

## LAUDATIO

Gary Burton Marquis – a Dean of the School of Engineering and a professor of Mechanics of Materials, Department of Mechanical Engineering, Aalto University School of Engineering. Tenured full professor.

### Childhood

Prof. Gary Burton Marquis was born in the small town of Wabash, Indiana, USA. His father had a degree in mathematics and physics and a long career in administration with the Airline Pilots Association but his mother - a sales manager for a large photo processing company and a facilities manager in Sandia National Laboratory in New Mexico (USA). Prof. G.Marquis admits that he has inherited some of his father's math and science skills and an ability to work with people from many backgrounds and to not be afraid to dare to try new things from his mother.

Prof. G. Marquis had a happy and active childhood, in high school he focused on wrestling but now he continues to be active by practicing yoga and taking long walks with his wife, Lily, and their two dogs.

### Education

In the high school prof. G.Marquis did well in math and science so studying engineering was a natural choice. In 1979 he obtained BSc degree in General Engineering in University of Illinois. In 1984 - M.Sc. degree in Mechanical Engineering in University of Illinois.

In 1988 Gary Marquis moved from USA to Finland and in 1995 obtained a doctoral degree in Mechanical Engineering in Helsinki University of Technology. Topic: "High cycle spectrum fatigue of welded components".

Following graduation, G.Marquis had periods of work as an engineer both between BSc degree and MSc degree and then again between MSc degree and DSc degree. During both periods of work, he encountered engineering questions that were not easy to answer and these drove him to continue an education and look for answers through study and research.

### Employment, leadership and memberships

Prof. G.Marquis academic career started in 1982 as he worked as Teaching and research assistant, Department of Mechanical and Industrial Engineering, University of Illinois, USA for 2 years. He was a Research Fellow in Department of Theoretical Mechanics, Silesian Technical University in Gliwice, Poland.

When Prof. G.Marquis moved to Finland, he was a Research Scientist in VTT Metals Laboratory in Espoo for 5 years and a Senior Research Scientist in VTT Manufacturing Technology in Espoo for 7 years.

Dr Gary Marquis has been a professor for more than 20 years. Seven years as Professor of Steel Structures at Lappeenranta University of Technology and the past 14 years at Aalto University. He was an affiliated professor at KTH Royal Institute of Technology, Sweden for four years, 2012-2015. He has also had short-term visiting professor assignments at École Polytechnique Fédérale de Lausanne, Switzerland and at Kyushu University in Fukuoka, Japan.

As a professor, dr. Marquis has experience as a university teacher for bachelors, maters and doctoral students. He has supervised 14 doctoral students from start to finish and more than 50 MS thesis students.

Dr. Marquis has written a large amount of publications, his field of research has been fatigue and fracture of materials and structures with special attention on the fatigue of welded structures subjected to complex variable loading. More than 30 Plenary and Keynote lecture given at international scientific and technical conferences and symposia.

From 2013 G.Marquis is also a Dean of the School of Engineering, Aalto University. The first 5-year term was completed in 2018 and he was reappointed by the Aalto University Board in 2018 for a second 5-year term after a detailed performance assessment.

As Dean of the School of Engineering at Aalto University since 2013, Professor Marquis has provided leadership and strategic oversight in all areas of the School's operational activities including undergraduate and graduate education, teaching and learning, staff and student wellbeing, research, impact, external stakeholder relations and quality management of the School. As Dean, Professor Marquis has been also a member of the President's Management Team since 2013. As part of the Aalto University quality management, Prof. Marquis has been arranged three visits of the international Scientific Advisory Board to the School (2014, 2016 and 2021).

Prof. Marquis joined The International Institute of Welding in 2000. He has been a chair of the commission on "Fatigue of Welded Components" and re-elected twice. In 2008 he was invited to join the Technical Management Board (TMB) of the Association which oversees all technical work done by the 22 technical commissions and working groups as well as overseeing the technical awards programme. In addition, the 2011 General Assembly elected Professor Marquis as a member of the Board of Directors of the association and, in 2014, he was elected as President.

From 2013 Professor Marquis has joined the Board of Directors of CESAER. He is also a Treasurer. In the summer of 2015, Prof. Marquis accompanied President Luyben of a site visit to Riga Technical University. RTU had applied to become a member of CESAER and the Board had just instituted the policy of including site visits as part of its membership procedures. They were impressed by the vision of RTU and the inspiring leadership of Rector Ribickis. RTU joined CESAER following the October 2015 General Assembly.

Professor Marquis has been a member of the Nordic Five Tech Committee since 2013 and has been chair on two occasions (May 2013 – April 2014 and May 2018 – April 2019). As Aalto academic lead in Nordic Five Tech, Professor Marquis coordinates actives of about 20 academic and service personnel who are involved in various education programmes, working groups or short term task forces.

From 2018 Gary Marquis is a Member of the World Cultural Council.

Gary Marquis has been a Doctoral thesis examiner or pre-examiner not only in Scandinavia, but also in South Africa, Austria, Denmark etc. He has been an editor of various scientific and industry journals and publications, funding application evaluator and quality auditor.

### **The title of RTU Honorary Doctor**

RTU would like to grant the title of RTU Honorary Doctor to Aalto University School of Engineering Dean and Professor Gary Marquis as he has contributed to RTU's strategic and international development and contributed to image building in the wider society, including:

- Gary Marquis is a foreign expert who has evaluated RTU, made proposals for further Strategic Development of RTU;
- Gary Marquis has supported and facilitated the inclusion of RTU in CESAER EFMD
- Thanks to Gary Marquis, the World Cultural Council awards ceremony was held at RTU in 2016;
- He has promoted RTU's active participation in the World Cultural Council and RTU's networking with world-leading scientists, including Nobel prize laureates;
- Gary Marquis has actively supported the cooperation between RTU Design Factory and Aalto University Design Factory;
- He has promoted cooperation between RTU and Aalto University and became a member of the RTU Council.