The International Academy for Production Engineering

NEWSLETTER

N° 32 – April 2008

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The logo CIRP originates from "**C**ollège **I**nternational pour la **R**echerche en **P**roductique"

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Your contributions for the next issue of the Newsletter (end of May) are most appreciated; you may send it to the CIRP office in Paris or directly to the editor at: j.meijer@utwente.nl

Johan Meijer (Technical Secretary)

1. From the President

CIRP is evolving step by step into its role to become an internationally recognized academy for production engineering. According to our tradition we move things along smoothly. Haste makes waste. We take this always into consideration and therefore we take our time and put ideas and developments for discussion to the membership.

I will take the opportunity to organize a few consecutive newsletters to share my thoughts on a self conception of CIRP in a globalizing world with you. Your comments and inputs on this subject are very welcome.

Let me start with an old saying: "If you do not know the past, you cannot understand the present nor shape the future".

Especially during crucial periods of transition, restructuring and reorientation, it is prudent to analyse the earlier paths of development in order to become aware of what has been achieved to this day. It is necessary to recognise our strengths and to juxtapose these with the demands of the future. Proceeding from this knowledge, a strategy for the future can be planned. And CIRP has a great past indeed – much has been accomplished. When the founding documents were signed in 1950, the founders were faced with a great task. The initiators were convinced, General Nicolau above all, that a prosperous production engineering will play a decisive role for the future of humanity.

Doubtlessly, much has changed in the subsequent 57 years, but the founding motives are still a suitable framework for initiating a constructive assessment and discussion of the self-conception of our academy.

CIRP has developed continuously in the many years since its beginnings and found an effective working structure. CIRP has now become a working academy that takes on current issues in production engineering and operates around the globe in a network of researchers. And thus was the self-image of CIRP shaped from its founding till well into the beginning of the 21st Century, and correctly so: from the vast international network of research workers in production engineering discussing,

together with industry, current questions in the production sciences, working together to solve current problems.

But at least since the beginning of this century, the world has consolidated politically and economically. Boundaries are falling. Economical integration is becoming more intensive. New industrial nations are appearing on the horizon; the BRIC states, Brazil, Russia, India and China, are showing strong economic growth. But the underdeveloped countries of the Third World also wish to share in this affluence. Moreover, it is becoming clear for the first time that important resources of raw materials will be exhausted within a relatively short amount of time. Production concepts of the future do have to meet requirements of economy of scale as well as needs of economy of scope. What is a good compromise between post process modelling and planning efforts and in-process optimization? To some extend these goals seem to be contradictions in terms, they obviously address production dilemmas.

We do not yet have all the answers. But the following stands uncontradicted.
Manufacturing must be considered as a whole; it can only be shaped and evaluated on a global scale. In addition

it is admittedly indisputable that science and technology must provide the solutions to the future issues that lie before us,

At this time we also might pose a self-critical question to ourselves, to CIRP: Is our organisation prepared good enough to provide answers to questions of this scope? Does CIRP want as an institution to state its position on these topics publicly? I think the answer should be "a careful yes" and this goes in accordance with George Chryssolouris' assertion in his presidential address: The global role of CIRP needs to be increased.

President Leo Alting has in his active tenure completed the transition of our institution from a college to an International Academy for Production Engineering and initiated necessary measures on the structural level. To the latter belongs in particular the carefully, yet goal-oriented opening up of our academy to the integration of young research workers in our network, the research affiliates. The idea is: "Create a sustainable network affiliated with CIRP to promote and to develop upcoming young researchers in production engineering".

Realisation of this goal has been extremely positive thus far. We will have a kick-off meeting in Aachen in July and a workshop, in which 30 young production researchers from all over the world will take part. I will give a report on this workshop later on. Let us seek out developmental opportunities for further intensifying the involvement of the research affiliates. Everything we do for younger generations, we do for society as a whole.

CIRP is the only international academy in which science and industry have been brought together in a working academy. This gives us many new possibilities for cooperation in the global world of the sciences, for exerting an influence and thus for helping to shape the future of production engineering.

Dear colleagues, this newsletter is mentioned to open up a wider scope for discussion, which I really like to initiate among the members. In the next newsletter I will highlight indicators of change.

Fritz Klocke

2. Spotlights

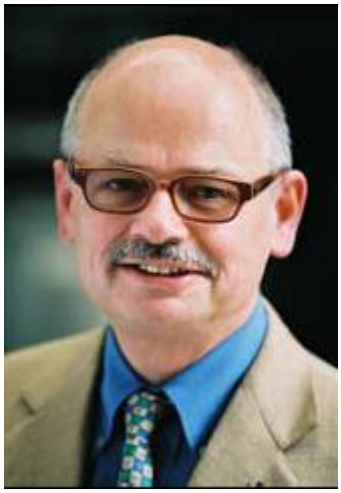
Professor Stephen Malkin Elected to National Academy of Engineering

Our colleague Stephen Malkin, Distinguished Professor at the University of Massachusetts, has been elected to the National Academy of Engineering, among the highest professional distinctions afforded to any engineer. In announcing the election of 65 new U.S. members, the academy cited Malkin "for pioneering research in and the implementation of grinding-system simulation and optimization."

Steve Malkin's research activities have been mainly related to grinding and abrasive processes. An author of more than 200 technical publications, he has been the recipient of numerous honors including the ASME Blackall Award of 1993, SME Gold Medal of 1996, ASME William T. Ennor Manufacturing Technology Award of 2004, and Outstanding Faculty Award at University of Massachusetts in 1997. He is a Fellow of the International Academy for Production Engineering (CIRP), the American Society of Mechanical Engineers (ASME), and the Society of Manufacturing Engineers (SME).

After graduating from the Massachusetts Institute of Technology with B.S. (1963), M.S. (1965), and Sc.D. (1968) degrees, he began his academic career at the University of Texas, and thereafter taught at the State University of New York at Buffalo until he joined the faculty at Technion-Israel Institute of Technology in 1976. He came to the University of Massachusetts as Professor of Mechanical Engineering in 1986, was named Distinguished Professor in 1998, and served as Head of the Department of Mechanical and Industrial Engineering from 2000 to 2006.

Federal Cross of Merit for Professor Geiger



Prof. Geiger has been awarded with the Federal Cross of Merit of the Federal Republic of Germany on October 4th. Federal President Horst Köhler handed over this recognition for extraordinary engagement and outstanding achievements in occasion of the German Unification Day in the Bellevue Palace in Berlin.

In the statement for this distinction it was mentioned that Professor Geiger is one of the international leading scientists of production technology in the fields of laser material processing and forming technology. A lot of new technologies are traced back on him and his co-workers; several spin-offs have been established. Founding the Bavarian Laser Center as non-profit research institute he found an efficient way to transport research results to application and to make scientific work accessible for industry at the university.

3. CIRP Research Affiliates

15th of June is the deadline to propose new Research Affiliates, that are young talented production engineers who could potentially become CIRP members.

Every candidate **also Corporate researchers** should be proposed by a Fellow using a Research Affiliate Proposal Form. The Nomination Form can be downloaded from the web.

4. Corporate Members News

Meeting at Thursday 24 January 2007

Some highlights:

- Corporate members are often involved in road mapping. They will be involved in an open discussion about future developments in wider perspective e.g. materials and processes in general. A SWAT analysis is proposed to formulating a technology roadmap for manufacturing. The roadmap may link well into the 'track' structure of STC's currently being discussed. Prof. Klocke will take this point for further discussion.
- CM's have been invited to publish in the new CIRP Journal
- Juan M. Minguez has retired, John J. Barry is the new chairman, Kristian Martinsen the secretary.
- During the 2008 GA visits are planned to leading Aerospace, car manufacture, oil and precision industries.
- Presentations will by given by Rolls Royce, GKN, Airbus, Doncasters and others,
- Group, Saint Gobain. Prof Hinduja will write to these companies
- Each corporate member can list two contact people in the CIRP Directory now.
- The first issue of the CIRP journal will be published in the first quarter of 2008. Corporate members were encouraged to publish (publication does not require sponsorship from a CIRP fellow). The journal is being published by Elsevier and will be accessible on Science Direct
- 50 young researchers have been approved by Council as CIRP affiliates and a further 40 – 45 applications are presently being reviewed Prof Klocke is organizing a meeting of CIRP affiliates in Aachen in July 2008 so to promote face-to-face interaction.
- The CIRP corporate members forum has not been used frequently up to now.
- 14 organisations joined CIRP as corporate members while four resigned last year.

The full minutes of the meeting are available on:

http://www.cirp.net/images/cirpfichiers/privatefiles/WG/2008/CMAG/Jan08/wg_cmag_minutes_jan.08.pdf

5. Meetings, Conferences, Seminars

The CIRP and CIRP sponsored conferences are listed in the table in chronological order. There is a hyperlink from the conference name to the website providing all details about that particular conference.

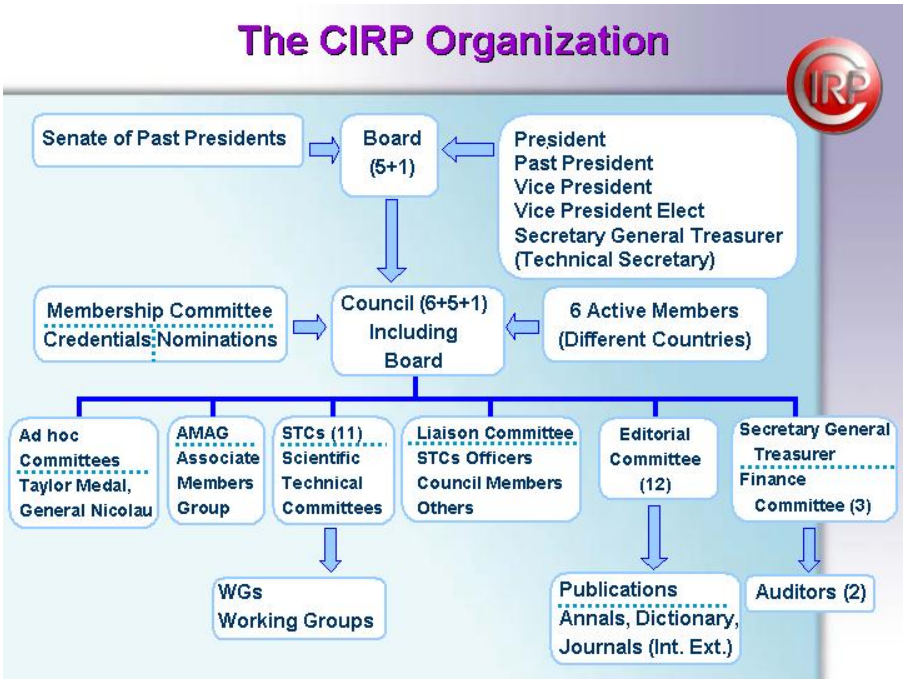
2008	Conference	Place
28-29 May	7th conf on High speed machining	Darmstadt, Germany
26-28 May	41st CIRP Conference on Manufacturing Systems	Tokyo, Japan
12-13 June	3rd International Conference on High Performance Cutting	Dublin, Ireland
7-9 July	9th ASME Engineering Systems Design and Analysis Conference	Haifa, Israel
23-25 July	6th CIRP Intl Conference on Intelligent Computation in Manufacturing Engineering,	Naples, Italy
3-4 September	1 st International Conference on Process Machine Interactions	Hannover, Germany
16-17 September	11th CIRP Conference on Modeling of Machining Operations	Gaithersburg, USA
21-23 September	2nd CIRP Conference on Assembly Technologies and Systems	Toronto, Canada
1 October	CIMEC	Nantes, France
1-4 October	6th International Conference "THE" Coatings and 3rd International Conference on Manufacturing Engineering - ICMEN	Kallithea-Halkidiki, Greece
8-10 October	The 7th International Meeting IDMME	Beijing – China
20-22 October	5th International Conference on Digital Enterprise Technology - DET	Nantes, France
20-23 October	2nd Int Conf. On Innovative Cutting Processes And Smart Machining	Cluny, France
5-7 November	TRIZ Future' 08	Enschede, Netherlands

2009	Conference	Place
1 January	42nd CIRP Conference on Manufacturing Systems	Grenoble, France
26-27 March	CIRP Tolerancing Conference	Annecy, France
30-31 March	19th CIRP Design Conference	Cranfield, UK
1-2 April	CIRP IPS2 Conference	Cranfield, UK)
2-3 April	Intl Conference on Burrs-Analysis, Control and Removal	Kaiserslautern,Germany
7-8 May	12th CIRP Conference On Modeling Of Machining Operations	San Sebastian, Spain
1-4 June	5th IWC TQM Conference	Belgrade, Serbia
18-21 June	5th Intl Conf. on Design And Production of Dies/Moulds	Kusadasi Aydin, Turkey
16-18 September	3rd CARV Conference	Munich, Germany

2010	Conference	Place
1 January	43rd CIRP Conference On Manufacturing Systems	Vienna , Austria

6. About CIRP

The International Academy for Production Engineering (CIRP) was founded in 1951 as **C**ollège **I**nternational pour la **R**echerche en **P**roductique to stimulate research and education and to create international collaboration within selected fields of production engineering. In the passed 55 years CIRP has developed into a unique international organization covering many fields of production engineering. CIRP is the internationally most recognized organization concerning production engineering.



CIRP has about 500 members (Fellows, Associate Members, Corporate Members) representing over 40 countries. The unique contribution to manufacturing research is acknowledged by leading companies and research institutes, who provide active support through corporate memberships. CIRP is organized in Scientific and Technical Committees (STC's) which are responsible for the collaborative research:

- Studying new techniques and technologies;
- Organizing cooperative research, comparative testing and standardization;
- Collecting and analyzing bibliographies on manufacturing;
- Publishing synthesis reports on important technical problems;
- Organizing seminars and meetings on specialist topics;
- Preparing internationally accepted terminology;
- Contributing to International standardization organizations;
- Surveying the state of the art of research worldwide.

Currently, there are two kinds of STC's. Five STC's covering the Processes and Machine and five covering the Manufacturing chain as shown below.