

## Abdalla Elgammal | Curriculum Vitae

Benha Faculty of Engineering, Benha university, Egypt  
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**Date of Birth** 9 March 1988

**Nationality** Egyptian



## Education

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**Egypt-Japan University of Science and Technology (EJUST),**

*Ph.D.*

**Mechatronics and Robotics Engineering Department**

**Egypt**

2014 - 2017

*thesis: Design, Dynamic Modeling and Control of a Novel 3D Compliant Pantograph Manipulator for micromanipulation*

**Egypt-Japan University of Science and Technology (EJUST),**

*M.Sc.*

**Mechatronics and Robotics Engineering Department**

**Egypt**

2012 - 2014

*thesis: Intelligent Control of Magnetically Levitated Camera For Endoscopic Surgery*

**Benha Faculty of Engineering (B-FENG), Benha University,**

*B.Sc.*

**Control - Electrical Engineering**

**Egypt**

2004 - 2009

## Academic Appointments

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**Electrical Engineering Department**

**Benha Faculty of Engineering (B-FENG), Benha University,**

Assistant professor

**Egypt**

2018 – present

**Mechatronics and Robotics Engineering Department**

**Egypt-Japan University of Science and Technology (EJUST),**

Former Ph.D student

**Egypt**

2014 - 2017

**School of Creative Science and Engineering**

**Waseda University, Tokyo**

Visiting research fellow

**Japan**

2016 - 2017

<b>Electrical Engineering Department</b> <b>Benha Faculty of Engineering (B-FENG), Benha University,</b> Assistant Lecturer	<b>Egypt</b> 2014 - 2017
<b>Mechatronics and Robotics Engineering Department</b> <b>Egypt-Japan University of Science and Technology (EJUST),</b> Former M.SC student	<b>Egypt</b> 2012 - 2014
<b>The first Egypt-Japan workshop on practical education for mechatronics and robotics,</b> Volunteering work <i>Organized by Mechatronics and Robotics Engineering Department, Egypt-Japan University of Science and Technology, E-JUST, supported by STDF and JSPS</i>	<b>Egypt</b> March 22-26, 2014
<b>Electrical Engineering Department</b> <b>Benha Faculty of Engineering, Benha University,</b> Demonstrator	<b>Egypt</b> 2009 - 2012
“Tech Planet center”, Cairo Instructor	<b>Egypt</b> 2009 - 2010

## Teaching Experience

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<b>Signal and systems</b> <i>Lecturer, spring 2019, 2020</i>	(B-FENG)
<b>Robotics</b> <i>Lecturer, spring 2019, 2020</i>	(B-FENG)
<b>Robotics Controllers,</b> <i>Post-graduate, Spring 2019, 2020</i>	(B-FENG)
<b>Computer Programing A</b> <i>Lecturer, fall 2018</i>	(B-FENG)
<b>Computer Applications A</b> <i>Lecturer, fall 2018</i>	(B-FENG)
<b>Electric Engineering and circuit analysis A</b> <i>Lecturer, fall 2018</i>	(B-FENG)
<b>Electric machines</b> <i>Lecturer, Fall 2017</i>	(B-FENG)
<b>Computer Programing B</b> <i>Lecturer, Spring 2017</i>	(B-FENG)
<b>Computer Applications B</b> <i>Lecturer, Spring 2017</i>	(B-FENG)
<b>Electric Engineering and circuit analysis B</b> <i>Lecturer, Spring 2017</i>	(B-FENG)
<b>Control Engineering I, II</b> <i>Teaching Assistant, Spring 2009-2010</i>	(B-FENG)
<b>Biomedical Engineering</b> <i>Teaching Assistant, Spring 2009-2010</i>	(B-FENG)
<b>Power system protection</b>	(B-FENG)

Teaching Assistant, Spring 2011-2012

**Electronic measurements**

(B-FENG)

Teaching Assistant, Spring 2011-2012

## Work Experience

### Arab Contractors

Operations and Maintenance Engineer

**Egypt,**  
2009- 2010

**Alex-Converta company "HANDY",**

Operations and Maintenance Engineer

**Egypt,**  
2009- 2010

## Funded Research Grants

<b>Project 1:</b> Remote center of motion (RCM) Manipulator for Vitreoretinal Surgery	150,000 LE
<b>Project 2:</b> Design of a 3U Cubesat Structure and its Deploying Mechanism	75,000 LE
<b>Project 3:</b> A Novel Hybrid Aerial and Ground Hoverbike: Dynamics and Control	30,000 LE
<b>Project 4:</b> Solar Powered Vending Machine	10,000 LE

## Student Advising and Mentoring

### Graduation projects .....

1. Solar powered vending machine
2. Dynamic modeling and control of quad copter
3. Design of a 3U Cubesat Structure and its Deploying Mechanism

## Languages

- Arabic (Native language)
- English International TOEFL 82 IBT.

## Publications and patents.

### Journals .....

[J1] **Elgammal, A. T.**, Fanni, M., & Mohamed, A. M. (2017). Design and Analysis of a Novel 3D Decoupled Manipulator Based on Compliant Pantograph for Micromanipulation. *Journal of Intelligent & Robotic Systems*, 87(1), 43-57.

[J2] Lashin, M., **Elgammal, A.T.**, Fanni, M., Mohamed, A.M. and Miyashita, T., 2018. *Optimal controller design for fully decoupled 3D transnational pantograph manipulator for high-speed pick and place*. International Journal of Mechatronics and Automation, 6(4), pp.160-172.

### Conferences .....

[C1] M. Gaafar, M. Magdy, A. T. Elgammal, A. El-Betar and A. M. Saeed, "Development of a New Compliant Remote Center of Motion (RCM) Mechanism for Vitreoretinal Surgery," 2020 6th International Conference on Control, Automation and Robotics (ICCAR), Singapore, Singapore, 2020, pp. 183-187, doi: 10.1109/ICCAR49639.2020.9108005.

[C2] Abdullah.T Elgammal, Mohamed Fanni, Manar Lashin, Mahmoud Magdy and Abdelfatah Mohamed, "Parametric Design and Analysis of a New 3D Compliant Manipulator for

Micromanipulation", 2017 IEEE International Conference on Advanced Intelligent Mechatronics.

[C3] Elgammal, A. T., Fanni, M., Lashin, M., Mohamed, A. M. (2016, April), "Dynamic modeling and robust motion control of a 2D compliant pantograph for micromanipulation", in 2016 2nd International Conference on Control, Automation and Robotics (ICCAR), (pp. 159-164) IEEE, 2016.

[C4] Magdy, M., Fanni, M., Elgammal, A. T., & Mohamed, A. M. (2016, April). New fully decoupled manipulator with three translational motion for pick and place applications. In Control, Automation and Robotics (ICCAR), 2016 2nd International Conference on (pp. 258-262). IEEE.

[C5] Elgammal, A.A.Abouelsoud, and S. Assal, "Fuzzy logic-based gain scheduling of exact feedforward linearization controller for magnetic ball levitation system," in '10th International Conference on Control' United Kingdom Automatic Control Council (UKACC)

[C6] Manar Lashin, Abdullah T. Elgammal, Ahmed Ramadan, A. A. Abouelsoud, Samy F. M. Assal and A. Abo-Ismael, "Fuzzy-based Gain Scheduling of Exact Feed Forward Linearization Control and Sliding Mode Control for Magnetic Ball Levitation System: A Comparative Study", 2014 IEEE International Conference on Automation, Quality and Testing, Robotics AQTR 2014- THETA 19th edition , Cluj-Napoca, Romania, May 22-24 2014

#### Patents.....

[P1] "Hoverbike has Two Systems Aerial and Ground" by Dr. Abdullah Elgammal and Dr. Manar Lashin, filling no 1007/2020, Date:12/07/2020 Place: Egypt.

[P2] "Novel 3D Translational Pantograph Manipulator" by Mohamed Fanni, Eng. Mahmoud Magdy, **Abdalla Elgammal** and Manar Lashin Filling number: 518/2016 , Date:27/03/2016 Place: EGYPT