



### Basic Information :

**Name :** Mohamed Fathy Abdel Rahman Badran

**Title :** Lecturer

Dr. Mohamed Fathy Badran is an Assistant Professor of Mechatronics, MEMS, and Mechanical Design at The Future University in Egypt. He earned his PhD in BioMEMS from the University of Guelph, Ontario, Canada, 2010. He earned his Masters in industrial Engineering from the American University in Cairo, Cairo, Egypt, 2003. He earned his bachelor of science in Mechanical Engineering, option Design and Industrial and minor in Electronics with High honors from the American University in Cairo, 2000.

### Education :

Certificate	Major	University	Year
PhD	Doctor of Philosophy	University of Guelph- Canada	2010
Masters	Industrial Engineering	American University in Cairo	2003
Bachelor	Mechanical Engineering, Option Design and Industrial, Minor Electronics	American University in Cairo	2001

### Teaching Experience :

Name Of Organization	Position	From Date	To Date
American University in Cairo (AUC)	Assistant Professor	01/01/2010	01/01/2012

### Paper :

Patient-specific finite element analysis of heart failure and the impact of surgical intervention in pulmonary hypertension secondary to mitral valve disease

Modeling and Simulation of a Low Voltage Electroosmotic Micropump for Non-Newtonian Fluids

Design, Manufacture, and Test a ROS Operated Smart Obstacle Avoidance Wheelchair

Modelling and Simulating the Effect of the Different Geometric Parameters on Voltage-Current Characteristics for Wire-Plate Electrostatic Precipitator with Different Collector Configurations

Modelling and Simulating the Effect of the Different Geometric Parameters on Voltage-Current Characteristics for Wire-Plate Electrostatic Precipitator with Different Collector Configurations

On Modeling and Simulation of Electroosmotic Micropump for Biomedical Applications

Simulation of the Geometric Design Parameters

Simulation of the Geometric Design Parameters' Impact on the performance of EHD Ion-Drag Micropump

Optimization of municipal solid waste management in Port Said . Egypt

Optimization of Municipal Solid Waste Management in Port Said- Egypt

BioMEMS implants for neural regeneration after a spinal cord injury

On the Design of an Electrohydrodynamic Ion-Drag Micropump

### Thesis :

A Closed Loop System for partial restoration of spinal cord reflex

Optimization of municipal solid waste management in Port Said . Egypt

**Awards :**

<b>Award</b>	<b>Donor</b>	<b>Date</b>
University Graduate Scholarship	University of Guelph	01/01/2006
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University Graduate Scholarship	University of Guelph	01/01/2004
University Graduate Scholarship	University of Guelph	01/01/2003
Academic Honors for Outstanding Achievement in Mechanical Engineering	American University in Cairo	01/01/2000
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Academic Honors for Outstanding Achievement in Mechanical Engineering	American University in Cairo	01/01/1998