

Huub Janssen and Tim Nai honoured

During the 2010 Precision Fair in Veldhoven, DSPE presented two awards that are both named after legends of precision engineering in the Netherlands. The biennial Prof. M.P. Koster Award went to Huub Janssen of Janssen Precision Engineering, and the annual Wim van der Hoek Constructors Award was given to Tim Nai for his graduate work at Delft University of Technology.

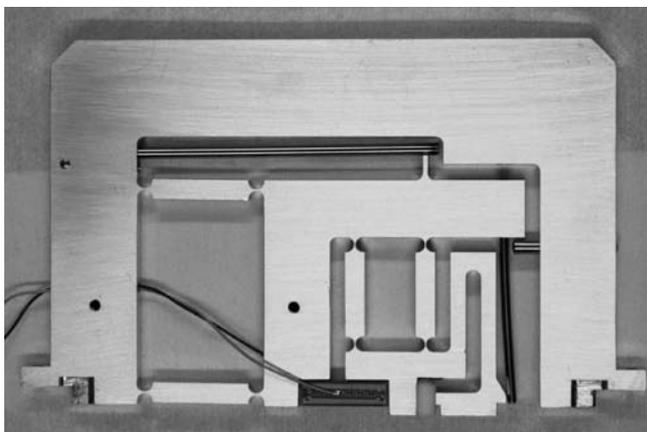
On Wednesday, 1 December, the two-yearly Prof. M.P. Koster award was presented for the fifth time. This prize is for deserving mechanical engineers/designers in the field of mechatronics and precision technology. On behalf of the jury, chaired by the Twente professor Herman Soemers, Rien Koster, who gave his name to the award, handed out the prize after explaining the jury's considerations.

Oeuvre prize

Huub Janssen, director and proprietor of Janssen Precision Engineering at Maastricht Aachen Airport, was awarded the prize for all his work in designing constructions for use in such developments as machines for chip manufacturing and the world's largest optical telescope. His work mostly concerns imaging systems where the challenge lies in precisely positioning and manipulating light or ion beams, for example. According to the jury, each of Huub Janssen's designs is an innovative and beautiful example of the combined mechanical, electronic and control engineering way of thinking. This enables Huub Janssen to not only create high-quality employment within his own company, JPE, but to also contribute to the progress of IC technology and astronomical research. The jury also praised the way in



Winner of the Prof. M.P. Koster award 2010 Huub Janssen flanked by the two doyens of Dutch precision engineering: Rien Koster, the man who gave his name to the award (left), and Janssen's graduate professor Wim van der Hoek. (Photo: Mikrocentrum)



One of the highlights of Huub Janssen's precision engineering career so far has been the work with Janssen Precision Engineering on the development of a specific and extremely compact drive and measuring system for cryogenic and vacuum application in the 'Grand Telescopio de Canarias' (GTC). This work has led to the realisation of a demonstration model of the so-called Configurable Slit Unit (CSU) for the GTC infrared instrument. The CSU comprises 110 bars that can be positioned arbitrarily within the instrument's image field. On the left the actuator mechanism of a single bar.

which JPE is open to young people who want to learn the trade. Work placement opportunities are always available for students from all types of technical education programmes and the company regularly welcomes school excursions. The professionalism that Huub Janssen and his company demonstrate by sharing their expertise and experience with others was regarded very highly by the jury.

Janssen Precision Engineering

After graduating from Eindhoven University of Technology under the doyen of Dutch precision technology, Prof. Wim van der Hoek, Huub Janssen

worked for ASML and Philips. Twenty years ago, he set up his own company JPE (Janssen Precision Engineering) situated at Maastricht Aachen Airport. JPE designs and builds high-precision appliances for use in the semiconductor industry, space travel, astronomy, biotechnology and the medical industry. It specialises particularly in high precision, vacuum applications, handling and measurement. JPE currently has twelve employees. A pleasantly surprised Huub Janssen expressly thanked them in his acceptance speech. "Without them, I would never have been able to achieve this. Sometimes it's one of them who inspires a new design and sometimes it's another."



Wim van der Hoek Constructors Award winner Tim Nai (left) and chairman of the jury Jos Gusing. (Photo: Mikrocentrum)

Rien Koster

With the Prof. M.P. Koster award, DSPE wants to highlight the importance of designing for the precision industry. The Netherlands plays a leading role internationally in this field of industry, which in a broader context is dubbed 'high-tech systems'. The man who gave his name to the award, M.P. (Rien) Koster, has contributed to this role as a group leader at Philips CFT (Centre for Industrial Technology) and as a professor at the University of Twente. Koster also wrote the 'bible for mechanical designers', "Construction principles for precision movement and positioning". His successor as a professor in Twente and chairman of the jury Herman Soemers recently published an English-language sequel to this book called "Design Principles for precision mechanisms". The M.P. Koster award comprises a sum of money from The Institute – leadership in precision engineering & mechatronics, and a trophy made by students at the Leidse Instrumentmakersschool.

Wim van der Hoek Constructors Award

On Thursday, 2 December, the Wim van der Hoek Constructors Award was presented to Delft student Tim Nai. On behalf of the jury the prize was handed over by DSPE board member Jos Gusing, business development technology manager at NTS-Group in Eindhoven and lector in Mechatronics at Avans University of Applied Sciences in Breda, the Netherlands. First, Gusing commemorated the demise of Ad Weeber, one of the initiators of this award, which was created on the occasion of the 80th birthday of the grand old man of design principles, Wim van der Hoek. The prize is awarded annually for the best graduation project in the field of

construction in mechanical engineering; it comprises a certificate, a trophy and a sum of money granted by the 3TU Centre of Competence High Tech Systems.

Conceptual work

The 2010 issue was awarded to Tim Nai for his graduate work on the design of a compliant steerable arthroscopic punch, an instrument to be used in minimally-invasive knee surgery. The jury commended his conceptual work, the combination of constructing and testing, and the clever use of a compliant rolling contact element. In the Interactive Mechanisms Research group at Delft University of Technology, Tim Nai's design is part of further investigations aimed at reducing the twenty something different instruments required nowadays to two or three, making knee surgery simpler and more effective. More on this subject in a forthcoming issue of Mikroniek.



Tim Nai being congratulated by Wim van der Hoek. (Photo: Mikrocentrum)

Information

www.jpe.nl
compliantmechanisms.3me.tudelft.nl