International Institution for Production Engineering Research

NEWSLETTER

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From the Editor

The 52nd General Assembly in San Sebastian looks only shortly behind us but now we are preparing already for the winter meeting in Paris which will be held in a new and even better location.

It is time to think about which research result you will share there with the colleagues while at the same time the Canadian team is working hard to prepare a warm welcome in Montreal.

This 21st issue of the Newsletter will be the first one which is distributed electronically only, together with the agendas for the meetings, minutes etc. This will save the office a significant amount of paper to distribute. I am interested to know from you how this works in practise. Another change is that there is no "News from the STC's" in this Newsletter. This will be printed in part 3 of the Annals as decided during the last liaison meeting.

The next issue of the Newsletter is scheduled for April 2002. Your contributions are very appreciated, you may send it to the CIRP office in Paris or directly to the editor at: j.meijer@ctw.utwente.nl preferable before **March 15th 2002**

Johan Meijer (Technical Secretary)

Contents

1. About CIRP?

The International Institution for Production Research (CIRP) was founded in 1951 to bring together research workers studying the application of scientific methods to production technology. At present, CIRP has about 500 members representing some 40 different countries. The unique contribution of CIRP to manufacturing research is acknowledged by many of the world's leading companies and research institutes, who provide active support through the associate membership. Today, CIRP is turning its attention to the use computerized methods for manufacturing control, automation, robotics, interfacing and the computer-integrated factory of the future. The CIRP is organised in Scientific and Technical Committees (STC's) that are the groups responsible for coordinating the collaborative research. The main activities are:

- Studying new techniques and technologies;
- Organising cooperative research projects, comparative testing, standardisation of methods etc.
- Collecting and analysing bibliographies to document the state-of-the-art in particular areas of manufacturing;
- Publishing synthesis reports on important technical problems;
- Organising seminars and meetings on specialist topics;
- Preparing internationally accepted terminology to aid understanding and promote more precise scientific definitions;
- Contributing to the work of the International Standardisation Organisation;
- Surveying the state of the art of research in different laboratories over the world;

The present Scientific and Technical Committees (STC's) are:

A: Assembly

Techniques, processes and equipment for the assembly and handling of parts and their disassembly, including design for assembly and disassembly, process planning for economic assembly and application of industrial robots. Joining processes. Terminology and symbols describing assembly and handling operations.

C: Cutting

Processes and techniques used to shape components by material removal (turning, milling etc.), including the processes of chip formation, the physical laws governing the wear of cutting tools and the factors influencing surface finish.

Dn: Design

Conceptual and innovative processes in engineering design. Design for economic and ecological manufacture, coordination with manufacturing. Computer-automated systems and the integration of technological and economic methods.

D: Dictionary

This STC has the responsibility for publication of CIRP dictionaries on Advanced Manufacturing Engineering. The dictionaries cover definitions and terminology for manufacturing processes, machines, tooling, materials and systems formulated by the other STCs

E: Electro-Physical and Chemical processes

Research into material removal processes of an electro-physical or chemical nature such as electro-discharge machining (EDM), electrochemical machining (ECM) and the use of high-energy laser, electron and ion beams. Development of new non-conventional processes, rapid prototyping, metal powder sintering.

F: Forming

Processes in which components are shaped by plastic deformation, including pressure joining and separation techniques such as stamping or shearing. Application of the theory of plasticity to industrial forming processes with reference to tribology and materials engineering aspects.

G: Abrasive Processes

Research into material removal processes using hard abrasive grains such as grinding and finishing, the mechanics of grinding and the economics of abrasive processes.

M: Machines

Design, manufacture and use of manufacturing equipment, including the study of performance-related factors, such as static and dynamic behaviour, efficiency and resistance to wear. Study of components like structures, guide ways, spindles, servo actuators, displacement transducers, sensors, CNC systems and adaptive control. Automation interfaces and control systems.

O: Optimisation of manufacturing systems

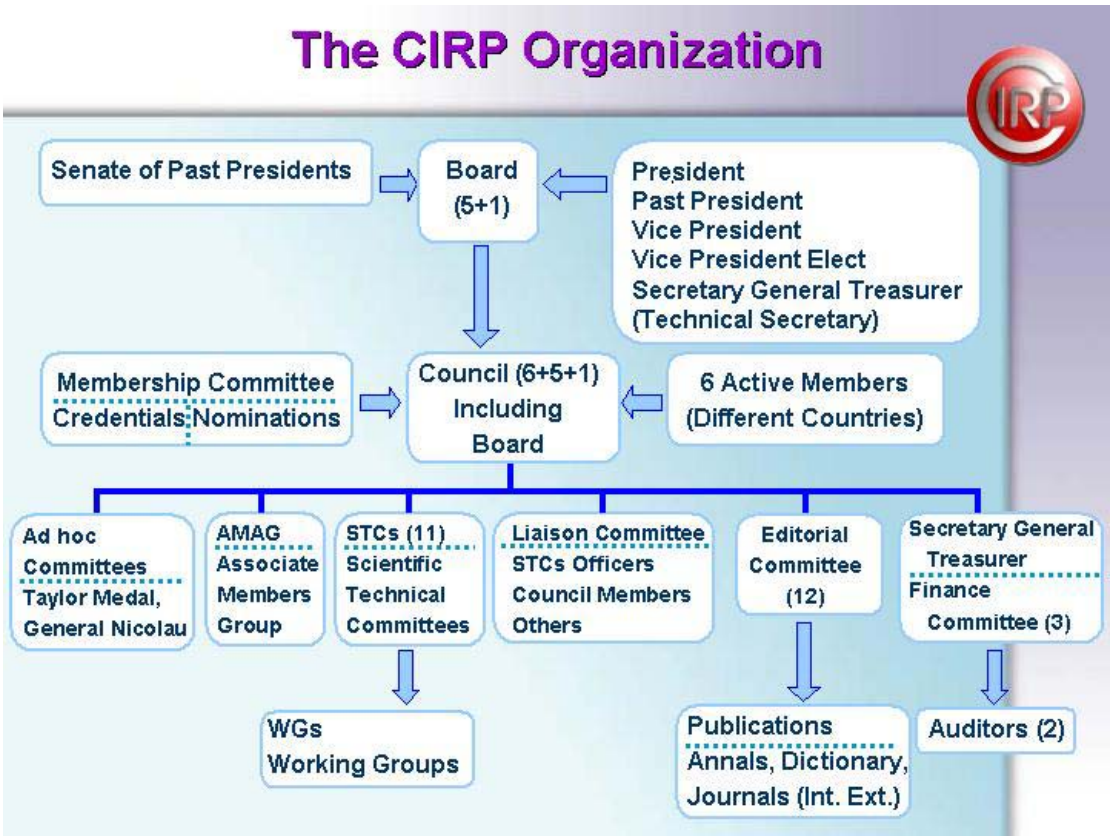
Design for production, factory equipment selection and layout, numerical and adaptive control, application of computers to manufacturing, information technology and human factors in production engineering. Advising the other STC's regarding the optimisation of manufacturing systems. Education, training and Life cycle analysis.

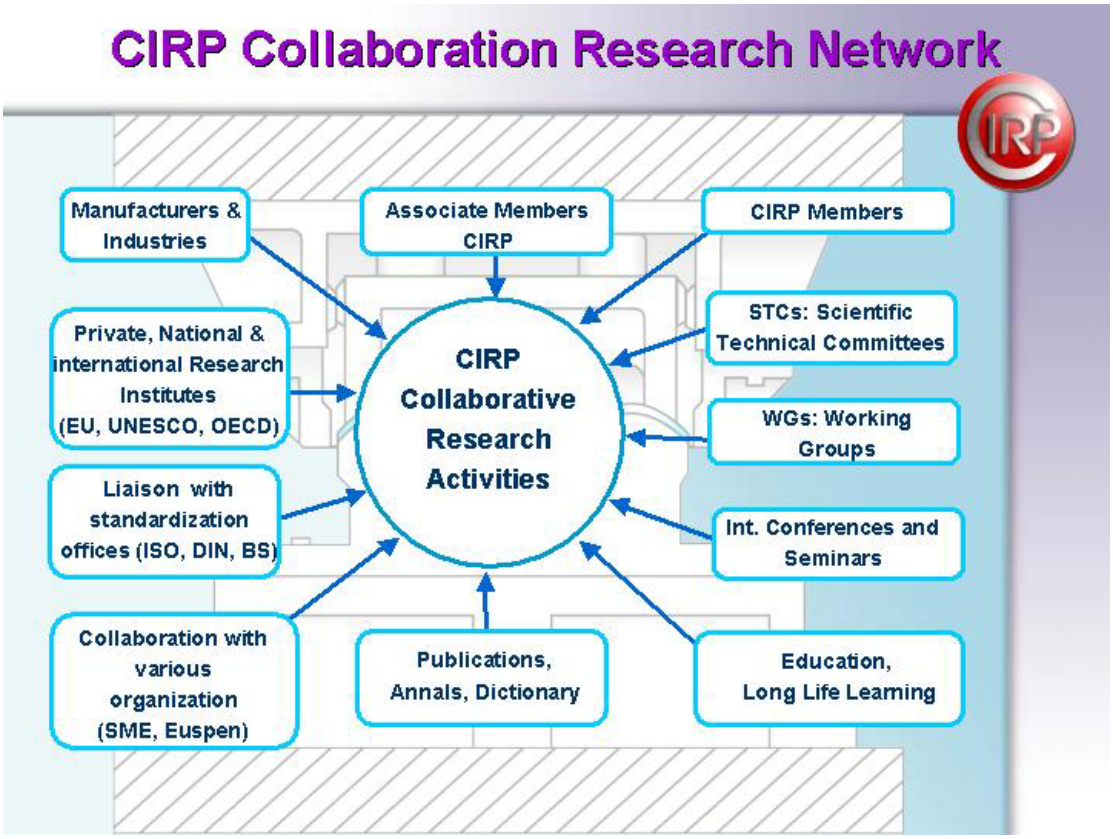
P: Precision engineering and metrology

Development and application of measuring techniques to be used for quality control procedures, involving the measurement of size, shape and positional relationships in manufactured components and assemblies. Research on Nanotechnology processes and equipment.

S: Surfaces

Research into the geometrical, physical and chemical properties of the work piece surface in relation to function, production processes and metrological assessment.


The CIRP Organization
Senate of Past Presidents
Board (5+1)
President
Past President
Vice President
Vice President Elect
Secretary General Treasurer
(Technical Secretary)
Membership Committee
Credentials Nominations
Council (6+5+1) Including Board
6 Active Members (Different Countries)
Ad hoc Committees
Taylor Medal, General Nicolau
AMAG
Associate Members Group
STCs (11)
Scientific Technical Committees
Liaison Committee
STCs Officers
Council Members
Others
Editorial Committee (12)
Secretary General
Treasurer
Finance Committee (3)
WGs
Working Groups
Publications
Annals, Dictionary, Journals (Int. Ext.)
Auditors (2)


CIRP Collaboration Research Network
Manufacturers & Industries
Associate Members CIRP
CIRP Members
Private, National & international Research Institutes (EU, UNESCO, OECD)
CIRP Collaborative Research Activities
STCs: Scientific Technical Committees
WGs: Working Groups
Liaison with standardization offices (ISO, DIN, BS)
Int. Conferences and Seminars
Collaboration with various organization (SME, Euspen)
Publications, Annals, Dictionary
Education, Long Life Learning

2. From the President

THE EMERGING CHALLENGE

The map of the human being - recently completed - marks the exit from a century involved in Research on artefacts production technologies and the beginning of a new century that seems to promote, more and more, Research on Man related artefacts and processes.

The great emphasis on the human being is rapidly moving social interest from Manufacturing, as currently known, to new technological concepts, still to be defined.

Strategic factors - such as competitiveness and sustainability, social expectations and global needs - require the move towards a new Manufacturing. Such "Renaissance" of Manufacturing should have a foundation role, so that it may become the foundations of the incoming Knowledge Society and complement, integrate, sustain the new Man oriented Research activities.

Encompassing University, Research Institutes, Industry talents and competences, visions and Research activities - oriented to Manufacturing - CIRP may be the global "Florence" for Manufacturing " Renaissance" : a challenging role!

3. Awards

Professor Günter Spur elected to Chinese Academy.

Professor Günter Spur, emeritus professor of the Technical University (TU) of Berlin and former director of the Fraunhofer-Institute IPK of the TU, has been elected a Foreign Member of the Chinese Academy of Engineering.

In electing Professor Günter Spur the academy honors his outstanding achievements in research and education in production technology, particularly in the fields of machine tools and manufacturing technologies, factory management and computer-integrated production. It moreover pays respect to his long-standing cooperation with Chinese institutions and universities. Professor Spur is honorary doctor of the Beijing Institute of Technology (BIT) and honorary professor of Tongji University Shanghai.

Professor Günter Spur was appointed to TU Berlin in 1965. In 1976, he founded the Fraunhofer IPK. From 1991 to 1996 he was founding principal of the Brandenburg University of Technology Cottbus. More than 600 publications as well as numerous lectures at home and abroad are part of his research work. Professor Günter Spur is a member of many scientific institutions and academies. He is founding member of the Berlin-Brandenburg Academy of Sciences and foreign member of the National Academy of Engineering, USA, the Royal Swedish Academy of Sciences, and the Royal Academy of Engineering, Great Britain. His achievements and contributions as a scientist and professor have been honored by national and international awards.

Professor Kopp Receives Honorary Title of Dr. h.c.

Professor Reiner Kopp has received the Doctor Honoris Causa from the Stanislaw Staszic University of Mining and Metallurgy in Krakau (Akademii Górmiczo-Hutniczej). Professor Kopp, director of the Institute of Metal Forming of the RWTH Aachen, was honored for his outstanding achievements in science and technology and in teaching, especially in the field of metal forming.

Professor Schulz received the Jiangsu Friendship Award

Prof. Dr.-Ing. Herbert Schulz, Institute of Production Management, Technology and Machine Tools (PTW) of Darmstadt University of Technology, Germany, received on Sept. 27th, 2002, The Jiangsu Friendship Award 2002 by Jiangsu Provincial People's Government, China for his outstanding contributions and selfless dedication to Jiangsu's social development, economic, scientific and technological, educational and cultural construction.

Prof. Schulz, who is also Consulting Professor of Tongji University, Shanghai, and Chair Professor of Nanjing University of Aeronautics and Astronautics, cooperates with Chinese colleagues in different scientific research projects since the middle of the 80's.

Mr. Masahiko Mori received General Pierre Nicolau Award

The second General Nicolau Award has been presented on 19th August 2002 to Mr. Masahiko Mori, the President of the Mori Seiki Company from Nara in Japan.

Mr. Mori represents the young and promising generation of the Japanese Machine Tools Industry. He was born in 1961. He studied in Mechanical Science in the Kyoto University, Department of Precision Engineering where he received his Bachelor of Science Degree in 1985 after which he started his industrial career in the ITOCH Corporation's Osaka Headquarters Industrial Machinery Division. At the age of 32 he joined the Mori Seiki Corporation as the General Manager. He excelled in his career at Mori Seiki, being appointed Director in 1993, Managing Director in 1996, Senior Executive Managing Director in 1997 and President in 1999. After joining the Mori Seiki he succeeded in achieving high national and international renown within a short time span. Mr. Mori is currently Vice Chairman of the Japan Machine Tool Builders Association. He has influenced the opening of the Japanese machine building industry towards modern methods of management and enterprise and has contributed to production science with his lectures and publications on numerous occasions. His lectures on "Making Machine Tools Intelligent" and "Optimizing High Quality in Large Scale Production" have advanced his standing in the Industry. He personally influenced significant overseas growth and globalization and his contribution to engineering is well recognized.

Dr. Sung-Hee Do received the F.W. Taylor Medal 2001

The F.W. Taylor Medal 2001 is awarded to Dr. Sung-Hee Do for his outstanding research work in the field of software system design for improved software quality. Dr. Do presented his paper "Axiomatic Design of Software Systems", which was submitted by Prof. Nam Suh, at the CIRP 2000 General Assembly in Sydney, Australia.

Dr. Do, was born in 1966, graduated from the Faculty of Mechanical Engineering at the Hanyang University in Ansan City, Korea with a B.S. Degree in 1989, and obtained his M.S. degree in Seoul in 1991. The unique research and development work of Dr. Do lies in the combination of design with an object oriented programming method to create new systems. He

is one of the pioneering contributors to axiomatic design and developed a new generic approach to software design called “Axiomatic Design of Object – Oriented Software System”. In this paper Dr. Do reported on his research and development results, at the MIT, Department of Mechanical Engineering in Cambridge, USA under the supervision of Professor Nam Suh. From the end of 1999 Dr. Do has been the Vice President -Technology of “Axiomatic Design Software, Inc” in Boston, USA. He has already published a significant number of papers handling various aspects of Axiomatic Design of Software Systems

5. From the 2002 General Assembly

Opening

The 52nd General Assembly of CIRP in San Sebastian, Spain was opened at 19th August 2002 by Professor Rafi Wertheim who thanked Dr. Ramon Bueno as the main driving force behind this General Assembly. The large number of Associated Members in the Spanish participation in CIRP shows an excellent example of collaboration and globalisation of CIRP. All of these companies have been active in the Organizing Committee.

There were 510 participants, 384 delegates and 126 Accompanying Persons from over 35 countries, including 3 (first time) members from Brazil and invited members from Portugal, and from Mexico. This was mentioned as a good start to attract more countries joining CIRP in the future.

In his opening speech Professor Rafi Wertheim mentioned Integration of production research in the manufacturing chain as a fundamental issue within CIRP Especially these days, when strong winds blow over world economy, research and development activities should work hand in hand with education. The gaps between research, engineering, management and manufacturing should be bridged, both for a better understanding and for the benefit of our global society. In this connection he told the following story:

"A man in a hot air balloon realized he was lost. He reduced altitude and spotted a woman on the ground below. He descended a bit more and shouted, "Excuse me, can you help me? I promised a friend that I would meet him an hour ago, but I don't know where I am.”
The woman below replied, "You are in a hot air balloon hovering approximately 12 meters above the ground. You are 40 degrees north latitude and 60 degrees west longitude."
"You must be an engineer," said the balloonist.
"I am," replied the woman, "How did you know?"
"Well," answered the balloonist, "everything you told me is technically correct, but I have no idea what to make of your information, and the fact is that I am still lost. Frankly, you've not been much help so far".
The woman below responded, "You must be in management."
"I am," replied the balloonist, "but how did you know?"
"Well," said the woman, "you don't know where you are or where you are going. You have risen to where you are, due to a large quantity of hot air. You made a promise which you have no idea how to keep, and you expect people beneath you to solve your problems. The fact is that you are in exactly the same position that you were before we met, but now, somehow, it's my fault."
Nevertheless professor Wertheim believes that research and engineering people are moving in the right direction to improve collaboration with manufacturing and management.

Changing faces.

In his final words professor Wertheim thanked professor Michel Veron who has volunteered as Secretary General 13 years and who now is going to be our Vice President. After a warm applause professor Veron reminded some significant events which have happened during his term.
The first one, the most difficult and the most important, has been the retirement of Mrs. Vuillod and the search for the new secretaries Chantal and Agnès.

The second event has been the moving the CIRP office to the new location rue Mayran which was completely renovated.

The third point, which was not yet completely achieved, is the change into Euros. This is not so easy because of the different accounts in Dollars and Swiss Francs in Switzerland, Euros and Dollars in Paris. It must fit in Euro by end of the year.

Some other events were the choice of a new logo, the replacement of computers, and the organization of the General Assembly in Nancy.

Professor Veron has worked closely with the presidents: Rafaelo Levi, Hiroyuki Yoshikawa, Iniong Ham, Félix Le Maître, Olaf Rasch, Hubert Kals, Hans-Kurt Tönshoff, Marvin de Vries, Hendrik van Brussel and Rafi Wertheim. He wished Didier Dumur to enjoy his task as new Secretary General the same as he did and handed him the key of the CIRP Office.

Accompanying persons

In the name of the "accompanying persons" Mrs. Hanna Wertheim thanked the ladies of the organising committee for their warm welcome and for the very personal concern during the week. There is no doubt that visiting San Sebastian and the Basque country has given the opportunity to see the surrounding beauty of nature in all it's glory. The pleasant social gatherings we have enjoyed has lasted unforgettable memories that we will enjoy for many years. Thanks Mrs. Belen Bueno, mrs. Itziar Llorente, mrs. Teresa Bailach, mrs. Carmen Etxepare, mrs. Teresa Zabalo.

Internal regulations

During the 2002 General Assembly the following (underlined) modifications on the Internal Regulations have been approved:

Art.20 – Taylor Medal

A Taylor Medal Subcommittee will be appointed by the Council, with a three-year mandate. The Secretariat shall submit the report related to each candidate to three expert assessors nominated by the Chairman of the STC concerned. The assessors must be Active Members and cannot be proposers for the candidate. Their reports, together with the proposer's brief report referred to above, will have to be reviewed and approved by the Taylor Medal Subcommittee by April 30, before being circulated to all Active Members. A ballot on each candidate will be sent together with these reports. All voting will be done only by written ballots (see Time-Table in Appendix 12).

Art.22 – General Nicolau Award

4. The Award shall consist of an appropriately prepared certificate. (and an honorarium of 5,000 Euro: to be erased)

7. The Award shall be decided annually by a General Nicolau Award Committee consisting of the three most recent Past Presidents not serving on the Council. The Chairman will be the most senior Past President. This committee will send a report to the CIRP Secretariat before April 30 of the year of the nomination.

Appendix 6 - 7

- Appendix 6 - 3. LANGUAGE AND UNITS OF MEASUREMENT.

Papers are to be written and presented in English. Authors who do not have English as their mother tongue are advised to ask specialists to assist in the preparation of their text.

- Appendix 7 - INTRODUCTION

The official language of the Annals is English.

ATTENDANCE AND PUBLICATION FEE

A publication fee of 66 Euro per 4 printed pages will be billed to the author. If the Editorial Committee allows authors to have additional pages by exception, the additional pages will be charged at 25 Euro per page.

Art. 2 – Finance Committee

Two members of the Finance Committee are to be elected Auditors by the College during a General Assembly meeting for a three-year term; they are eligible for re-election. The responsibility of the Auditors is to verify the accuracy of the CIRP accounts and to report their findings to the Council. In case the elected auditors are not available, the Secretary General can select two Active members as Auditors

Appendix 8 - Time-Table for Vol.2

- January Meeting of the year of the General Assembly concerned: Final version ready – Approval of the STC Chairman.
- 1 March - Keynote papers submitted to Editorial Committee (EC).
- 1 April - Comments of EC to the responsible author.
- 1 May - Updated version re-submitted to the Editorial Committee. Corrections assessed by EC reviewers.
- 1 June - Keynote papers (in agreed upon format, for example pdf) sent to the EC chairman for final checking.
- 15 June - Final approval for pre-printing by EC Chairman. Only approved papers will be presented at the General Assembly.
- 30 June - Keynote papers sent by the Secretariat to the publisher for pre-printing.
- General Assembly - Oral presentation. Monitoring by EC members.
- 1 September - EC comment to authors. Final Corrections for Vol 2.

- 25 September - Printing approval by EC chairman and the chairman of the relevant STC.
- 1 October - The Secretariat sends the Keynote papers to the publisher for printing in Volume 2.
- The Chairmen of the STC's concerned are responsible for this Time-Table

Appendix 11 Sponsorship of Scientific Conferences

CIRP International Conferences: CIRP expects that a significant part of its financial income will come in future from the proceeds of CIRP International conferences. CIRP therefore requires a fee for the sponsorship of the conference, seminar or symposia, payable before the conference is held, and equal to twice the amount of one registration fee requested for that conference. This fee will be deducted from the amount given to CIRP after the conference, seminar or symposia, according to the Internal Regulations.

- Article 21 - Publications - Annals - Editorial Committee

1. Rules for the submission of papers: An Active Member who has submitted one personal paper may, in addition, be the sponsor of a paper of an Associate Member.

2. Editorial Committee: The Editorial Committee shall consist of 12 Active Members elected by the Council. Each member of the Committee shall be elected for a period of three years and shall be eligible for re-election. In electing the Committee, the Council shall recognize the desirability of ensuring continuity in the work of the Committee while obtaining for it the widest practical range of experience. To this end, the Council will also elect the Chairman of the Editorial Committee, who will have the responsibility of planning the paper Sessions.

Art.23. Invited Members

'Invited Members' are appointed by the Council for two years. Depending on the participation of the 'Invited Member', the membership may be renewed. However, only one two-year renewal of the membership is permitted. Candidates for 'Invited Member' must have an appropriate scientific and/or industrial background. They must be part of, or have good relations with, an influential network related to manufacturing research and development. They must show their commitment to become an Invited Member by writing a personal letter demonstrating this commitment in addition to the nomination proposal by the sponsor.

Art. 6.3. Corresponding Members

Corresponding Members may be re-elected for any number of three-year terms by the Council with the approval of the Chairman of the Scientific Technical Committee with which the Corresponding member is most active, provided that the individual is still active in the work of that Committee. The Renewal Application Forms will be initially reviewed by the Nominations Subcommittee who will forward their findings to the Council.

Art.8. Emeritus members

Active Members about to retire may, at their own request, be nominated as Emeritus Members for life. They shall be invited to the General Assembly meeting as advisers and they may take part in all Scientific Technical Committee meetings. They are free to present or sponsor a personal paper under the same conditions as an Active Member as described in Article 21. The requests for Emeritus membership must reach the Secretariat before the 1st of May each year. If a request arrives after this deadline, the member will have to pay his fees for that year.

Art.7 – Instructions to authors

Select three keywords that can be used to identify the subject of your paper. The two first keywords must be taken from the latest CIRP List of Keywords, available from CIRP Website: www.cirp.net (in "Paper Submission"). The third keyword may be a free keyword. Mark CIRP Active Members by the number (1) following the name, mark Corresponding Members by the number (2), and mark Associate Members by the number (3).

4. Associate Members News

Associate Members Meeting on Tuesday 20th of August 2002

by John Webster

The Associate Member program followed a revised format at this year's General Assembly. Instead of holding the Associate Member Advisory Group (AMAG) meeting on the Sunday before the General Assembly, it was scheduled after the new Associate Member presentation seminar and Associate Member lunch, on the Tuesday. This format change allowed discussion of current Associate Member activity and events at this years' GA, not on the previous year's GA, as with the old format.

The new Associate Member presentation seminar allowed the Associate Members to have the opportunity to present their research work, describe their company's technical competence, or any other topic of interest to the group. The meeting was opened by Professor Van Brussel and chaired by John Webster. The seminar, which was open to all CIRP members, was attended by twenty Associate Members and nineteen Active/ Corresponding/Emeritus Members, and guests. The presentations made, were as follows:

Juan M. Minguez:	R&D Activities at DANOBAT IKEDO
Dr. Sven Hjelm:	Production Engineering Development Process
Dr. Marlies Patz:	Hard Machining on Threads and Contours on Conventional Machines
Marc Tricard:	From a very Large Corporation to a very Small Company: an Associate Member´s Perspective
Dr. Kurt Redecker:	Knowledge Transfer by the VDI Society for Production Engineering
Inaki San Sebastian:	R&D Activities at FATRONIK

The seminar was a good 'mix' of: competence areas; services offered; manufacturing control; and machine performance results. The AMAG meeting that followed lunch was also open to all CIRP members, although there was some confusion on this. Twenty-one Associate Members and eleven Active/Corresponding/Emeritus Members/guests, attended the meeting, which was opened by Professor Van Brussel and chaired by Dr. Webster. The format of the meeting

included reports from CIRP sponsored seminars, a presentation by Stef Wertheimer, a report on a recent survey, and discussion on current activity and the future role of Associate Members in CIRP.

Professor Van Brussel stated that AMAG currently consists of a Chairperson (past-president of CIRP), a vice-chairperson (Norbert Roth), a secretary (Dr. Webster), ten Associate Members, and chairpersons from each STC. Mr. Roth could not attend the meeting this year.

Stef Wertheimer presented the 'Marshall Plan' that he presented at a hearing of the US Congress. Mr. Wertheimer showed that there was a correlation between poverty and terrorism in the Middle East, and how investment by industry would create jobs in the region and strengthen the income per capita, above a critical level, of the countries that surround Israel. Mr. Wertheimer asked the Associate Members to support this initiative, as he has done with ISCAR, where he employs 50% Arab and 50% Jewish workers at his plant.

Dr. Webster presented the results of a survey that was sent out by Mr. Roth to both Associate and Active Members last year. The survey gave feedback from 28 Associate Members regarding their understanding of CIRP, their reasons for attending CIRP meetings, a need for new STC topics and their willingness to give a talk at the 2002 GA. Seventy Active Members replied to the survey giving their views on the suggested new STC topics and likelihood of being implemented. A more comprehensive summary of the survey was provided by Mr. Roth in CIRP Newsletter #20, April 2002.

Reports on CIRP sponsored seminars included the following:

- 1st Intern. Conf. on Design and Manufacturing for Sustainable Engineering, June 2002, UK, Prof. B. Hon
- 5th CIRP International Workshop on Modelling of Machine Operations, West Lafayette, USA, May 02, Prof. I.S. Jawahir
- 35th CIRP International Seminar on Manufacturing Systems, May 2002, Korea, Prof. K.I. Lee
- PKM 2002, Germany, April 2002, Prof. R. Neugebauer
- 3rd Int. Conf. on Laser Assisted Net Shape Engineering, Prof. M. Geiger

Dr. Webster finished the meeting by promoting discussion on the following topics:

- identifying Associate Members from developing nations that could be invited to future General Assemblies at reduced cost. Mr. Wertheimer will assist with this initiative
- how to encourage a greater number of Associate Member publications in GAs and STCs
- the need for additional AMAG meetings outside of the GA
- how to reference Associate Members in CIRP papers. This will be addressed by the CIRP Editorial Committee.
- the mission and future of AMAG

For comments or questions about this report mailto: norbert.roth@mchp.siemens.de

6. From the labs

Professor K. Ueda

Professor Kanji Ueda has transferred from Kobe University to the University of Tokyo, as Professor of RACE (Research into Artifacts, Center for Engineering). He will be head Research Division of Co-Creation Engineering to set up a new framework to explore new theories of design and manufacturing with as keywords: synthesis, emergence and interaction. New e-mail address: ueda@race.u-tokyo.ac.jp

Scientific Colloquium for Prof. H.K. Tönshoff Hannover, Germany 24.9.2002

on his official retirement from the Institute of Production Engineering and Machine Tools

by Prof. Dr.-Ing. Rafi Wertheim

Professor Tönshoff is active in the CIRP since the beginning of the 70's. As a prominent member and for his outstanding achievements, he was honoured, during the last General Assembly in August 2002 in Spain, as an Honorary Member of our Society. Professor Tönshoff is known worldwide as one of the leading authorities in production Engineering and Machine Tools. During 1998 and 1999 he served as CIRP president, leading the various committees - the Board, the Council and the Liaison committee, with the highlight during the 49th General Assembly in Montreux in Switzerland. During his Opening Address he spoke very clearly about "The fundamental achievements in science and engineering on which manufacturing and production is based".

Professor Tönshoff did a great job for the CIRP society during his presidency, in the Board, in the Council and until today in the Senate and in the various STC's. This year in Spain he presented an excellent paper on the topic "Process Monitoring in Grinding". It was only one of many contributions and Keynote Papers he presented. He initiated and guided the" round table" meeting in Montreux on the subject "The Relevance of Nature Science to Production Engineering". His ideas and activities in combining science, research and the manufacturing world were reflected also in the development of the Associate Member group which he started in 1998 and which is today an integral part of CIRP Global Activity.

During his presidential Address Professor Tönshoff called for more involvement of CIRP in education, in order to motivate and educate more engineers for industry and research centres. Furthermore he stated that the combination of education with science and research should be based on better connections between universities, research institutes and industrial companies in the field of manufacturing. He chaired 3 different STC's. "S" from 1980 to 1983, "M" from 1984 to 1986 and "G" from 1995 to 1996. It was a great pleasure for all CIRP members to work with Hans Kurt Tönshoff. His initiative and support in organizing many conferences, meetings and seminars was always a combination of precision, professionalism and human touch. His role as mentor to many in the academic and industrial world will be cherished for many years to come. We wish him and his family many years of good health, and we trust he will continue to play an active and guiding role in our society's development.

9th International CIRP-Congress on Life-Cycle-Engineering

This year's conference, being located in Erlangen, offered an interesting platform with at least 23 presentations to an audience of 15 countries. New approaches in the field of research and industrial activities were presented and discussed. The CIRP "Life-Cycle-Working-Group" has offered an annual seminar concerned with relevant issues.

The chances and potentials of IPP have been discussed by representatives of politics, industry and research. Dr. Steinmetzer of the Bavarian State Ministry for State Development and Environmental Affairs pointed out the political significance of IPP – one of the most important topics of the Bavarian environmental politics. Dr. Schröder of Siemens Medical Solutions emphasized the economic potentials offered by the Integrated Product Policy. Prof. Feldmann of the Institute for Manufacturing Automation and Production Systems presented current research results and innovative concepts for product development and recycling strategies.

Innovative concept for product development within Siemens Medical Solutions

7. Meetings Seminars, conferences

XIV Workshop on Supervising and Diagnostics of Machining Systems

10-12 March 2003 Karpacz, POLAND

Topics

- Flexible machine tools
- Flexible machining systems
- Intelligent manufacturing systems
- Intelligent flexibility development
- Intelligent planning and scheduling
- Intelligent diagnostics and supervising for manufacturing flexibility
- Current principals of manufacturing flexibility development
- Communication systems for flexible manufacturing
- Flexibility and accuracy of manufacturing
- Open global design of flexible manufacturing
- Virtualisation application in flexible machining

- Knowledge and data base for flexible manufacturing
- Flexibility of assembly systems
- Manufacturing software development
- Flexible fixtures design
- Agent based flexible manufacturing
- Systems life cycle optimising
- Products optimising for flexible manufacturing
- Clean flexible manufacturing

Contact: Prof. Jerzy Jedrzejewski, Conference Chairman,
e-mail: **jedrzej@itma.pwr.wroc.pl**

International Precision Assembly Seminar
Bad Hofgastein, Austria, 17-19 March 2003.

Topics:

- ·Design of assembly systems
- ·Precision actuators and sensors
- ·Precision joining operations
- ·Life cycle modeling of assembly systems
- ·Design for assembly
- ·Control methods in precision assembly
- ·Robotics and robot applications for precision assembly
- ·Modular assembly machines and systems
- ·Web based applications for design and planning of assembly systems
- ·Cost modeling for precision assembly
- ·Precision assembly systems for mass customization
- ·Standardization in precision assembly
- ·Processes and systems for disassembly
- ·Industrial applications of precision assembly systems

Contact: Mrs Alison Parrett, University of Nottingham, UK alison.parrett@nottingham.ac.uk

The 8th CIRP International Seminar on Computer Aided Tolerancing
Charlotte, North Carolina, USA, April 28 – 29, 2003

Topics

- Tolerance and functionality
- Tolerance specification
- Tolerance analysis
- Task-specific uncertainty in metrology
- Specification and correlation uncertainty in design
- Uncertainty metrics for design and verification
- Tolerance synthesis
- Tolerancing for flexible parts
- Tolerance representation

- Statistical tolerancing
- Assembly modelling and analysis
- Computational metrology, verification
- Geometric quality control
- Tolerancing and life cycle Issues
- Tolerancing standards
- Industrial applications and CAT systems

Contact: Prof. Robert Wilhelm Center for Precision Metrology University of North Carolina at Charlotte e-mail: rgwilhel@uncc.edu http://www.mees.uncc.edu/CIRPcat2003/

CIRP Design Seminar,

Methods and Tools for Co-operative and Integrated Design

Grenoble, France, 12-14 May 2003

Topics:

- Methods for Integrated, Innovative and Collaborative Design
- Methods for Evaluating Design Activity and Progress
- Knowledge Engineering and Collaborative Decision Making
- Co-operation between Designers
- Integration of Multiple Models within a Design Process
- Handling Uncertainty
- Virtual Prototyping, Digital Mock-Ups
- Collaborative Design Tools
- Networking and Distributed Systems for Simultaneous Product and Process Development
- E-Design, E-Manufacturing (Internet-based)
- Product Life-Cycle Modelling, Optimisation and Simulation
- Engineering Design Education and Training
- Industrial Experiences

Contact: prof. S. Tichkiewitch, E-mail: **dn2003@hmg.inpg.fr**
http://www.3s.hmg.inpg.fr/ci/dn2003/index.html

6th CIRP International Workshop on Modeling of Machining

Operations, Hamilton, Canada, 19-20 May 2003

CIRP seminar on life cycle engineering

Copenhagen, Denmark May 2003

Topics

- Simplified use of Life Cycle Assessment
- Application oriented LCA
- LCA-education - pre & post graduate

- Life Cycle Management
- Integrated Product Policy
- Design for Environment
- Computer tool café

Contact: Professor Dr. Leo Alting www.cirpcopenhagen2003.dk

36th CIRP Manufacturing Systems Seminar

Saarbrucken, Germany , 3-5 June 2003

Topics

- Digital factory
- Agent-based manufacturing
- Process capability
- Integration of process planning and scheduling for flexible systems
- Web-based design and manufacturing
- Rapid prototyping
- Precision manufacturing
- Flexible fixturing
- Manufacturing software development
- Service support for manufacturing systems
- Environmentally conscious design and manufacturing
- Modelling and simulation
- Expert systems in manufacturing
- Improved manufacturing software development
- Human-machine interfaces
- Socio-technical aspects of automated systems

Contact: prof. H. Bley e-mail: isms2003@cam.uni-saarland.de

http://www.cirp-isms2003.uni-saarland.de.

Second International Working Conference

Total quality management, advanced and intelligent approaches

June 22 - 25, 2003 Subotica, Yugoslavia

Topics:

- TQM & manufacturing management
- World class performances
- Attractive quality
- Robust engineering
- Six sigma model
- Intelligent quality tools and methods
- Virtual factory and virtual quality
- Intelligent metrology in manufacturing
- Intelligent and virtual CMM
- Business process improvement

- Breakthrough management
- Intelligent design for quality

Contact: Prof. Dr. Vidosav D. MAJSTOROVIC, E - mail: majnem@EUnet.yu

Web site: http://mipk034.maskin.ntnu.no/iwc2002/

CIRP 2nd International Conference on Reconfigurable Manufacturing

Ann Arbor, MI, USA, August 20-21, 2003

Topics

- System Configurations – Generation and Impact
- System Scalability for Adaptive Capacity
- Simulation of Modular and Reconfigurable Systems
- Line Balancing in Modular Systems
- Flexible Scheduling
- Reconfigurability and Agility in Semi-Conductor Fabrication
- Reconfigurable Assembly
- Reconfigurable Machining Systems
- Feature-based Process Planning
- Manufacturing for Mass-customization
- Factory Changeability
- Modular Machines
- Reconfigurable Machine Tools and Robots
- Discrete-Event Control, Petri-Net Control, Control Flow-Charts
- Open-Architecture Control Systems
- Sensing for Diagnostics and Rapid Ramp-Up
- Reconfigurable Tooling and Parallel Cutting Tools
- Reconfiguration Cost and Life-Cycle Economic Modeling
- Business models based on RMS

Contact: Professor Y. Koren e-mail: rms2003@umich.edu website: erc.engin.umich.edu

7th CIRP Workshop on Modelling in Machining & Forming Operations

Nantes, France, January 2004

ISEM 14

Edinburgh, UK, 30 March-4 Apr 04

Topics;

- Electro Discharge Machining (EDM)
- Micro Machining

- Laser Beam Machining (LBM)
- Electro Chemical Machining (ECM)
- Electron Beam Machining (EBM)
- Ultra Sonic Machining (USM)
- Water Jet Machining (WJM)
- Other Electrical Machining (AJM, AFM, IBM, CHM. . .)
- Rapid Prototyping
- Environmental, Safety and Legal Aspects.

Contact: J.A. McGeough e-mail: lisa.ellis@ed.ac.uk Web site: www.lifelong.ed.ac.uk

37th CIRP Manufacturing Systems Seminar digital factories, production networks,

Budapest, Hungary, 19-21 May 2004

2004 CIRP Design Seminar " Design in the Global Village"

Cairo, Egypt, 1-3 June 2004

Contact: W.ElMaraghy, A.B. Khairy

4th Congress Intelligent manufacturing processes systems

Belgrade Yugoslavia, 20-24 June 2004

Topics:

Contact: V. Milacic, V. Majstorovic, e-mail: majnem@EU.nt.yu

7th International Conference on Monitoring and Automatic Supervision in Manufacturing, AC'04

Zakopane Poland, 19 – 21 August 2004

Topics:

- Introduction: general situation of automatic control in monitoring with the stress on automatic monitoring and supervision, nomenclature, classification...
- Sensors and basic processing of signals for monitoring in manufacturing.
- Strategy and algorithms of the design systems for the monitoring and supervision of manufacturing processes.
- Strategy and algorithms of the design systems for the monitoring and supervision of accidents and breakdowns.
- Strategy and algorithms of the design systems for the monitoring and supervision of product quality.

- Strategy and algorithms of the design systems for the monitoring and supervision of machines and manufacturing equipment.
- Monitoring and supervision in a multi-stand manufacturing system as a whole.
- Monitoring and supervision through network and/or the Internet.
- Monitoring and supervision in manufacturing processes: Turning, Milling, Drilling, Abrasive machining, EDM, ECM and Assembly

Contact: M. Szafarczyk, mzybura@ios.krakow.pl

CIRP Design seminar New Innovation in engineering design

Shanghai, China, June 2005

Contact: S. Lu

8. Looking forward

Paris, January 2003

Those who will attend the January meetings will discover what is behind this door.

CIRP 2003 GENERAL ASSEMBLY IN MONTRÉAL - CANADA

Dear Friends:

The 53rd CIRP General Assembly meeting will be held at the Hilton Bonaventure Hotel in Montréal, Québec, Canada. Located in downtown Montréal, this Penthouse Hotel provides excellent accommodation and meeting facilities with easy access to restaurants, entertainment and shopping. It is a great advantage to have the accommodation in the same building as the conference to facilitate networking and interaction among participants. There are enough rooms at the Hilton to accommodate almost all delegates. In addition to the Venue hotel, blocks of rooms have been reserved in selected hotels to suit the budgets of all delegates.

Montréal, gem of the St. Lawrence, the Paris of North America, is among the oldest cities on the North American continent, its history is a rich backdrop to its vibrant multicultural life. It is Canada's most romantic metropolis, a city full of music, art and Joie de vivre. Montréal in the summer is very enjoyable with many festivals, street fairs and terrace cafés where locals and visitors alike eat, drink and socialize. Montréal is one of the gastronomical capitals of North America and a well-known fashion center.

An island in the majestic St. Lawrence River, Montréal is a most exciting City. A full sightseeing program has been organized to highlight the special culture, history and natural beauty of the region. Tours include the City of Montréal, old and new, the McCord Museum of Canadian History, the Museum of Archeology and Montreal History, the Biodome; a full day trip to Mount Tremblant Park Reserve, passing through the beautiful Laurentians, and a full day trip to Old Québec City, proclaimed a "World Heritage Treasure" by UNESCO in December 1985.

The universities and leading research centers as well as world-class manufacturing industries in and around the city provide opportunities for interesting visits. Technical tours to Pratt and Whitney Canada, Bombardier and the Canadian National Space Agency are being organized. The program of the meeting and the social events offer the delegates and their accompanying persons exposure to Canada's diverse culture and natural beauty as well as an appreciation of its quality of life. We are busy making the arrangements for the 2003 CIRP General Assembly to ensure that all participants will have a comfortable stay, a productive meeting and a wonderful time. Please visit our web page for details through the CIRP website at www.cirp.net. Registration will be open soon.

On behalf of the Canadian CIRP members and Organizing Committee members, I extend to each and everyone a warm invitation. We look forward to welcoming all of you during CIRP 2003 General Assembly.

See you in Montréal,

Hoda ElMaraghy Chair, Organizing Committee,

9. Miscellaneous

Received:
Integrating ECO-Efficiency in Rail Vehicle Design. by Wim DEWULF, Joost DEFLOU and Asa ANDER. Leuven University Press, ISBN 90 5867 1763. € 23.00