- AEI Talks 2018 -

Friday June 8th, 2018

8:30-11:30 Aula Seminari piano E

13:30-15:30 Aula seminari piano E

Compressed Air Systems and their Efficiency

Mr. Carl Wouters (Atlas Copco Airpower n.v.)

Atlas Copco is the world leader in Compressor Technology. This talk will give an insight in the Research and Development of a global industrial player with a detailed focus on developing energy efficient systems.

Within the first section of the lecture an overview is given on the performance characteristics of the different types of compressors. A detailed look is presented on what the effect is of core components on the total efficiency of the product.

Atlas Copco is currently going through a digital transformation within all of its entities and processes. This section of the lecture will give an insight on the changes we are implementing within the Model Based Engineering community to deeply integrate in the whole product lifecycle to develop even more efficient products in an efficient way. Watch out, because buzzwords like "Digital Twin" and "Industry 4.0" will be used.

The last section will consist of a deep look into compressed air system losses due to sub-optimal system design one of which are the losses due to the multiple control strategies. The compressed air industry is developing measurement methodologies to capture these losses and a first draft will be presented.

The lecture will end with a visit to a real compressor in the lab to further explain the effects of possible transient losses.

Short Biography

Mr. Carl Wouters is Team leader Process, Tools and Modularity at Atlas Copco Airpower in Belgium within the Airtec division headquarter. Atlas Copco is an industrial group with world-leading positions in products and services that deliver sustainable productivity. The Airtec division is the Atlas Copco Compressor Technique University with a strong focus on compression technology and specialized engineering services. Mr. Carl Wouters studied Elektromechanical Engineering at the university of KULeuven and started his carreer in Atlas Copco Oil-free division as a Design Reviewer.

The talks are addressed to the students of Industrial Electrical Drives (3 ECTS, Energetics track- Electrical Engineering Master Degree, prof. Norma ANGLANI), but it is open to whom may be concerned