

# Marwan Mohamed Refaei

Aerospace and Aeronautical engineer

## STUDENT ACTIVITIES

4P Team\_Helwan UniversityFundraiser. (2015-2016)

Enjad \_ Helwan UniversityFundraiser. (2016-2017)

**Resala Charity Organization**Fundraiser & Math teacher for

Resala's students.(2016-2017)

**UDC Team\_Cairo University** 

Team member in UDC lap after earning the 2nd place in UDC competition.

 With the UDC lap I have participated in designing and manufacturing many small UAV planes. (2017-2018)

SSTL Team\_Cairo University

Team member in SSTL lap at aerospace department.

With the SSTL lap I have participated in designing and manufacturing a small scale space rover & a small cube satellite. (2018-2019)

#### **EDUCATION**

**2015 - 2016** Fa

Faculty of engineering Mataria branch, Helwan University

I had a high grade (91%) and was the 2nd in the ranking that year ,so i had the chance to transfer to the faculty of engineering, Cairo

**University (Aerospace department)** 

2016 - 2020

Faculty of engineering Cairo University(Aerospace Department)

CUMULATIVE GRADE

Very good (80.25%)
The fifth in the ranking.

THE POSITION
ON
RECRUITMENT

RESERVE OFFICER, FIRST GROUP

The beginning of service in the army on 7/11/2020

## **CERTIFICATES**

2016

Achieved the 2nd place in unmanned Aerial systems Development Center(UDC) annually competition.

The goal of this competition is to design, manufacturing and flying a small UAV plane made of blue foam and the team which achieve the least time with the highest payload in two full cycles will win.

Achieved the 2nd place

2017

Achieved the 1st place in the (Technical Center for Career Development)TCCD's competition at Faculty of Engineering, Cairo University

The core of this competition is that there are more than 100 teams from different engineering departments including; Aerospace, Biomedical, Computer, Electrical power and Mechanical Departments with different topics are presenting their work in different real-life applications based on mathematical concepts through oral and poster sessions.

We have chosen to talk about "The Traveling Salesman Problem" through our scientific reports, posters as well as simulation results we achieved the 1st place.

2020

Holding the associate degree in solidworks software after Passing the Certified Solid work Associate(CSWA) Exam.

I have gained a great experience in Solid work software which helped me to enter the community of the solid work professionals. Credential ID: C\_SPVCK6T2YZ

#### CONTACT

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#### GRADUATION PROJECT

**2020** 

#### **DESIGN AND MANUFACTURING A** COMPOSITE FLYING WING PLANE WITH **CARBON FIBER (EXCELLENT GRADE)**

In this project all my tasks were about working at Ansys workbench, solidworks and the manufacturing process.

The software tasks were in two ways:-Static structural and ACP(pre) for structure Fluent for (CFD) and for Fluid Structure interaction in one way.

Making the solid work designs and import all these designs to Ansys for initializing all the required structural and aerodynamic analysis and enter the loop of modification in the design.

After finishing all the design works I participated in the manufacturing process with my team.

### SOFTWARE SKILLS

**SOLIDWORKS ANSYS** CAESAR II (self study) **FEMAP** CATIA MATI AB FLUID SIM **ARDUINO** 

## SUMMER TRAINING

- EGYPT AIR (1 month 2017)
- Petroleum Air Services (PAS) (1 month 2018)

#### **COURSE**

To 18/9/2019

To 4/11/2020

From 28/7/2019 BASIC INDOCTRINATION UNDERGRADUATE **AERONAUTICAL ENGINEERS PHASE I & II EGYPT AIR** 

From 27/9/2020 Had 12 week sessions about all the aircraft systems and studied the details of how the turbofan engines work and how to troubleshoot any failure in the engine systems.