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## **M2PL-01: Electric and Hybrid-Electric Aircraft: A Pragmatic View**

*Tuesday, July 23, 2019 8:15 AM (45 minutes)*

The number of flights is growing each year by 5% and consequently its environmental footprint. Be it CO<sub>2</sub>-, NO<sub>x</sub> or noise emissions - the aviation industry is dedicated to hunt the demons of its own success and bring them down by roughly 80 % until 2050. One broadly communicated and advocated way to achieve these goals is by means of electric and hybrid-electric propulsion. Without doubt, replacing conventional drive trains with electric ones can help to reduce local emissions and overall energy consumption in aviation just as in other applications. However, largely due to the large hype around this technology and a 1-to-1 analogy transfer from the automotive industry, there are several misconceptions around it. In my presentation I will address major points, present challenges connected to those and how to give an outlook on further solutions. The potential impacts of superconductivity and cryogenics will be discussed.

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