

تفاصيل الوثيقة

اسم الوثيقة	قائمة بالأبحاث المجتمعية بمشاركة جامعة تبوك مع الجهات الخارجية
المؤسسة	جامعة تبوك
مالك الوثيقة	وحدة المسؤولية المجتمعية
رقم الإصدار	1.0
الحالة	منجز
تاريخ الإصدار	2024\9\9م
التصنيف الأمني للوثيقة	عام

تاريخ التعديلات

الإصدار	التاريخ	التعديلات	تحرير	مراجعة	موافقة
1.0	2024\9\7م	لا يوجد	فريق عمل عمادة البحث والدراسات العليا	د. عثمان الزهراني عميد عمادة البحث والدراسات العليا	عمادة البحث والدراسات العليا
	2024\9\9م		فريق عمل وحدة المسؤولية المجتمعية	د. إيمان معراج مرزا مشرفة وحدة المسؤولية المجتمعية	وحدة المسؤولية المجتمعية

الموافقات

الاسم	الوظيفة	التاريخ	التوقيع
د. عثمان بن راشد الزهراني	عميد عمادة البحث والدراسات العليا	2024\9\7م	د. عثمان
د. إيمان بنت معراج مرزا	مشرفة وحدة المسؤولية المجتمعية	2024\9\9م	د. إيمان

List of Current Funded Community Research Projects:

Research title	PI	Collaborator
Enhancement of microalgae high-value products and developing microalgae-mediated nanomaterials	Hala Bayomy	Red Sea Global
Patterns of dune vegetation on Amaala Coast to inform prospective restoration practice	Dhafer Ali Mohammed Albakre	Red Sea Global
Conservation of Coral Reef by Smart Manipulation and Adaptation with Probiotic Microbiome in Red Sea Environment	Madeha Ghobashy	Red Sea Global
Development of Conservation Strategies for the Selected Flora of Tabuk Region	Zahid Siddiqui	Red Sea Global
User Privacy and Security Concerns in the Smart City	Amer Aljaedi	NEOM
IT Proactive Risk Management through Improved Cyber Situational Awareness	Majed Aborkba	NEOM
Optimization of Lattice-Based Post-Quantum Cryptography and Engineering for Secure Digital Communications	Zaid basfar	NEOM
Developing and manufacturing eco-friendly and sustainable road marking paints	Mona Albalwi	SASO
New generation of fertilizers improves agriculture technology and reduce the amount of time and resources needed to grow crops	Mohammed Alahmdi	Astra Farms
Assessing the relationship between genetic Variants, Epigenetic Silencing through DNA Hypermethylation and the occurrence of Type 2 Diabetes, Coronary artery Disease and stroke in Tabuk Population	Imadeldin Elfaki	King Salman University
Advanced solar panel cleaning system	Hazem El- Hageen	King Salman University

Research title	PI	Collaborator
Study Spatial distribution of planktonic and benthic algae in the North of Red Sea in Responses to gradually changing environmental factors and ecological impacts on coral communities	Amenah Alotaibi	King Salman University
Production of Green Hydrogen from Sea Water by Using Nano-Photocatalyst Based on Metal Oxides	Aiesha Albalawi	Tesside University
Performance improvement of a standalone renewable-energy-based (wind/PV/Ultra-Capacitors) microgrid using intelligent fractional order Controllers.	Hani Albalawi	Tesside University
Smart Cities Get Smarter: User-Empowered Ambience Intelligence System for Improved Energy and Water Efficiency (NEOM as Example)	Malek Alrashidi	Tesside University
Theoretical and Experimental Analyses, Design Optimization, and Product Development and Testing an Environment Friendly Energy Storage System	Shaikh Hasibul a Majid	Nottingham University
Establishing Building Energy Benchmarking profile for Saudi Residential Building Stock based on Saudi Building code	Hani Albalawi	Nottingham University

Other publications:

Title	PI	Collaborator
Advancements in Porous Metal Compounds-Based Nanomaterials for Electrochemical Energy Conversion	Muhammad Ayaz	ENSTA
Improving charge transfer properties and solar cell performance by In-doped TiO ₂ as an efficient photoanode for dye-sensitized solar cells (DSSCs)	Muhammad Ayaz	SWCC
Enhancing photovoltaic performance in dye-sensitized solar cells using nanostructured NiS/MoS ₂ composite counter electrodes	Muhammad Ayaz	SWCC
Next-Generation Dual Transceiver FSO Communication System for High-Speed Trains in Neom Smart City	Ayshah S Alatawi,	
Global horizontal irradiance prediction for renewable energy system in Najran and Riyadh	Tariq Ali	COMSATS University, Pakistan
Original Research Article Enhancing autonomy in social robots through a real-time teleoperation system	Tareq Alhmiedat	
Constraint Optimization Model for Dynamic Parking Space Allocation	Tareq Alhmiedat	
Mobile Edge Computing in Smart Healthcare: A Comprehensive Review, Challenges and Future Directions	Muhammad Ayaz	UTP, Malaysia
Advanced Topics and Smart Systems for Wireless Communications and Networks		ENSTA, France
A Novel SAGE Algorithm for Estimating Parameters of Wideband Spatial Non-Stationary Wireless Channels with Antenna Polarization	El-Hadi Aggoune	Southeast University, China
Bankruptcy problem in energy warehouse: Applications and challenges	Hani Albalawi	

Title	PI	Collaborator
Augmented Reality-Assisted Deep Reinforcement Learning-Based Model towards Industrial Training and Maintenance for NanoDrop Spectrophotometer	A'aeshah Alhakamy	Indiana-Purdue University
Probability Based Regression Analysis for the Prediction of Cardiovascular Diseases.	Muhammad Ayaz	Islamia University, Pakistan
Fractional-Order Model-Free Predictive Control for Voltage Source Inverters	Hani Albalawi	Aswan University, Egypt
Employing Social Robots for Managing Diabetes Among Children: SARA	Tareq Alhmiedat	
Optimization of State of the Art Fuzzy-Based Machine Learning Techniques for Total Dissolved Solids Prediction	Muhammad Ayaz	Ming Chi University of Technology, Taiwan
A Critical Review on Corrosion and Fouling of Water in Water Distribution Networks and Their Control	Muhammad Ayaz	
Revolutionizing Social Robotics: A Cloud-Based Framework for Enhancing the Intelligence and Autonomy of Social Robots	Tareq Alhmiedat	ENSTA, France
Multi-frequency wireless channel measurements and characterization in large indoor office environments	El-Hadi Aggoune	Southeast University, China
A novel THz massive MIMO beam domain channel model for 6G wireless communication systems	El-Hadi Aggoune	Southeast University, China
Fathoming the Mandela Effect: Deploying Reinforcement Learning to Untangle the Multiverse	Tareq Alhmiedat	
A hybrid data collection scheme to achieve load balancing for underwater sensor networks	Muhammad Ayaz	ENSTA, France
Fingerprint-Based Localization Approach for WSN Using Machine Learning Models	Tareq Alhmiedat	

Title	PI	Collaborator
A Novel 3-D Beam Domain Channel Model for Maritime Massive MIMO Communication Systems Using Uniform Circular Arrays	El-Hadi Aggoune	Southeast University, China
An Autonomous Maze-Solving Robotic System Based on an Enhanced Wall-Follower Approach	Tareq Alhmiedat	
Early Wildfire Smoke Detection Using Different YOLO Models	Tareq Alhmiedat	Zarqa University, Jordan
Priority-based task scheduling and resource allocation in edge computing for health monitoring system	Muhammad Ayaz	UTP, Malaysia
A SLAM-Based Localization and Navigation System for Social Robots: The Pepper Robot Case	Tareq Alhmiedat	
Performance Analysis of Underwater Wireless Optical Communication with Varying Salinity: Experimental Study	Muhammad Ayaz	ENSTA, France
A Novel 3D Beam Domain Channel Model for UAV Massive MIMO Communications	El-Hadi Aggoune	Southeast University, China
Are Used Cars More Sustainable? Price Prediction Based on Linear Regression	A'aeshah Alhakamy	
An Observational Pilot Study of a Tailored Environmental Monitoring and Alert System for Improved Management of Chronic Respiratory Diseases	Tareq Alhmiedat	
An Observational Pilot Study of a Tailored Environmental Monitoring and Alert System for Improved Management of Chronic Respiratory Diseases	Tareq Alhmiedat	United Arab Emirates University, UAE

Title	PI	Collaborator
Priority-Based Resource Allocation Scheme for Resources Usage in Mobile Edge Computing Platform	Muhammad Ayaz	UTP, Malaysia
A smart real-time parking control and monitoring system	Tareq Alhmiedat	Roger Williams University, USA
A survey on robot semantic navigation systems for indoor environments	Tareq Alhmiedat	
COV-CTX: A Deep Learning Approach to Detect COVID-19 from Lung CT and X-Ray Images	Tareq Alhmiedat	
Synthesis of hybrid polyaniline – graphene oxide – sulfur nanocomposite fibers through ice nucleation as a cathode materials for lithium-sulfur battery	Ayshah S. Alatawi	
A Systematic Approach for Exploring Underground Environment Using LiDAR-Based System	Tareq Alhmiedat	
A Novel 6G ISAC Channel Model Combining Forward and Backward Scattering	El-Hadi Aggoune	Southeast University, China
Lung Functionality-Centric Air Quality Alert System: An Observational Pilot Study	Tareq Alhmiedat	

Current Ongoing Research Projects:

- Action Plan for Conducting Studies, Research, and Preparation for Crisis and Emergency Management in the Tabuk Region