



EH2221 The sustainable electric power engineer

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# Topic 1

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Today, I live in Stockholm but it is only a step. Not that it doesn't really matter but rather that it is as essential as the others in my life. I am currently in double degree in my sixth year of studies. And I chose that the latter would take place in Stockholm, at KTH in the master programme : *Power Electrical Engineering*.

First of all, I've been sensitive to the challenges of energy sector through several courses in my own school, personal readings and education. As my school could not allow me to get specialized in this field, then I decided to join a foreign university for my last year of studies. I chose Scandinavia for both the reputation of its education and its advance in renewable energies. My home school offered a double degree with KTH. I applied for this master program after having sifted through the large amount of available courses in several universities in which : Lund University (Lund, Sweden), NTNU (Trondheim, Norway) and KTH.

As I explained above, I needed a specialization in my curriculum, since my engineering school train students to be « general engineers » : they learn mechanics, mathematics, fundamental physics as well as economics, philosophy and ethics. This period in an engineering school follows generally two very intensive years in « preparatory classes » in which they acquire a sound knowledge base in mathematics and physics. Thus after four years of studies, they are only able to do calculations, to explain many phenomena in a global way. As a result, I hope to acquire this year :

- a deep knowledge in the sector of electricity (generation planning, electricity market, political and economical issues) ;
- a deep technical knowledge about power systems ;
- a clear overview of the future challenges in the overall energy sector (ecological ones, economical ones).

I am actually trying to shape this profile in order to fit with most of the interesting project that could face me in a near future (Master thesis, first job). By « interesting », I mean enriching from both the extra-professional life point of view - living in a different country, in a different way, discover new cultures - and professional point of view - get responsibilities in projects that are near and dear to my heart for instance. On a larger scale of time, this personal endeavour aims to be able to never miss any opportunities to blossom myself and contrariwise to be always able to say « No » to things that I deeply reject.

Since my arrival, I've been pleasantly surprised by the work pace on all time scales. First the repartition of personal work over the period/semester is completely different from what I'm used to, and according to me, smarter. Indeed, it is spread over the whole period and not concentrated on the last few days before the final exams. On the week scale, the balance between lectures/seminars and personal work allows time to absorb the content of each course. Lastly, on a small time scale, the lectures progress (45-minute lecture / 15-minute break) allows me to stay concentrated during the whole period of a lecture and reduces significantly my personal review time. By contrast, I'm quite annoyed by the time I spend on reports or oral presentations, which always exceeds amply (probably ten times) the time needed to solve problems. That time is a time that I



would spend on further readings. A time that I don't find in the week. Except this unique negative (but not marginal) point, I'm delighted by my first few weeks at KTH.