

Professor Dr.-Ing. Hans Wernher van de Venn

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Short C.V.

Professor Dr.-Ing. Hans Wernher van de Venn studied mechanical engineering at the RWTH Aachen University, Germany. As research associate with the European Centre of Mechatronics at RWTH Aachen University he conducted research in the areas of industrial control systems, fluid technology, robotics, mechatronics and remote service. He obtained his PhD degree for his thesis entitled: Internet based remote diagnostics and servicing of machines and devices.

After 10 years of successful work in industry, he was nominated professor of mechatronics, automation and microsystems engineering and head of the microsystems engineering group at the University of Applied Sciences of Northwestern Switzerland (FHNW) in June 2000. Since 2006, Professor van de Venn is heading the Institute of Mechatronic Systems (IMS) at Zurich University of Applied Sciences (ZHAW). Apart from national research projects, his research activities focus mainly on international projects in different European Research Framework Programs. Between 2015 and the end of 2017, he was the coordinator of the EU-FP7 project RoboMate (www.robo-mate.eu). This project covered the development of the first exoskeleton for industrial applications and with it Professor van de Venn contributed to the creation of a start-up company in this field. In addition to his research and development activities, he teaches at different academic levels and participates in the planning and organisation of Bachelor and Master Curricula of the Swiss universities of applied sciences. He has given invited lectures at many national and international conferences (amongst others on all three international conferences on Industry 4.0 in Iran), has published one Book and has authored and co-authored more than 50 scientific papers.

As former president of the national technology platform, ManuFuture-CH, he represented the Swiss universities of applied sciences on a national and international level. At present, he is founding president of the Swiss Mechatronics Cluster (<u>www.swiss-mechatronics.ch</u>), which is a merger of industrial companies and universities from all over Switzerland on the subject of mechatronics and Industry 4.0.

Professor van de Venn currently extends his international collaboration beyond the European scope into the Middle East, Africa, East Asia, and the Commonwealth of Independent States amongst others as member of EPL (European Project Leaders' Network Society, <u>http://eplnet.org/</u>), which is a network of entities who are leading European RTD Projects.

Short description of current collaboration with Iran

- Good knowledge of Iranian culture and way of life Since 1990 married to an Iranian woman. Regularly visits of Iran from 1990 on.
- Sabbatical from March 1st 2017 to July 31st 2017 at Islamic Azad University (IAU) in Tehran (<u>http://iauctb.ac.ir/en</u>) and University of Tehran – College of Engineering (<u>http://ut.ac.ir/en</u>)

The IAU is the largest private university with various locations in Iran and the Middle East. It has the most students in Iran and is one of the largest universities in the world. Founded in 1982 by Ali Akbar Hashemi Rafsanjani, today it has about 1.7 million students. The university consists of more than 400 departments and branches in Germany and abroad and has about 30,000 lecturers and staff.

My sabbatical took place in the research and development department of the University, the Science and Research Branch of the Islamic Azad University (SRBIAU, <u>http://www.srbiau.ac.ir/en</u>) in the district of Hesarak of Tehran. The SRBIAU has around 50'000 students and a well-developed R & D infrastructure.

The University of Tehran (UoT), is Iran's oldest modern university. It is also one of the most prestigious universities in Iran. Based on its historical, socio-cultural, and political background, as well as its research and teaching profile, UoT is the symbol of higher education in Iran. It is ranked as one of the best universities in Iran in national and international rankings. It is also the premier knowledge producing institute among all OIC countries. The university offers 111 bachelor's degree programs, 177 master's degree programs, and 156 Ph.D. programs. During my sabbatical and afterwards (November 2017) I had different seminars and lectures about Industry 4.0 at College of Engineering of UoT.

Due to my sabbatical the School of Engineering, ZHAW signed a MoU with both, SRBIAU and UoT College of Engineering concerning mutual academic and cultural support which include the following issues, among others: joint educational and research activities, exchange of faculty members, researchers and students, sabbatical leaves, joint Scientific seminars and conferences, collaboration in the field of science & technology parks, etc.

• Industrial cooperation

Due to my sabbatical in Iran, I have ongoing collaborations and established contacts to following industrial companies and government agencies which are open to further collaboration:

- Iran Khodro (IKCO), Iran
- SAIPA, Société Anonyme Iranienne de Production Automobil, Iran
- TÜV Nord Iran
- Ministry of ICT (Information Technology Organization of Iran)
- National Iranian Gas Company NIGC
- ALUMROLL CO., Arak
- Mobin Casting, Arak
- Different SMEs in Tehran, Arak and Isfahan (like Zarin Iran Porcelain Industries)