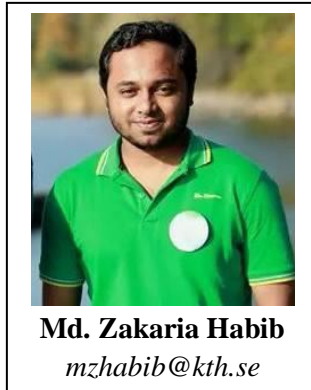


## TOPIC # 5



Sustainability is already a demanding issue in the present world. In my opinion it is going to be one of the most important challenges to meet especially for those who are going to serve as an engineer or a researcher as they are the people who work with the cutting edge ideas and technologies. The development has to be sustainable to ensure the real improvement. Otherwise it may seem a great achievement for the time being but not in the long run.

Electricity is one of the vital driving forces of modern civilization. Thus sustainability will be one of the most important issues in my future role as a power system engineer. From the very beginning, the rapid increase in electricity demand is fulfilled by introduction of new power plants. Typically most of them are fossil fuel based due to its various advantages. But the time has come to reduce the use of fossil fuel due to the certain fall in total reserve of this natural resource. Now to meet the increasing demand we need to go for the renewable sources. It is true that the renewable energy sources are not absolutely environment friendly, but the impacts are less compared to the fossil fuels based power plants. Power system engineers can play a vital role by introducing more solutions which are not only sustainable but also environment friendly. To do so, optimum efficiency and reliable integration of the renewable sources to the synchronous power grid must be confirmed. Lot of research is going on to improve the efficiency of solar panels and wind power plants as well as to confirm the reliability of the electric power system. I would like to be a part of the research and thus contribute to the sustainability of the society.

It is equally important to practice sustainability in daily life and to implement in the working field. The course material not only teaches us about the sustainable development but also make us realize the importance of it in a very efficient way. It helps us to understand that sustainability can't be achieved completely if we don't practice it in daily life. We can do a huge contribution to the sustainable development by avoiding the activities or products which does not have sustainability. It will also influence to widen the horizon of the market of sustainable products.

There is a complete conceptual similarity between the course material and what we study in KTH. Both The course material also emphasizes the role of a person to the sustainable development which is one of the goals of this course in KTH. The course material also motivates the practice of sustainability in the organization which is totally being practiced here in KTH. For example this course is mandatory to all students in the Masters program in Electric Power Engineering and there is another mandatory course with the title "Power Systems and Environments". Both of these courses focus on building awareness to the future engineers to the sustainable development. From this, the alacrity of KTH to develop sustainable engineers is well established.