My journey into Electrical Power Engineering

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How it started

- Fascinated by technology and how things worked
- Interested in repairing things myself
- Creative, innovative*
- Determined to be a professor at age 3
- Different interests than 'typical' girls

* For which I got punished a lot at pre-school
Barriers and motivators when growing up

- Already at early age I was socially frozen out by girls, because of technical and mathematical interests and skills, this continued up to now.
- Not only me, but also my mother and my sister, experienced difficulties since other women didn't agree with my choices and interest. However not my father.
- My mother has been my largest motivator, she inspired to:
  - be different
  - believe in myself
  - get a good education within something that you like!
  - follow your dreams
Barriers and motivators @Universities

- Only male teachers – some positive, but not all
- One of the lectures a teacher said that women were there just to find promising engineers they could marry
- Situation in 1988 - 4 girls between 250 guys
- Often first and the only girl
- Glad to have female students!
- Students and teachers who believe in you as a person
- Excursions to companies
- Interesting and relevant courses
- Practical experience
Which working environment would you prefer?

The 'typical' modern company

The 'typical' university – back to the 50's feeling
Barrier and motivators @Conferences

• Been to many conferences
  • The ones I didn't get invitations to share bed with some guy 50+, I probably can count on one hand…
  • The ones with more than 10% women I can probably count on one hand too…
• Message from exhibitors is unclear and this makes it more difficult for women at male dominated conferences

• Awards – best prize paper award
• Interesting topics
• Many nice and interesting people
Barrier and motivators @Work

- Always first and alone
- Denied carrier and jobs because of being a women
- International possibilities
- Interesting work
- Special programs for young people
- Nice colleagues

- Made a cultural environment change in 2000
Now

- Just for being me...(I hope)...
- With many female engineers
- Barriers – none
- Motivators - many

• Tried to recruit me for two years
• I said yes, when they got a special scholarship for female professor in technical area to be role model for young women
Situation at Swedish Universities – inside information

- Salary for female professors is significantly lower.
- It is not difficult to find qualified women, but there is a (male) bias that women are not suited for technology and there is an impression that women get systematically discriminated.

- Luckily there are men that are willing to fight for us, maybe more than we know/realise.
Situation for women in Sweden

- #tekniskfel - https://www.dn.se/ekonomi/kvinnor-iteknikbranschen-samlas-under-teknisktfel/

- https://www.dn.se/ekonomi/inifran-teknikvarlden-sexism-tafsande-och-valdtaktssang/

1.139 kvinnor har skrivit på uppropet #teknisktfel, mot sexuella trakasseringer inom teknikbranschen.

En av dem är civilingenjören Johanna Mannung, som berättar om våldtäktssånger på KTH, tafsningar och porr på jobbet och hur kvinnor undermineras.

- Jag har haft manliga kollegor som ingående argumenterat om hur mäns hjärnor är bättre lämpade för teknik.
Changes in culture are necessary

- **Private social culture**
  - Marketing of technical professions
  - More gender neutral commercials
  - Less stereotype building
  - More STEM at schools (under 12 y)

- **University culture**
  - More focus on SHE and HR
  - More focus on esthetics
  - More women as professors and role models

- **Conference culture**
  - Active even distribution of men and women
  - No 'sexy' women for advertising
  - Gender neutral entertainment
Important elements to improve

• The three culture aspects (social, school, conference, work)
• Salary
• Marketing of engineering
  • Electro technical engineering doesn't have an appealing image
• Work-life balance
  • Conditions for women to work and to have a balanced life
• Parents
  • They are key motivators
• Better and more active distribution of women and men on conferences and in teaching environment
• See to that universities have an attractive appearance and use modern technology and have an active HR and SHE focus
• Zero tolerance for sexual harrassment