# Alaa Farhat Noureddine
Mechanical Engineer
Ved Lindevangen 8, 2000
Frederiksberg
e-mail: alaa@farhat.dk
Tel: 53341433

## Profile

Broad engineering experience including project management.

Specialist in sustainable energy

Specialist in operations research for decision taking and general workflow optimization.

Advanced Computing Skills

## Languages
French and English (Professional),
Danish (C1 Level),
Spanish (Beginner)
Arabic (Native)

## Certifications
Deep Neural Networks with PyTorch, IBM
Machine Learning, IBM
WindPro, EMD

## References
Teemu Rekonen, Head of Design and Innovation Rockfon

Assaad Zoughaib, Professor, MINES ParisTech - Ecole des mines de Paris

## Experience

### Freelance Engineering Consultant – Sep. 2019 – Current
Advising Kvadrat Soft Cells A/S in completing one of their projects in morocco.
Studying data science techniques for implementation in engineering projects.

### Engineer at Kvadrat Soft Cells A/S, Denmark – Dec. 2017 – Sep. 2019
Design, production, and procurement of components for acoustic panels. Coordination with third-party reviewers for design and specifications validation. Site supervision and coordination with on-site architects and engineers.

### Freelance Researcher – Jan. 2016 – Nov. 2017
Worked on publishing scientific articles related to energy integration in industrial processes and implementing improvements to my PhD thesis. (Jan. 2016-Nov. 2017)

Establishing a cafe/bar in Copenahgen.

### Research Engineer (PhD Thesis) at Mines ParisTech, France and Lebanese University, Beirut – Feb. 2013- Dec. 2015
Design and implementation of a computerized techno-economic optimization methodology that assesses differetn energy recovery or production systems to improve the energy efficiency of industrial eco-parks.

Exploring mathematical optimization techniques to develop a generic algorithm that is able to be amended according to the case study in hand.

Collaboration with leading French industrial partners to apply and validate the methodology on actual cases that integrate different heat and power production technologies.

### Mechanical engineer at Dar al-Handasah, Lebanon – Jul. 2008-Jan. 2013
Feasibility studies and proposals for renewable energy and infrastructure projects.

Detailed design and calculations for infrastructure projects such as district cooling and heating networks and pumping stations.

## Education
PhD in Energy and Processes - Dec 2015
Mines ParisTech, Ecole nationale supérieure des mines de Paris, France.

Masters in Renewable Energy - July 2012
Lebanese University, Lebanon.

Master of Sciences - Sep 2008 and Bachelor of Sciences- July 2007
Mechanical Engineering, University of Balamand, Lebanon

## Publications
Site wide heat integration in eco-industrial parks considering variable operating conditions. Computers and Chemical Engineering, 2019

Heat and power integration for industrial parks: An exergy and economical based assessment for a harbor industrial area ECOS 2018.

A new methodology combining total site analysis with exergy analysis. Computers and Chemical Engineering, 2015

Heating and cooling networks design algorithm for site wide energy integration, Ecos 2015