The International Academy for Production Engineering

NEWSLETTER

N° 40 – May 2010

Contents:

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Contributions for the next issue of the Newsletter may be send to the CIRP office in Paris or directly to the editor: j.meijer@utwente.nl

From the President

My Dear Colleagues and Friends,

The months are passing swiftly by and soon we will be making final preparations for our visit to Pisa, Italy for our General Assembly. This will be the 60th CIRP General Assembly. We will celebrate 6 full decades of GA's – a Diamond Anniversary. The Diamond Anniversary is a time when, on the one hand we reflect on our heritage, on our foundations, on what has gone before in a scientific/technical sense. Very importantly a Diamond anniversary is also a time when we need to look to the future and continue to develop our plans to **shape** our future.

At a time when there is unprecedented global change taking place, It is very important to recognise and to always keep in mind that our 10 STC's represent the cornerstones, very solid cornerstones (with unique heritage) for our work in global manufacturing engineering research. Let me add two comments regarding our STC's: 1) let us ensure that we retain time for good **discussion** at the STC's – let us not lose this and 2) let us keep our **cooperative work** within STC's and Research Tracks alive and vibrant.

The New **Research Track Structure** has been progressing and developing very well since it was initiated at the Manchester General Assembly. The Research Tracks can be a vehicle to allow us to implement change, will allow us to embrace new technology areas, will help us to get a voice out to the outside world and very importantly will help us forge stronger links to industry. I am very pleased to note that even at this early stage of Research Track development, new Collaborative Working Groups and now Research Track Keynote Papers are coming forward e.g. Energy, Biomanufacturing, Hybrid Processes. This is a very significant development for CIRP as it allows us to consider topics which are broader than the scope of any specific STC and also provides the opportunity to bring in new and emerging areas – a very healthy situation. We will be deciding on the formal adoption of the Research Track structure at the General Assembly meeting in Pisa.

Going forward, we have to drive the dynamic and levels of **innovation more intensively** in our Academy. We need inputs, papers, discussions etc which are truly forward looking and visionary and addressing important innovations and help us to "*think outside the box*" - to think into the future. We need good mechanisms for accepting papers which are addressing highly innovative topics into our Academy and we have to be prepared to take some level of risk in this regard. The Council has approved the procedure for the preparation and publication of White Papers and we are now moving into the implementation phase in this regard.

We can be proud that our publications are of a very high standard - our Science Citation Index having climbed to 1.124 this year. Our new Journal has kicked-off and is also progressing very well. The number of downloads from Science Direct our Annals Volumes I and II in the period April 2009 to March 2010 was **333.029 – an increase of 70.178 over the previous year – an outstanding result.** We can see that the highest downloads and citation levels are clearly coming through the Keynote Papers.

Under the leadership of our Vice-President Elect Professor Andrew Nee, we are proactively addressing the issue of those countries which are under represented in our Academy. We must also strengthen the membership from some existing membership countries and regions and I would ask you to consider this issue for your own country/region and to look to strengthening it.

These are just some thoughts which I have at this time, a time when the Officers of the various STC's, CWG's and Research Tracks and other committees are finalising their meeting agendas. I wish you well in the coming months and very much look forward to seeing you in Pisa at our General Assembly.

Professor Gerry Byrne
26.5.2010

P.s. If you have not yet registered, please help the organisers under the leadership of Professor Santochi by doing so as soon as you possibly can.

Did you know...?

As a member of CIRP you are able to benefit in several ways from our agreement with Elsevier:

- Complimentary online access to CIRP Annals back to 1980 via a dedicated portal on ScienceDirect if you receive the printed version
- Special member rate to the CIRP Journal of Manufacturing Technology
- Every time you review a paper for either CIRP Annals or CIRP-JMST you get one month's free access to Scopus through EES

All CIRP Annals and CIRP-JMST articles are indexed in Scopus and published online on ScienceDirect, giving your research broad dissemination to the wider scientific community

News about Members

Professor Katz elected as fellow of the South African Academy of Engineering

Prof Zvi Katz, has been elected as a Fellow of the South African Academy of Engineering. The Academy consists of about 150 Fellows and comprises South Africa' most eminent engineers with proven ability and achievements. Election to the Academy is by invitation only and fellows are elected by their peers for personal achievement and exceptional merit and distinction.
Prof Zvi Katz is a Professor of Mechanical Engineering at University of Johannesburg and hold the Morris Gillman Chair in Manufacturing at that Institution.

The Mission statement of the South African Academy of Engineering is:
To promote the technological welfare of the nation by marshalling the knowledge and insights of eminent members of the South African engineering profession, elected by their peers.

The South African Academy of Engineering is a young, non-profit, independent institution. The objectives of the Academy are to promote excellence in the science and application of engineering for the benefit of all members of the public in South Africa. The Academy comprises South Africa's most eminent engineers of all disciplines and related professionals with proven ability and achievement. It is able to take advantage of their wealth of knowledge and experience which, with the interdisciplinary character of the membership, provides a unique source with which to meet the objectives.

Professor Dorel BANABIC Member of the Romanian Academy

Professor Dorel BANABIC has been elected in 2009 as Corresponding Member of the Romanian Academy (http://www.academiaromana.ro) for his contribution in the field of theory of plasticity and metal forming technologies.

The Romanian Academy membership is the highest professional distinction accorded to Romanian scientists. There are 181 acting members (Full and Corresponding members), a number established by law. He is acting as member in the Engineering Sciences section, including 10 engineers (5 Full and 5 Corresponding members) representing all engineering domains (civil engineering, mechanics, electronics, electrotechnics, aeronautics, material sciences, metallurgy). All members of the Academy are elected for life. The eligibility criterion is the outstanding performance in a scientific, artistic or literary domain.

SME to Honor Inventors, Educators and Industry Leaders with 2010 International Honor Awards

Manufacturing is the genius behind just about everything you see and touch. Whether it's your smart phone or your automobile, it took some very smart people to figure out how to make them work. That's why for more than 50 years, the Society of Manufacturing Engineers (SME) has recognized manufacturing professionals at various stages of their careers. In particular, SME's International Honor Awards honors those at the zenith of their careers and who have made significant contributions to such manufacturing areas as research, education, processes as well as to the Society itself.

This year's Honor Award recipients include two CIRP fellows:

Gerald Byrne, Dr.-Ing., FSME
Professor of Mechanical Engineering and Director of the Advanced Manufacturing Science Research Centre
University College Dublin
School of Electrical, Electronic and Mechanical Engineering
Dublin, Ireland

Gerald Byrne is recognized with the SME Frederick W. Taylor Research Medal for his significant and leading-edge published research, which has led to a better understanding of materials, principles, operations and their application to improve manufacturing processes.

Byrne is internationally renowned as a leading engineer, researcher and innovator in material removal processes and process monitoring. Other research interests include environmentally clean manufacturing, surface engineering and rapid product development. His career began as an engineer in Irish industry followed by a lectureship in mechanical engineering at Dublin Institute of Technology. Byrne later became a researcher and chief engineer at the Technical University in Berlin. Thereafter, he headed Daimler-Benz AG's Division for Manufacturing Processes. After more than a decade in industry, he returned to academia as the professor of mechanical engineering at University College Dublin in 1993. He is director of the University's Advanced Manufacturing Science Centre and was head of the Department of Mechanical Engineering and dean of engineering..

Hans-Peter Wiendahl, Dr.-Ing., Dr.h.c.mult.
Professor Emeritus
Institute of Production Systems and Logistics
Leibniz University Hannover
Germany

Hans-Peter Wiendahl is recognized with the SME Gold Medal for his outstanding service to the manufacturing engineering profession through published literature, technical writings and lectures. Wiendahl is highly respected for his rigorous study of fundamental issues in production logistics. The author or coauthor of more than 300 publications and a dozen books, his most notable work, "Load Oriented Manufacturing Control" has been published in several languages. He studied mechanical engineering at RTWH Aachen and MIT, started as a researcher at RWTH Aachen and earned his doctorate in engineering there. After a period of seven years in industry leadership, Wiendahl returned to academia as professor and director of the Institute of Production Systems and Logistics at the University of Hannover in 1979.

There, he established a long career as a researcher, educator and cofounder of a nonprofit research company. Since his retirement in 2003, he remains active as a lecturer, an author and consultant for industry, including serving as an advisor to several German research foundations. For his contributions to manufacturing engineering, Wiendahl has, among other awards, received two honorary doctorates from renowned German universities and one from the ETH Zurich.

Professor Waguih ElMaraghy designated a Fellow of Engineers Canada

Professor Waguih ElMaraghy has been named a **Fellow of Engineers Canada** at the nomination of Professional Engineers Ontario. Along with the right to use the F.E.C. designation, Dr. ElMaraghy received a lapel pin and a certificate citing his recognition "in honour of exceptional contributions to the engineering profession in Canada"

Engineers Canada is the national organization of the 12 provincial and territorial associations that regulate the practice of engineering in Canada and license the country's more than 160,000 professional engineers. Its fellowship program, created in 2007, recognizes individuals who have contributed significantly to the profession of engineering

The President of Professional Engineers Ontario (PEO) has announced that: "In recognition of your contributions, and at Professional Engineers Ontario (PEO)'s bequest, Engineers Canada has bestowed the designation of Fellow of Engineers Canada upon you. Those made Fellows of Engineers Canada are also allowed to use the designation "F.E.C." after their names".

Professor Jürgen Wilfried Leopold

I would like to inform you that December 31st 2009 was my last working day at Fraunhofer Institute for Machine Tools and Forming Technology. I decided to go into retirement at the age of 65 years. We – my wife and myself - are very happy to start with this new golden stage.

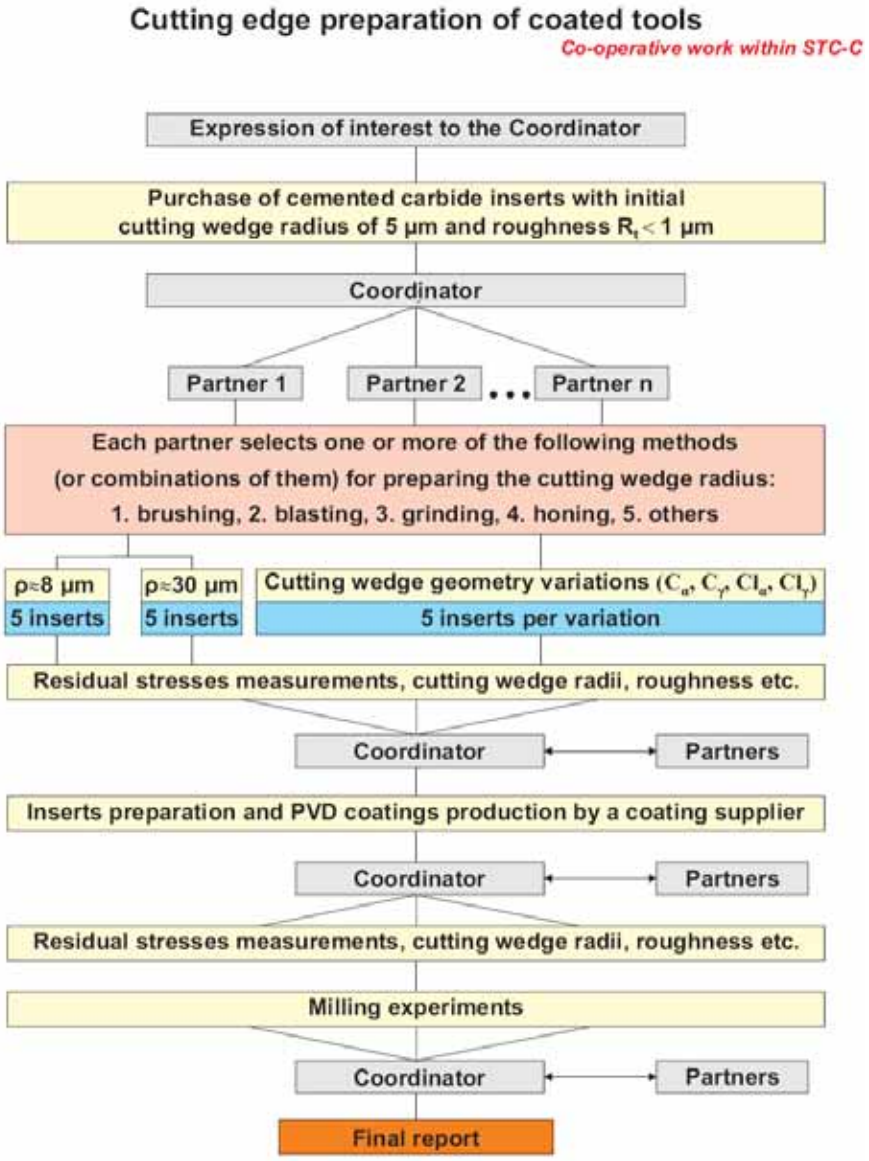
It has been a pleasure to work with all of you during many years and I would like to thank you for help and support. Starting with my attendance (proposed by Horst Weber) at the Modelling Workshop right before the CIRP-GA in Berlin 1990, I had the great pleasure to attend most of the Paris- and GA Meetings. This active participation was interrupted in September 2004. So I focused my further activities to the CIRP Modelling Workshops. I had the great pleasure to propose, prepare, organize and moderate the 8th CIRP International Workshop on Modelling of Machining Operations held in Chemnitz/Germany

2005. With January 1st 2010 I am free and intend to return in to the CIRP community.
Best regards Jürgen

In the mean time prof Leopold is appointed as visiting Professor in Huazhong University of Science & Technology (HUST), School for Mechanical Sciences & Technology, Wuhan, China. Prof Leopold will hold a three-year appointment (2010-2013), leading a public lecture series Virtual Manufacturing and teaching a graduate course on issues related to numerical modelling.

News from the STC's

As discussed in Paris, a CIRP Co-operative work within STC "C", entitled: "Cutting edge preparation of coated tools" has been initiated. At the beginning the research will focus on PVD coated tools applied in milling as shown in the proposed work plan.



2012 STC ”C” Keynote

The keynote paper under STC “C” for the year 2012, has the draft title: "CUTTING WITH COATED TOOLS" The aim of the paper is to provide the state-of-the-art industrial practices and developments, as well as the recent achievements of the scientific research. Indicative areas of interest are the following:

1. New trends in coatings’ manufacturing (PVD, CVD, DC)
2. Innovative methods for characterizing coatings’ material, dimensional and functional properties
3. Substrate preparation and coating treatments
4. Adaptation of cutting conditions to coating properties
5. Cutting applications in various cutting processes (milling, turning, drilling, gear manufacturing)

The paper will be coordinated by Prof. K.-D. Bouzakis, bouzakis@eng.auth.gr who would appreciate any material (articles, published papers, technical reports, brochures etc.) in electronic form (by email or by post), which you think could contribute meaningfully for the preparation of the paper.

Corporate Members Advisory Group

Main points from the Meeting held on January 21st, 2010

Noting the Mission Statement; CIRP is a network of experts, each eminent in their own research field. It aims to be the world’s leading organization in production engineering research including innovation and design. A balance should be maintained between the needs of Academia, Business and Society who operate on different timescales. The development of international standards is a key activity that underpinned the initial formation of CIRP. Research Tracks are a new development. Their effectiveness will be examined over a 3 year period. Issues for 2010 include CMAG membership in under-represented countries, the track structures and outward communications (global impact of CIRP, visibility, issuing of White Papers etc.). The General Assembly in August- in Pisa - will mark the 60th anniversary of CIRP.

STC’s might be asked to develop roadmaps for their technologies and to obtain industrial input to their activities and keynote papers. It was suggested by Prof Byrne that Corporate Members should be better integrated into the activities of CIRP and informed of the structures within the organization. CMAG will make presentation at Opening Session of General Assembly in Pisa.

It was suggested that CIRP Conferences should have a session with industrial presenters where their perspective is put forward. CIRP Corporate Members comprises approx 80% industrial companies with the balance representing national laboratories and academic institutions. A poll of the CMAG attendees revealed that approx 60% represented industrial companies. The Co-Chair will contact the Pisa organizing committee to prepare a draft agenda with Technical Presentations from industries in the host country and also from neighboring countries.

CIRP Council seeks greater representation from China and India and has established two task forces to this effect. The China Group is chaired by Prof Nee and is seeking greater collaboration with academic institutions, corporations and government agencies in China. It is also seeking to identify and promote young researchers.

Prof Kruth has got particular responsibility on the CIRP Council for the Corporate Members group. He noted some comments: Proposals to increase collaboration of CMAG members with Fellows are presently being considered. STC's should facilitate/promote the interaction between Fellows and Corporate Members. STC representatives should attend/present at CMAG Meetings. The full minutes are available on www.cirp.net

Our Annals

Table: 25 Top cited CIRP papers during the year 2009

Vol/ Issue	Paper Title	Authors	Cites 2009
48/2	Reconfigurable manufacturing systems	Koren Y., Heisel U., Jovane F., Moriwaki T., Pritschow G., Ulsoy G., Van Brussel H.	42
44/1	Analytical Prediction of Stability Lobes in Milling	Altintas Y., Budak E.	30
55/2	Recent advances in mechanical micromachining	Dornfeld D., Min S., Takeuchi Y.	28
54/2	Asymmetric single point incremental forming of sheet metal	Jeswiet J., Micari F., Hirt G., Bramley A., Duflou J., Allwood J.	24
53/2	Dry machining and minimum quantity lubrication	Weinert K., Inasaki I., Sutherland J.W., Wakabayashi T.	22
49/2	State of the art of micromachining	Masuzawa T.	22
50/2	Microforming	Geiger M., Kleiner M., Eckstein R., Tiesler N., Engel U.	21
41/2	Modelling and Simulation of Grinding Processes	Tonshoff H.K., Peters J., Inasaki I., Paul T.	20
53/2	Probing systems in dimensional metrology	Weckenmann A., Estler T., Peggs G., McMurtry D.	18
44/2	Tool Condition Monitoring (TCM) - The Status of Research and Industrial Application	Byrne G., Dornfeld D., Inasaki I., Ketteler G., Konig W., Teti R.	17
50/1	Micro-cutting of steel to meet new requirements in miniaturization	Weule H., Huntrup V., Tritschle H.	16
39/2	International Status of Thermal Error Research (1990)	Bryan J.	16
56/2	Consolidation phenomena in laser and powder-bed based layered manufacturing	Kruth J.-P., Levy G., Klocke F., Childs T.H.C.	15
55/2	Sheet metal forming at elevated temperatures	Neugebauer R., Altan T., Geiger M., Kleiner M., Sterzing A.	15
46/2	Dry cutting	Klocke F., Eisenblaetter G.	15
54/2	Advancing EDM through fundamental insight into the process	Kunieda M., Lauwers B., Rajurkar K.P., Schumacher B.M.	14
53/2	Chatter stability of metal cutting and grinding	Altintas Y., Weck M.	14
48/1	Surface integrity generated by precision hard turning	Matsumoto Y., Hashimoto F., Lahoti G.	14
40/1	Variable-Gain Cross-Coupling Controller for Contouring	Koren Y., Lo Ch.-Ch.	14
55/2	Advances in modeling and simulation of grinding processes	Brinksmeier E., Uhlmann E., Weinert K., Wittmann M., Aurich J.C., Govekar E., Heinzel C., Hoffmeister H.-W., Klocke F., Peters J., Rentsch R., Stephenson D.J.	13
54/2	Capability profile of hard cutting and grinding processes	Klocke F., Brinksmeier E., Weinert K.	13
52/2	Manufacturing of lightweight components by metal forming	Kleiner M., Geiger M., Klaus A.	13
52/2	Micro engineering	Alting L., Kimura F., Hansen H.N., Bissacco G.	13
49/2	Cutting of hardened steel	Tonshoff H.K., Arendt C., Ben Amor R.	13
45/1	Design for mass customization	Tseng M.M., Jiao J.	13

60th anniversary of CIRP

On behalf of the Italian CIRP delegation, it is a great pleasure and honor to invite you to attend the CIRP General Assembly in the beautiful city of Pisa.

Pisa has a long history starting from its Etruscan origin, passing through its most glorious period as maritime republic in the 11th century and the culturally prosperous period under the Medici and the Habsburg-Lorraine grand dukes. Its university, founded in 1343, is one of the oldest in Europe and has had many scientist among its alumni and teachers: Galileo Galilei, EnricoFermi, Antonio Pacinottiand others. Pisa is famous for its relaxing atmosphere and for its art treasures, especially the unique architectural ensemble including the world wide known Leaning Tower. Walking transfer from some hotels to the venue and free time in the evening will allow to admire many architectural jewels or simply relax and enjoy delicious "Tuscan style" dinners.

The accompanying persons' program will give you an unforgettable sample of Tuscany. The program will include the visit of Pisa, Volterra, Lucca, the area of marble, and the wonderful Florence. Time spent in Pisa will represent a unique chance to join productive job activities to a short vacation for you and especially for your families.

We look forward to welcoming you to the 2010 General Assembly in Pisa for the 60th anniversary of CIRP! Full dtails: www.cirp2010.it

Marco Santochi, Chairman, Gino Dini, Vice Chairman

The F.W. Taylor medal

The "F.W. Taylor Medal of CIRP" is an award conferred upon younger research workers of outstanding merit who author original scientific research papers on topics falling within the fields of CIRP. Candidates for the award must have personally presented their research at a Paper Session during the two years preceding their nomination. Recipients are not to be over 35 years of age in the year of the presentation of their paper; they may be of any nationality.

A candidate for the award must be proposed by a Fellow (including Honorary and Emeritus) who must send to the Secretariat, **before October 1st** a nomination stating the qualifications of the candidate and indicating the scientific interest and practical value of the work. The candidate must be the principal author of the presented paper. The proposer can only appear as the paper's sponsor. It is preferable that the proposer gives prior notice about his/her intention **before the August meeting** where the paper will be presented. The full text and application forms are available at www.cirp.net (internal regulations).

From the secretariat

Chantal Timar-Schubert

Papers/Keynote Papers, CIRP meetings, the Website, candidatures for Membership, Internal Regulations.

Agnès Chelet

Financial aspects in CIRP: fees, page charges, or any kind of payment or invoice.

Important dates:

January meetings	**General Assembly's**
	22-28 August 2010, Pisa Italy
26-28 January 2011, Paris	21-27 August 2011, Budapest, Hungary
25-27 January 2012, Paris	19-25 August 2012, Hong Kong, China

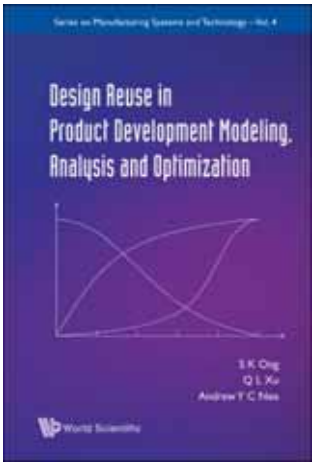
15 June 2010 Last date to propose candidates for Associate, Fellow or Research Affiliate membership.

- The CIRP Annals, online on the CIRP Website, are available for Members and Research Affiliates. Once logged in, you have a direct access to the "Annals Year by Year" from the "Direct Links" under your login space, as well as a direct access to the "Annals Search Engine". You can also get access through the Main Menu → Publications → CIRP Annals. The ABSTRACTS for the 2010 Annals are also online.
- The CIRP Annals from 1960 to 1979 have also been scanned now. 1975 to 1979 are already uploaded, the rest will be done in a few weeks.
- CIRP Research Affiliates are listed in the new 2010 CIRP Directory (pages167-172) including their picture, organization, email and Sponsor.
- Members can now search in the Registered Members' lists online, either a Search per name, or per STC or main STC of interest.
- Photos from the General Assemblies are available on the CIRP Family website http://family.cirp.net . Ask the CIRP office to register to this site.

New Books

Design Reuse in Product Development Modeling, Analysis and Optimization

By S K Ong, Q L Xu and Andrew Y C Nee



Efficient management of product information is vital for manufacturing enterprises in this information age. Consideration the proliferation of product information, tight production schedules, and intense market competition, human intelligence alone cannot meet the requirements of efficient product development. Technologies and tools that support information management are urgently needed. Significant efforts have been made to create an intelligent and optimal design environment by incorporating the contemporary technologies in product family design, artificial intelligence, neural networks, information theories, etc. This volume covers both theoretical topics and implantation strategies, with detailed case studies to help readers gain an insight in areas such as product information modeling, information analysis, engineering optimization, production cost estimation, and product performance evaluation. ISBN-10 981-283-262-9

Advanced Design and Manufacturing based on STEP

Edited by Xun Xu and Andrew Y C Nee

The globalization of manufacturing has led to a need for a common language which can be used throughout the entire product development life cycle. This edited volume discusses the most successful of the proposed solutions The STandard for Exchange of Product model, or STEP. STEP aims to provide a complete computer-interpretable product data format, so that users can integrate business and technical data to support all aspects of the product development cycle, e.g., design, analysis, manufacturing, sales and customer services. Of particular significance is the publication of STEP-NC as an extension of STEP to NC, utilizing the feature-based concept for CNC machining purposes.

The twenty chapters cover recent research results, and a range of STEP and STEP-NC application case studies from the fields of design and manufacturing. This volume will serve as a useful compilation for researchers and students in advanced manufacturing technologies and manufacturing information systems with a range of literature concerning the use of STEP in design and manufacturing. ISBN 978-1-84882-738-7

Handbook on Stiffness and Damping in Mechanical Design

This expanded and fully updated Handbook written by Eugene I. Rivin contains new results and adds some significant modifications, most notably a new section on "Negative Stiffness and Damping," which is critical for understanding dynamic processes in mechanical systems.

The book will be useful for practicing engineers working in the field of machine design, design of machine elements, machine dynamics, mechatronics, robotics and precision engineering. It will also be a useful reference for educators, as well as advanced undergraduate and graduate students. ISBN: 978-0-7918-0293-9.

Collaborative Design and Planning for Digital Manufacturing

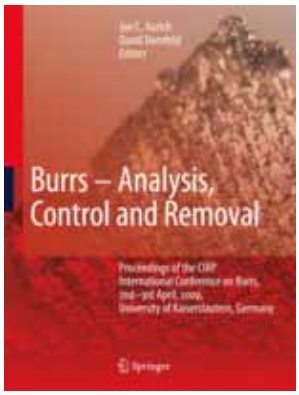
Edited by Lihui Wang and Andrew Y C Nee

Collaborative design has attracted much attention among researchers in recent years. With increasingly decentralized manufacturing systems and processes, more collaborative approaches are needed to support distributed manufacturing operations. This volume presents a focused collection of quality chapters on the state-of-the-art research efforts in the area of collaborative design and planning, as well as their practical applications towards digital manufacturing.

A range of innovative methods and collaborative systems is analysed, examining the emerging technologies and their practical applications that contribute directly to digital manufacturing. The authors discuss solutions in a number of areas, including: Cross-discipline information sharing; Workflow management; Integration of suppliers into a process chain; and Performance measures of distributed manufacturing systems.

Burrs - Analysis, Control and Removal

Edited by Jan C. Aurich and David Dornfeld.



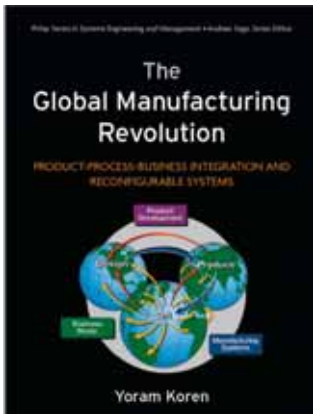
In many machining operations burrs cannot be avoided. They can affect the functionality and the safe handling of the workpiece in the subsequent processing, and have to be removed by a special deburring process. Toleration of burrs, which are not part of functional edges, depends on their respective shape and size. High inspection effort is necessary to guarantee the workpiece quality. Therefore, the research results on burrs, with a focus on burr analysis and control as well as on cleanability and burr removal based on the presentations held at the conference are valuable for researchers and engineers in manufacturing development. For further information:

http://www.springer.com/engineering/production+eng/book/978-3-642-00567-1

The Global Manufacturing Revolution

Product-Process-Business Integration & Reconfigurable Manufacturing

by Yoram Koren



Globalization is creating both opportunities and challenges for companies that manufacture durable goods. For a manufacturing enterprise to succeed in this current volatile economic environment, a revolution is needed in restructuring its three main components: product design, manufacturing, and business model.

The Global Manufacturing Revolution is the first to focus on these issues. Based on the author's long-standing course work at the University of Michigan, this unique volume proposes new technologies and new business strategies that can increase an enterprise's speed of responsiveness to volatile markets, as well as enhance the integration of its own engineering and business.

The tools, theories, and case studies in this volume will be invaluable to engineers pursuing leadership careers in the manufacturing industry, as well as to leaders of global enterprises and business students who are motivated to lead manufacturing enterprises and ensure their growth.

http://www.wiley.com/WileyCDA/WileyTitle/productCd-0470583770.html

Meetings, Conferences, Seminars

The CIRP and sponsored conferences are listed in chronological order.
Further details will be found in the "EVENTS" online.
Bold: CIRP conferences. *Italics: Sponsored conferences*

2010	Conference	Place
19-21 May	17th CIRP Conference On LifeLce 2010 Cycle Engineering	Hefei, China,
26-28 May	43rd CIRP Conference On Manufacturing Systems	Vienna, Austria
27-28 May	*NAMCR 38*	*Kingston, Canada*
1-3 June	3rd CIRP Conference On Assembly Techn. Systems - CATS 2010	Trondheim, Norway
10-11 June	2nd CIRP Conference On Process Machine Interaction (PMI)	Vancouver, Canada
17-19 June	*APE'10 - 5th Intl Conf. On Advances In Production Engineering*	*Warsaw, Poland*
23 -25 June	7th CIRP Conference On Intelligent Comp. In Manufact. Engng	Gulf of Naples, Italy
21 -24 September	*LANE 2010*	*Erlangen, Germany*
24 -26 September	*2nd International Conference On Nanomanufacturing (nanoMan2010)*	*Tianjin, China*
29 -30 September	*ICMC - International Chemnitz Manufacturing Colloquium*	*Chemnitz, Germany*
24-26 October	4th CIRP International Conference on High Performance Cutting,	Nagaragawa, Japan
1- 4 October	6th International Conference "THE" Coatings and 3rd International Conference on Manufacturing Engineering - ICMEN	Kallithea-Halkidiki, Greece
3 -5 November	*TRIZFuture Conference 2010*	*Bergamo, Italy*
22 – 24 November	8th GCSM - Global Conference On Sustainable Manufacturing	Abu Dhabi

2011-2013	Conference	Place
24-25 March 2011	12th CIRP Conference Computer Aided Tolerancing - CAT 2011	Warwick, U.K1
18-20 April 2011	*SheMet2011: 14th International Conference On Sheet Metal*	*Leuven, Belgium*
2-4 May 2011	18th CIRP Conference On Life Cycle Engineering	Braunschweig, Germany
5-6 May 2011	3rd CIRP IPS2 Conference	Braunschweig, Germany
12-13 May 2011	13th CIRP Conference On Modeling Of Machining Operations	Sintra-Lisbon, Portugal
1-3 June 2011	44th CIRP Conference On Manufacturing Systems	Madison, USA
7 11 June 2011	*6th International Conference TOTAL QUALITY MANAGEMENT"*	*Belgrade, SERBIA*
2-5 October 2011	*4th Conf. on Changeable, Agile, Reconf. and Virtual Prod.(CARV2011)*	*Montreal, Canada*
30 January 2012	1st CIRP International Conference On Surface Integrity (ICSI)	Bremen, Germany
21-23 May 2012	4th CIRP Conf. On Assembly Technology Systems - CATS 2012	Ann Arbor, USA
8-12 April 2013	*ISEM XVII - 17th International Symposium On Electromachining*	*Leuven, Belgium*
8-11 May 2013	20th CIRP Conference On Life Cycle Engineering Conference	Singapore