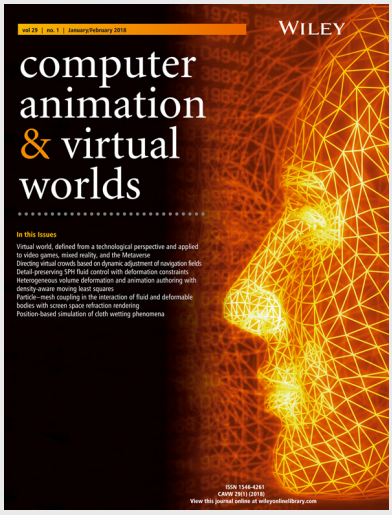
Meet

Prof. Angèle Reinders

Editor-in-Chief of The Power of Design: Product Innovation in Sustainable Energy and Photovoltaic Solar Energy: From Fundamentals to Applications (forthcoming)

Angèle l e e l ng nee ng e n l g n e en e n e e e l n n e ne g en e gn l e e l n l e gn ng nee ng el n e e n l g Angèle e n e e en e e e n e n e g n n e el en ene le ene g e n l g e n l e eene l ng e ehn n n e gn n l e n l ge n e ene le ene g e n l g e Angèle e n e le e e eg ee n e en l n e n e e e l e e e e l eg ee n



#inspirationalengineers

"When I was a young girl I already was interested in understanding nature, how things work and how you can make things work better. Also I liked to make or repair stuff. Later when I went to high school I loved maths as well as physics and chemistry, however in class it seemed as if my teachers mainly addressed boys. I didn't feel stimulated and dropped both physics and chemistry in. . . grade 3 and 4. Next when I graduated from high school I discovered that I actually liked to explore the beta domain at university, which was impossible . . . having finished high school without physics! Therefore I had to catch up in leisure time, and surprisingly I greatly enjoyed it. That much that I decided to study experimental physics at university. I earned my master's degree of Physics from Utrecht University (The Netherlands) by studying organic solar cells in the surface science lab. Next, I specialized in the field of solar energy and finished a PhD study at the Faculty of Chemistry of the same university by research on the performance of photovoltaic solar systems.

I believe I was mainly driven by the endeavor to understand how things work in combination with the intention to contribute to a sustainable society by means of my research. In my present job as an Associate Professor at the Faculty of Engineering Technology of University of Twente in the Netherlands, I still feel inspired on a daily basis by these two constant elements and I like to convey this inspiration to others, in particular to the students who I meet in my courses and who are pursuing a PhD under my supervision.

Apart from the intrinsic motivations, there's many interesting aspects of a job in Engineering; for example, international collaboration involving travel, contacts with colleagues and experiences abroad, and being challenged by large projects which can be very rewarding if completed successfully. Engineering isn't nerdy, it's actually very dynamic.

My work brought me to many places in the world, with long term stays in Germany, the United States, Indonesia and Canada leading to new knowledge, great experiences and friendships. In particular my project about photovoltaic solar systems in a remote area of Indonesia at the island Papua was very exciting. First of all, the travel distance was enormous. Secondly, the location in the tropical forest was amazing and thirdly, the impact of the solar project on the quality of local electricity supply was very satisfying for the end-users. Therefore, to girls in school and college I would like to say, please choose Engineering if you have a holistic view, i.e. if you like to apply technical knowledge to problems with a high usability factor. In the end you will have a challenging job and it will bring you everywhere!

In the Netherlands the share of female professors in Engineering is below 10%, as such the field is strongly dominated by male colleagues. This is a better situation compared to when I studied physics with a female participation of only 2% or less, however I dare to admit in public that the lack of gender diversity in Engineering affects the situation and the career path of women. It starts with simple things like the perception of the role of women. Surprisingly, at conferences, while my male PhD student is addressed as 'professor', while he hasn't achieved his title yet, I am being asked where the coffee and drinks are located, while I am the professor. . . it is quite hilarious!! :)

Apart from these personal experiences, we have access to facts and numbers, namely the statistics of how the careers of women develop and how this compares to male careers. Indeed, on an average the differences between male and female careers, salaries and responsibilities are relatively large in the Engineering domain. Actually it's a pity because a lack of gender diversity is equivalent to an inefficient use of human resources, which in the end can potentially decrease the quality of results of projects, organizations and companies. Therefore I would like to recommend employers in the Engineering sector to consciously consider their hiring policies and make sure that they involve sufficient numbers of women in positions with growth potential . . . using quota to be able to monitor progress. I try to contribute to this vision in my own way by always involving high quality women in my project teams and committees and by inviting special female authors to contribute to my book projects. I hope that this will help to make a change, hopefully in the nearby future."

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