

**Basic Information :**

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



**Education:**

Certificate	Major	University	Year
PhD	Measuments, Computer modeling, Biomaterials, Biomechanics, Stress analysis	Rensselare polytechnic Institute - Troy,New York,USA	1988
Masters	Measuments, 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 :**

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 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 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 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

**Chapter :**

Trends in 3D Printing Implants for Medical and Dental Applications