

# Islam A. Mansour

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## PERSONAL STATEMENT

An open-minded, highly motivated and hard-working individual, who is a fresh graduate with excellent academic achievement alongside professional experiences. The eventual goal is to become an experienced space engineer based on a combination of experience in both academia and industry, with a passion for a lifelong learning

## EDUCATION

### Istanbul Technical University, Istanbul, Turkey

- Bachelor of Science (B.S.) in Astronautical Engineering Sep 2014 – Feb 2017
  - Relevant Coursework: Spacecraft Systems Design, Rocket Propulsion, Space Environment, Spacecraft Communications, Attitude Determination and Control, Orbital Mechanics, Numerical Methods, Linear Algebra
  - Graduation Project: Design and Analysis of a Modular CanSat Rocket
  - Honour List.
  - Cumulative GPA: 3.38 / 4.00

### Brno University of Technology, Brno, Czech Republic

- Erasmus+ Exchange Programme Sep 2015 – Feb 2016
  - Cumulative GPA: 3.67 / 4.00

### Cairo University, Cairo, Egypt

- Undergraduate Student (transferred to Istanbul Technical University) Sep 2011 – Jun 2014
  - Cumulative GPA: 3.42 / 4.00

### Industrial Technical Institute Matria, Cairo, Egypt

- Diploma of Associate Engineering (D.A.E) in Building and Construction Sep 2009 – Jun 2011
  - Percentage: 95.77%

## WORK EXPERIENCE

### Turkish Technic Inc., Istanbul, Turkey

- Aircraft Maintenance Support (Intern) Aug 2016 – Sep 2016
  - Worked in a maintenance management services team
  - Coordinated of maintenance managements in the TRAX Maintenance Software
  - Ensured and maintained updates of Aviation Regulations

### Space Systems Design and Testing Laboratory, Istanbul, Turkey

- Rocket Designer (Intern) Jul 2016 – Aug 2016
  - Designed & analysed of a modular CanSat rocket
  - Developed MATLAB codes to improve simulations
  - Optimised the rocket structures from available local materials

## RESEARCH EXPERIENCE

### Institute of Space Systems (IRS), University of Stuttgart, Stuttgart, Germany

- On-Orbit Manufacturing Participant, Space Station Design Workshop 2016 Jul 2016 – Jul 2016
  - Project: Participated in a week-long workshop to design a space station in cis-lunar space from a three operation phases start from the year 2025, which provide capabilities of a future base of on-orbit manufacturing as a platform for deep space exploration
  - Supervisor: Prof. Dr. Reinhold Ewald

### Space Systems Technology Laboratory (SSTL), Cairo University

- Undergraduate Research Student, Aerospace Engineering Department Dec 2012 – Jul 2014
  - Project: Control & Design of Can-SAT, ROVER, Quad-copter, Rocket.
  - Supervisors: Prof. Dr. Mohammed Khalil Ibrahim
  - Focus: Can-Satellite, Quad-copter, ROVER, Rocket, Embedded Systems.

### Aeronautical System Technology Lab (ASTL), Cairo University

- Summer Intern, Aerospace Engineering Department Jun 2013 – Sep 2013
  - Project: Additive Manufacturing Trends in Aerospace and RC Flight Training
  - Focus: RC Flight Training, CNC Machine, Laser Cutting Machine, Composite Forming Techniques.

### Unmanned Aerial Systems Development Center (UDC), Cairo University

- Student Participant, Aerospace Engineering Department Nov 2012 – Apr 2013
  - Project: Fabrication & Flight Testing of an RC Aircraft
  - Focus: A simulated Remote Control, RC Aircraft

**PROJECTS****Spacecraft Systems Design, Istanbul Technical University**

- Undergraduate Research Student, Aerospace Engineering Department Feb 2016 – Jun 2016
  - Project: Designing a Virtual Reality Cube-Sat
  - Determined all the orbital elements for Sun-synchronous orbit
  - validated Gyro, Magnetometer & GPS measurements for Attitude Control based on 3 Magnetorquers
  - Supervisor: Prof. Dr. Alim Rüstem ASLAN
  - Focus: System Engineering, Attitude and Orbital Control Systems, Spacecraft Design

**AWARDS & SCHOLARSHIPS**

- Ranked 1st team during SSDW2016, Institute of Space Systems, University of Stuttgart Jul 2016  
Design space station for deep space exploration
- Erasmus+ Scholarship, Istanbul Technical University Sep 2015  
For attaining a high GPA & English language exam
- Participation of University Rover Challenge 2014, Ranked 9th, Mars Society, USA May 2014  
Design and build the next generation of Mars rovers
- Third Iran Cansat Competition, Ranked 7th 2013  
Astronautics Research Institute of the Iranian Space Research Center, Iran  
Atmospheric Sounding Mission Category
- Certificate of Appreciation, American University in Cairo, Egypt 2012  
For the Distinguished Efforts in the Third Annual Cairo Science Festival

**PROFESSIONAL AFFILIATIONS & ACTIVITIES****The American Institute of Aeronautics and Astronautics (AIAA)**

- Member 2015 – Present

**The Space Generation Advisory Council (SGAC)**

- Member 2015 – Present

**The Astronomical Society of Mahmoud Mosque (ASMM), Giza, Egypt**

- Member 2009 – 2015

**CAMPUS ACTIVITIES****İTÜ Rocket Team, Istanbul Technical University**

- Undergraduate Research Student, Aerospace Engineering Department Aug 2015 – Dec 2016
  - Project: Designing a Solid Rocket for the Intercollegiate Engineering Competition.
  - Focus: Rocket, Design, Control Unit.

**Science Communication, American University in Cairo, Egypt**

- Volunteer Nov 2011 – Aug 2012
  - Participate in events such as Family Science, Star Gazing, Cairo Science Festival.

**OTHER WORK EXPERIENCE****K vector Foundation, Cairo university, Egypt**

- CEO, Academic Division Head Dec 2011 – Aug 2012
  - The aim to build a total Egyptian car's factory.
  - Providing workshops for engineering students to polish their experience.

**COMPUTER SKILLS**

- Programming
 

Matlab: Proficient	C/C++: Intermediate	LabVIEW: Basic	Mathematica: Basic
C#: Basic	Python: Basic	µC Programming: Basic	
- Web design
 

HTML: Intermediate	Adobe Dreamweaver: Intermediate
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- Finite element analysis
 

ANSYS Mechanical APDL
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- Aerospace
 

Basic knowledge of XFOIL, Java Astrodynamics Toolkit, Systems Tool Kit (STK)
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- Software
 

T <sub>E</sub> X	X <sub>L</sub> A <sub>T</sub> E <sub>X</sub>	Microsoft Office	Adobe Photoshop	Adobe Acrobat Pro
AutoCAD	SolidWorks	CATIA	Adobe Illustrator	CorelDRAW
- Operating system
 

Linux: Ubuntu & Mint	Windows: 10
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- SKILLS** Open-minded, Self-learning (Software Defined Radio, Designing PCBs, SMD soldering), Teamwork, Management, Creativity, Critical Thinking, Work Hard Under Pressure, Analytical Thinking, Flexibility
- LANGUAGES**
- Arabic: Native language
  - English: Fluent
  - Turkish: Intermediate
- RESEARCH INTERESTS** Spacecraft Control, Control Engineering, Spacecraft Design, Robotics and Control, Orbital Mechanics
- INTERESTS** Amateur Astronomy, Amateur Radio, Digital photography, Radio Astronomy, Swimming
- REFERENCES**
- **Prof. Dr. Alim Rüstem ASLAN**  
Professor & Head of Space Systems Design and Test Laboratory  
Istanbul Technical University  
Faculty of Aeronautics and Astronautics, ISTANBUL 34469, Turkey  
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  - **Prof. Dr. Mohammed Khalil Ibrahim**  
Professor & Head of Aerodynamics Group  
Cairo University  
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[CV compiled on 2017-05-16 for Chalmers]