

### Basic Information :

**Name :** Mohamed Tarek Ibrahim Mohamed Ali Elwakad  
**Title :** vice Dean



### Education:

Certificate	Major	University	Year
PhD	Measurments, Computer modeling, Biomaterials, Biomechanics, Stress analysis	Rensselare polytechnic Institute - Troy, New York, USA	1988
Masters	Measurments, Medical Engineering	George Washington University - Washington , D.C, USA	1981
Bachelor	Mechanical Engineering	Faculty of Engineering - Helwan Univrsity	1975

### Teaching Experience:

Name Of Organization	Position	From Date	To Date
FUE	Vice Dean	01/10/2019	Current

### Researches / Publications :

- Implementation and Evaluation of a Dynamic Neck Brace Rehabilitation Device Prototype
- A Novel Stimulation and impedance sensing Setup for Dielectrophoresis based Microfluidic Platform
- Finite-Element Analysis of the Effect of Utilizing Various Material Assemblies in %All on Four-~~to~~ on the Stresses on Mandible Bone and Prosthetic Parts
- Evaluation of stress and strain on mandible caused by changing the bar material in hybrid prosthesis utilizing %All-on-Four-~~to~~ technique
- A Finite Element-Based Analysis of a Hemodynamics Efficient Flow Stent Suitable for Different Abdominal Aneurysm Shapes
- HA/HDPE Reinforced with MWCNTs for Bone Reconstruction and Replacement Application
- Impedance Spectroscopy based on the Cell Trajectory and New Strategy to Enhance the Accuracy of the Detection in the Microfluidic System
- Towards an Ultra-Affordable Three-Dimensional Bioprinter: A Heated Inductive-Enabled Syringe Pump Extrusion Multifunction Module for Open-Source Fused Deposition Modeling Three-Dimensional Printers
- Zinc-Magnesium alloy as a degradable bone plate
- An Influence of the Microfluidic Channel Height and Distribution of Dielectrophoretic Force on the Impedance Extraction in Microfluidic Systems
- Identification of a New Topology to Enhance the Impedance Extraction in Microfluidic Systems
- The Electroporation Response of Normal and Malignant White Blood Cells
- Multiwall carbon nanotube reinforced HA/HDPE biocomposite for bone reconstruction
- EVALUATION OF A HYBRID BIOCOMPOSITE OF HA/HDPE REINFORCED WITH MULTI-WALLED CARBON NANOTUBES (MWCNTs) AS A BONE-SUBSTITUTE MATERIAL
- Optimization of micro-electrodes for DNA fragments labelled to microbeads manipulation and characterization
- A novel microfluidic system using a reservoir and flow control system for single-cell release, migration, separation, and characterization
- Planar Micro-electrodes versus Cone Plate for Biological Cell Trapping and Characterization

Micro-electrodes based on CMOS Technology for Characterization of Biological Cells

**Chapter :**