

CIRP RA Winter News



Editorial

Dear CIRP colleagues,

Welcome to the new issue of the CIRP Research Affiliate Newsletter! In this issue Information in the upcoming RA activities in 2016, the next RA workshop to be held in Stockholm and the 2016 CIRPe, a Global Web Conference that is growing in attendance and contributions every year.

The highlight of this issue certainly is the article from Wessel Wits, our previous RA chair, who is talking about his experience as an RA.

I hope you will enjoy reading this newsletter and look forward to meet the CIRP community again at our next meeting in Portugal.

Best regards from CIRP-RA newsletter's Editor,

Benjamin Kirsch (TU Kaiserslautern, Germany)

Words from the RA steering committee

by PETRA WIEDERKEHR, CHAIR

On behalf of Olga (Vice-Chair) and Taner (Secretary), it is my great pleasure to welcome the new Research Affiliates to our network. At the moment, we are more than 100 RAs in total coming from 24 different countries.

In 2016, we are looking forward to different RA events and I would like to invite you to participate in these activities. In the mid of June we will have our Annual Workshop in Stockholm, Sweden (13th-14th June) hosted by the KTH Royal Institute of Technology. We are looking forward to an interesting workshop including technical presentations, discussions about the constructive alignment for course design in higher education, company visits and lab tours.

Then we will have our two RA meetings (21st and 27th of August) during the General Assembly in Guimaraes, Portugal (<http://www.cirp.net/meetings-conferences/general-assembly.html>). A call for the agenda items will appear within the next months. Please check also the CIRP website (<http://www.cirp.net/scientific-groups/research-affiliates-meetings.html>). There you will find the minutes of the past meetings and the agenda for the upcoming ones.

In addition, I would like to invite you to the 5th CIRP Global Web Conference "Research and Innovation for Future Production" (4th to 6th of October) which is organized by Kosmas, Erdem and Candice. Please find detailed information on the conference website (<http://lms.mech.upatras.gr/cirpe2016>).

I'm looking forward to meeting you again during our next activities.





Figure 1: CIRP Winter Meeting 2016: Research Affiliate Dinner

My experience as a CIRP Research Affiliate

by WESSEL WITS

The Editor asked Wessel Wits, our previous Chair, to share his experiences being a CIRP research affiliate. Wessel recently finished his six-year term and we believe his story can be an inspiration for current and future research affiliates.



After an exciting six years, my CIRP research affiliate membership ended last summer at the Cape Town GA in 2015. Looking back it was a wonderful experience and also a fruitful period in the sense that I got to know a lot of other (young) researchers and made many international friends.

My journey as Research Affiliate started at the Paris winter meeting in 2010, after my membership was approved at the Boston GA in 2009. I remember the affiliate network being a new initiative, and we were thinking very hard of our role and possible contribution to the CIRP community. As young and spirited we were, we saw many opportunities, but where to put our focus? One of the things we thought to be important was to use online video chat services (e.g. Skype) to enable more research affiliates to be present at our meetings. And, before I knew it, I joined a small committee that took on this challenge.

At the Pisa GA in 2010, we managed to have an online interactive video system operational that worked quite well. Next to the GA and Paris meeting, we thought we needed an additional kind of meeting in which we could focus on developing our own identity within CIRP. This led to the initiative of having an annual RA workshop

that is still running today. For me, the annual workshop was an exciting event where everyone could show their research interests and pitch ideas. I was quickly emerged and brought up to speed to all the ongoing research in the STCs that I would usually not attend. We deemed it looking for “horizontal topics” to collaborate upon. This breadth within the RA community turned out to be one of key advantages, especially for young researchers.

Paris winter meeting 2011, not in Mutualité but at the Sorbonne. I proposed to organize the next annual RA workshop at my own university; the University of Twente, and a date in July that year was agreed upon. I also remember a kind of round robin initiative being launched between RAs that manufacture micro-sized parts and RAs that measure micro-sized parts. An excellent horizontal topic that would later actually end up in a joint publication co-authored by eight RAs. The annual RA workshop in Enschede was well-attended and productive, and I got to experience the organizational challenges that go along with organizing such an event.

Then the Budapest GA in 2011 arrived, and I got to present my first GA paper; quite the experience. For us in Twente, this was a memorable GA as well since prof. Fred van Houten, the head of our research group and my sponsor, was CIRP president that year. Following-up on our efforts in getting online presence into our RA meetings, we also discussed organizing a kind of web conference. As we have a very good infrastructure in Twente, I proposed hosting the first web conference. This was accepted and we were in for a hell of a ride.

Paris winter meeting 2012, still not in Mutualité but at Bernardins. A new steering committee was elected, and I was honored to be elected Vice-Chair of the RA network. Further I just remember promoting our web conference a lot. In June 2012, we went live with our first web conference, CIRPe2012. We had 22 paper presentations and a keynote broadcasted twice over the course of two days. The format was a success; we had more than 200 participants from 40 different countries tuning in. Since then there has been a sequel every year with growing

attendance and a growing number of accepted papers.

Hong Kong GA in 2012. It was nice to see most of the web conference presenters again in person and to share stories of their experience on the other end of the line. Again, almost traditional, a new initiative was launched; this time the RA newsletter emerged as a new way of sharing a bit more personal stories within our network.

Paris 2013, back in Mutualité, and I was elected Chair of the RA network. After the fruitful initial years under the leadership of Hans-Christian, we now had a new challenge ahead. The initial group of RAs appointed in 2007 would soon leave the network after the maximum six years. For our community this meant we had to move from a start-up phase to a consolidation phase. Over the course of the initial years many initiatives were started and it now was a good time to evaluate and perhaps end a number of them.

Copenhagen GA in 2013. As the new steering committee, we unfolded our plans for the coming two years. We decided to grant more time for the introduction of new affiliates, and those who had a paper presentation at the GA were invited to 1-minute pitch their paper in order to attract an audience. At the Paris winter meeting in 2014, we introduced the election of a special topic for our annual workshop. In that way, we could also get a kind of focus next to the traditional sharing of research activities and ideas.

The Nantes GA in 2014 was special again in the sense that I got to present my second GA paper. Also, within one of the RA meetings we decided to go for a non-traditional format and put the community to work. We made groups, handed out flip charts and gave group assignments. Before we now it all groups had vanished, and as Chair I started to worry whether they would return at all. Thankfully they did and presented the group results to the entire community. The experience was great, and it was rewarding to see and hear the inspiring talks going on amidst the group.

The two-year period being the RA Chair blew by and at the Paris meeting in 2015 it was time to step down. It kind of felt like an emotional moment, as you leave something precious behind. But at the same time I was confident in the new steering committee headed by Petra.

As Cape Town GA in 2015 commenced so ended my term as a CIRP Research Affiliate. Did I enjoy it? Absolutely! Being an affiliate really gave me the opportunity to get to know many active researchers not only in my own field, but more so in the other fields within the CIRP community. Having made so many friends all over the world, I feel privileged as a global citizen.

When I started my journey within CIRP I had no idea where it would lead, but it felt inspirational. My days as an affiliate have ended. The journey was certainly worth it and I cherish the many friendships I have made along the way.

Hope to see you soon at a next CIRP event,

Wessel Wits

CIRP RA workshop 2016

by ANTONIO MAFFEI

The yearly workshop is a traditional and distinctive activity of the CIRP research affiliate program. This year the host organization is KTH Royal Institute of Technology in Stockholm, Sweden. The workshop will take place at the department of production engineering on the 13th and 14th of June and will be followed by the 26th CIRP Design conference (15th-17th of June). This will allow the RA interested, to join both events. Antonio Maffei (maffei@kth.se) is the contact person for the initiative with support from the KTH colleagues, Dr. Hakan Akillioglu, Dr. Lorenzo Daghini and Dr. Andreas Archenti and Dr. Mikael Hedlind, former RA, from SCANIA CV AB. The newly appointed RA Xi Vincent Wang (announcement coming at CIRP GA), also from KTH, has joined recently the organizing committee.

The topic for the workshop is Constructive Alignment (CA). CA (John J. Biggs) is an approach to Educational Unit design that focus on devising teaching and learning activities (TLA), and assessment tasks (AT) enabling the student to reach the intended learning outcomes (ILO) in an effective and efficient way. The intuition of aligning these three moments through the related focal educational verb is based on the union of a constructivist understanding of the nature of learning, and an aligned design for outcomes-based teaching education. This topic is potentially interesting for all the RA that are, on different extent, involved with education. During the Workshop we will have lectures, tutorial and own work based on course documentation proposed by the participants. The workshop will include a visit to the lab of KTH to illustrate how we have implemented CA into our education activity. Finally the technical program will be completed with a company visit at SCANIA CV AB (CIRP Corporate member) a leading truck manufacturer with strong research culture.

The social program will include a workshop dinner and visit at Vasa museum. This unique maritime museum is located on the island of Djurgården, in downtown Stockholm. The exposition includes the only almost fully intact 17th century ship that has ever been salvaged, the 64-gun warship Vasa that sank on her maiden voyage in 1628. There will be also time for a guided walking tour of Stockholm old town.

The registration is open through the website of the event, www.cirpraws2016.org, where all the necessary practical information can be found.

CIRPe 2016 conference

by KOSMAS ALEXOPOULOS, ERDEM OZTURK and CANDICE MAJEWSKI

Following a successful 5 year route with a loyal audience and excellent research publications, the CIRPe Global Web Conference will take place between the 4th and 6th of October 2016 totally in the web. Aiming to provide an outlook of the cutting edge research work that will empower the factories of the future the 2016 conference is entitled: "*CIRPe 2016 - Research and Innovation for Future Production*".

The aspiration of this year's conference is to cover as many of the production related areas involving but not limited to:

- Resource, Energy and Time Efficiency
- Lifecycle Engineering
- Advanced Manufacturing Technologies
- Manufacturing Systems
- Manufacturing Knowledge and Human Interaction

The Laboratory for Manufacturing and Automation (LMS) at the University of Patras in Greece in cooperation with Sheffield University in UK have undertaken the task and pleasure of organizing CIRPe 2016. Back in 2013, LMS was in charge of hosting the 2nd CIRPe conference and since then a lot have changed to the better.

Over these years, this initiative of the CIRP Research Affiliates has evolved into an open platform that brings together young researchers and scientists from all corners around the globe. The web-based, live streaming, interactive nature of the conference has attracted people with various engineering background and allowed them to share their ideas and get acquainted with emerging technologies in production engineering.

In the era of open access, the conference has provided a window for people to take glimpse of the technologies that are being developed inside the laboratories of the most renowned research organizations. The peer review process followed in all CIRPe conferences and the collaboration with the Procedia CIRP (by Elsevier B.V.) journal have established a mechanism that ensures the technical soundness and high quality of publications and live presentations.

The goal for continuous improvement of the conference is still the main driver for the event. Short pitch videos for each paper and strong social media support will be used to promote the conference at a global scale to raise as wide audience as possible.

As with all previous conferences, CIRPe 2016 will be provided without any costs for attendance. All presentations and relevant material will be broadcasted on the conference portal considering also attendance in different time zones.

On behalf of the organizing committee, we are extending the invitation to all production research scientists and enthusiasts and we are looking forward to

welcome you in an exciting CIRPe 2016
[http://lms.mech.upatras.gr/cirpe2016/!](http://lms.mech.upatras.gr/cirpe2016/)

Dr. Steven Peters wins Otto Kienzle Commemorative Coin

During the WGP Congress 2015 at Helmut Schmidt University in Hamburg Dr.-Ing. Steven Peters was awarded by the German Academic Society for Production Engineering (WGP) for outstanding achievements in the field of manufacturing technology. In memory of Professor Otto Kienzle, one of the outstanding personalities of the former "Higher Technology Manufacturing Group," a commemorative coin has since 1970 been awarded annually by WGP to young Ph.D. engineers. Dr.-Ing. Steven Peters is the third researcher at wbk who has won this award during the history of the institute.

The German Academic Society for Production Engineering is an association of leading German professors of production engineering. The institutes of the members employ more than 1000 scientists in that field. The WGP was founded in 1987 as successor to the in 1937 founded Organization of Operating Sciences (HBW), followed by the Organization of Manufacturing Technology (HGF). The WGP sees itself as an institution representing the interests of research and teaching in the field of production technology and does so in the scientific, social and political arena of the Federal Republic of Germany.

Dr.-Ing. Steven Peters has been working at the Production Systems Department of the Institute of Production Science (wbk) of the Karlsruhe Institute of Technology (KIT) since 2009. He is chief engineer of this department since late 2012. As first Industry Fellow of Daimler AG he has been working on concepts for industrialization of enabling technologies for automotive series production since early 2014.

Link to WGP: <http://www.wgp.de/okg.html>



New RAs since the Winter Meeting

- BUCHKREMER Stefan
- DAHLMANN Dominik
- FRANCIOSA Pasquale
- GROVE Thilo
- MARADIA Umang
- PHADNIS Vaibhav
- SAMMLER Fiona
- TENNER Felix
- WANG Xi (Vincent)
- WARHANEK Maximilian
- WDOWIK Roman
- ZHU Zhiwei