

### Basic Information :

**Name :** MOHAMED TAREK IBRAHIM MOHAMED ALY ELWAKAD  
**Title :** vice Dean



### Education:

Certificate	Major	University	Year
PhD	Measurments, Computer modeling, Biomaterials, Biomechanics, Stress analysis	Rensselaire 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 :

Effect of using nano-particles of magnesium oxide and titanium dioxide to enhance physical and mechanical properties of hip joint bone cement

Developing Biodegradable Polymeric Composite for Nails Manufacturing of Bone Fracture Fixation

Evaluation of stresses on mandible bone and prosthetic parts in fixed prosthesis by utilizing CFR-PEEK, PEKK and PEEK frameworks

Optimal Concentration and Duration of Endotracheal Tube Coating to Achieve Optimal Antimicrobial Efficacy and Safety Balance: An In Vitro Study

A numerical analysis of the ablation of large tumors using gamma-titanium RF electrodes.

The Effect of Thermal and Electrical Conductivities on the Ablation Volume during Radiofrequency Ablation Process

Evaluation of stress and strain on mandible caused using %All-on-Four-~~4~~ system from PEEK in hybrid prosthesis: finite-element analysis

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-~~4~~ 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-~~4~~ 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
Towards sustainable industry 4.0: A green real-time IIoT multitask scheduling architecture for distributed 3D printing services
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
<b>Chapter :</b>
Trends in 3D Printing Implants for Medical and Dental Applications