

Announcements

THIRD INTERNATIONAL CONFERENCE ON ROTARY METALWORKING PROCESSES (ROMP-3)

(September 8–10, 1984; Kyoto University, Kyoto, Japan)

Following on the success of the two previous events in this important series, which were held in the United Kingdom, the 3rd ROMP conference is to be held in Japan. Judging by the quality and quantity of contributions from this region to previous conferences, ROMP 3 promises to be a most rewarding experience for all manufacturing executives using rotary metalworking processes or simply wishing to learn more about these techniques for working metal without waste.

The programme features many papers from China and Japan describing the very latest developments in these countries who have always been leaders in this field and, in total, over 50 technical papers will be presented from 13 different countries.

Rotary Metalworking Processes, which are particularly suitable for smaller batch sizes, are a group of forming techniques having the advantages of high material utilisation, good product quality and low tooling costs. The aim of the conference is to provide manufacturers, researchers and users in this field with a forum for discussion and to enable individuals and companies outside or on the fringe of the industry to gain important information and contacts.

The main techniques to be covered at this year's event are rotary forging, form rolling, ring rolling, spinning and roll forming, together with CAE, CAD and FMS aspects.

Enquiries to: IFS (Conferences) Ltd., 35–39 High Street, Kempston, Bedford MK42 7BT England (Tel. 0234-853605; Telex 825 489).

THIRD INTERNATIONAL CONFERENCE ON FLEXIBLE MANUFACTURING SYSTEMS AND SEVENTEENTH ANNUAL IPA CONFERENCE (FMS-3)

(September 11–13 1984; Boeblingen, near Stuttgart, West Germany).

Since the first conference in this series was held in 1981, which effectively introduced FMS as a technology in its own right, world interest in FMS shows no sign of abating. Rather it has increased, as more sophisticated equipment becomes available and more practical experience is gained in system planning and implementation. Many countries vie for the leading position in this important science: Japan has completed several "show-case" installations, as well as numerous smaller scale FMS developed early in the technology; the United States must have a significant role because of the number and size of FMS installations there; but Europe, although perhaps a latecomer in tackling the concept, now has produced a variety of successful plants, notably in Italy, Sweden and West Germany.

FMS-3 brings together leading experts from all these countries to relate their experience and innovative ideas in FMS design and realisation.

Following the diverse choice offered at FMS-2, the FMS-3 conference has been tailored to provide an equally comprehensive programme but one which focuses in very concentrated form on the key issues facing FMS users and suppliers alike.

FMS-3, after two successful conferences in the UK, now moves to the Stuttgart area, where it is anticipated that an

added dimension will be achieved through West German influence and experience. Delegates will have an additional benefit in the shape of IPA's active participation as co-organisers. IPA's expertise specifically in flexible manufacturing systems and in other related fields of advanced manufacturing technology will greatly enhance the technical element of the conference. Professor H.-J. Warnecke, Director of the IPA, chairs the FMS-3 conference, which also forms the 17th Annual IPA conference.

Enquiries to: IFS (Conferences) Ltd, as above.

INTERNATIONAL SYMPOSIUM ON AUTOMOTIVE TECHNOLOGY AND AUTOMATION (ISATA-84)

(September 24–28, 1984; Milan, Italy)

Milan, the commercial and industrial centre of Northern Italy, will be the venue for the 1984 ISATA Symposium. This year the symposium is being held with the collaboration of Alfa Romeo and will take place from 24th–28th September, 1984.

Technical Sessions will be held in the Conference Hall of the Milanofiori Conference Centre (the Italian World Trade Centre), where the papers presented will cover the whole range of automotive technology and automation including: engine and emission testing, component testing, lubricant testing, automation of manufacturing processes, robotics, diagnostics, quality control, computer-aided engineering, future product development, speech recognition, instrumentation and sensors, fuel economy, powertrain management systems, safety, microprocessors and microelectronics. **SPECIAL EMPHASIS WILL BE PLACED ON VEHICLE MANAGEMENT SYSTEMS AND FLEXIBLE MANUFACTURING SYSTEMS.**

The official language of the Symposium will be English and a simultaneous translation service Italian/English will be supplied.

One day (Wednesday, 26th September) will be set aside for Technical Visits to Alfa Romeo Testing Facilities and Proving Grounds, Aeritalia, Ansaldo Mectron (Robotics), C.I.S.E. (Laser Laboratories), S.G.S. (Electronic Components Development & Manufacturing), Pirelli (Proving Grounds), FIAT Research Centre and FIAT.

Evening Activities arranged include a reception by the City of Milan, dinner offered by Alfa Romeo, and a banquet at the Grant Hotel Villa d'Este on Lake Como and a concert at "Alla Scala Theatre". A special Ladies' Programme will be provided for delegates' wives.

Once again the symposium will be able to draw on the expertise and support of the ISATA Co-ordinating Committee, which is responsible for vetting the papers submitted.

Following the success of recent ISATA Symposia with over 400 delegates from 24 countries attending, the 1984 Symposium should be an even more important and successful event. The response to the First Announcement and Call For Papers has been overwhelming and in order to include as many of the high quality papers received as possible, parallel sessions have been organised.

Enquiries to: ISATA Secretariat, 42, Lloyd Park Avenue, Croydon CRO 5SB England (Tel. 0-680-8659; telex 28905 Monoref, 2592).

ECE SEMINAR ON FLEXIBLE MANUFACTURING SYSTEMS

(September 24–28, 1984; Sofia, Bulgaria)

A Seminar on Flexible Manufacturing Systems will take place from 24 to 28 September 1984 in Sofia, at the invitation of the Bulgarian Government. It is being organized by the Working Party on Engineering Industries and Automation of the United Nations Economic Commission for Europe (ECE). The Seminar will focus on the techno-economic aspects of the design and application of flexible manufacturing systems (FMS) in order to assure product quality and reliability and increased productivity in the engineering industries. It will have an interdisciplinary structure in order to bring together government officials, directors of industrial enterprises and companies producing FMS and their components, leading specialists of research institutes, main users and foreign trade specialists.

Four main areas will be examined: General questions such as innovation trends in engineering industries and the role of Governments in encouraging the introduction of FMS; characteristics of flexible manufacturing; recent developments in FMS components; and application of FMS. The programme will include the following, technical visits: ZMM Factory (production of machine tools); G. Kostov Factory (production of d.c. motors); Research Institute for Industrial Robotics and Technical Cybernetics; Lenin Higher Institute for Mechanical and Electrotechnical Engineering (all in Sofia); and the International Automated Equipment Exhibition at Plovdiv.

Participation in the Seminar is open to interested persons from ECE countries or from other United Nations Member States, in both cases with the endorsement of their Governments. Representatives of specialized agencies, intergovernmental, international and non-governmental organizations normally participating in the activities of the Commission or who are particularly concerned with the subject matter of the Seminar may also take part.

Enquiries to: The Industry and Technology Division, United Nations Economic Commission for Europe, Palais des Nations, CH-1211 Geneva 10, Switzerland (Telephone: (022) 34 60 11 (ext. 3254 or 3258 or 3296). Telex: 28 96 96).

ADVANCED MICROCOMPUTING AND LABORATORY ROBOTICS (ANALYSIS 84)

(October 23 and 24, 1984; The City Conference Centre, Mark Lane, London EC3, U.K.)

Microcomputers have become common items of equipment in analytical laboratories. They are at the centre of such a fast growing area of technology that it is difficult for the busy analyst to keep up with trends in both hardware and software developments and in their applications. This meeting will allow microcomputer users to up-date their knowledge via a series of lectures and discussion sessions in the following broad areas:

- * Recently introduced hardware and software
- * Practical networking in the laboratory
- * Data handling (Chemometrics)
- * Practical microcomputer applications

One of the applications of microcomputers which promises considerable benefit to analytical laboratories is in the use of robots to automate some routine procedures. A full session of this meeting will be devoted to this topic to enable analysts to introduce this new concept to their laboratories.

In conjunction with this meeting there will be displays and demonstrations of the latest available microcomputer and robot hardware and software.

Enquiries to: Beverly Humphrey, Scientific Symposia Ltd, 33–35 Bowling Green Lane, London EC1R 0DA (U.K.).

INTERNATIONAL CONFERENCE ON SIMULATION IN MANUFACTURING (SIM-1)

(March 5–7, 1985; Stratford-upon-Avon, U.K.)

Simulation is one of the most powerful and widely used techniques for solving engineering, design, safety and management problems—and the scope is widening all the time. IFS (Conferences) Ltd. are therefore pleased to announce that they will be adding the International Conference on Simulation in Manufacturing to their well-established range of conferences in the field of manufacturing automation. The Conference will be held at Stratford-upon-Avon, England, from 5–7 March 1985 and offers of papers and now invited from anyone with knowledge and experience of simulation in the context of manufacturing.

With new machinery and manufacturing installations costing many thousands of pounds, it is hardly surprising that simulation technology is becoming more and more important to engineering and manufacturing. As a technique it offers the opportunity to test system design, to explore the limitations as well as the potential of any given system, and ideally should ensure that the system installed is fit for the task and not an expensive failure. As the range, and possible combinations, of plant and systems grow, simulation can hardly fail to become an even more important tool for industry.

But the use of simulation extends beyond feasibility and design to training and R & D. Research institutes and colleges which could not hope to have large installations at their disposal, can achieve very significant results using simulation. In many cases it is to these institutes that industry is looking for feasibility studies and system assessments.

Looking beyond manufacturing industry, simulation techniques have been adopted by the oil and chemical industries, in warehouse and shop planning, and not least for flight training. The advances made in all these areas can contribute significantly to developments in the many and varied aspects of modern manufacturing.

Submission of Abstracts

You are invited to submit an abstract of about 100 words for consideration by the Organising Committee. Accepted papers will be presented by the author, from 5–7 March 1985, in Stratford-upon-Avon, UK. Suggested topics include the following, but potential authors are invited to suggest other, relevant topics.

Economics of simulation; design experience; user experience; life/testing simulation; systems simulation; FMS simulation; environmental simulation; simulation and human factors; R & D simulators; future trends; real-time simulation; simulation languages; robotic simulation; financial aspects; movement of parts; simulation of factory layouts.

Abstract submission instructions

Please use the form (from I.F.S.) or plain, white A4 paper and ensure that your abstract is printed or typed. Please give all the information required on the form. You should post your abstract to IFS (Conferences) Ltd., to arrive before **1 August 1984**. Overseas please use airmail.

Prospective authors should send their abstracts direct to: The Conference Organiser—SIM-1 IFS (Conferences) Ltd, 35–39 High Street, Kempston, Bedford MK42 7BT. Tel: (0234) 853605, Telex: 825489.

If you are unable to offer a paper but are interested in attending the Conference, please indicate this on the form and send it, with your name and address, to ensure that you receive further announcements.

Alternatively, if you know of someone who may be interested in offering a paper, please include his/her name and address on the form in the space provided.

All papers should be submitted in ENGLISH and will be reviewed by the paper selection committee.

Instructions as to the preparation of papers will be sent to authors once their abstract has been accepted.

Completed manuscripts in camera-ready form must be submitted by **30 November 1984** at the latest, for final review by the committee. Failure to meet this deadline risks exclusion from the published proceedings.

Final papers should be 2,000 to 4,000 words in length with a maximum of 10 illustrations.

Presentation time for each paper will be 30 minutes, including time for discussion.

The use of clear, professionally produced visual aids is strongly recommended.

The official conference language is English.

Papers must be free from commercialism and from damaging comparisons with competitive methods, processes or products.

Enquiries to: IFS (Conferences) Ltd., as above.

CONFERENCE ON HARDWARE AND SOFTWARE COMPONENTS AND ARCHITECTURES FOR THE 5TH GENERATION

(March 5–7, 1985; Paris, France)

In most industrial countries, there are currently ambitious R & D projects. They aim at preparing new generations of hardware and software tools with sizable qualitative and quantitative technological jumps over today's tools. Typical of such projects are the Japanese Fifth Generation project, a precursor, the ESPRIT project of the Commission of European Communities, the ALVEY Program in UK, the MCC and SRC in the USA, etc.

The 6th Conference of the AFCET Computer Society is meant to provide a wide panorama of current research related to novel architectures and components for both hardware and software approaches.

The program committee solicits both survey papers exposing the state-of-the-art and papers presenting specific R & D projects related to the general scope of the Conference.

While not exclusive, the following list of topics is considered:

1. *Software architectures and components for novel generations*
 - * knowledge representation and management
 - * A.I. carry-overs to programming
 - * A.I. languages, functional and logic programming
 - * natural language processing and understanding (spoken or written) dialog systems
 - * image understanding
 - * inference systems, automatic demonstration
 - * adaptive systems
 - * logics and artificial intelligence
2. *Hardware architectures and components for novel generations*
 - * data-flow machines, distributed systems, functional distribution
 - * language-oriented machines (functional, relational and object-oriented languages)
 - * relational machines
 - * supercomputers and artificial intelligence
3. *Peripheral equipment and ancillary software systems for novel generations*
 - * editors (sound, speech, image, symbols)

An exhibition of commercial products and research prototypes will be held concurrently with the conference: it will be organized by the AGENCE DE L'INFORMATIQUE

Enquiries to: AFCET-156, Boulevard Péreire-F. 75017 Paris, France (Tel: (1) 766 24 19 telex: 290 163 Code 235).

SECOND INTERNATIONAL SYMPOSIUM ON VLSI TECHNOLOGY, SYSTEMS AND APPLICATIONS

(May 8–10, 1985, Taipei, Taiwan, R.O.C.)

Papers in VLSI technology, systems and applications are solicited. Areas of interest include but not restricted to the

following:

1. *Technology*
 - * Devices and technology
 - * Modeling and simulation
 - * Materials and processing
 - * Logic, memory and analog ICS
 - * Packaging technology
 - * Wafer scale integration
 - * Design automation systems
 - * Silicon compilation
 - * Custom VLSI and gate arrays
 - * Special hardware for simulation
2. *Systems*
 - * VLSI architectures
 - * Special-purpose architectures
 - * VLSI and 5th Gen. computers
 - * Microprocessors
 - * Memory and storage subsystems
 - * VLSI system designs
 - * Highly parallel computation
 - * Fault tolerance
 - * System testing and diagnosis
 - * Design for testability
3. *Applications*
 - * Communication systems
 - * CAD/CAM and robotics
 - * Expert systems
 - * Graphics and vision
 - * Signal and image processing
 - * Network and distributed computing
 - * Personal computing
 - * Medical systems
 - * Computer peripherals
 - * Computer and information systems

Paper submission

Authors should submit 20 copies of a 300–600 word summary, in English and in single-sided, double-spaced typewritten form, by **December 1, 1984** to Professor H.T. Kung, Technical Program Chairman, or to Dr. Chintey Shih, Symposium Co-Chairman. In addition to the summary, each copy should include:

- * Cover page: author name(s), affiliation, address, and telephone number.
- * A 35–50 word abstract, which will be published in the advance program announcement if the paper is accepted.

By the submission package, the following statement signed by the author(s) must also be included: "If this paper is accepted, the author(s) will prepare the final manuscript in time for inclusion in the Symposium Proceedings, sign a copyright release form to authorize publication of the paper in the Proceedings, and present the paper at the Symposium."

Submitted papers will be reviewed by an international Technical Program Committee. Notices of acceptance will be sent out to authors by **January 15, 1985**. Authors of accepted papers will be required to submit final manuscripts in English (up to 5 pages including figures) in camera-ready format on special forms for publication in the Proceedings no later than **February 15, 1985**.

Enquiries to: Dr. Hwa-Nien Yu, Symposium Chairman, IBM T. J. Watson Research Center, P.O. Box 218, Yorktown Heights, New York 10598, U.S.A. Phone: (914) 945-1962.

Dr. Chintey Shih, Symposium Co-Chairman, ERSO, ITRI, 195-4, Sec. 4, Chung Hsing Rd. Chu-Tung, Hsinchu, Taiwan 311 Republic of China, Phone: Taiwan (036) 964771.

Professor H.T. Kung, Technical Program Chairman, Department of Computer Science, Carnegie-Mellon University,

Pittsburgh, Pennsylvania 15213, U.S.A. Phone: (412) 578-2568.

Dr. L.M. Terman, Technical Program Co-Chairman, IBM T. J. Watson Research Center, P.O. Box 218, Yorktown Heights, New York 10598, U.S.A. Phone: (914) 945-2029.

THIRD INTERNATIONAL CONFERENCE ON AUTOMATED GUIDED VEHICLE SYSTEMS
(June 5–7, 1985, Stockholm, Sweden).

Background

Automated Guided Vehicle Systems have been with us for many years. Their applications are many and varied. Some are free-ranging with laser beam guidance, while others follow underfloor or floor-mounted rails, but all have the ability to cut costs dramatically and give more control over the work environment in both small and large companies.

AGVS complete the link between warehouse, manufacture and assembly, making unmanned operations a reality.

This has all been made possible by combining vehicles with automated loading and unloading equipment and integrating them with higher order control systems.

In recent years there has been a rapid increase in interest shown by companies throughout the world, mainly due to labour costs, new truck designs enabling more versatile use and new suppliers creating fresh interest and realism.

The pace of technological change has accelerated tremendously concerning AGVS. It is both exciting and, particularly to those who are not directly involved, perhaps a little daunting.

AGVS

Following the success of the first two conferences in the series held in the United Kingdom (1981) and Germany (1983) IFS now invites you to participate in the 3rd International Conference on AUTOMATED GUIDED VEHICLE SYSTEMS, either as a speaker or a delegate.

AGVS3 under the chairmanship of Sven-Erik Andersson, Managing Director of the Swedish Institute of Production Research (IVF) is expected to attract over 300 senior industrialists from all over the world.

The aim of the conference is to spread a greater understanding of the potential of AGVS both in small companies who are perhaps just thinking about introducing them as well as large companies who probably need to extend current systems. The occasion is an opportunity for participants worldwide to exchange views and keep up to date in this rapidly advancing field of technology.

Delegates will find this a very useful and informative conference, and will gain a much clearer understanding of the value of AGVS.

Study tours

In connection with the 3rd International Conference on Automated Guided Vehicle Systems short tours will be organised by IFS (Conferences) Limited.

The tours will include visits to Sweden's most interesting and progressive users and manufacturers of AGVS. The companies visited will be both large and small, showing advanced industrial applications.

The first study tour will be held two days prior to the Conference, 3–4 June 1985, and a post conference study tour will be run from 8–10 June 1985.

Call for papers

The conference planning committee now invites speakers to submit titles and abstracts on all aspects of Automated Guided Vehicle Systems.

Papers dealing with industrial case-studies will be particularly welcome and suggested but non-exclusive list of topics is as follows:

- * AGVS in manufacturing
- * AGVS for materials handling

- * Automation – capital involved
- * Manual v automation
- * Integration storage and FMS
- * Large and small AGVS
- * Sensor technology/guidance
- * Flexibility and computers
- * Education – organisation
- * Working environment
- * Safety
- * User Reviews
- * Future possibilities
- * Vehicle design
- * Systems interfaces
- * Applications case studies
- * Computer controls
- * Market and technical studies

If you have experience and knowledge in these, or any other related areas, and would like to speak at this major international event, please complete the author's form contained in this leaflet and return it as directed (leaflet obtainable from I.F.S.).

General information

If you would like to submit the abstract (about 100 words) of a proposed paper please use the form provided. This should be sent to the Conference Organiser by 9th November 1984 and should provide sufficient information to allow assessment of the scope of the paper.

The following information is provided for the benefit of potential speakers;

- a. All submitted papers should be in ENGLISH and will be reviewed by the paper selection committee.
- b. Instructions as to the preparation of papers will be sent to speakers once their abstract has been accepted.
- c. Completed manuscripts in camera ready form must be submitted by 1st March 1985.
- d. Final papers should be approximately 3,000 words in length with a maximum of 10 illustrations.
- e. Presentation time for each paper will be a maximum 30 minutes including time for discussion.
- f. The use of visual aids is strongly recommended.
- g. The official language of the conference is ENGLISH.
- h. Papers must be free from commercialism and from damaging comparisons with competitive methods, processes or products.

Enquiries to: IFS (Conferences) Ltd, as above.

INTERNATIONAL CONFERENCE ON SOFTWARE FOR MANUFACTURING INDUSTRIES (DISCRETE MANUFACTURING) (PROLAMAT 1985)

(June 11–13, 1985; Paris, France)

PROLAMAT 85 is the sixth in a series of triennial meetings of IFIP (International Federation for Information Processing) and IFAC (International Federation of Automatic Control). It has become the recognized forum for the presentation of new developments in computer software for discrete manufacturing.

Papers are invited dealing with advances and new results and applications in Software aspects and computing methods and techniques for the design and planning in discrete manufacturing (from machining to assembly).

Discrete manufacturing includes manufacturing of all products except those made by continuous processes. Discrete manufacturing therefore includes the production of mechanical parts and systems, of electrical parts, of furniture, of clothes, etc.

1. *Themes*

- * Design and implementation of CAD/CAM systems
- * Computer Aided Design

- * Computer Aided Process and Production Planning and Optimization
- * Robotics and Automated Manufacturing Systems
- * Artificial Intelligence in CAD/CAM

2. Associated event

An industrial exhibition on production automation will take place during the week of PROLAMAT

Enquiries to: AFCET, as above.

HUMAN FACTORS IN THE FACTORY AND OFFICE OF THE FUTURE (HUMAN-2)

(June 11–13, 1985, Stuttgart, West Germany)

The first conference in this series, HUMAN-1, which took place in London in April 1984, was an eye-opener for many in revealing the extent to which companies had begun to concern themselves with the "people" aspect of high technology manufacturing. These companies were very diverse in the scale of their operations and the nature of their business, but almost all were successful commercially.

Interesting also was the amount of documentation and research being undertaken; and the fact that this was not "ivory tower" research in isolation but research based solidly on numerous industrial cases, which led to meaningful conclusions and lessons for all those concerned with manufacturing and related industries.

Ferranti, IBM, Volvo, Westland Helicopters, Guinness were only a few of the organisations involved in HUMAN-1.

1. Human-2

HUMAN-2 will take up where HUMAN-1 left off, concentrating heavily on the relationship of man and high technology in today's industrial world and highlighting new case studies; but it will expand its field of interest to encompass the effects of automation in the office, where a micro or mini computer is now as frequently to be found as a typewriter. Adjustments to new technologies have been as difficult for office staff as for workers on the shop floor and this trend will continue as governments worldwide endeavour to promote Information Technologies.

HUMAN-2 takes place in Stuttgart, West Germany, and is organised jointly by the Fraunhofer Institut fuer Arbeitswirtschaft und Organisation (IAO), Stuttgart, leading experts in this field in West Germany and IFS (Conferences) Ltd, UK. Contributions are now invited from organisations and individuals with experience and knowledge in this and related subject areas.

2. General information

Submission of Abstracts

You are invited to submit an abstract of about 100 words for consideration by the Organising Committee. Accepted papers will be presented by the speaker at HUMAN-2 from 11–13 June 1985 in Stuttgart, West Germany.

Please use the adjoining form or plain, white A4 paper to ensure that your abstract is printed or typed. Please give all the information required on the form. You should post your abstract to arrive before 31 October 1984. Overseas please use airmail.

Prospective speakers should send their abstracts to: The Conference Organiser (HUMAN-2), IFS (Conferences) Ltd., 35–39 High Street, Kempston, Bedford MK42 7BT, UK, Tel: Bedford (0234) 853605, Telex: 825489

German speakers may prefer to send their abstracts direct to: Fraunhofer Institut fuer Arbeitswirtschaft und Organisation (IAO), zHd. Herrn Huegel, Silberburgstrasse 119A, D-7000 Stuttgart 1, West Germany, Tel: (711)66480, Telex: 721978.

If you are unable to offer a paper but are interested in attending the conference, please indicate this on the form and

send it, with your name and address, to ensure that you receive further announcements.

- * Instructions as to the preparation of papers will be sent to speakers once their abstract has been accepted.
- * Completed manuscripts in camera-ready form must be submitted by 31 January 1985 at the latest, for final review by the committee. Failure to meet this deadline risks exclusion from the published proceedings.
- * All submitted papers should be in ENGLISH but speakers are encouraged to submit a German language version also.
- * Final papers should be 2,000 to 4,000 words in length with a maximum of 10 illustrations.
- * Presentation time for each paper will be 30 minutes, including time for discussion.
- * The use of clear, professionally produced visual aids is strongly recommended.
- * The official conference languages are German and English, with simultaneous interpretation.
- * Papers should be free from commercialism.

3. Suggested topics

- * Social and economic effects of new technologies
- * Implications for industrial relations (conflicts of interest: unions, entrepreneurs, vendors, users)
- * Effects of new technologies on the job market
- * Effects on the structure of wages and salaries
- * Man/machine interface
- * Training and qualification
- * Changes in working environment
- * Management and new technologies
- * Physical and mental effects of automation
- * Ergonomics, especially software ergonomics
- * Safety at work
- * Structure of work; workloads
- * Conditions of work
- * Organisation of work; organisation of management
- * Shaping of technology (e.g. interfaces, chaining networks) with respect to the quality of working life
- * Questions of acceptance
- * Personnel planning
- * Strategies for the introduction of new technologies
- * Private and public economic effects
- * Human factors in equipment design and office planning

Enquiries to: IFS (Conferences) Ltd., as above.

CONFERENCE ON (CONTROL-85)

(July 9–11, 1985; Cambridge, U.K.)

The Conference will cover a broad range of topics relating to present trends in the theory and practice of automatic control. A balance will be sought so that the various aspects of this wide subject are properly represented with emphasis being placed on current industrial applications of theoretical procedures which have emerged in the last decade or so. The scope of the conference will be wide, to permit the interchange of information between academics and industrialists in the control field.

The following topics will be covered:

- Computer aided control system design
- Nonlinear feedback systems
- Robust control systems design
- Self-tuning and adaptive control
- Large scale systems
- Optimisation
- Numerical methods in system design
- Offshore and underwater applications
- Digital and computer control system,
- Distributed control
- Instrumentation/control in the process industry
- Power systems applications
- Nuclear Industry

Robotics
Automotive/mechanical applications
Aerospace
Environmental systems

Contributions

Those intending to offer a contribution should submit an extended synopsis of 2–3 A4 pages to the IEE Conference Services Department on, or before, 14 May 1984. The synopsis should include the main points of the paper and, where possible, indicate where the emphasis will be placed. Authors whose synopses are selected will be requested to provide full typescripts of not more than 4,800 words, including illustrations, for assessment by 25 February 1985.

The material should be original and must not have been published before. Neither should the same material be offered to both Control 85 and IFAC 85.

2. Deadlines

Intending authors should note the following deadline dates:

Receipt of synopsis	14 May 1984
Notification of provisional acceptance of synopsis	July 1984
Receipt of full text for final review	25 February 1985

3. Working language

The working language of the Conference is English which will be used for all printed material, presentations and discussion. Simultaneous translation will not be provided.

4. Tutorials

It is planned to arrange tutorial sessions during the Conference. Details of the topics to be discussed will be included in the provisional programme which will be sent to those who complete and return the attached reply-form.

Enquiries to: Conference services department, IEE, Savoy Place, London WC2R 0BL, U.K. (Telephone: 01-240 1871 (ext 222) Telex: 261176 IEE LDNG).

EIGHTH INTERNATIONAL CONFERENCE ON PRODUCTION RESEARCH

(August 20–22, 1985; Stuttgart, West Germany)

The objectives of this conference which is concerned with factories of the future are to support international experience exchange about outstanding industrial solutions and the results in production research.

The Conference Topics are scheduled as to be:

Highly Automated Flexible Manufacturing Systems
New Manufacturing Technologies
Production Planning and Control
CAD/CAM
Assembly Automation
New Concepts in Work Organization
Design of Work Stations
Industrial Robots
Sensors and Quality Control

Corporate Strategies
Industrial Engineering Methodologies
Human Factors and Ergonomics
Office Automation

Acceptance of contributions will be determined on the basis of abstracts. These abstracts should not exceed a single spaced page. They have to contain the author(s), the affiliation, the title and the text (in English). The conference topic in which the paper should be presented must be specified. Deadline for submission of the abstracts was June 30th, 1984. Authors will be notified about the acceptance of their contribution no later than October 1st, 1984. They will be provided with detailed instructions for the preparation of the final paper in a camera-ready form. Final papers have to arrive before February 15th, 1985.

Enquiries to: ICPR Secretary, c/o IPA, Eierstraße 46, 7000 Stuttgart 1, F.R. Germany (Tel.: 0711/60 20 64; Telex: 7 255 166 ipa d; Telefax: 0711/60 71 202).

NINETEENTH INTERNATIONAL SYMPOSIUM & EXPOSITION ON ROBOTS

(November, 1988; Sydney, S.S.W., Australia)

These events will form part of Australia's national Bicentennial celebrations. It will be the first time an International Symposium on Industrial Robots has been held outside of the USA, Western Europe or Japan.

More than 1000 delegates from home and overseas will attend the November Symposium at Sydney's Hilton Hotel and thousands of people will have the opportunity to explore the world of robot technology at the Exposition in Centrepoint.

The Australian Bicentennial Authority, the organisation coordinating the national celebrations, has endorsed the Symposium and Exposition and congratulated the Association and its co-sponsor, the Institution of Engineers (Australia), on their initiative in staging an event of such great public appeal for the year-long commemoration.

Papers presented at the Symposium will discuss the complex applications and implications of robot technology in modern society and the Exposition will provide a fascinating range of practical demonstrations of robots at work in industry, the home and educational institutions.

Dr Michael Kassler, convenor of the Association's steering committee, says: 'Robots are already at work in industry and perform a number of tasks such as welding, spray painting and transferring objects from one machine, or place, to another.'

'They have even been used, on an experimental basis in Australia, to shear sheep. We anticipate that by the latter part of this decade robots equipped with visual sensors will be used for automatic assembly in industry' Dr Kassler said.

Enquiries to: Ellen McArthur, Information Officer, The Australian Bicentennial Authority, GPO Box AUS 1988 Sydney 2001 Australia (Tel. (02) 236 1988) or Dr Michael Kassler, The Australian Robot Association, 9 Queens Ave, McMahons Pt, Sydney 2060 Australia (Tel. (02) 922 5026).