Basic Information :

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

Education:

Certificate	Major	University	Year
PhD	Measurments, Computer modeling, Biomaterials, Biomeachanics, 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	Professor	01/09/2025	Current

Researches / Publications :

Assessment of hybrid nanocomposite AFOs for pediatric cerebral palsy: mechanical, spectroscopic, and finite element analysis
Challenges and opportunities for the design and construction of a sustainable hospital
HEMODYNAMIC PERFORMANCE OF THREE FLOW DIVERTING STENTS FOR TREATMENT OF ABDOMINAL AORTIC ANEURYSM BASED ON A SIMPLIFIED PATIENT-SPECIFIC MODEL: A COMPARISON STUDY
Enhanced bone cement for fixation of prosthetic joint utilizing nanoparticles
PUPIL DIAMETER AND MACHINE LEARNING FOR DEPRESSION DETECTION: A COMPARATIVE STUDY WITH DEEP LEARNING MODELS
Major depressive disorder: early detection using deep learning and pupil diameter
DESIGN A SINGLE SCREW EXTRUDER FOR POLYMER-BASED TISSUE ENGINEERING
Robust detection and refinement of saliency identification
Biodegradable suture development based albumin composites for tissue engineering applications
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 ñAll-on-Fourò 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 ñAll on Fourò 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 ñAll-on-Fourò 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