



# Ahmed Fouly Anwer Mohammed, Ph.D.

*Assistant Prof. of Production Eng. and Mech. Design*

## Personal Informations

Date of Birth 1 August 1987  
Nationality Egyptian  
Status Married & have two kids  
Military Exempted

## Research Interest

- Mechanical Design and Production Engineering.
- Microelectromechanical System Technology (MEMS).
- Material Science.
- Tribology.
- Fluid Power Control Systems (Hydraulics).
- Automatic Control.

## Education

- 2014–2017 **Ph.D.**, *Mechatronics and Robotics Department, School of innovation Design, Egypt-Japan University of Science and Technology, Ph.D. in Mechatronics and Robotics Engineering.*
- 2010–2013 **M.Sc.**, *Production Engineering and Mechanical design department, Faculty of Engineering, Minia University, M.Sc. in Production And Design Engineering.*
- 2004–2009 **B.Sc.**, *Faculty of Engineering, Minia University, Egypt, Distinction with honours.*  
B.Sc. in Production Engineering and Design.  
**Graduation Project:** *Tribological behavior of synthetic blend oils .* **Grade:** Excellent.

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## Occupation

Current Occupation **Assistant Professor**, *Production Engineering and Mechanical design department, Faculty of Engineering, Minia University, Egypt.*

**Teaching:**

- Measurement,
- Automatic Control 1,
- Robotics,
- Hydraulics,
- Industrial Safety,
- Measurement of Mechanical Quantities by Electric Methods,
- Mechanical Engineering 1 (strength of material, Biomedical Engineering Department),
- Mechatronics 1 (Mechatronics and Robotics Department).
- Mechatronics 2 (Mechatronics and Robotics Department).
- Automatic Control 2 (Mechatronics and Robotics Department).

2014–2017 **Ph.D. Student**, *Egypt-Japan University of Science and Technology, E-JUST, Egypt, GPA: 3.87.*

**graduated:** Feb-2017

2013–2014 **Teaching Assistant**, *Production Engineering and Mechanical design department, Faculty of Engineering, Minia University, Egypt.*

2010–2013 **Demonstrator**, *Production Engineering and Mechanical design department, Faculty of Engineering, Minia University, Egypt.*

**Teaching(Demonstrator and Teaching Assistant):**

- Mechanical Drawing,
- Automatic Control,
- Plastic Technology,
- Engineering Mathematics,
- Numerical analysis with MATLAB,
- Measurement Technology,
- AutoCAD.

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## Doctoral Thesis

Feb.2014– Feb.2017 **Ph.D.**, *Mechatronics and Robotics department, School of innovation Design, Egypt-Japan University of Science and Technology, Egypt.*

**Thesis title** *Design of Micro Tactile Sensor for Detecting Soft Tissue Stiffness in Medical Applications.*

**Supervisors** Prof. Ahmed Ali Abouelsoud and Assoc. Prof. Ahmed R. Fathelbab (E-JUST).

**Advisors** Prof. Osamu TABATA and Assoc. Prof. Toshiyuki TSUCHIYA (Kyoto University).

- Courses**
- Advanced Mechatronics Systems Design,
  - Robot Kinematics, Dynamics and Control,
  - Smart Sensors and Actuators,
  - Intelligent Control Systems,
  - Advanced Micro Electromechanical Systems (MEMS),
  - Seminar on Mechatronics and Robotics,
  - Seminar on Advanced Mechatronics and Robotics Systems.

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## Master Thesis

Nov.2010– Feb.2013 **M.Sc.**, *Production Engineering and Mechanical design department, Faculty of Engineering, Minia University, Egypt.*

**Thesis title** *The Performance of Servo-Control Valves Under Extreme Conditions of Temperature and Loads.*

**Supervisors** Prof. W.W. Marzouk, Prof. M. Rizk and Dr. T. W. Sadak

**Courses:**

- Hydraulic Machines,
- Automatic Control,
- Advanced Engineering Mathematics,
- Engineering Computer Science,
- Design of Intelligent Machines,
- Advanced English Language.

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## Experience

### Academic Experience:

March2016– August2016 **Visiting Researcher, Japan**, *Nano Micro System Engineering Lab., Kyoto University, Japan.*

Training at Kyoto University clean room and NanoHUB on different MEMS fabrication processes. Completion of doctoral research using a famous MEMS software (CoventorWare).

Feb.-2010 to Feb.-2014 **Teaching Assistant**, *Faculty of Engineering, Minia University, Egypt.*

Worked as a teaching assistant at the production engineering and mechanical design department, teaching several courses in mechanical engineering. Moreover, I participated in the project of quality assurance of the faculty of engineering, Minia University.

### Technical Experience:

2008 **Training one month**, *Ageaba Petroleum Company, Egypt.*

2008 **Training one month**, *Arab Contractors Company, Egypt.*

2007 **Training one month**, *El-NasserCompany for Automotive Manufacturing, Egypt.*

2007 **Training one month**, *Helwan factory for nonferrous material )Factory 63), Egypt.*

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## Languages

Arabic **Mother Tongue**

English **Excellent**

*IELTS (July. 2015): 6.5*

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## Computer skills

Programming MATLAB

Tools AutoCAD, SolidWorks and ANSYS(ABDL)

Simulators ANSYS, Protues (Electronic Systems Simulators).

Miscellaneous L<sup>A</sup>T<sub>E</sub>X, Microsoft Office 2003, 2007, 2010 and 2013.

Microsoft XP, 7, 8, 8.1 and 10

Windows

Internet Email, Drop Box, Google Drive, etc.

Applications

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## Certifications

ICTP Certificate (Information & Communication Technology Project).  
ICDL Certificate (International Computer Driving License).  
Certification at Building True Success Wherever You Live and Work.  
Certificates in Communication skills in Education methods.  
Certificates in Quality standards in the teaching process.

## Interests

Reading Science fiction novels.  
Watching football matches.  
Swimming.  
Travelling.

## References

**Assoc.Prof. Ahmed Mohamed Rashad Fath El-Bab**, Mechanical Engineering department, Assuit University, Egypt, Ahmed\_Rashad@yahoo.com  
**Prof. Mohammed Ali Omar Mousa**, Production Eng. and Mechanical design department, Minia University, Egypt, mohamedmousa201049@yahoo.com  
**Prof. Wahid Yosry ALi**, Production Eng. and Mechanical design department, Minia University, Egypt, Wahyos@hotmail.com

## Publications

### Journal Papers:

- **Ahmed Fouly**, Ahmed Badran and WY Ali“ Mechanical and Tribological Characteristics of PMMA/Hydroxyapatite Nanocomposite”, **Under review**.
- **Ahmed Fouly**, Ahmed Badran and WY Ali“ A study on the electrostatic fields generated from the friction of wig cap textiles against human skin and hair”, **Under review**
- AMM Ibrahim and **Ahmed Fouly**,“ Tribological Characterization of Eboxy Self-Lubricating Composites Containing Nano Carbon Fiber”, **Under review**.
- **Ahmed Fouly**,“ Experimental Testing of Single and Double Medical Gloves Static Friction with Surgical Scalpel for Studying the Safety of Manipulation During Surgery”, **Under review**.
- **Ahmed Fouly**, A. M. R. Fath El Bab, M. N. A. Nasr, and A. A. Abouelsoud, “Modeling and Experimental Testing of Three-tip Configuration Tactile Sensor for Compensating the Error due to Soft Tissue Surface Irregularities during Stiffness Detection”, **J. Measurement (Elsevier)**, vol. 98, pp.112\_121, 2017..
- **Ahmed Fouly**, M. N. A. Nasr, A. M. R. Fath El Bab and A. A. Abouelsoud, “Design and Modeling of Micro Tactile Sensor with Three Contact Tips for Self Compensation of Contact Error in Soft Tissue Elasticity Measurement”, **IEEJ Transactions on electrical and electronic engineering**, vol. 10, no. S1, pp.S144\_S150, 2015.
- **A. Fouly**, T. Sadak, M. Rizk, and W. Marzouk, “Effect of oil temperature on the performance of a hydraulic linear system controlled with electro hydraulic servo valve”, **Minia University Press**, vol. 32, pp. 188\_195, 2013.

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### Conference Papers:

- T. Sadak and **A. Fouly** “Effect of Different Operating Conditions on the Performance of a Fluid Power Control System with Servo Solenoid Valve”, **ASME 2018 Dynamic Systems and Control Conference, Accepted Abstract**.
- **Ahmed Fouly**, A. M. R. Fath El Bab, A. A. Abouelsoud and M. N. A. Nasr, “ Error Source Identification in Measuring Soft Tissue Stiffness and Self Compensating This Error Using Three Probes Configuration”, **IEEE International Conference on Intelligent Systems, Modelling and Simulation**, pp. 440\_445, january 25\_27, Pangkok, Thailand, 2016.
- **Ahmed Fouly**, M. N. A. Nasr, A. M. R. Fath El Bab and A. A. Abouelsoud, “Design, modeling and simulation of a micro tactile sensor for soft tissue stiffness measurement with three tips configuration”, **IEEE International Conference on Computational Intelligence, Modelling and Simulation**, pp. 126\_131, july 27\_29, Kuantan, Malaysia, 2015.
- T. Sadak and **A. Fouly** “The effect of different designs on performance of a fluid power control system”, **ASME 2014 Power Conference**, American Society of Mechanical Engineers, 2014.

### Books:

- **Ahmed Fouly**, A. M. R. Fath El Bab, and A. A. Abouelsoud, “Design of Micro Tactile Sensor for Detecting Soft Tissue Stiffness”, **LAP LAMBERT Academic Publishing**, 2017.
- **Ahmed Fouly**, T. W. Sadak , and M. R. Ibrahim, “Performance of Servo-Control Valves Under Extreme Conditions”, **LAP LAMBERT Academic Publishing**, 2017.

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## Articles Reviewer

I have reviewed many articles for international journals such as:

- **IEEE Transactions on industrial informatics**
- **Journal of Sensors**

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## Honors and awards

- **Grant from Academy of Scientific Research and Technology to support the Graduation Project (2017-2018), Design and Implementation of a Climbing Robot for climbing different surfaces topology.**
- **The best paper in the IEEE International Conference on Computational Intelligence for the year 2015 in Malaysia.**
- **I got a scholarship funded by the Egyptian government to study for the PhD in Egypt-Japan University of Science and Technology in 2014.**

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