

# CANDIDATES FOR MASTER'S DEGREES

## College of Engineering

### Biomedical Engineering

**Judy Ziad Debs**

Integration of Dyes into MOF Hybrid Sensors for Rapid, Sub-ppm Breath Acetone Detection in Diabetes

**Farah Nawaf El Dandachli**

Evaluation of the Synergistic Effects of Selected Natural Products in Combination With Anti-Cancer

**Lana Khaled El Zarif**

Development and Evaluation of Inula Viscosa-Based Nanoparticles for Anticancer Therapy in Breast

**Chihab Ezzaki**

Carbon Nanotubes/Polydimethylsiloxane Based Flexible Electrodes for Electrophysiological Recording

**Houssam Mouhib Hammoud**

The Definition of Colorectal Cancer-Specific Subtypes Using Novel Immune Signatures

**Mudassir Gaffari Mohammed**

Biopolymeric-Zirconium Based Composite Nanomaterials for Dental Filling Applications

**Ahmed Osman Youssef Alagha**

Behavior Monitoring Using Cell Phone Sensors

### Chemical Engineering

**Ahmed Juma Abdulla**

Sustainable Aviation Fuel (SAF) and Its Environmental Impact in Arid and Semi-Arid Regions

**Dana Faris**

Drug Delivery Using a Special MOF

**Abdul Sami**

Sustainable Hydrogen-Rich Syngas for Boosting Gas Production

### Civil Engineering

**Reem Abdeen Adam**

Effect of Autonomous Vehicles on Urban Road Networks

**Tabarek Mohanad Abbas Al-Falahi**

Experimental and Finite Element Investigation of Strengthening RC Beams with FRCC Layer

**M.Moheddin Amer Alhaj Hussein**

Flexural Strengthening of RC Beams with Engineered Cementitious Composites and Galvanized Steel Mesh

**Maher Solaiman Al Hamad**

Shear Strengthening of Reinforced Concrete Beams Using Hybrid System of CFRP Composite Externally Bonded Reinforced in Grooves

**Makda Teame Araya**

Flexural Performance of RC Beams Strengthened with Engineered Cementitious Composites and CFRP Mesh

**Abd Allah El-Emam**

Recycled Concrete-Filled Steel Tube Columns Under Axial Load

**Nassreddien Hussien Hussien**

Development of Conductive Concrete Blocks for Structural Integrity and Magnetic Shielding

**Mohamed Amro Imbabi**

Structural Strengthening of Wood Beams With Steel Plates

**Munir Mbarouk Nassor Mbarouk**

Microplastics and Nanoplastics Release from Leaching

**Amro Adel Seifelnasr**

Developments of 3D Concrete Printing Structural Elements

**Ahmed Sherif Abdelmaksoud Mohamed Selim**

Fibre Reinforced Internally Cured Concrete

**Al Baraa Walid Tarnini**

Spatial Analysis of Coastal Shoreline Variability Using GIS and Computational Modeling

### Computer Engineering

**Abdelrahman Mostafa Ahmed**

Making Smart Home Security Human-Understandable Through Explainable AI

**Ahmed Abdalla Almaazmi**

AI-Based Medical Image Analysis

**Mohamed Ahmed Mohamed Kamel**

**Elmohandes**

FPGA-Accelerated Path Planning for ROS-Based Robotic Systems

### Construction Management

**Tarek Alameddine**

**Ali Raed Ahmad Al-Fakhouri**

AI-Driven Prioritization Model for Building Rehabilitation in the UAE

**Essra Khaled Alshawabkeh**

Cost Analysis of On Site Soil Reuse in Urban Excavation Projects

**Mountaha Mahmoud Jomaa**

GIS-based Evaluation of Disaster Mitigation Measures Used in the Construction Industry in the UAE

**Abdelrahman Mohamed Ibrahim Hamed**

**Madkour**

Stakeholder Strategy Analysis for Green Buildings in the UAE Using Game Theory

**Shiwam Singh**

**Rifana Thelakat Puthanpurayil**

Sustainable Construction: Life Cycle Analysis and Cost Evaluation of DEWA HQ

### Electrical Engineering

**Maryam Abdulla Alnuaimi**

**Ameen Ayman Awwad**

AI, Robotic and mmWave-Powered Electronic Sensors for Sustainable Water Distribution

**Omar Mosaad Elsakka**

Machine Learning Over Manifolds for Activity Detection in Grant-Free Random Access Massive MIMO

**Adil Farooq**

Optimal Equivalent Transmit Beamforming for Frequency Diversed Array

**Mostafa Ahmed Nasr**

Reconstruction of Near Field Microwave Imaging for Aperture Based Waveguide Probes

**Amr Hassan Serag**

Coordinated Battery Transfers Between Swapping Stations for Efficient EV Energy Distribution

**Omnia Abdelfattah Hamed Yacoub**

Machine Learning Approach for Energy Theft Detection in EV Charging Stations



## Engineering Systems Management

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**Sarah Abdulwahed**

Use AI to Maximize Farming Yield in a Controlled Environment

**Teeba Maytham Abdulmahdi Allawi**

Optimization of Carbon Capture Using Metal Organic Framework  
**Khalfan Omar Alshamsi**

**Reem Alaaeldin Sobeih**

Effective Leadership for Technology Transfer in Higher Education

## Machine Learning

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**Hamza Ahmed Abushahla**

Distribution-Aware Training for Efficient Uniform Quantization of Neural Networks

**Meriem Aoudia**

Machine Learning-Based Approaches for Fault Diagnosis in Safety-Critical Systems

**Solomon Iyassu Ghebretatios**

Quantized Edge AI for Transmission Reduction with Dual Prediction in IoT Sensor Networks

**Abdus Saboor Gaffari Mohammed**

Joint Utilization of Machine Learning and Blockchain for Securing IoT Systems

**Affan Murtaza**

Advanced Machine Learning for Data-Driven Asset Management

**Ariel Justine Panopio**

Co-Creating Improvisational Music with Generative AI

## Mechanical Engineering

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**Faris Nidal Aref Abdelrazeq**

Testing Parameters For Geyser Pump

**Issa Nabeel Amireh**

**Yousef Raed Maqatef**

Homogenization of Irradiance Profile and Cell Temperatures in Compound Parabolic Concentrator (CPC)

**Shiva Es Hagh Sharif Poor**

Control of Cantilever Bistable Plates for Morphing Applications

**Aseel Atheer Tahtamouni**

Nonlinear Dynamics of Cantilever Bistable Laminates

## Mechatronics Engineering

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**Yassin Saad Abdelmeguid**

Energy-Aware Multi-Agent Deep Reinforcement Learning for Efficient Robotic Swarm-based Exploration

**Yaseen Mohamed Almannae**

**Abdelrehim Ashraf Elembaby**

Hybrid Adaptive Control using Reinforcement Learning

**Omar Samy Elfayoumi**

AI-Driven Framework for Lane Change Decision Making Using Real-World Traffic Data

**Mahmoud Shadi Kayed**

Enhanced Path Planning for Autonomous Driving Using Artificial Intelligence

