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Each person contributes to society with his actions either in a positive or in a negative way. It is commonly agreed that one of the main roles as human species is to try to maintain and improve our quality of life, living harmoniously with the natural environment and other species. For that reason, sustainability is one of the vital aspects that must characterize our activities on planet.

Generally, engineering plays a drastic role in our modern world by setting its future goals. Working as an engineer means that you have to come up with new ideas in order to address a problem. Sustainability is a very important aspect which each solution of a problem should contain it. More specifically, I think as an electrical engineering I can contribute to many ways to this direction since it is a field that is directly related to many environmental issues and thus it offers the opportunity to try managing them. As a first action, for me it is essential that the company I will work for is sensitive and aware of environmental issues and also has a generic strategy for designing sustainable developed products or services. Furthermore, working as an electrical engineer requires of critical thinking on trying using sustainable materials with high life cycle and finding ways on how to extract energy from clean resources in a cost-efficient way, as well as integrating them into a smart and adaptable electricity infrastructure.

In addition, technology can also contribute to a more sustainable designed electricity infrastructure. Super-computers can be used to solve optimization problems that require a lot of computational strength. These optimized solutions can be applied for gaining higher efficiency in each component, improving the overall efficiency of the system. Also, communication and internet infrastructures can be used to offer real time monitoring and control of different parameters of the system contributing to 'smart' power grids that can sustain longer. Technology can also be used in terms of testing the main materials that constitute the electrical components in the system. These tests include their impact on natural environment, life cycle costs but also investigations on finding cleaner substitutes.

As a person I already had some environmental awareness. I always try to find ecological products for my food. What I didn't know and learnt now is that there are also some clothing companies using exclusively ecological materials for fabricating their products. Ecological products do not demand tonnes of pesticides that causing water, ground and air contamination but also allow more variety of species for each product. Also, recycled biomass can be used as fertilizer fact that enhance the cost efficiency of the production and also maintains natural resources in phosphorous, sodium and other chemical substances. Furthermore, I had never thought commuting to school or work by train than other conventional means of transports can have such a large impact on reducing CO₂ emissions in a macro-level.

To conclude, the material that was offered from KTH during this topic assignment was considered as essential for acquiring basic knowledge about sustainability issues, ecological development and more reasonable usage of natural resources trying to cope with environmental issues. These are the first concepts that each engineer should have as a background in order to be competitive and useful to the society. Particularly, in my Master program KTH offers another mandatory project-course named Power Systems and Environment (EG2320) whose purpose is to study how the power system affects the environment and how electric power engineers can contribute to sustainable development. Additionally, KTH has established a general policy towards sustainability development in all departments.