

About Gustaf Olsson

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Probably different from many authors in this book, I am not a control engineer, nor in any way related to the field of water research. I am an electrical engineer who came to know Gustaf when he hired me as a PhD student in 1989. I graduated with a MSc degree in electrical engineering from Chalmers in 1986, specialized in control of electrical drives, and had also a 'Licentiate degree' from Chalmers in 1989 when Gustaf approached me. Me and my family looked for a place in a smaller city than Gothenburg, and Gustaf's offer to let me continue my PhD education in Lund was a perfect opportunity in all respects.

Gustaf had in 1987 taken over the responsibility for a department in Lund named Industrial Electrical Engineering and Automation (IEA). IEA originated partly from another department named 'General Electric Power Engineering' (Swedish: 'Allmän elkraftteknik') that since establishing Lund University, Faculty of Engineering (in Swedish: Lunds Tekniska Högskola, LTH) had taken the responsibility for all 'electrical power'-related teaching at LTH. It was located in the Electrical Engineering building but moved to the Mechanical Engineering building when Computer Science and Mobile Communications grew, and merged with Industrial Electrical Engineering, led by Professor Hermann Helgesen. Hermann was struck by a brain tumor and when Gustaf Olsson, who had a professorship in Automation, took over the department from Herman, it was renamed as Industrial Electrical Engineering and Automation, the name it still carries – however today as a division, not a department. Since the department had a lot of responsibility for Electrical Power Engineering, and Gustaf had no specialty in that subject, he relied to a large extent on other senior staff to carry the teaching burden in electrical engineering subjects.

This is where it starts to become interesting. Here we have Gustaf alone, Herman died, responsible for a department where he was free to develop the topic of Automation according to his interests but also had to develop the electrical engineering part, not least electrical power engineering, and lift a slumbering level of research in this area. Gustaf realized that he needed to

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hire competence and reestablish a professorship with the main responsibility in electrical power-related topics. When proposing this to LTH the response was that Gustaf should be able to do this himself. At this stage Gustaf was able to document that he was not specialized in electrical power engineering and could not be expected to lead a scientific development in that area. Eventually, LTH granted the continuation of Herman Helgesen's professorship. Meanwhile, Gustaf had started to hire PhD students and seniors who developed the research topic of first electrical drives and later also electrical power systems engineering. This said, Gustaf did not just hand over the responsibility to the people he hired. Instead, Gustaf led the development of new and updated courses and course materials, hired and supervised PhD students and very much developed the area of electric power engineering, despite his documented lack of expertise in the subject. The reason that this could happen is very much the result of Gustaf's personality and attitude, and what I want to emphasize in this text about Gustaf.

When Gustaf retired, LTH arranged a day about him called the 'Gustaf Olsson Symposium'. I was one of the speakers and had to consider what to say. I concluded that it all boiled down to one word, 'enthusiasm'. That is the first word that came to my mind when I think about Gustaf.

This word 'enthusiasm' derives from the Greek words 'enthousiasmos', meaning 'inspiration or possession by a God' or from 'entheos' which means 'the God within', variations of interpretation depending on what source is used. To me this makes sense very much. As created by God, the creator who gives and energizes life, human beings feel joy and excitement in the creative process and are, when in that process, perceived as enthusiastic by others. The energy they possess, however, not measurable in any scientific unit, is contagious and spreads to anyone who comes near. After having known Gustaf for about 35 years, this is as much true for Gustaf today as it was the very first day that we met in 1987.

In his effort to blow life into research in the electrical drives area, Gustaf created an organization named 'the Electronic Motor Group' (Swedish 'Elektronikmotorgruppen') in the end of the 1980s, abbreviated EMG. This group was formed to engage anyone and everyone that in some way, industrially or academically, was related to electrical machines and drives. EMG (read: Gustaf) arranged annual meetings where invited speakers from as far as Japan presented a topic of common interest and the events attracted a lot of participation. I remember in several of those meetings thinking of the remarkable situation I was in. There were maybe 50 people gathered, almost all of them dealing directly with electrical drives, people who all must be considered as some kind of specialists in the topic area. There was also one who had documents proving that he was NOT a specialist in the topic of electrical drives – Gustaf. I was contemplating how it could be that among this relatively large group of specialists, that all considered EMG a good arrangement, the only one who had taken the initiative to organize something like EMG was Gustaf. It was very clear to me then, as it is today, that the energy and enthusiasm that Gustaf both possesses and radiates was the main driving force, that made all the participants come back, year after year. Of course, the selection of topic and speakers were important, but that was not enough to make EMG fly the way it

did. This is just one example of how Gustaf significantly contributed far outside what may be considered his scientific specialty.

When hired, I considered that the lab resources at IEA were unsuitable as a base for the research in electrical drives, that we were building. I designed a modular 'LEGO' system for electrical drives, not least for control purposes, that I presented to Gustaf. Without any hesitation, he showed me the confidence to spend time and money on building this modular system, most of it under one year but subject to continued development in subsequent years. It of course delayed my PhD studies a bit, something that is much more difficult to allow today's PhD students. Vital parts of the system are still being used in both teaching and research at IEA. This is another side of Gustaf that I appreciate a lot, the confidence that he shows and his ability to build self confidence in people around him.

The only time that I can recall that Gustaf showed some not so good judgement, was when he promoted me (during my PhD studies) to IT-responsible at IEA. He however quickly realized his mistake and I was never asked again.

As Gustaf's PhD student, later as a colleague (I applied for the professorship in Industrial Electrical Engineering in 1994 and was appointed) and as his friend, I have had the privilege to live and work near the seemingly endless source of enthusiasm that Gustaf is. What it has meant to me cannot be described in words. His wise advice, his personal consideration and his personality has affected my life to the better in so many ways. When I applied for the professorship that I have today, I did not consider myself suitable for the role, but saw the application as a chance to get my CV evaluated. When the shock I got after being appointed had settled a bit, I realized again that Gustaf believed in me more than I did, and his support along the way has always been invaluable. – Thank you, Gustaf!

I know that this text is published in a context mainly made by people who in some way related to Gustaf's work in the water area. Unfortunately, despite having spent so much time near Gustaf, his knowledge of water treatment has not proven contagious on me. I am just a novice in water science. I can only imagine how powerful Gustaf's energy and enthusiasm combined with his deep expertise in that field of science can be. It is obvious in his strategic roles in the International Water Association (IWA), as chief editor for Water Science and Technology, as a guest researcher and guest professor in many universities across the globe, author of numerous books etc. that his impact on the world and on a lot of people is enormous.

One of the impacts that Gustaf has made on me, is that I every day try to be enthusiastic about what I do. I notice that when I am, it affects people around me a lot more than my scientific knowledge and skills. This is a realization that I think applies to all of us. It is for me the most important legacy of Gustaf – to search inwards for my own driving forces, not limited to the scientific area that I am responsible for at LTH and share them with enthusiasm in every situation in life.

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