developments. Although some negative effects (e.g., unemployment and shift of work places, and reduced ability to enforce national laws) are widely recognised, the basic nature of this development has barely been understood. In order to gain understanding of this phenomenon, the **IFIP** Technical Committee on Relationship between Computers and Society and its Working Groups are organizing a conference, Human Choice and Computing (HCC) — Computers and Networks in the Age of Globalization, to be held 26-28 August 1998 in Geneva, Switzerland. This will be the fifth HCC conference, the immediately prior one having been held in Dublin, Ireland, in 1990.

The Conference will analyse the effects ICTs have had so far and what impacts will likely be observed in the future. Based on analyses of developing ICT methods, including virtual reality, multimedia, and information infrastructures, the Conference will focus on international developments in labor and work throughout the world, the impact of ICTs on human rights, aspects of free flow of information, threats to information societies, and the development of criminal laws. Shifts of paradigms will be analyzed both from methodological view and with respect to historical perspectives.

Conference discussions will lead to a resolution concerning which essential topics should be further examined and publicly discussed, and which measures may help the international community in guiding ICT developments to best guarantee social consent and democratic control.

For further information, please see the HCC5 Web site:

http://www.hec.unil.ch/hcc5/

or contact

HCC-5 World Conference
Ecole des HEC-INFORGE
University of Lausanne
CH-1015 Lausanne, Switzerland
tel: (+41-21) 692.3407, fax: (+41-21) 692.3404
e-mail: hcc5@hector.unil.ch ■

National Abbreviations Used in Newsletter

A	Austria
AUS	Australia
B	Belgium
BG	Bulgaria
BR	Brazil
CDN	Canada
CH	Switzerland
CZ	The Czech Republic
D	Germany
DK	Denmark
F	France
FIN or SF	Finland
GB or UK	United Kingdom
GR	Greece
H	Hungary
HK	Hong Kong
I	Italy
IL	Israel
IND	India
J	Japan
NL	The Netherlands
NZ	New Zealand
P	Portugal
PL	Poland
PRC	China
RUS	Russia
S	Sweden
SLO	Slovenia
USA	U.S.A.
ZA	South Africa
ZW	Zimbabwe

Activities of the Computer Society of Zimbabwe

by Mr. Lawrence Gudza (ZW)

[During the meeting of the **IFIP** Marketing Committee in September, Mr. **Lawrence Gudza, IFIP** representative of the Computer Society of Zimbabwe and its president, described some of the Society's activities. They sounded so interesting that we asked him to write an article about them, which we print here. — Editor]

The Computer Society of Zimbabwe (CSZ) has three major activities in its annual calendar of events: the Summer School, Information Processing Business Workshops, and "Microcom." These activities have different focuses, but the two common objectives are informing and encouraging the use of Information Technology (IT).

Annual Summer School

The Society regards this activity, targeted solely at the CSZ membership, as its flagship event for the following reasons:

- It is a forum for reviewing Society activities, to facilitate planning of the future direction of the Society. We believe that a constant annual review of our activities will keep the society "current" and relevant.
- Some of the issues that have come out of the Summer School have resulted in some concrete outputs such as the following:
  a) Development of an IT Skills Model, emanating from presentations made by guest speakers
  b) Legal incorporation of the Society
  c) Membership in **IFIP** — discussed and approved by all members
  d) Membership participation in **IFIP** Technical Committees and Working Groups
  e) Codes of practice and ethics
- This is one event that is informal, informative, relaxed, and entertaining, and in order to create the correct environment for this, we hold the Summer School alternatively in resort areas of the Eastern Highlands and Victoria Falls.
- The Summer School affords our members an opportunity to be updated by experts in various topical disciplines affecting or likely to affect our industry.
- It is a forum for the exchange of ideas and experiences on improving the professionalism of the Society as well as its members.
- It is a forum at which we examine factors or forces that inhibit or are likely to stifle development of our industry, and the CSZ Council notes this for the purposes of appointing special task forces to deal with likely problems.
- Guest speakers are drawn from large corporate IT users and IT practitioners; in this way, we feel that it bridges the gap between IT technocrats and business users of IT'.
- Guest speakers are also drawn from institutions of higher learning and researchers in IT.
- We have always experienced a very high turnout by our members, compared to any other event staged by the Society.
- The organisation of Summer Schools is done by chapter members.

Business Workshops

The Information Processing Business Workshops are based on the realisation that most of our members are being promoted from their technical areas to managerial positions, without prior managerial knowledge or experience in the following key areas: time management, stress management, resource management, financial management, human-resource management, and project management. The Society came up with these Workshop events in order to bridge this gap and, in addition, to provide a means for continuous professional development for our members. We also recognise that while some members are about to enter management, others are already in management, so we have designed the programme to address these categories separately, in the form of Workshops I and II.

The format of these is project-oriented. Presenters are drawn from consulting houses, human-resources organization, finance, management, IT practitioners, and universities, and each presenter has four hours to present and facilitate discussion sessions on case studies. To provide an opportunity to practice skills learned, a business-management game is used to simulate a real environment, with participating teams competing for a Society trophy. The names of the winners are published in our local computer publications. While these workshops are held in relaxed atmosphere, they are actually stress-oriented, in that the facilitator at these workshops introduces "unexpected real-life problems." A lot of lessons have been learnt through this practice, which hammers home that: a) the participants can win only as a team and not as individuals, b) they need to do resource planning and management, c) the essential success in what they do lies in time management, and d) because of all the different chores that they need to resolve in a day, they need to learn stress management.

Microcom

This is held annually in Bulawayo. In coming up with this event, the Society felt that there was no forum at which individuals or companies who were thinking of computerizing for the first time could exchange views and ideas with "experts." Consequently, the Society runs this event. Resource people are drawn from consulting houses, IT practitioners, and universities. It is a very basic "how to" and "what to" event.

*Members of CapBIT 97 Program Committee in Harare, Zimbabwe, with Dir. Peter Bollerslev (**IFIP** President-Elect, second from left) and Mr. Geoff Fairall (Chief Executive of the Computer Society of Zimbabwe and former Vice-President of **IFIP,** third from right). Article is on page 1.*

* president of CSZ and its representative to the **IFIP** General Assembly

CAPBIT 97 continued from page I

ference, and TC3 met in Harare the weekend before. Two distinguished members of **IFIP** were able to attend the TC3 meeting — **Mr. Geoff Fairall** (ZW), former vice-president of **IFIP** and chief executive of the Computer Society of Zimbabwe, and **Dir. Peter Bollerslev** (DK), former chair of TC3 and currently president-elect of **IFIP.** (See the photograph on page 10.)

The International Program Committee and Organizing Committee chairs of the conference were **Dr. Deryn Watson** (GB) and **Mr. Arthur Sithole** (ZW), respectively. It is our intention that the proceedings, edited by **Dr.** Gail **Marshall** (USA) and **Prof. Mikko Ruohonen** (F1) and published by Chapman & Hall, be a benchmark publication, containing as it does the papers and discussion groups' reports from this unique event. This will be the tangible outcome to add to the networks built up during such an enjoyable week.

This report of the hard work undertaken appears rather dry in comparison with the lively atmosphere and fun experienced during the five days. Our local hosts, the Computer Society of Zimbabwe, looked after us very well, ensuring that we danced as well as worked. Many new friendships were formed, and the atmosphere ensured that personal networks developed that will last long beyond the conference itself.

Thank you, Computer Society of Zimbabwe.

[**Mr. Fairall** added the following postscript to this report. — Editor]

The Computer Society of Zimbabwe planned events before and after the main working conference, which we called the "Outreach" programme. Our intention was to take some of the visiting expertise into the field, away from the capital city, Harare, into smaller urban or rural centres, giving benefit to people unlikely to participate in Harare, and at the same time offering some of our visitors an opportunity to see a different part of Zimbabwe. Despite the logistical difficulties faced, we were able to organise three successful outreach events — two one-day workshops before CapBIT and one after. One of the two pre-conference events was held **in** the small midlands city of Gweru and the other in the rural town of Bindura, both a considerable distance from Harare. Some of the international CapBIT speakers participated at both centres. The post-CapBIT event, in Bulawayo, Zimbabwe's second city, was led by Dr. Watson.

QUALIFICATIONS continued from p. 8

education)
- Legislation about professional liability, covering negligence, misrepresentation, etc.
- Legislation that covers any form of registration, particularly for accountants and engineers if none exists for computer professionals
- How international standards are adopted in the country and which body and/or government department has responsibility

Process Steps

1. The process began with an invitation to put names on lists of participants in the Working Party.
2. The preparation of the survey, which will be checked by a writing party and commentators.
3. Dispatch of the survey to the primary contact list and three additional lists.
4. The survey will be analysed and comments listed.
5. The writing party will endeavour to clarify where consensus exists and where significant differences of view remain.
6. The differences of view will be discussed by e-mail and at conferences, for two more iterations.
7. The draft standard will be prepared and presented for acceptance at the 1998 GA in Budapest, Hungary.
8. The draft standard will be handed over to the ISO.

Organization

The Working Party will function under the supervision of the chair of TC3, **Mr. Brian Samways** (GB). It consists of four persons, who will also form a writing party: **Mr. Ian Mitchell** as chair and as representative of the Asia-Pacific area, **Joe Turner** from the Americas, and **Peter Juliff** from WG3.4, who will handle curriculum issues. **Mr. Chris Guy (ZA),** an **IFIP** vice-president, will exercise a commentator's role, and **Ms. Patricia Glenn** will negotiate with the ISO and the WTO (World Trade Organization) and also exercise a commentator's role. The writing party will meet around March 1-5, 1998, in Manchester, U.K.; in Darwin, Australia, in July; in the U.S.; and just before **IFIP** Congress '98, in August.

Those interested in this activity are encouraged to contact **Mr. Mitchell** at ianm@ie3.co.nz. Please ensure that the words "Professional Standards" are in the subject line of all e-mail messages.

NETWORKING SYMP. cont. from p. 1

There were participants from more than 18 countries, including the following Central and Eastern European nations: Albania, Belarus, Bulgaria, the Czech Republic, Hungary, Macedonia, Romania, and Russia.

The symposium was opened by high-ranking Bulgarian officials, followed by a short speech by **Acad. Blagovest Sendov** (BG), a former president of **IFIP.**

In a festive atmosphere, **Prof. Otto Spaniol (D),** then the TC6 chair, was presented the highest award of the Academy, the Marin Drinov Medal (see the photograph on page 12), after which he presented a keynote speech, Networking in the Nineties: Many Surprises and Some Explanations, which was met by great interest from the audience of more than 300 people. Following is a very brief summary:

> The history of mankind is full of speculations that appeared to be evident but which turned out to be absolutely wrong. Two well-known examples are the following: a) the main use of the telephone system will be the transmission of music, i.e., to bring opera to the home; and b) the need for electronic computers worldwide will remain limited to a maximum of three or four (with the performance of 1950). It appears that the number of questionable or incorrect prognoses in the networking area follows this "tradition." We observe greater and more expensive misbeliefs than before. Several examples of that are given in the paper. It is not difficult to give many reasons why these surprises have happened and why they were unavoidable. A much more difficult task is to give correct predictions so that similar mistakes can be avoided.

The session ended with a demonstration of some results from the EC-sponsored WATT project.

The proceedings of the symposium, published in Bulgaria, include 25 papers, selected by the International Program Committee from the 45 works submitted. Some of the papers covered theoretical issues, while others focused on results and applications.

The symposium was viewed with significant interest by the scientific community in the area of computer networks and telecommunications and was covered by Bulgarian TV and newspapers.

CALLS FOR PAPERS

Twelfth IFIP WG11.3 Work. Conf. on Database Security
15-17 Jul 98, Chalkidiki, Greece
papers due: 10 Mar 1998
contact: Prof. Sushil Jajodia
Mail Stop 4A4
George Mason University
Fairfax, VA 22030-4444, U.S.A.
tel: +I 703-993-1653, fax: +1 703-993-1638
e-mail: jajodia@gmu.edu
http://www.isse.gmu.edu/ csis/faculty/jajodia.html

23rd IFAC/IFIP WG5.4 Workshop on Real Time Programming - WRTP'98
23-25 Jun 98, Shantou, Guandong Province, PRC
papers due: 15 Mar 98
contact: Prof. Lichen Zhang
Institute of AI & PR
Science Center, Shantou University
515063 Shantou, Guandong Province, P.R. of China
tel: +86-754-2510000 ext. 33284,
fax: +86-754-2510654
e-mail: lchen@mailserv.stu.edu.cn

Will event organizers please send calls for papers to both the IFIP Secretariat and the *Newsletter* editor. Note that calls cannot be listed in this column until the events have been approved by IFIP. ■

Prof. Spaniol (D, right) receiving medal from Prof. Boyanov (BG, left) at NIPS Symposium. See the article on page I.

TECHNICAL COMMITTEE CHAIRMEN

TC1:	G. Ausiello	97-99
TC2:	R. Kurki-Suonio	FIN 97-00
TC3:	B. Samways	GB 97-99
TC5:	G. Doumeingts	F 96-99
TC6:	A. Casaca	P 98-01
TC7:	P. Kall	CH 95-98
TC8:	B. Glasson	AUS 96-98
TC9:	P. Jaervinen	FIN 96-98
TC10:	J.-C. Laprie	F 96-99
TC11:	B. von Solms	ZA 94-98
TC12:	B. Neumann	D 97-00
TC13:	J. Hammond	AUS 95-98

FUTURE IFIP MEETINGS

GENERAL ASSEMBLY AND COUNCIL (and related meetings)

Council	1-5 Mar 98 (Sun.-Thurs.)	Manchester, U.K.
GA	5-8 Sep 98 (Sat.-Tues.)	Budapest, Hungary
Council	28 Feb - 4 Mar 99 (Sun.-Thurs.)	New Delhi, India
GA	5-9 Sep 99 (Sun.-Thurs.)	Kuala Lumpur (Cyberjaya), Malaysia
GA	contiguous to IFIP Congress '00	Beijing, China

TECHNICAL COMMITTEE AND WORKING GROUP MEETINGS

TC I	29 Mar 98	Lisbon, Portugal
WG1.1	autumn 98	Berkeley, CA, U.S.A.
WG1.3	4 Apr 98	Lisbon, Portugal
TC2	12-13 Jun 98	Shelter Island, NY, U.S.A.
WG2.1	Sep 98	Beijing, China
WG2.2	Jun 98	Shelter Island, NY, U.S.A.
WG2.3	Jun 98	Bloomington, IN, U.S.A.
WG2.5	May or Sep 98	Patras, Greece
WG2.6	May 98	L' Aquila, Italy
	15-18 Dec 98	New Zealand
WG2.7/WG13.4	14-19 Apr 98	Los Angeles, CA, U.S.A.
WG2.9	Sep 98	Vienna, Austria, or Budapest, Hungary
	Jan 99	Dublin, Ireland
TC3	29-30 Aug 98	Vienna, Austria
	27-28 Nov 99	New Zealand
	24-25 Nov 00	Copenhagen, Denmark
	28 Jul -3 or 4 Aug 01	Copenhagen, Denmark
WG3.1	Apr 98	Genoa, Italy
	Jun 99	Helsinki, Finland
WG3.2	Aug 98	Irvine, CA, U.S.A.
WG3.3	Aug 98	Vienna, Austria
	Nov 99	New Zealand
WG3.4	Aug 98	Saitama, Japan
WG3.5	Apr 98	Genoa, Italy
	Jun 99	Helsinki, Finland
WG3.6	Nov 99	New Zealand
WG3.7	Jul 98	Maine, U.S.A.
	Nov 99	New Zealand
TC5	12 Sep 98	Trento, Italy
WG5.3	Sep 98	Trento, Italy
WG5.10	Jun 98	Hannover, Germany
TC6	3-4 Apr 98	Ladenburg, Germany
	24-25 Oct 98	Tunisia
	Apr 99	Copenhagen, Denmark
	3-4 Sep 99	Budapest, Hungary
TC7	21 Apr 98	Chemnitz, Germany
	12-16 Jul 99	Cambridge, U.K.
WG7.2	20-24 Apr 98	Chemnitz, Germany
	28 Apr - 1 May 98	Daytona Beach, FL, U.S.A.
	19-22 Jun 98	Hanghzhou, China
	31 Aug - 6 Sep 98	Moscow, Russia
WG7.5	11-13 May 98	Krakow, Poland
WG7.6	21-23 Sep 98	Laxenburg, Austria
WG7.7	24-27 Mar 98	Neubiberg, Germany
	23-28 Aug 98	Prague, Czech Republic
TC8	29-30 Aug 98	Vienna, Austria
	99	Israel
WG8.1	15-17 Jul 98	Beijing, China
WG8.2	10-12 Dec 98	Helsinki, Finland
	22-26 May 99	St. Louis, MO, U.S.A.
	May/Jun 00	Aalborg, Denmark
WG8.3	12-15 Jul 98	Bled, Slovenia
WG8.6	10-12 Dec 98	Helsinki, Finland
TC9	29-30 Aug 98	Geneva, Switzerland
WG9.2	6-7 Jun 98	Farnborough, U.K.
	16-17 Jan 99	Namur, Belgium
WG9.5	26-28 Aug 98 (with HCC-5)	Geneva, Switzerland
WG9.6	27-29 Mar 98	Hamburg, Germany
	16-18 Oct 98	Stockholm, Sweden
TC10	5 Sep 98	Budapest, Hungary
	30-31 Aug 99	Toulouse, France
WG10.4	Jun 98	Munich, Germany
	Jun 99	Madison, WI, U.S.A.
	Jun 00	New York, NY, U.S.A.
TC11	Sept 98	Vienna, Austria, or Budapest, Hungary
WG11.5	19 Nov 98	Warrenton, VA, U.S.A.
TC12	Sept 98	Vienna, Austria, or Budapest, Hungary
TC13	Sep 98	Stuttgart, Germany, or Vienna, Austria
WG13.2	10 Sep 98	Stuttgart, Germany
WG13.3	30 Aug 98	Vienna, Austria
WG13.4/WG2.7	14-19 Apr 98	Los Angeles, CA, U.S.A.

Essential Reading in Computers in Education

Published by CHAPMAN & HALL on behalf of the International Federation for Information Processing

The Virtual Campus: Trends for higher education and training

Edited by **M. F. Verdejo**, Universidad Nacional de Educacion a Distancia, Spain & **G. Davies**, Open University, UK

This state-of-the-art text presents the latest developments in establishing a virtual campus both in Distance Learning Universities and non-distant ones. Innovations in learning are analysed from real practices ranging from specific domain experiences to broadscale international projects. The book comprises the proceedings from the International Conference The Virtual Campus: Trends for Higher Education and Training, sponsored by the International Federation for Information Processing (IFIP), held in November 1997, Madrid, Spain. It is ideal for managers of educational institutions, teachers, lecturers, researchers and system designers.

May 1998: 234x156: approx. 288pp
Hardback: 0-412-83550-9;approx. £65.00

Information and Communications Technologies in School Mathematics

Edited by **D. Tinsley**, formerly IFIP Editor, UK & **D.C. Johnson**, King's College, UK

The book aims to record the proceedings of an international conference of invited experts and is based on four themes: curriculum; teachers; learners; and human and social issues. The conference is a sequel to two earlier ones held 10 and 20 years ago, and will give an unique insight into developments in secondary schools across the world over three decades.

February 1998: 234x156: 320pp: 85 line illus
Hardback: 0-412-82100-1: £65.00

World Conference on Computers in Education VI

Edited by **D. Tinsley**, Formerly IFIP Editor, UK & **T. van Weert**, University of Nijmegen, The Netherlands

The conference is about using information technology in education and the teaching of informatics. The conference themes will appeal to people involved at all levels from elementary and primary through secondary to tertiary and vocational education.

July 1995: 234x156: 1168pp: 250 line illus.,13 halftone illus
Hardback: 0-412-62670-5: £115.00
CD ROM: 0-412-71460-4: £115.00

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Capacity Building for IT in Education in Developing Countries

Edited by **G. Marshall**, Gail Marshall & Associates, USA & **M. Ruohonen**, Turku School of Economics and Business Administration, Finland

This volume examines the needs, practices, experiences, peer support and accessibility of resources, both human and technical, for information technologies in developing countries. Seven main themes are presented in the book: experiences from a variety of national policies, strategies and initiatives; information technologies as tools for teaching and learning at all levels; the role of vocational education in information technology; information technology as a teaching subject; information technologies as tools for educational administration and support; building physical resources, skills and knowledge as well as access to those resources in developing countries; and action plans for proposed projects at local and national levels.

March 1998: 234x156: 384pp
Hardback: 0-412-81460-9: £79.00

Information Technology

Edited by **D. Passey**, Lancaster University, Lancaster, UK & **B. Samways**, Martineau Education Centre, Birmingham, UK

This book considers how the fundamental issues relating to the use of information technology in education, are being tackled across the world. Significantly it features international perspectives on the challenge that information and communications technology poses to teacher education; views of trainee teacher experiences with computers; insights into the ways in which communication technologies are being used to link teachers and students; consideration of the impact of change with information and communications technology; discussion of the roles of those involved in developing teacher education with information and communications technology at national, institutional and teacher levels.

June 1997: 234x156: 408pp: 50 line illus
Hardback: 0-412-79760-7: £65.00

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Fax: *+44 (0) 171 865 0014*
email: *emma.rogers@chall.co.uk*

Information Technology in Educational Management for the Schools of the Future

Edited by **A.C.W. Fung**, Hong Kong Baptist University, Hong Kong, **A.J. Visscher**, University of Twente, The Netherlands, **B.Z. Barta**, formerly of Ministry of Education, Culture and Sport, Israel & **D.C.B. Teather**, Hong Kong Baptist University, Hong Kong

This book portrays the potential of Information Technology in the educational management of schools. It collates and presents research results from all over the world and discusses the latest developments for the future. This book aims to address the following questions: what do schools of the future have to face? what can we learn from research about ITEM? what are the cultural, organizational, managerial and technical issues that need to be addressed? This book will be of interest to all those concerned with ITEM, especially school management staff, researchers and system designers.

January 1997: 234x156: 208pp: 20 line illus
Hardback: 0-412-79970-7: £55.00

The Place of Information Technology in Management and Business Education

Edited by **B.Z. Barta**, formerly of Ministry of Education, Culture and Sport, Israel, **P. Juliff**, Deakin University, Australia & **A. Tatnall**, Victoria University of Technology, Australia

This book will examine the relationship between management, business and information technology and, in particular, the impact of that relationship on those responsible for the design and delivery of education programmes at all levels.

January 1997: 234x156: 240pp: 21 line illus
Hardback: 0-412-79960-X: £59.00

Informatics in Higher Education

Edited by **F. Mulder**, Open University, The Netherlands & **T. Van Weert**, University of Nijmegen, The Netherlands

This book addresses two main themes. The first is "the discipline of informatics." The second theme is the relation between informatics and other disciplines.

June 1998: 234x156: 304pp: 30 line illus:
Hardback: 0-412-80790-4: £55.00

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Essential Reading in Communication Systems and Networks

Published by CHAPMAN & HALL on behalf of the International Federation for Information Processing

ATM Networks: Performance modelling and evaluation volume IV

Edited by **D.D. Kouvatsos**, University of Bradford, UK

Performance prediction and quanititative analysis of ATM networks are the most crucial research and development activities in industry and academia worldwide. As well as introducing the most recent advances in ATM networks, this book describes mature ATM work, reflecting at international level the state-of-the-art technology and research achievements. In addition, it provides a fundamental source of reference in the ATM field.

July 1998: 234x156: approx. 500pp
Hardback: 0-412-83640-8: approx. £95.00

Broadband Communications: The future of telecommunications

R. Ulrich and **P.J. Kühn** both of University of Stuttgart, Germany

The book presents the state-of-the-art in both the theory and practice of advanced communication technology. The book addresses the scientific and engineering aspects of future broadband communication technologies, including aspects of traffic (source) characterization, test and measurement, routing and multicasting, protocols, traffic control, network management, and performance evaluation.

April 1998: 234x156: approx. 608pp
Hardback: 0-412-84410-9: approx. £115.00

Performance and Management of Complex Communication Networks

Edited by **T. Hasegawa**, Kyoto University, Japan; **H. Takagi**, University of Tsukuba, Japan and **Y. Takahashi**, Nara Institute of Science and Technology (NAIST), Japan

With the proliferation of ISDN and mobile communication systems, modern communication networks are becoming larger-scale, higher-speed, and more complex than ever before. Therefore, besides hardware development, extensive research on system technologies with respect to performance evaluation and management is indispensable for the proper design, development and operation of emerging communication networks. This book presents the latest research on theory, simulation and implementation in this field.

May 1998: 234x156: approx. 416pp
Hardback: 0-412-84250-5: approx. £90.00

Formal Description Techniques and Protocol Specification, Testing and Verification

T. Mizuno, Shizuoka University, Japan; **N. Shiratori**, Tohoku University, Japan; **T. Higashino**, Osaka University, Japan and **A. Togashi**, Shizuoka University, Japan

FORTE/PSTV '97 addresses Formal Description Techniques (FDTs) applicable to Distributed Systems and Communication Protocols (such as Estelle, LOTOS, SDL, ASN.1, TTCN, Z, Automata, Process Algebra, Logic). The conference is a forum for presentation of the state-of-the-art in theory, application, tools and industrialization of FDTs, and provides an excellent orientation for newcomers.

November 1997: 234x156: 576pp: 174 line illus
Hardback: 0-412-82060-9: £99.00

Management of Multimedia Networks and Services

R. Boutaba, Computer Science Research Institute of Montreal, Canada

With continual growth in telecommunication services in today's multimedia environment, reliability and control are essential elements in the provision of services. This book addresses the need for an integration of service and management in multimedia networks in order to facilitate greater accuracy and quality in the services provided. The book aims to disseminate all facets of network and service management in broadband networks and multimedia services while providing an overview of state-of-the-art research and implementation experiences in the field.

January 1998: 234x156: 288pp: 121 line illus
Hardback: 0-412-82630-5: £75.00

Optical Network Design and Modelling I

Edited by **H.R. Van As** and **A. Jukan**, both of Vienna University of Technology, Austria

Optical network design and modelling is an essential issue for planning and operating networks for the next century. The main issues in optical networking are being widely investigated not only for WDM networks but also for optical TDM and optical packet switching. This book aims to contribute to further progress in optical network architectures, design, operation and management.

May 1998: 234x156: approx. 176pp
Hardback: 0-412-84260-2: approx. £59.00

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Building QoS into Distributed Systems

Edited by **A. Campbell**, Columbia University, USA and **K. Nahrstedt**, University of Illinois, USA

This volume contains the Fifth International Workshop, Quality of Service, sponsored by the International Federation for Information Processing (IFIP), and held in May 1997, Columbia University New York USA. This book is essential reading for engineers and R&D students, and for researchers in multimedia networking areas.

December 1997: 234x156: 448pp: 151 line illus
Hardback: 0-412-80940-0: £80.00

Distributed Applications and Interoperable Systems

H. König, Brandenburg University of Technology at Cottbus, Germany; **K. Geihs**, University of Frankfurt, Germany and **T. Preuss**, Brandenburg University of Technology at Cottbus, Germany

DAIS '97 provides a forum for researchers, application designers and users to review, discuss and learn about new approaches and concepts in the fields of distributed applications. DAIS '97 will especially focus on the interoperability between different applications and services, different implementations of the same and of different distributed platforms.

September 1997: 234x156: 304pp: 30 line illus
Hardback: 0-412-82340-3: approx. £75.00

Performance of Information and Communication Systems

Edited by **U. Korner**, Lund University, Sweden and **A. Nilsson**, North Carolina State University, USA

This book presents state-of-the-art discussions of the key issues in modelling and performance of Information and Communication Systems. In addition to providing a theoretical overview of the field, this book addresses key topics like B-ISDN and ATM, high speed mobile systems, traffic characteristics and measurements and the Internet.

June 1998: 234x156: approx. 320pp
Hardback: 0-412-83730-7: approx. £70.00

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Event	Date	Location	Sponsored by	Org. Contact
Asia-Pacific Conf. on Human-Computer Interaction	15-17.7.1998	Hayama-machi, J	IPSJ, IFIP TC13	Fax: +81 53 4781481, PFD00343@niftyserve.or.jp
Work.Conf. on Information Systems in the WWW Environment	15-17.7.1998	Beijing, PRC	IFIP WG8.1	Fax: +86 01 62515332, mgfang@public.bta.netcn
12th IFIP WG11.3 Work. Conf. on Database Security	15-17.7.1998	Chalkidiki, GR	IFIP WG11.3	Fax: +1 518 2764033, spoonerd@cs.rpi.edu
CEPIS/IFIP Sommer School on Teach.with IT in Second.Schools	27-31.7.1998	Prague, CZ	CEPIS, IFIP TC3	Fax: +41 22 3180535, morel@uni2a.unige.ch
Optimal Control of PDE's	17-21.8.1998	Montreal, CDN	IFIP WG7.2, CRM, Univ. of Montreal	Fax: +1 804 9824555, il2v@virginia.edu
Prague Stochastics '98 - Section on Stochastic Programming	23-28.8.1998	Prague, CZ	Charles Univ., IFIP WG7.7	Fax: +420 2 6884702, stoch98@utia.cas.cz
Work. Conf. on Educating Professionals for Network-Centric Organizations	23-28.8.1998	Saitama, J	IFIP WG3.4, Jap.Soc. of Educ. Techn., Jap. Soc. f. Inf. Systems	Fax: +61 3 92446928, pjuliff@deakin.edu.au
Work.Conf.on Strategic Management of the Manufacturing Value Chain	26-28.8.1998	Troon, UK	IFIP WG5.7, Enterprise Aurshire	Fax: +44 141 5520557, a.s.carrie@strath.ac.uk
3rd IEEE/IFIP Intl.Conf. on Information Technology for Balanced Automation Systems in Manufacturing	26-28.8.1998	Prague, CZ	IEEE, IFIP WG5.3	Fax: +420 2 24357224, marik@labe.felk.cvut.cz
5th World Conf. on Human Choice & Computers Computer and networks in the age of globalization	26-28.8.1998	Geneva, CH	IFIP TC9	Fax: +41 21 6923405, silvio.munari@hec.unil.ch
11th Intl. Workshop on Testing of Communication Systems	31.8.-2.9.1998	Tomsk, RUS	IFIP WG6.1	yevtushenko@elefottsutomsk.su
Intl. Conf. dedicated to the 90th Anniv. of L.S. Pantryagin	31.8.-6.9.1998	Moscow, RUS	RAS, IFIP TC7, Math. Steklov Inst., Moscow State Univ.	Fax: +1 804 982 4555, il2v@virginia.edu
IFIP Congress '98 Fifteenth World Computer Congress	31.8.-4.9.1998	Vienna/Budapest,A/H	IFIP	Fax: +43 1 51202359, ifip98@ocg.org.at
Work.Conf. on Design.Effective and Usable Multimedia Syst.	9-11.9.1998	Stuttgart, D	CEPIS, IFIP TC13, City Univ., Fraunhofer Institute	Fax: +44 171 4778411, a.g.sutcliffe@city.ac.uk
The Globalization of Manufacturing in the Digital Era of the 21st Century - Innovation, Agility & the Virtual Enterprise	9-11.9.1998	Trento, I	IFIP WG5.2/5.3, University of Trento	Fax: +39 464 443141, gianni@lii.unitn.it
Engineering the Human Computer Interface	14-18.9.1998	Iraklion, GR	IFIP WG2.7, ICS-FORTH	Fax: +1 412 268 5758, ljb@sei.cmu.edu
Intl.Conf. on Distributed System Platforms & Open Distributed Processing (formerly ICODP/ICDP)	15-18.9.1998	Lake District, UK	IFIP WG6.1	Fax: +44 1524 593608, gordon@comp.lans.ac.uk
IFIP WG7.6-IIASA Workshop on Advances in Modeling: Paradigms, Methods & Applications	21-23.9.1998	Laxenburg, A	IFIP WG7.6, IIASA	Fax: +43 2236 71313, marek@iiasa.ac.at
Telematics a new Dimension of Automation	28-30.9.1998	Vienna, A	IFAC, IFIP TC5	Fax: +43 1 50418359
17th Intl. Conf. on Computer Safety, Reliability and Security	5-7.10.1998	Heidelberg, D	IFIP WG5.4, IFAC	Fax: +49 228 302 167, gibonn@gmd.de
Sculptured Surface Machining Conf. :"Machining Impossible Shapes"	9-11.11.1998	Detroit, MI, USA	Chrysler, IFIP WG5.3	Fax: +82 42 8693110, bkchoi@bezier.kaistac.kr
2nd IFIP WG11.5 Work.Conf. on Integrity & Internal Control in Information Systems: Bridging Business Requirements and Research Results	19-20.11.1998	Fairfax, VA, USA	IFIP WG11.5, IFAC, ACSA, George Mason Univ.	Fax: +31 492 548636, strous@iaehv.nl
Conf. on Communications & Networking in Education	13-18.6.1999	Aulanko, FIN	IFIP WG3.1/3.5, Univ.of Helsinki, Comp.Soc.of Finland, Min.of Edu.	Fax: +358 9 8574328, matti.sinko@helsinki.ti
19th IFIP Conf. on System Modelling & Optimization	12-16.7.1999	Cambridge, UK	IFIP TC7	Fax: +44 1223 337918, m.j.d.powell@damtp.cam.ac.uk
Interact '99 Human Computer Interaction	29.8.-3.9.1999	Edinburgh, UK	TC13	Fax: +44 1314513327, kilgour@bcs.org.uk

A schedule of administrative meetings can be found elsewhere in this *Newsletter*.

Calendar of Events

Event	Date	Location	Sponsored by	Org. Contact
Intl. Colloquium Universal Machines and Computations	23-27.3.1998	Metz, F	Metz IU, IFIP TC1	Fax: +33 3 87315496, mcu98@iut.univ-metz.fr
Muenchener Stochastik-Tage	24-27.3.1998	Neubiberg, D	FAFU, IFIP WG7.7, Friends of the Univ., GAMM	Fax: +49 89 60044092/3560, kurt.marti@unibw-muenchen.de
Intl. Conf. on Compiler Construction '98	30.3.-3.4.1998	Lisbon, P	ETAPS, IFIP WG2.4	Fax: +351 1 7500084, llf@di.fc.ul.pt
4th Intl. Conf. on Broadband Communications '98	1-3.4.1998	Stuttgart, D	IFIP WG6.2, IEEE, GI, ITG	kuehn@ind.uni-stuttgart.de
3rd Workshop on Personal Wireless Communication	8-9.4.1998	Tokyo, J	IFIP WG6.8, IPSJ, Min.of Post & Telecomm., Inst. of Electronics	Fax: +81 3 56843983, saito@saittu-tokyo.ac.jp
IFIP WG7.2 Conf. on Optimal Control of PDE's	20-24.4.1998	Chemnitz, D	IFIP WG7.2, Univ. of Chemnitz	Fax: +1 804982 4555, il2v@virginia.edu
2nd ICCC/IFIP Conf. on Electronic Publishing 98 Towards the Information-Rich Society	20-22.4.1998	Budapest, H	ICCC, IFIP TC6	Fax: +44 1227 823984, j.w.t.smith@ukc.ac.uk
2nd Intl. Conf. on Information Infrastructure Information Super Highway	26-29.4.1998	Beijing, PRC	MEI, CAST, IFIP	Fax: +8610 68283458, mqzhou@public.bta.netcn
Nonlinear Problems in Aviation and Aerospace	28.4.-1.5.1998	Daytona Beach, FL USA	IFNA, IFIP TC7, Emory Riddle Aeronautical Univ.	Fax: +1 904 226 7050, siva@db.erau.edu
8th IFIP WG7.5 Work.Conf. on Reliability & Optimization of Structural Systems	11-13.5.1998	Krakow, PL	IFIP WG7.5, Wroclaw Univ. of Techn.	Fax: +13137644292, nowak@umich.edu
Design of Information Infrastructure & Systems for Manufacturing 1998	18-22.5.1998	Ft.Worth,TX,USA	IFIP WG5.7/5.3, Autom. & Robotics Inst./The Univ. of Texas at Arlington	Fax: +1 817 272 5952, jmills@arri.uta.edu
Intelligent Assembly & Disassembly	21-23.5.1998	Ljubljana, SLO	IFAC, IFIP TC5, IFORS	Fax: +386 61218567, dragica.noe@fs.uni-lj.si
4th IFIP 2.6 Work. Conf. on Visual Database Systems	27-29.5.1998	L' Aquila, I	IFIP WG2.6	Fax: +41 21 6935195, spaccapietra@diepfl.ch
1998 Intl. Workshop on Description Logics	30.5.-1.6.1998	Trento, I	IRST-ITC, IFIP TC12	Fax: +39 461 302040, franconi@irst.itc.it
Intl. Conf on Trends in Distributed Systems & Electronic Commerce	3-5.6.1998	Hamburg, D	IFIP TC6, GI	Fax: +49 40 54942328, merz@informatik.uni-hamburg.de
IFIP Work. Conf. on Programming Concepts & Methods	8-12.6.1998	Shelter Isl., NY,USA	IFIP WG2.2/WG2.3	Fax: +1 516 6328334, sas@cs.sunysb.edu
7th IFIP/ICCC Conf. on Information Networks & Data Communications	15-17.6.1998	Aveiro, P	ICCC, IFIP TC6, Univ. of Aveiro, INESC, API	Fax: +351 34 370545, fmr@inesca.pt
Control of Distributed Parameter & Stochastic Systems	19-22.6.1998	Hanghzhou, PRC	IFIP WG7.2, Chin. Natl. Science Found., Zheijang Univ., Fudan Univ.	Fax: +1 804 9824555, il2v@virginia.edu
IFAC Symposium on Information Control in Manufacturing	24-26.6.1998	Nancy-Metz, F	IFAC, IFIP TC5, AFCET, CIRP, CNRS, INRIA	Fax: +33 383 912390, incom98@cran.u-nancy.fr
Intl. Work. Conf. on Information Technology in Educational Management	6-10.7.1998	S.Bristol, Maine,USA	IFIP WG3.7, OR/Ed Lab., Univ. of Maine & S. Maine, Maine Dept. of Edu.	Fax: +1 919 7455771. nidrg+2@unity.ncsu.edu
Work. Conf. on Context-Sensitive Decision Support Systems	12-15.7.1998	Bled, SLO	IFIP WG8.3	Fax: +386 61 1421395, vladislav.rajkovic@ijs.si

(continued on page 15)

IFIP Congress '98 15th World Computer Congress	31.8.-4.9.1998	Vienna, A and Budapest, H	IFIP
IFIP Congress 2000 - 16th World Computer Congress	21-25.8.2000	Beijing, PRC	IFIP

This calendar information is furnished to the *Newsletter* by the Secretariat. It contains only approved IFIP events, arranged by the local Organizing Committees.
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