

DAMRC newsletter – 4 / 2012

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Should you want to learn more about project collaboration with the DAMRC and what the DAMRC can do for you and your business you are most welcome to contact Klaus Bonde Ørskov - kbo@damrc.com

Content

In this newsletter you will have the opportunity to read about 3 very interesting projects with participation of among others international scientists. In Skive DMV, a Danish processing company is aiming for a stronger competitiveness, in Nr. Snede at DACS a project is in progress developing a new interesting product and Herning has had a visit of lead scientist taking part in the developing a new propulsion principle for marine vessels.

You can also read about the DAMRC member Centres of Excellence launching a number of internships for the COE students in a number of English manufacturing companies. Furthermore we welcome yet another member of the DAMRC.

DMV strengthening their competitiveness together with DAMRC

As a subcontractor established in 1993 DMV Industry A/S delivers milled and turned parts for various industries. With the focus on a significantly increase of the competitiveness DMV in cooperation with DAMRC has uncovered the possibilities for optimization of the production of DMV.

The conclusion was clear and DAMRC together with DMV could open a project in September 2012 with focus on optimization of the milling processes at DMV. The project is estimated to last 6 to 8 months and during the project milling experts from among others The University of Sheffield, AMRC with Boeing will be participating. Preliminary analysis has already shown optimizations of more than 10 % thus giving good expectations to the result of the project. The project is supported by "Genvej til Ny Viden" - a funding program through Aarhus University and DMV will therefore receive D.kr. 485.000 as support during the project of a total project amount of D.kr. 970.000.



Advanced Manufacturing Research Centre



Info about Genvej til Ny Viden
<http://genvejtilynviden.au.dk/>
A funding program administrated by Aarhus University CEI.



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New research-based knowledge in Nørre Snede

In collaboration with the development company DACS based in Nørre Snede DAMRC has initiated a project, the purpose of the project being uncovering the possibilities of creating a new and environmentally friendly ventilation solution for use in poultry houses and pig farms.

The project has in the preliminary phase had focus on clarifying the possibilities and the potential in the concept developed by DACS. A one-day workshop with participation of different experts – among others a material-, a design- as well as an aerodynamic-expert has now documented the large potential in the concept from DACS.

Thus DACS will now in collaboration with DARMC apply for funding of phase 2 through "Genvej til Ny Viden" (- a funding program through Aarhus University) with regards to initiating an innovation project. The next step of the project is expected to be resolved during the month of January 2013.

4 international scientists gathered in Herning - NIMP

As described in the prior newsletter DAMRC is a part of an innovative project together with the development company HBI Aps based in Herning. As project manager DAMRC has i.a. had the task to set the right team of experts, who could add the necessary scientific knowledge to the project. The first task of DAMRC in the project was to set the strongest team and thereafter to arrange, manage and facilitate a workshop in which the development company in collaboration with a number of scientists could continue the development of the concept.

The workshop took place the 25th October 2012 and had beyond the DAMRC and the owners of the company participation of Professor of Aerodynamics Holger Babinsky from University of Cambridge, Department of Engineering – Professor Engineering Fluid Dynamics Harry Hoeijmakers from the University of Twente and Professor Niels Kruyt, Faculty of Engineering Technology from the University of Twente as well as Professor of Mathematics Mads Peter Sørensen from DTU- Technical University of Denmark.

At the workshop scientific based knowledge in combination with a systematic approach founded the further dialogue and cooperation in the workshop. With a mutual base and a shared understanding among the participants of the workshop it was possible to provide usable and solid results. The company is now working together with the DAMRC in structuring the next steps of the project.



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From DTU Wind Energy
Professor Flemming Rasmussen



TEKNOLOGISK
INSTITUT

From TI Jørn Bech, materials expert
and Olivier Jay, expert in industrial
design.



Info about Genvej til Ny Viden

<http://genvejitilnyviden.au.dk/>

A funding program administrated
by Aarhus University CEI.



UNIVERSITY OF
CAMBRIDGE

UNIVERSITY OF TWENTE.



With proud traditions within the aero-
space industry in England and Holland
the scientists Holger Babinsky, Harry
Hoeijmakers and Niels Kruyt came with
a solid application-oriented knowledge
within aerodynamics and pump technol-
ogy.

The Danish professor in mathematics
from DTU Mads Peter Sørensen man-
aged to tie the different techno-logy
areas together.



Info about Genvej til Ny Viden

<http://genvejitilnyviden.au.dk/>

A funding program administrated
by Aarhus University CEI.

The project is supported by “Genvej til Ny Viden” - a funding program through Aarhus University - the company receives approx. D.kr. 500.000 as support in the period of the project – out of a total sum for the project of approx. D.kr. 1 million. The project is expected to be concluded during mid-2012.

Innovation MidtVest – New member at the DAMRC

DAMRC welcomes Innovation MidtVest (IMV) as a new member. IMV is partly financed by the Danish Agency for Science Technology and Innovation and is dealing with “knowledge-intensive” entrepreneurship companies, which may be the future growth companies. The common ground for the DAMRC and IMV is “knowledge-intensive” as the DAMRC exactly is dealing with providing new knowledge.

The foundation of the collaboration between the DAMRC and IMV is underlined by the fact that the DAMRC at this stage already has project cooperation with 3 of the portfolio companies of IMV – with a total project sum of D.kr. 2.3 million (the DAMRC member RadiJet, HBI and HeliScandia). These 3 technology co-operations are characterized by the DAMRC being the project manager of the projects and providing access to new technical knowledge within the core competences of the DAMRC to these companies. Furthermore the DAMRC has specialized in securing that the new knowledge for the company is being implemented as fast as possible to the benefit of the further growth of the company.

Good grades for the DAMRC master project

Since January 2012 the two students Daniel and Peter have been working on finishing their master thesis in connection to their studies in mechanical engineering at the Aarhus University – School of Engineering.

The purpose of the master thesis was to build a Finite Element Model in order to predict the optimal cutting data for a given drilling situation. The input was given by the DAMRC in cooperation with the industrial members of the DAMRC and the students have during the master project in cooperation with DAMRC, Vestas and Kyocera Unimerco done several practical tests, trails and measurements – the result of these founded the basis for the students thesis. The thesis hereby will be an important part in the DAMRC development project with the title “Vibration analysis during



Hydro Blaster Impeller



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drilling” a research and development project conducted out by the DAMRC since 2010.

The hard and targeted work of the two students was rewarded by the character of 10 at the exam and it was with great pleasure that the DAMRC and Kyocera Unimerco at the 1st October 2012 could attend the examination of the 2 students and their defense of their thesis.

A big congratulation is given to Daniel and Peter from the DAMRC.

Students from Centres of Excellence, Herningsholm Erhvervsskole at intern ship in England

As a part of the activities and projects, which the DAMRC is offering our members is yearly networking and technology missions to selected foreign partners being an effective way to new relations. At one of these missions to the Sheffield area the main topic was machining technology. The participants were introduced to a number of technology companies and universities with the aim of cooperation. To Kristian Hjørnholm, project manager at the DAMRC member Centres of Excellence (CoE) – Herningsholm Erhvervsskole (technical college) the new relations gave immediate results.

In cooperation with DAMRC CoE at Herningsholm Erhvervsskole has sent 6 of the most skilled industrial students at a 3 weeks intern ship at 4 different English manufacturing companies. Hereby the possibilities are made enabling these students via their stay in England to return with new knowledge about manufacturing to the benefit of Danish manufacturing companies, who continuously request skilled CNC technicians.

DAMRC wishes the travelling students the best of luck in England and look forward to the students bringing new knowledge to Denmark and into the Danish manufacturing industry.



HERNINGSHOLM
ERHVERVSSKOLE



Centres of Excellence are 4 strong academically motivated centres, created by Industriens Fond (the Danish Industry Foundation) in collaboration with DI – confederation of Danish Industry. The centres offers vocational training, where skilled students from all of can receive teaching at the highest level.

In the western part of Denmark Centres of Excellence is a cooperation between Herningsholm Erhvervsskole, Herning and Mercantec in Viborg.



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Kind regards

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General Manager, CEO DAMRC



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