

Advanced Robotics Centre Colloquium

Industrial Design of an Universal Gripper

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FPTC, FSHC

Division of Industrial Design

School of Design & Environment

National University of Singapore

10 April 2018, Tuesday, 6.00pm to 7.30pm

NUS Faculty of Engineering, Advanced Robotics Centre

5 Engineering Drive 1

Blk E6, Level 7, Engagement Room

Singapore 117608



Compared to taking inspiration from paragons found in nature, purpose-driven reasoning is used to open up a larger range of strategic solutions than would generally be available in the context of biomimetics, due to the evolutionary burden and organic constraints. With respect to a suitable functional shape, the specific design around a pneumatic micro actuator leads to this “tool” as human artefact. Working from the self-defined technical package, an appropriate shape is embodied on a multifunctional and rational basis where saving of resources and the use of least expensive material and fabrication technologies were in the centre of thinking that gripper system.

Videos

Universal Gripper as dynamic exhibit for industrial trade fairs:

<https://www.youtube.com/watch?v=u4ZScJsaepg>

For the full abstract, please visit

<https://goo.gl/forms/aQBA9Ne6KPUzQEwW2>

Prof. Dipl.-Ing. (Univ.) Axel Thallemer is Full Professor with tenure at the National University of Singapore. In his fifteen years of industry practice he was acting at the Research and Development Center of Porsche, followed by founding and heading Festo Corporate Design, since then about same time span freelance consulting for the industry. Precursory professorships were in Munich, Hamburg and Austria (Dean and Chair of Industrial Design at Linz university, scientifically repositioning under the brand

“scionic®”), currently there are 19 additional visiting professorships and about 35 patents. Life Fellow of The RSA in London [founded 1754] and international member of Industrial Designers Society of America, USA, i/IDSA; reviewer for ICED, IEEE as well as ICoRD and Journal of Engineering Design, JED, for biomimetics / bionics.

There will be time for interaction with the speaker and co-author at the end of the seminar. Light refreshment will be served.

Registration is complimentary but pre-registration is required.

Please register your attendance at the following link by 6 April 2018:

<https://goo.gl/forms/aQBA9Ne6KPUzQEwW2>

For enquiry, please email: robotics@nus.edu.sg

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About Advanced Robotics Centre (ARC)

ARC was established in 2013 with support from both the Faculty of Engineering and the School of Computing. The goal of ARC is to lead and support robotics research in NUS and in Singapore, and over time, gain international recognition as a peak of excellence in robotics research. One core research theme of ARC is human-centered collaborative robotics, with the goal of developing the scientific foundations, technologies, and integrated platforms that enable symbiotic human-robot interaction and collaboration.