### CURRICULUM VITAE

### PERSONAL INFORMATION

First name(s) Surname(s) MOSTAFA ESSAM LOTFY ORBAN

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Nationality Egyptian

Date of birth 26/10/1992



• Dates 08/2016 – today

Name of the employer
 Banha University, shoubra faculty of engineering

• Type of business Governmental university

Occupation or position
 Teaching and research assistant at the mechanical department, BANHA university

• Dates 05/2013 - 07/2016

Name of the employer
 Algharbia factory for animals' food industry

Type of business Animals food industry

Occupation or position
 Manger of the R&D department of the company

**EDUCATION AND TRAINING** 

• Dates 09/2018 ~

 Name and type of organization providing education and skills

Principal subjects

Xi`an Jiaotong University – School of Mechanical Engineering

I am working on Research supported by The National Key Research and Development Program of China under Grant 2017YFB1300303. The project is focusing on 3 directions

- 1- rehabilitation robot (design and control exoskeleton)
- 2- machine-human interaction we run the work depending on EMG and EEG signals
- 3- design and control smart wheelchair-using brain-computer interaction

My specific job was on classifying the sEMG signals form forearm and controlling prosthetic

Publications

- 1- An approach for pattern recognition of four hand gestures based on sEMG signals. This paper is published in the (ICCR 2019) conference held in Korea in December 2019, under IEEE organization and indexed with (EI compendex and Scopus) it published
- 2- a precise control method on prosthetic hand using sEMG signals. This paper is submitted to the 10th Annual IEEE International Conference on CYBER Technology in Automation, Control, and Intelligent Systems (IEEE-CYBER 2020). 13-17 Jul 2020; Xian, IEEE organization and indexed with (EI compendex and Scopus) it submitted
- 3- The Comparison between the Highest Flow rates Heat Transfer Fluids in Space Heating Systems 2nd International Symposium on Advanced Measurement, Analysis, and Control for Energy and Environment (AMACEE2019)



4- The Effect of Using Different Heat Transfer Fluids in Space Heating Systems
Using Solar Energy2nd International Symposium on Advanced Measurement, Analysis
and Control for Energy and Environment (AMACEE2019)

### Conferences/Training

- 1- Chines Egyptian conference in Egypt 2016
- 2-2019 2nd International Conference on Control and Robots, South Korea.
- 3-2nd International Symposium on Advanced Measurement, Analysis, and Control for Energy and Environment (AMACEE2019)
- 4-The 51st special training for the development of science and technology of the IKCAST Silk Road Project.
- 5- The 53rd special training for the development of science and technology of IKCAST Silk Road Project.
- 6- Summer camp of "dream the Silk Road, taste the cutting edge of science and technology" in 2019.
- 7- 2019 SILK ROAD YOUTH INTERNATIONAL STUDENTS ENTREPRENEURSHIP CAMP.

#### Awards

- 1-the first student for the university for 5 years for banha university
- 2- "2019 Shaanxi Provincial Scholarship for Excellent Foreign Students "Sangin Scholarship"
- 3- Excellent postgraduate Student for 2018-2019 of Xian Jiaotong university"
- 4- an honorary ambassador for Xian Jiao tong university international students.
- 5-"Pacemaker to Excellent postgraduate student Xi`an Jiaotong University
- 6-首届西安交通大学留学生消防安全知识竞赛

## **Projects**

## **Graduation project:**

(ROV) remotely operated underwater vehicle was fully funded for research scientific academy with excellent grade

## Research assistant in the MSL projects:

- 1-Manufacturing and control (ROV)
- 2-Manufacturing and control of Serial manipulator
- 3-Manufacturing and control of Parallel manipulator
- 4-Manufacturing and control of Cartesian 3D printer
- 5-Manufacturing and control of Delta 3D printer
- 6-Manufacturing and control of 3axis CNC machining
- 7-Control prosthetic hand using sEMG signals

# PERSONAL SKILLS AND COMPETENCIES

MOTHER LANGUAGE ARABIC

OTHERS LANGUAGES

**ENGLISH** 

Writing EXCELLENTSpeaking EXCELLENT

SOCIAL SKILLS AND COMPETENCIES

Experience working in a multinational environment. Proficiency in several languages.

ORGANIZATIONAL SKILLS AND

COMPETENCIES

Teamwork: I have worked in various types of teams from research teams to national Fekra team presenter and head of PR team from 2013 to 2016 and I was ahead for families sector on shoubra faculty of engineering union, in china, I am an international ambassador for Xian

Jiaotong university

TECHNICAL SKILLS AND

COMPETENCIES

PYTHON LANGUE, LAB VIEW, AND MATLAB, ARDUINO, HAVE A FEW BITS OF KNOWLEDGE TO DEAL WITH ROBOTICS OPERATING SYSTEM (ROS), SEMG SIGNALS ACQUIRING AND PROCESSING

PROGRAMMING:

CAD: AUTOCAD, UG NX, SOLIDWORKS

CAE: ABAQUS, Ansys.

TOPOLOGY OPTIMIZATION: TOSKA ABAQUS. SIGNAL PROCESSING, SIGNAL ANALYSIS

HOBBIES ROWING, FOOTBALL AND RUNNING