

DARAL-HEKMA RESEARCH ACHIEVEMENTS REPORT 2024

Prepared By The Scientific Research Center

DAR AL-HEKMA UNIVERSITY

TABLE OF CONTENT

Dar Al-Hekma Scientific Research Overview	3
University Research in Numbers	5
Publications under DAH Research Priorities	8
Faculty Publications by Schools	9
Faculty Conferences Participation	18
Students Research Publications	21
Staff Research Publications	25
Distinguished Research Achievements	27
Research Initiatives and Support	30
Dar Al-Hekma 1st International Conference CCTS 2024	32
Students Research Competition	38
Research Collaborations	40
Scientific Besearch Center Support	48



DAR AL-HEKMA SCIENTIFIC RESEARCH OVERVIEW

Scientific Research Centre

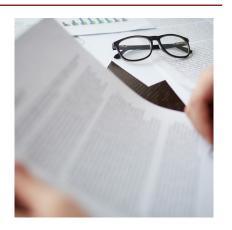
The Scientific Research Center at the university serves as a hub for advancing knowledge, fostering innovation, and supporting high-quality research. Its primary function is to facilitate and enhance research activities by providing faculty, students, and researchers with the necessary resources, funding opportunities, and support aligned with national priorities and global needs. The center promotes collaboration, interdisciplinary research, industry partnerships, and engagement with global academic networks to address contemporary challenges and contribute to scientific and societal advancements. Additionally, it empowers researchers through conferences, forums, workshops, and seminars by renowned experts, providing valuable insights into research methodologies and publishing. By encouraging excellence in research, ethical practices, and impactful publications, the center plays a crucial role in strengthening the university's research ecosystem and enhancing its national and international reputation.

Research Vision

Distinction in scientific research that serves communities.

Research Mission

To create a culture of research that contributes to the knowledge economy by empowering researchers and encouraging research excellence.





Research Priorities



Economic Prosperity



Deep-Rooted Identity



Quality Life



Sustainability



Investing in the Future

Strategic Research Objectives

1



Establish and promote strategic and sustainable research collaborations





Improve the research capacity and efficiency

3



Improve research governess and infrastructure





Promote research excellence and innovation

5



Encourage joint research (intradisciplinary, multidisciplinary)





Encourage research publication in alignment with national and international research standards and priorities

7



Facilitate student research opportunities and raise its visibility to the community





Support and commercialize research and innovations

UNIVERSITY RESEARCH IN NUMBERS



DAH UNIVERSITY RESEARCH IN NUMBERS

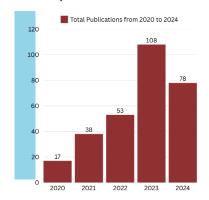
313

Number of DAH Publications five years (2020 -2024)

97

Number of DAH
Publications in 2024

Total Faculty Publications



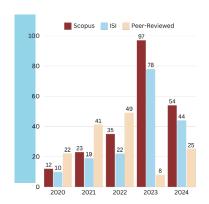
57

Number of DAH
Publications indexed in
Scopus in 2024

46

Number of DAH Publications indexed in ISI/WoS in 2024

Scopus, WoS/ISI Indexed and Peer-Reviewed Publications





DAH UNIVERSITY RESEARCH IN NUMBERS

296

Number of Faculty Publications five years (2020 -2024)

17

Number of Students Publications in 2024

78

Total Number of Faculty Publications in 2024

17

Number of Student Conferences Posters in 2024

75

Number of P.hD. Faculty Publications NCAAA KPI

2

Total Number of Staff Publications in 2024

34

Number of Faculty Researchers in 2024 NCAAA KPI



PUBLICATIONS UNDER DAH RESEARCH PRIORITIE

FACULTY, STUDENTS & STAFF

P	41 Sustainability	42.27%
	26 Quality Life	26.80%
	18 Investing in the Future	18.56%
	9 Deep-Rooted Identity	9.28%
	3 Economic Prosperity	3.09%

75

Publications in Community-Based Research **64**

Publications in Technology





FACULTY PUBLICATIONS PER SCHOOL

School of Engineering, Computing and Design	52
School of Business and Law	15
School of Education, Health and Behavioral Sciences	9
General Education Program	2

• • •

	School of Engineering, Computing and Design			
No	Name of Faculty	Title of Article	Q Rank	
1	Dr. Anas Al-Tirawi	Cultural Algorithms: A Framework for Efficient Knowledge Distribution in Anomaly Detection	Q1	
2	Dr. Djihed Berkouk	Noise Pollution Studies in the Arab World: A Scientometric Analysis and Research Agenda	Q1	
3	Prof. Abdullah AlGhamdi	Predicting Energy Consumption Using Stacked LSTM Snapshot Ensemble	Q1	
4	Prof. Imed Ben Dhaou	FBMP-IDS: FL-Based Blockchain-Powered Lightweight MPC- Secured IDS for 6G Networks	Q1	
5	Dr. Dheyaaldin Alsalman	A Comparative Study of Anomaly Detection Techniques for IoT Security Using Adaptive Machine Learning for IoT Threats.	Q1	
6	Dr. Dheyaaldin Alsalman Dr. Wadee Alhalabi	Enhancing user prompt confidentiality in Large Language Models through advanced differential encryption.	Q1	
7	Prof. Imed Ben Dhaou	Diabetes Prediction using Enhanced and Optimized DRL-CNN Approaches.	Q1	
8	Prof. Imed Ben Dhaou	A Novel Method to Predict Chronic Kidney Disease using Optimized Deep Learning Algorithm.	Q1	
9	Dr. Mohammed Gomaa	Investigating the Impact of Various Vegetation Scenarios on 2 Outdoor Thermal Comfort in Low-Density Residential Areas of 3 Hot Arid Regions	Q1	
10	Prof. Abdullah Al-Ghamdi Dr. Sahar Shabanah	Synergizing Remora Optimization Algorithm and Transfer Learning for Visual Places Recognition in Intelligent Transportation Systems and Consumer Electronics.	Q1	
11	Prof. Abdullah Al-Ghamdi Dr. Sahar Shabanah Dr. Turki Althaqafi Dr. Dheyaaldin Alsalman	Enhancing Cybersecurity in the Internet of Things Environment Using Bald Eagle Search Optimization with Hybrid Deep Learning	Q1	
12	Dr. Samar Altarteer	Virtual Rehabilitation: XR Design for Senior Users in Immersive Exergame Environments.	Q1	
13	Prof. Norah Farooqi	Open Dataset for Predicting Pilgrim Activities for Crowd Management During Hajj Using Wearable Sensors	Q1	



	School of Engineering, Computing and Design			
No	Name of Faculty	Title of Article	Q Rank	
14	Dr. Djihed Berkouk	Soundscape descriptors in eighteen languages: translation and validation through listening experiments	Q1	
15	Prof. Imed Ben Dhaou	A systematic literature review on contemporary and future trends in virtual machine scheduling techniques in cloud and multi-access computing	Q1	
16	Prof. Imed Ben Dhaou	Bridging Convolutional Neural Networks and Transformers for Efficient Crack Detection in Concrete Building Structures.	Q1	
17	Dr. Djihed Berkouk Dr. Nader Azab Dr. Mansour Gomaa	Perceptual Differences in Urban Soundscape Assessment Using Protocol Proposed in Method a of the ISO/TS 12913–2: A Cross-Language Comparison between Arabic and French Attributes.	Q1	
18	Dr. Mohammed Gomaa	Ouantifying the Impacts of Courtyard Vegetation on Thermal 2 and Energy Performance of University Buildings in Hot Arid 3 Regions.	Q1	
19	Dr. Turki Althaqafi	Type-2 fuzzy ontology with Dendritic Neural Network based semantic feature extraction for web content classification.	Q1	
20	Prof. Abdullah AlGhamdi	Artificial intelligence driven cyberattack detection system using integration of deep belief network with convolution neural network on industrial IoT.	Q1	
21	Dr. Hashem Alaidaros	Advanced mathematical modeling of mitigating security threats in smart grids through deep ensemble model.	Q1	
22	Dr. Hashem Alaidaros	Artificial intelligence driven cyberattack detection system using integration of deep belief network with convolution neural network on industrial IoT	Q1	
23	Dr. Syed Bilal Hussain Shah	How to Perform Energy-Balanced Underwater Data Collection in AUV-Aided UASNs: A Social Welfare-Based Node Clustering Approach	Q1	
24	Prof. Abdullah AlGhamdi Dr. Turki Althaqafi	Leveraging fuzzy embedded wavelet neural network with multi- criteria decision-making approach for coronary artery disease prediction using biomedical data	Q1	
25	Prof. Abdullah Al-Ghamdi	Enhancing Resilience in Next-Generation Wireless Networks Through Deep Learning for Security Enhancement	Q1	
26	Prof. Abdullah Al-Ghamdi	Hybrid arithmetic optimization algorithm with deep learning model for secure Unmanned Aerial Vehicle networks	Q2	



• • •

	School of Engineering, Computing and Design			
No	Name of Faculty	Title of Article	Q Rank	
27	Prof. Abdullah Al-Ghamdi	Ensemble Learning-based Algorithms for Traffic Flow Prediction in Smart Traffic Systems.	Q2	
28	Dr. Dheyaaldin Alsalman	Modeling Hybrid Feature-Based Phishing Websites Detection Using Machine Learning Techniques.	Q2	
29	Dr. Mohammed Gomaa	The Impact of Spatial Configuration on Accessibility of Urban Parks based on Space Syntax and Users' Responses.	Q2	
30	Dr. Turki Althaqafi	Mathematical modeling of a Hybrid Mutated Tunicate Swarm Algorithm for Feature Selection and Global Optimization.	Q2	
31	Prof. Abdullah Al-Ghamdi	Identification of Anomalies in Lung and Colon Cancer Using Computer Vision-Based Swin Transformer with Ensemble Model on Histopathological Images	Q2	
32	Dr. Samar Altarteer	Investigating donor attitudes toward e-philanthropy crowdfunding platforms: a preliminary study in Saudi Arabia.	Q2	
33	Dr. Homam El-Taj	A Comprehensive Survey of Microsoft Office Macros' Dual Role in Enhancing Efficiency and Elevating Security Risks	Q2	
34	Dr. Homam El-Taj	Renewable Energy and Cyber Threats: Safeguarding Solar Power Systems	Q2	
35	Dr. Djihed Berkouk Dr.Nader Azab Dr. Mohammed Gomma	Soundscapes in Arab Cities: A Systematic Review and Research Agenda	Q3	
36	Dr. Ghadah Alghamdi	International Patient Summary Terminology.	Q3	
37	Dr. Hashem Alaidaros	Internet of Things: Security, Issues, Threats, and Assessment of Different Cryptographic Technologies.	Q3	
38	Dr. Hashem Alaidaros	Caching Strategies for the Metaverse: Taxonomy, Open Challenges, and Future Research Directions.	Q3	
39	Dr. Tahar Lazhar Ayed	In their Own Words, the Perceived Constraints to Declared Goal Attainment by SME Owners: A View From New Zealand.	Q4	



	School of Engineering, Computing and Design			
No	Name of Faculty	Title of Article	Q Rank	
40	Ms. Sema Refae	Preserving Intangible Heritage: A Framework for Assessing and Safeguarding Cultural Practices in Alula, Saudi Arabia	Q4	
41	Prof. Abdullah Al-Ghamdi	BOOK: Topics in Artificial Intelligence Applied to Industry 4.0	-	
42	Prof. Norah Farooqi	Recent trends in crowd management using deep learning techniques: a systematic literature review .	-	
43	Dr. Homam El-Taj	Network sniffing and its consequences: a comprehensive survey.	-	
44	Dr. Homam El-Taj	A Secure Fusion: Elliptic Curve Encryption Integrated with LSB Steganography for Hidden Communication.	-	
45	Dr. Djihed Berkouk	Dataset for Heat Health Risk and Thermal Comfort Assessment in Algiers.	-	
46	Prof. Imed Ben Dhaou	Book editor: IoT Enabled-DC Microgrids: Architecture, Algorithms, Applications, and Technologies.	-	
47	Prof. Imed Ben Dhaou	Addressing Societal Challenges and Enhancing Academic Effectiveness through Challenge-Driven Education: A Case Study in Smart Microgrid	-	
48	Prof. Imed Ben Dhaou	Internet-of-Things-Based Communication in Microgrids	-	
49	Prof. Imed Ben Dhaou	Architectures and Technologies for DC Microgrid	-	
50	Prof. Imed Ben Dhaou	Blockchain Technology for DC Microgrids	-	
51	Prof. Imed Ben Dhaou	Formal methods for microgrids	-	
52	Prof. Imed Ben Dhaou	Prediction of High Heating Value Using ANN Technique Aftermath Natural Disasters.	-	



• • •

School of Business and Law			
No	Name of Faculty	Title of Article	Q Rank
1	Dr. Layla Khoja	Interconnectedness and risk profile of hydrogen against major asset classes	Q1
2	Dr. Inass Ali	Understanding dollar dynamics and SME performance in GCC economies	Q2
3	Dr. Tahar Lazhar Ayed	The mediating role of innovation performance and CSR in the relationship digitalization-performance: Case of French companies	Q2
4	Dr. Abdulaziz Almaktoom	Blockchain-Assisted Hierarchical Attribute-Based Encryption Scheme for Secure Information Sharing in Industrial Internet of Things	Q2
5	Dr. Beata Polok Dr. Mariana Dussin	Published a chapter in book: Saudi Arabia's Vision 2030, Shariah, and Contemporary Legal Trends: The Transformative Power of Law in Guiding Reforms	-
6	Dr. Beata Polok	International Counterterrorism and Organized Crime Convention	-
7	Dr. Beata Polok Dr. Caroline Attie	A Critical Analysis of the Legal Framework Addressing Violence Against Women and Marital Rape in Lebanon	-
8	Dr. Tahar Lazhar Ayed	Les déterminants de l'internationalisation des PME tunisiennes du secteur des TIC	-



School of Business and Law			
No	Name of Faculty	Title of Article	Q Rank
9	Prof. Nadia Yusuf	Artificial Intelligence in Parkinson's Disease Detection: A Strategic Assessment for U.S. Market Entry	-
10	Dr. Beata Polok Dr. Mariana Dussin	Navigating the Intersection Between Islam, European Values, and the Integration of Muslims in Europe	-
11	Dr. Beata Polok	Empowering Women in Labor Market: a Comprehensive Analysis of Recent Legal Developments in the Kingdom of Saudi Arabia	-
12	Ms. Nora Al-Jindi	Building Job-Ready Graduates in 2025 : 6 Strategies for Integrating Practical Skills into Digital Marketing Curriculums	-
13	Ms. Nora Al-Jindi	book chapter: Consumer Behavior Changes: The case of Saudi Arabia post COVID-19 Book title: Routledge Handbook on Business and Management in the Middle East	-
14	Dr. Tahar Lazhar Ayed Ms. Nora Al-Jindi	Unveiling the Power of Case Studies: A Bridge Between Theory and Practice (Chapter_Book)	-
15	Dr. Tahar Lazhar Ayed Dr. Inass Ali Dr. Hany Abdelhamid Dr. Amani Hamza Mohamed	Utilizing Case Studies in Business Education (Preface_Book)	-



	School of Education, Health and Behavioral Sciences			
No	Name of Faculty	Title of Article	Q Rank	
1	Dr. Aisha Ali Hawsawi	Exploring access to support services for medical students: recommendations for enhancing wellbeing support.	Q1	
2	Dr. Ramya Sindi	Embryo transfer into anestrous recipient mares prepared using clomiphene citrate and short-acting progesterone.	Q2	
3	Dr. Yaser Alnatour	The Impact of Vocal Function Exercises vs Vocal Hygiene on the Vocal Performance of Speech-Language Pathologists.	-	
4	Dr. Randa Hariri	إسهام تقنيات الذكاء الاصطناعي في تعزيز أخلاقيات البحث العلمي بالجامعات الأهلية بمدينة جدة وسبل تطويرها (من وجهة أعضاء هيئة التدريس وطلاب الدراسات العليا: جامعة دار الحكمة أنموذجاً)	-	
5	Dr. Mona Karim	واقع دور المعلمات في تنمية مهارات القرن الواحد والعشرين لدى طالبات المرحلة المتوسطة بالمدارس الاهلية في مدينة جدة.	-	
6	Dr. Rabab Saleh Alharbi	سبل ومعوقات التطوير المهني لمعلمات اللغة الإنجليزية في المدارس العالمية بمدينة جدة من وجهة نظر المعلمات والإداريات	-	
7	Dr. Rabab Saleh Alharbi	دور الإشراف التربوي في متابعة العملية التعليمية القائمة على التعليم عن بعد في مدينة جدة من وجهة نظر المشرفات	-	
8	Dr. Rabab Saleh Alharbi	درجة ممارسة القيادة الإبداعية في مدارس رياض الأطفال الأهلية من وجهة نظر المعلمات في شمال مدينة جدة	-	
9	Dr. Rabab Saleh Alharbi	دور البحث الإجرائي في تعزيز التَّنمية المهنيَّة للممارسين التربويين من وجهة نظر المعلَّمات الباحثات في مدينة جدّة	-	

		General Education Program	
No	Name of Faculty	Title of Article	Q Rank
1	Dr. Ahlam Alaki	Exploring The Dynamics of Intertextuality: A Study of Selected Works by Rajā' ʿĀlim	Q1
2	Dr. Malakeh Itani Ms. Karen Palmer	Book:Transforming Education through Digital Technology: Shifting the Role of Innovation and Critical Thinking to Students	-



FACULTY CONFERENCES PARTICIPATION



FACULTY CONFERENCES PARTICIPATION

No	Name of Faculty	Conference Name	Туре
1	Prof. Imed Ben Dhaou	The 21th International Learning and Technology Conference	Presented a paper titled: Diabetes prediction using Enhanced and Optimized DRL-CNN Approaches.
2	Prof. Imed Ben Dhaou	The 21th International Learning and Technology Conference	Presented a paper titled: A novel method to predict chronic kidney using optimized deep learning algorithm.
3	Dr. Anas Al-Tirawi	Learning & Technology 21st IEEE Conference Effat University	Presented a paper titled: Cultural Algorithms: A Framework for Efficient Knowledge Distribution in Anomaly Detection
4	Dr. Djihed Berkouk	10th Convention of the European Acoustics Association, EAA 2023; Politecnico di TorinoVia Paolo Borsellino, 53/NTorino; Italy	Presented a paper titled: Preliminary results of the Soundscape Attributes Translation Project (SATP): lessons learned and next steps
5	Dr. Ramya Sindi	Acta Scientific MEDICAL SCIENCES	Presented a paper titled: Evaluating the Therapeutic Potential of Coenzyme Q10 in Colon Cancer
6	Dr. Ghada Alghamdi	Proceedings of the 19th World Congress on Medical and Health Informatics.	Presented a paper titled: International Patient Summary Terminology
7	Ms. Sema Refaiee	International Conference for Education and Innovation in Museums (ICEIM)!	Presented a paper titled: Jeddah Journey through time: preserving urban memory in the digital age



FACULTY CONFERENCES PARTICIPATION

No	Name of Faculty	Conference Name	Туре
8	Ms. Sema Refaiee	International Conference for Education and Innovation in Museums (ICEIM)	Presented a paper titled: Transforming Museums into Learning Arenas: The Case of Public Spaces in the Saudi National Museum
9	Dr.Randa Hariri	Second Annual STEM Education Conference	Participated as a Speaker
10	Dr.Randa Hariri	Learn Conference	Participated as a speaker "Session title 1: Women Leaders: Navigate Challenges in Education Leadership" "Session title 2: The Future of Education: Who's Leading the Change?"
11	Prof. Imed Ben Dhaou	The17th International Conference on Verification and Evaluation of Computer and Communication Systems	TPC member
12	Dr. Ahlam Alaki	"Narratives of Displacement" International Conference	Presented a paper titled:Navigating Estrangement: Displacement and Identity in Hanan Alshaykh's Works
13	Dr. Homam El-Taj	International Jordanian Cybersecurity Conference	Presented a paper titled:A Comprehensive Survey of Microsoft Office Macros' Dual Role in Enhancing Efficiency and Elevating Security Risks
14	Dr. Homam El-Taj	International Jordanian Cybersecurity Conference	Presented a paper titled:Renewable Energy and Cyber Threats: Safeguarding Solar Power Systems
15	Prof. Imed Ben Dhaou	2024 IEEE/ACS 21st International Conference on Computer Systems and Applications (AICCSA)	Co-organized and Chaired "International Workshop on Modern Technologies for Natural Disasters Management (NaDiM'2024)"





STUDENT PUBLICATIONS PER SCHOOL

School of Engineering, Computing and Design 5

School of Business and Law 4

School of Education, Health and Behavioral Sciences 8



• • •

STUDENTS RESEARCH PUBLICATION

Students Research Publications				
No	Name of Student	Title of Article	Name of Faculty	
1	Ms. Manal Ahmad	PRACTICAL GUIDELINES FOR APPLYING THE RACI MODEL IN RECRUITMENT PRACTICES	-	
2	Ms. Manal Ahmad	THE EFFECT OF VISUAL ADVERTISEMENT ON CONSUMER BUYING BEHAVIORS	-	
3	Ms. Mahasen Alzebdah	The Impact of Vocal Function Exercises vs Vocal Hygiene on the Vocal Performance of Speech-Language Pathologists	Dr. Yaser Alnatour	
4	Ms. Abeer Harharah Ms. Aya Abudawood Ms. Farah AlWazani Ms. Ghadi Borah Ms. Sarah Oqbi	Exploring the Emerging Podcast Culture: A Case Study of Podcast Cafe in Saudi Arabia	-	
5	Ms. Hanin Abdulgaffar	Degree of creative leadership practices in private kindergartens from teacher's perspective in Northern Jeddah.	Dr. Rabab Alharbi	
6	Ms. Lamar Miralam	Network sniffing and its consequences: a comprehensive survey	Dr. Homam El-Taj	
7	Ms. Shahad Alsharif	What Predicts Within-Participant Replication of Relative Efficiency in Single-Case Comparisons? A Logistic Regression Analysis.	-	
8	Ms. Manar Halawani	Ensuring Fair Opportunities and Recognition for Emerging Artists in Saudi Arabia: Improving Visibility	-	
9	Ms. Dannah AlSafran Ms. Hind Belhabib Ms. Sultanah Homran	Artificial intelligence in Parkinson's disease detection: A strategic assessment for U.S Market entry	Prof. Nadia Yusuf	



STUDENTS RESEARCH PUBLICATION

Students Research Publications				
No	Name of Student	Title of Article	Name of Faculty	
10	Ms. Maysoon Eid	سبل ومعوقات التطوير المهني لمعلِمات اللغة الإنجليزية في المدارس العالمية بمدينة جدة من وجهة نظر المعلمات والإداريات	Dr: Rabab Alharbi	
11	Ms. Amal Alshehri	دور الإشراف التربوي في متابعة العملية التعليمية القائمة على التعليم عن بعد في مدينة جدة من وجهة نظر المشرفات	Dr: Rabab Alharbi	
12	Ms. Alaa Al-Kindi	دور البحث الإجرائي في تعزيز التَّنمية المهنيَّة للممارسين التربويين من وجهة نظر المعلَّمات الباحثات في مدينة جدّة	Dr: Rabab Alharbi	
13	Ms. Munira Al Hawsawi	مقترحات المديرات والمعلمات بمدارس الطفولة المبكرة في جدة لمعالجة الفاقد التعليمي في ضوء جائحة كورونا	Dr: Rabab Alharbi	
14	Ms. Raghda'A Abumathkour Ms. Lamar Miralam	Cultural Algorithms: A Framework for Efficient Knowledge Distribution in Anomaly Detection	Dr. Anas Al-Tirawi	
15	Ms. Alaa Abdullah Alattas	A Comprehensive Survey of Microsoft Office Macros' Dual Role in Enhancing Efficiency and Elevating Security Risks	Dr. Homam El-Taj	
16	Ms. Amena Khoja Ms. Dania Kamal Ms. Fatima Alammari Ms. Joud Alkhowaiter Ms. Layal Bogari Ms. Renad Essa	Renewable Energy and Cyber Threats: Safeguarding Solar Power Systems	Dr. Homam El-Taj	
17	Ms. Rawan Nabil Najjar	واقع دور المعلمات في تنمية مهارات القرن الواحد والعشرين لدى طالبات المرحلة المتوسطة بالمدارس الأهلية في مدينة جدة.	Dr. Mona Karim	





STAFF RESEARCH ACHIEVEMENTS

Students Research Publications			
No	Name of Staff	Title of Article	Q Rank
1	Dr. Fadwa Aljoud	Evaluation of serum biomarkers after intra-articular injection of rat bone marrow-derived mesenchymal stem cells in a rat model of knee osteoarthritis	Q1
2	Dr. Fadwa Aljoud	Red Sea Sponge Callyspongia siphonella Extract Induced Growth Inhibition and Apoptosis in Breast MCF-7 and Hepatic HepG-2 Cancer Cell Lines in 2D and 3D Cell Cultures	Q2



• • •

RECOGNITION OF DISTINGUISHED RESEARCHERS ACHIEVEMENTS



FACULTY DISTINGUISHED RESEARCH ACHIEVEMENTS

World's top 2% most-cited scientists

Prof. Emad Bin Dhaou

Prof. Emad Bin Dhaou, a faculty member in the Computer Science specialization at the College of Engineering, Computing, and Design, and Secretary of the Scientific Council, has been recognized in Stanford University's 2024 ranking of the world's top 2% most-cited scientists. This recognition is based on citation indicators, the total number of citations, and collaborative publishing.



Design Registration: EMG Device Measuring Muscle Activity

Dr. Anas Mohammed Al-Tirawi

Dr. Anas Mohammed Al-Tirawi, Assistant Professor in the Department of Computer Science at the School of Engineering, Computing, and Design, and Director of the Bachelor's Program in Computer Science, has registered the design of an Electromyography (EMG) sensor device for measuring muscle activity with the UK Intellectual Property Office. This was done in collaboration with researchers from international universities.





RECOGNITION OF DAH RESEARCHERS

Top Publishing Researches

12 10

Prof. Imed Ben Dhaou Prof. Abdullah Alghamdi

Most Cited Researchers

104 26

Dr. Dheyaaldin Alsalman Prof. Abdullah Alghamdi

Top Publications with Students

5 3

Dr. Rabab Alharbi Dr. Homam El-Taj



Research Fund Program

The Scientific Research Center is providing financial support for researchers who require resources to conduct distinguished research.

Internal Research Grants

7

Fund of Article Processing Charge

17

New Research Support Programs

The Scientific Research Center at Dar Al-Hekma University has introduced new research support programs alongside its existing initiatives. These programs aim to support faculty and student research, enhance productivity, and promote research excellence within the university.

Faculty Research Support Programs

- New Research Group Fund
 - Research Grants
- New Publication Excellence Incentives
 - Conference with Publication
 - Article Processing Charge (APC)

Students Research Support Programs

- New Publication Excellence Incentives
- New Article Processing Charge (APC)





CCTS 2024: 1st INTERNATIONAL CONFERENCE ON CREATIVITY, TECHNOLOGY, AND SUSTAINABILITY

The CCTS 2024 Conference aims to provide an enlightening platform that presents cutting-edge scientific breakthroughs and to keep pace with the rapid developments in the fields of creativity, technology, and sustainability, in line with Saudi Vision 2030. The conference attracts distinguished local and international experts and academicians who will enrich the conference with their valuable expertise and promote a culture of research, development, and innovation to address global challenges and connect universities with various developmental sectors.

CCTS 2024 in Numbers

Scientific papers submitted from 24 countries	Scientific posters	Attendees	Success partners and sponsors	Speakers and panelists
170	17	690	10	11

Keynote sessions and discussion panels	Workshops	Published scientific papers by Springer from 22 counties	Dar Al-Hekma Code Lab tours
6	5	60	2



Conference Publisher

Accepted papers are published as Open Access in the Springer Book Series Proceedings in Technology Transfer.

Springer, part of Springer Nature, is a global leader in scientific, technical, and medical publishing, offering quality content for researchers through innovative products, journals, and eBooks, including open-access options under Springer Open.

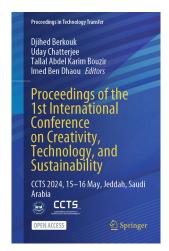


Conference Proceeding

The conference proceedings examine the dynamic relationship between technology and sustainability, highlighting the necessity of advancements that align with Saudi Arabia's Vision 2030 and the United Nations Sustainable Development Goals (SDGs).

The book features 55 published articles, including case studies, literature reviews, and scientific research, organized into five main sections:

- Technology for Innovation and Safety.
- Sustainable Solutions for Technology and Infrastructure.
- Transforming Education and Social Impact.
- Sustainable Environment and Smart Cities.
- Technologies for Health, Environment, and Sustainability.





CONFERENCE SPEAKERS AND PANELISTS





















CONFERENCE PARTNERS

Strategic Partners









Digital Entrepreneurship Partner



CONFERENCE SPONSORS

Platinum Sponsors





Creative Golden Sponsor

nawawi.

Silver Sponsor



Creative Sponser



CCTS 2024 booklet





STUDENTS RESEARCH COMPETITION



STUDENTS RESEARCH COMPETITION

Students Research Competition AY 23-24

Dar Al-Hekma University recognizes that rewarding outstanding outcomes is a vital motivator that contributes to an overall higher quality of student research. For the Academic Year 2023-2024, the Student Research Award was determined through a competition, a pivotal session of the CCTS 2024: 1st International Conference On Creativity, Technology, and Sustainability held in May 2024.



Rana Adel Hanbazazah







Manar Tariq Halwani



Best Presentation Award Mahasin Ghassan Alzibdah



RESEARCH COLLABORATION



RESEARCH COLLABORATION

Main Research Project Collaboration

The university recognizes the significance of engaging with external entities to elevate research at Dar Al-Hekma. This is accomplished through collaboration with academic and other related sectors to foster research and innovation at the university.

Imam Abdulrahman Bin Faisal University Agreement



In a three-year Memorandum of Understanding (MOU) with Imam Abdulrahman Bin Faisal University, the collaboration focuses on joint research, training, and knowledge exchange. This partnership has established valuable benchmarks and best practices for research at DAH.

Key outcomes include:

- A visit to IAU to gain insights into their research initiatives and best practices.
- DAH hosted a workshop by the VP of Research and Collaboration, sharing IAU's strategic Key Performance Indicators (KPIs) and best practices with management and faculty.
- Identified key areas for collaboration in faculty and student research.
- IAU's participation in the DAH conference, featuring a publication submitted by the IAU faculty and students.



MAIN RESEARCH PROJECT COLLABORATION

Elm Information Security Company



The Scientific Research Center has an active collaboration with the leading Elm Information Security Company. Key outcomes for the year 2024 include:

- Prepared a Memorandum of Understanding with Elm for research collaboration
- Visit the "Elm" Applied Research Exhibition, a leading company in innovation, service development, and process improvement. The visit aims to strengthen collaboration in research and innovation, as well as to exchange expertise and scientific knowledge.
- · Joint research project among Dar Al-Hekma faculty and Elm researchers
- Joint research grants application







TECNO & University of Leeds

Researchers at Dar Al-Hekma University and the University of Leeds in the UK have collaborated with TECNO to develop Al-powered Universal Tone imaging technology at TECNO. This collaboration aims to ensure an accurate representation of skin tones for Saudi consumers in mobile photography.

The partnership focuses on creating a localized database of skin tones in Saudi Arabia, adding over 30 new skin tone variations specific to the Saudi market. The aim is to emphasize enhancing user experiences in Saudi Arabia and the Middle East.





MAIN RESEARCH PROJECT COLLABORATION

Saudi Universities

The CCTS 2024 conference effectively engaged faculty members from Saudi Universities to co-chair the conference sessions. This is to activate the MOUs between the universities and foster collaboration and exchange of research knowledge and experiences.

University of Jeddah

Dar Al-Hekma University collaborated with the University of Jeddah (Deanship of Research and Innovation) to provide research training programs. These programs were designed and delivered by the University of Jeddah and shared with Dar Al-Hekma University's faculty, staff, and students.











Student Scientific Forum – University of Jeddah

Dar Al-Hekma University takes pride in its outstanding participation in the 6th Student Scientific Forum at the University of Jeddah. The university's students contributed exceptional research and innovative ideas across various academic and scientific fields. This participation provided a valuable opportunity to exchange knowledge and showcase the academic excellence that defines our institution. This achievement reflects Dar Al-Hekma's commitment to fostering scientific research and empowering its students to actively engage in prestigious academic events.





RESEARCH **COLLABORATION**

Main International Research Collaborations Entities





Main National Research **Collaborations Entities**

















Frequently Main Research Collaborations Entities



68

Total Joint Research Collaborations Entities





RESEARCH TRAINING, ORIENTATION, AND ACTIVITIES

The Scientific Research Center conducts Research Training, Orientation, and Activities to enrich the researcher's scientific outcomes.



Orientation					
No	Session Title	Session Type	Session Presenter		
1	Scientific Research Center New Faculty And Staff Orientation	Orientation	Dr. Samar Altarteer		
2	Orientation Day For Freshmen Student	Orientation	Dr. Samar Altarteer		
3	Announcement Of New Research Support Programs	Orientation	Dr. Samar Altarteer		
4	Orientation Program Research Plan	Orientation	Dr. Samar Altarteer		
5	iThenticate	Orientation	Ms. Pamela Atzori		

Research Hours				
No	Session Title	Session Type	Session Presenter	
1	Research Seminars	Research Hours	Dr. Beata Polok	
2	Research Hours	Research Hours	Dr. Mohammed Gomaa	



• • •

Workshop					
No	Session Title	Session Type	Session Presenter		
1	Author Workshop How to successfully publish in a scientific Journal Workshop Mr. Wael M				
2	Designing Research Poster Workshop Mr. Abdelqader				
3	Scientific Research Ethics Workshop Prof. Abdulaziz				
4	Community-based research Workshop Dr				
5	How to Use AI to Improve Your Writing, Best Practices to Follow	Ms. Radwa Al-Khatib			
6	How to use Taylor & Francis platform features to publish your research and choose the right Journal	Workshop	Mr. Mostafa Taha		
External Workshops by Collaborating Universities					
NO	Workshop Title		Workshop Presenter		
1	عينين Training أدوات الذكاء الاصطناعي في البحث العلمي		د. ظبية البوعينين		
2	محاضرة الذكاء الاصطناعي والنزاهة العلمي	بسمة الحربي Training محاضرة الذكاء الاصطناعي والنزاهة العلمي			
3	أخلاقيات تأليف ونشر البحث العلمي	Training	د. أكرم العقبي		



SOCIAL MEDIA RESEARCH CAMPAIGNS

The Research and Publication of the **Month Campaign**

The Scientific Research Center organizes a Social Media Research Campaign to promote and commercialize Dar Al-Hekma research publications and conference activities.



















Research Support and Services

The Scientific Research Center provides multiple services to support the researchers and to improve the quality of research.

Software and Databases

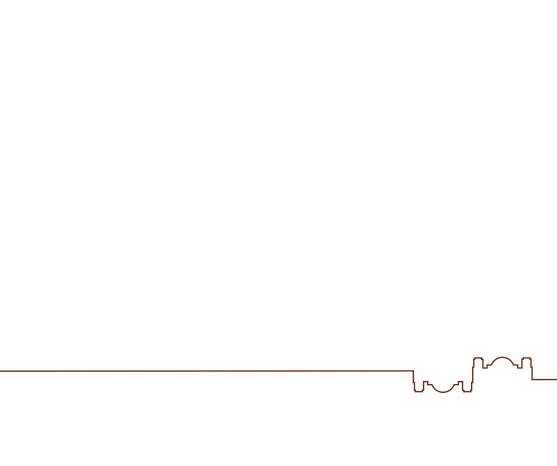














dah.edu.sa dahsrc@dah.edu.sa

Ext: 384

Al-Fayhaa District 6702 Prince Majed

Jeddah, Saudi Arabia 012 630 3333