ICEEIT 2021 Conference Program



On behalf of the steering and organizing committees, we welcome you to the 2nd International Conference of Electrical Engineering and Information Technology ICEEIT 2021, Benghazi, Libya. This conference is held by University of Benghazi, and it is organized jointly by:

- 1. University of Benghazi
- 2. Libyan International Medical University
- 3. College of Electrical and Electronics Technology Benghazi
- 4. The Arab-German Young Academy of Sciences and Humanities (AGYA)
- Libyan, Authority of Natural Science Research and Technology
- 6. Tatweer Research.

ICEEIT 2021 is a forum for scientists, engineers, and practitioners to present their latest research, results, ideas, developments, and applications in all areas of Electrical Engineering and Information Technology. The conference program exhibits exciting presentations to contributed papers and state-of-theart lectures by invited keynote speakers.

ICEEIT 2021 Tracks

- Track 1: Power Systems
- Track 2: Artificial Intelligence
- Track 3: Telecommunication
- Track 4: Software Engineering
- Track 5: Control Systems
- Track 6: Renewable Energy
- Track 7: Health Informatics
- Track 8: Security & Computer Networks
- Track 9: Computer Vision

	Saturday, October	30, 2021					
08:00 - 14:00	.00 Registration @ Main Hall ,Faculty of Science, Universit of Benghazi & online						
09:00 - 09:45	Opening and Welcome @ Main Hall and Online						
09:45 –10:30	Keynote speaker: Prof. Dr. Oliver Korn Offenburg University of Applied Sciences, Germany & AGYA member	Title: Towards the Plateau of Productivity: Social Robotics on the Rise					
10:30 –11:15	Keynote speaker: Dr. Mahmoud Abdel-Hafiez Uppsala University-Sweden,Goethe University Frankfurt-Germany, AGYA member	Title: Engineering Quantum Materials for Energy Relevant Technology					
11:15-11:45	Coffee Break						



11:45-13:45		Parallel Sessions			
		Power Systems - Chair: Ahmed Tahir, Adel Rafa, Abdelnaser Elbreki			
	Session 1.1 Track 2 Room 2	11:45-12:00	91	Mohamed Jannat and Aleksandar Saviĉ. Using of Genetic Algorithms (GAs) to find the optimal location and sizing of static VAR compensator (SVC) to minimize real power loss	
		12:00-12:15	53	Sara Alsubhi, Kaouther Laabidi and Lobna Hsairi. Comparison of Several Artificial Neural Network Approaches for Fault Classification in Power Transmission Lines	
11:45 - 12:45		12:15-12:30	66	Abdulate Elganai. Comparison Study of AC And DC Current Losses in Corona Cage	
11.40 12.40		12:30-12:45	85	Hasan Alkour, Naima Hamad, Malak El-sherif, Aya El-fakhry, Fatma Ben-zablah, Zainab Mones and Aya Abdsalam. MEMS Accelerometer based condition monitoring and fault detection for Induction Motor	
		Artificial	Intelli	gence - Chair: Ahmed Lawgali, Wafa Eltarhouni, Mohamed Abdalla	
	Session 1.2 Track 2 Room 2	11:45-12:00	50	Jumana Eltrabelsi and Ahmed Lawgali. Offline Handwritten Signature Recognition based on Discrete Cosine Transform and Artificial Neural Network	
		12:00-12:15	73	Khamis Alarabi Aljribi. Acomparative Analysis of Frequency Bands in EEG Based Emotion Recognition System	
		12:15-12:30	49	Abdelfattah Alwarfalli, Fathiyah Yousuf and Ibrahim Ighneiwa. Arabic Sign Language Recognition System by Using Surface Intelligent EMG Signal	
		12:30-12:45	97	Mohamed Mami, Ahmed Altriki and Omar Sallabi. Possibilities of Applying the Blended Learning Approach in the Faculty of Information Technology	
		Telecor	n C	hair: Abdelhamid Albaraesi, Farhat Elshaltami, Adel Emhemmed	
	Session 1.3 Track 3 Room 3	11:45-12:00	38	Abdalnaser Kaeib, Nafaa Shebani, Amer Zerek and Fatima Laassiri. Effect Types of Encoder on Performance Optical Communication Systems at 10 Gb/s SMF link	
11:45 - 12:45		12:00-12:15	104	Alaa Alshweihdi, Isra Alamrony, Salma Elkawafi, Abdulrhman Elzwaie, Hana Shamata, Asma Alfergani and Abdelhamid Younis. Location Prediction in Mobile Cellular Networks	
		12:15-12:30	68	Khadiga Eltira, Nareeman Alawamy, Salma Elkawafi, Abdelhamid Younis and Raed Mesleh. Cooperative Amplify and Forward Space Modulation MIMO Techniques: Capacity Analysis With Channel Imperfections	
		12:30-12:45	67	Khadiga Eltira, Nareeman Alawamy, Abdelhamid Younis, Raed Mesleh and Osamah Badarneh. Cooperative Communications Based Quadrature Space Shift Keying: An Information–Theoretic Approach	
		Artificia	al Inte	elligence - Chairs: Omar Sallabi, Osama BenOmran, Mussa Omar	
12:45 - 13:45	Session 2.1 Track 2 Room 1	12:45-13:00	37	Moeid Elsokah, Anas Mejber, Amer Zerek and Hanin Hamdona. Next Generation of Smart Wheelchair with Speech Command	
		13:00-13:15	3	Nuha Balkir and Faraj El-Mouadib. Money Laundering Detection System Using Data Mining Functionalitie	
		13:15-13:30	108	Amna J. Al-Ojali, Kenz A. Bozed and Wafa Eltarhouni. Develop Graphical Passwords Authentication System Resistant To Shoulder Surfing Attacks	
		13:30-13:45	84	Zaha Badi and Lamia Abusedra. Neural Network-based Vocoders in Arabic Speech Synthesi	



0

		o () –				
		Software Eng Chair: Abdelbaset Elghriani, Osama BenOmran, Rafig Almaghairbe				
12:45 - 13:45	Session 2.2 Track 4 Room 2	12:45-13:00	57	Eiman Saleh, Howayda Elmarzaki, Salwa Elakeili and Omar Sallabi. Rule-Based Expert System for Diagnosing Common Childhood Illnesses: Smartphone App to Assist in Curbing the Spread of COVID- 19		
		13:00-13:15	65	Esra Abdelnabi, Abdelsalam Maatuk and Tawfig Tawill. An Algorithmic Approach for Generating Behavioral UML Models Using Natural Language Processing		
		13:15-13:30	94	Ali A. Ben Abdullah, Abdelsalam Maatuk and Osama Bin Omran. Change Propagation Path: An Approach for Detecting Co-Changes Among Software Entities		
		13:30-13:45	82	Gumma Alshokry, Mohamed Hagal and Bilal Aljabour. Tracking And Reporting Software Maintenance Requests Challenges In CMMS Systems		
	Control syste			n - Chair: Ibrahim Ighneiwa, Tawfiq Elmenfy, Nasar Aldian Shashoa		
12:45 - 13:45	Session 2.3 Track 5 Room 3	12:45-13:00	13	Ahmed Abougarair, Wael Ataeeb, Nasar Aldian Shashoa and Mohamed Edardar. Adaptive Traffic Light Dynamic Control Based on Road Trafic Signal from Google Maps		
		13:00-13:15	99	Omer Elbadri, Khalifa Mohamed and Zuhir Saad. Comparison of P&O and PSO Algorithms using MATLAB/Simulink		
		13:15-13:30	76	Tawfiq Elmenfy and Mona Mohamed. Robot Arm Control Using Fuzzy Logic Design Integrated With Genetic Algorithm Optimization		
		13:30-13:45	39	Mohamed Elmahdi Ali, El-Sharif Abdallah Omer and Eljaroshi Mohamed Diryak. Modeling and simulation and fabrication of resonant pressure sensor with silicon nitride beam.		
13:45 - 14:45				Lunch Break		
14:45 –15:45				Parallel Sessions		
	Session 3.1 Track 6	Renewa	ble E	nergy - Chair: Aiman Noeh, Othman Imrayed, Abdelnaser Elbreki		
		14:45-15:00	32	Mousa Salah Hashash, Hossam Momen Taher, Gamal Hashem, Isam Salem and Nabil Elsharif. Experimental investigation on solar		
14:45 - 15:45				humidification-dehumidification desalination system		
14:45 - 15:45	3.1	15:00-15:15	28	humidification–dehumidification desalination system Maha Abdulhakim, Ahmed Hammoda, Mohamed Elrais and Mawia Elgazzar. Simulation and Practical Implementation of PV Solar Energy Conversion System		
14:45 - 15:45		15:00-15:15 15:15-15:30	28 11	Maha Abdulhakim, Ahmed Hammoda, Mohamed Elrais and Mawia Elgazzar. Simulation and Practical Implementation of PV Solar Energy		
14:45 - 15:45	3.1 Track 6			Maha Abdulhakim, Ahmed Hammoda, Mohamed Elrais and Mawia Elgazzar. Simulation and Practical Implementation of PV Solar Energy Conversion System Abdelnaser Elbreki, Faisal Mohamed, Wafa Albsuon and Monaem Elmnifi. Active cooling of PV module performance enhancement using		
14:45 - 15:45	3.1 Track 6	15:15-15:30 15:30-15:45	11 33	Maha Abdulhakim, Ahmed Hammoda, Mohamed Elrais and Mawia Elgazzar. Simulation and Practical Implementation of PV Solar Energy Conversion System Abdelnaser Elbreki, Faisal Mohamed, Wafa Albsuon and Monaem Elmnifi. Active cooling of PV module performance enhancement using air duct with fans: Indoor Experimental Study Aicha Belgacem, Yahia Miloud, Mohamed Mostefai and Fatima Belgacem. DTC based SMC applied to IM drive in a photovoltaic		
14:45 - 15:45	3.1 Track 6 Room 1	15:15-15:30 15:30-15:45	11 33	Maha Abdulhakim, Ahmed Hammoda, Mohamed Elrais and Mawia Elgazzar. Simulation and Practical Implementation of PV Solar Energy Conversion System Abdelnaser Elbreki, Faisal Mohamed, Wafa Albsuon and Monaem Elmnifi. Active cooling of PV module performance enhancement using air duct with fans: Indoor Experimental Study Aicha Belgacem, Yahia Miloud, Mohamed Mostefai and Fatima Belgacem. DTC based SMC applied to IM drive in a photovoltaic pumping system		
14:45 - 15:45	3.1 Track 6 Room 1 Session	15:15-15:30 15:30-15:45 Health	11 33 1 info	Maha Abdulhakim, Ahmed Hammoda, Mohamed Elrais and Mawia Elgazzar. Simulation and Practical Implementation of PV Solar Energy Conversion System Abdelnaser Elbreki, Faisal Mohamed, Wafa Albsuon and Monaem Elmnifi. Active cooling of PV module performance enhancement using air duct with fans: Indoor Experimental Study Aicha Belgacem, Yahia Miloud, Mohamed Mostefai and Fatima Belgacem. DTC based SMC applied to IM drive in a photovoltaic pumping system rmatics - Chair: Salwa Elakeili, Mohamed Hajal, Gamal Bohouta Samia Abdalhamid, Mariam Elhaddad and Husam Ateer. Measuring Sensitivity of Parameters in Cardiac Cell Model of Human and Animal		
	3.1 Track 6 Room 1 Session 3.2 Track 7	15:15-15:30 15:30-15:45 Health 14:45-15:00	11 33 info 30	Maha Abdulhakim, Ahmed Hammoda, Mohamed Elrais and Mawia Elgazzar. Simulation and Practical Implementation of PV Solar Energy Conversion System Abdelnaser Elbreki, Faisal Mohamed, Wafa Albsuon and Monaem Elmnifi. Active cooling of PV module performance enhancement using air duct with fans: Indoor Experimental Study Aicha Belgacem, Yahia Miloud, Mohamed Mostefai and Fatima Belgacem. DTC based SMC applied to IM drive in a photovoltaic pumping system rmatics - Chair: Salwa Elakeili, Mohamed Hajal, Gamal Bohouta Samia Abdalhamid, Mariam Elhaddad and Husam Ateer. Measuring Sensitivity of Parameters in Cardiac Cell Model of Human and Animal Heart Abdelbaset Elghriani, Abdelsalam Maatuk, Ebitisam Elberkawi and Tameem El-Turki. Evaluation of the Knowledge of Medical and Health		



		Security & (curity & Comp. Net Chair: Mohamed Musbah, Younis Younis, Adel Emhemmed			
s	Session 3 3	14:45-15:00	44	Khaled Gouda and Mohsen Kara. Fabrication and Characterization of Bundle Carbon Nanotubes Transmisson Lines for MMIC Applications		
14:45 - 15:45		15:00-15:15	22	Salma Naje, Abdulsalam Sami and Younis A Younis. Blockchain and Cryptocurrencies in Libya: a Study		
		15:15-15:30	89	Faraj Alhapony, Ahmad Bkkar and Khalil Almogassipi. Study and Simulation for SDN's three layers		
		15:30-15:45	83	Fatma Salem. Stochastic Modeling Based Capacity Analysis for Vehicular Networks		

		Su	ind	day, October	[.] 31, 2021	
08:00 - 11:00	Registra	Registration @ Main Hall ,Faculty of Science , Universit of Benghazi & online				
9:00 – 10:30	DAAD R Guest s	e speaker: Salha Ennajeh egional Office Tunis peaker: Mohammed Alriaydh at the University of Benghazi and cholar			Title: Study and Research in Germany	
10:30 - 11:00			Coffee Break			
11:00 - 13:00		Parallel Sessions				
		Pow	ver S	Systems - Chair: Tawfi	q Elmenfy, Ahmed Tahir , Aiman Nouh,	
	Session 1.1 Track 1 Room 1	11:00-11:15	46		lasouda Mohamed and Tahani Abdalmawla. n of Engine Management System	
11:00 - 12:00		11:15-11:30	113	Abdel Aziz Mahmoud, Implementation of Fuz Crude Oil Pipeline	Sulayman Ameitiq and Omar Elmabrouk. An zzy Logic Technique to Predict Wax Deposition	
		11:30-11:45	4	Adel Rafa and Hala A as a Microgrid Conne	goub. Diesel Generators at the Customers Side cted to the Network	
		11:45-12:00	26	Abdulrahman Heebah Experimental Tests fo the Libyan Distributior	, Aiman Nouh, Mohamed Bara and Omar Mrehel. r Transformer Insulating Oil Degradation Used in n Network	
	Telecommunication - Chair: Amer Zerek, Zainab Mones, Abdelhamid Alb					
	Session 1.2 Track 3 Room 2	11:00-11:15	75		mmed Kablan, Mohammed Altorky, Suliman ayar. seasonal rain attenuation using ITU-R ibyan climate	
11:00 – 12:00		11:15-11:30	7		nad Mahmud, Ekasit Nugoolcharoenlap, Tossapol imgeer. Synthesis and Design of Trisection Filters	
		11:30-11:45	111		elhamid Younis and Raed Mesleh. Mutual city Analysis of Index Modulated OFDM	
		11:45-12:00	17	Adel Emhemmed. Des Micromachining Tech	sign High Gain Integrated Antenna by Using niques for 94GHz Applications	



11:00-11:15 70 Jalila Abd Alati, Ibrahim Ighneiwa, Omer Elbadri and Zakari Using Neuro-Fuzzy System to Improve Speech Recognition 11:00-11:15 70 Jalila Abd Alati, Ibrahim Ighneiwa, Omer Elbadri and Zakari Using Neuro-Fuzzy System to Improve Speech Recognition 11:00-11:15 70 Jalila Abd Alati, Ibrahim Ighneiwa, Omer Elbadri and Zakari 11:00-11:15 70 Jalila Abd Alati, Ibrahim Ighneiwa, Omer Elbadri and Zakari 11:00-11:15 70 Fathia Altabouni Altabouni, Ashraf Huwedi Huwedi and Ken	va Raiab			
13 Eathia Altabouri Altabouri Ashraf Huwadi Huwadi and Kan				
11:00 - 12:00 Track 2 11:15-11:30 110 Patina Altabourn Altabourn Altabourn Astrai Huwedi Huwedi Alta Ken Bozed. Object Detection using Statistical and textual Model				
Hours Ezz Abdulali, Wafa El-Tarhouni, Amina Abdo and Salma Alu 11:30-11:45 100 Gender Classification Using Discrete Cosine Transform and classifier				
11:45-12:0023Tahani Almabruk, Rafig Almaghairbe, Talal Bukewitin and N Recognition System for Libyan Vehicle License Plate	/larc Roper.			
Health informatics - Chair: Salwa Elakeili, Mohamed Hajal, Mussa	Omar			
12:00-12:20 109 Lamia Abusedra, Hanan Busedra and Mohamed Aljahani. S Session 109 Lamia Abusedra, Busedra, Hanan Busedra and Mohamed Aljahani. S	Smart			
12:00 - 13:002.1 Track 7 Room 112:20-12:40Huda Kutrani, Saria Eltalhi and Naeima Ashleik. Predicting influencing survival of breast cancer patients using logistic r of machine learning				
12:40-13:00Aya Alaghili, Ibrahim Ighneiwa and Zakariya Rajab. Deep Lo Improve COVID-19 Detection: Using CNN-Based Transfer I from Chest X-Ray Images				
Computer Vision - Chair: Ibrahim Ighneiwa, Mohamed Abdalla, Wafa E	Computer Vision - Chair: Ibrahim Ighneiwa, Mohamed Abdalla, Wafa Eltarhouni			
12:00-12:15 58 Hafsa Abdjalil Mansori, Abdelsalam Maatuk, Omar Sallabi a Gebril. An Efficient Enhanced Algorithm for Clustering Large	and Essa e Datasets			
SessionSession2.212:15-12:3088Mahmoud Elhejazi and Mohamed Musbah. Dynamic Defense Model for SDN Control Layer to Enhance OpenFlow Protoc	se In-Depth ol Security			
Room 2 12:30-12:45 114 Osama M Ben Omran. Managing Query Processing on Enc Database on the Cloud Efficiently	rypted			
12:45-13:00 19 Farah Atloba and Nuha Balkir. An Enhanced Version of K-n	neans			
Telecommunication - Chair: Farhat Elshaltami, Adel Emhemmed, Othm	an Imrayed			
12:00-12:15Ayat Al-Olaimat, Raed Mesleh, Omar Hiari and Abdelhamid Impact of Channel Correlation on the Performance of Acous Modulator- Free Space Optical System				
Session 1.3 12:00 - 13:00Session 1.3 Track 3Alzahra Badi, Abdulrhman Elzwaie, Mohamed Baayu, Faraj Salma Elkawafi, Mohamed Musbah and Raed Mesleh. Dete Self-installed Mobile Repeaters	Aldharrat, ection of			
Room 312:30-12:4515Nada Alhamdi and Shubat Ahmeda. Mobile WiMAX Networ Optimization and Performance Analysis	k			
12:45-13:00Mohamed Elkuafi, Salwa Almoshity and Abdulsalam Mohan comparison between fixed and moving control system algor reduce loss in voice applications through the internet.				
13:00 – 14:00 Conference Closing Session	Conference Closing Session			
14:00 – 15:00 Lunch	Lunch			



ICEEIT 2021 Keynote Speakers





Towards the Plateau of Productivity: Social Robotics on the Rise

Prof. Dr. Oliver Korn, is a Professor at Offenburg University of Applied Sciences, Germany, and a memeber of the Arabic German Young Academy (AGYA), specialisating in Computer Sciences (Affective computing; Assistive technologies; Gaming and gamification).

His overall vision is to enrich our environments by intuitive interfaces, "intelligent" assistive systems and motivating games, which adapt to the users and the context. He pursues this aim at Offenburg University as a full professor for Human Computer Interaction (HCI), Director of Affective & Cognitive Institute (ACI) and as founder and director of the software company KORION GmbH.

Email: oliver.korn@acm.org



Engineering Quantum MaterialsFor Energy Relevant Technology

Dr. Mahmoud Abdel-Hafiez, is an associate professor at Uppsala University, Sweden and Goethe University Frankfurt, Germany, and a memeber of the Arabic German Young Academy (AGYA). Specialisating in physics, material science (solid-state physics; Magnetism and superconductivity).

His research focuses on interdisciplinary directions at the frontier between condensed matter physics and materials science that includes the materials preparation and characterization of quantum materials.

Email: m.abdel.hafiez@physik.uni-frankfurt.de



Study and Research in Germany

Salha Ennajeh, is the Deputy Director of DAAD Regional Office Tunis

In the talk Ms Ennajeh will talk about the higher education system in Germany, different study programmes taught in German and English, how to find the right study programme, financial aspects, all the requirements you need to meet in order to start your career in Germany, how to do a PhD in Germany, and scholarship opportunities.

After the presentation, there will be a "Q&A" session. We have reserved 30 minutes after finishing the presentation to answer all the questions. The session will be conducted in English. **Email:** ennajeh@daad.tn



1. Steering Committee



Conference Chair :

• Prof. Dr. Tawfig Tawill

Dr. Abdelhamid Alhassi

University of Benghazi

Conference Co-Chairs:

Libyan International Medical University

- Prof. Dr. Abdelsalam Maatuk University of Benghazi
- Dr. Ali I Elgayar University of Benghazi

2. Technical Program Committee (TPC)

TPC Chair:

Associate prof. Kenz Bozed, University of Benghazi, Libya

TPC Co-Chairs:

- Prof. Shadi Aljawarneh Jordan University of Science and Technology
- Prof. Raed Mesleh
 German Jordanian University, Jordan
- Dr. Salama Ikki
 Lakehead University, Canada
- Dr. Hany Elgala University at Albany, USA
- Dr. Farhat Shaltami College of Electrical & Electronics Technology Benghazi
- Mr. Zakariya Rajab University of Benghazi, Libya
- Dr. Ibtihal Elshami College of Electrical & Electronics Technology Benghazi

3. Organizing Committee (OC)

OC Chair:

Ms. Saria Eltalhi

University of Benghazi

OC Members:

- Gofran Moftah Alawjale
- Amena Mahmud
- Khalil Farag Elfrjani
- Salmen Mohamed Mustafe
- Tawfiq Alathrm
- Salah Elhassi
- Amina Farag Elmanfi
- Amerah Rahoma
- Ramadan Alshrkse
- Youseff Elrayani
- Salah Elkadidki
- Mohamed Elhouty
- Abd-Alhakim Eshid

University of Benghazi University of Benghazi

University of Benghazi

University of Benghazi

- University of Benghazi
 - University of Benghazi
 - University of Benghazi
 - University of Benghazi
 - University of Benghazi
 - University of Benghazi
 - University of Benghazi Tatweer company
 - Libyan International Medical University



4. TPC Memberes:



The conference organizers wish to thank the many reviewers for their wonderful and necessary service. Their work makes the program successful and we are quite grateful.

Abdalla Elmanife College Of Electrical & Electronic Technology, Benghazi German Jordanian University Abdallah Alkhatib **Omar AL-Mukhtar University** Abdalmunam Abdalla Abdelbaset M. Elghriani Libyan International Medical University College of Computer Technologies, Libya Abdelhafid Mohamed Abdelhamid Albaraesi University of Benghazi Abdelhamid Younis University of Benghazi College of Electrical and Electronics Technology Abdelnaser Elbreki Sultan Qaboos University Abdelsalam Elhaffar Abdislam Rhebi University of Benghazi Abdulhameed Swedan Universiti Kebangsaan Malaysia Abdulhamid Sqhayer University of Tripoli Adel Emhemmed University of Tripoli Adel Rafa **Tobruk University** College of Electrical and Electronics Technology Ahmad Omar University of Benghazi Ahmed Hammoda University of Benghazi Ahmed Lawgali University of Benghazi Ahmed Tahir Aiman Nouh **Omar AL-Mukhtar University** Al-Mmuatazbellah Boker Virginia Tech University of Zawiya Amer Zerek University of Benghazi Aseim Elfrgani Ashraf Bourawy **Omar AL-Mukhtar University** University of Benghazi Asma Alfergani Ayat Al-Olaimat German Jordanian University Bashir Khamoudi **Research and Development Centre Bilal Aljabour** Libyan International Medical University Ebitisam Elberkawi University of Benghazi Eiman Saleh University of Benghazi Farhat Shaltami College of Electrical and Electronics Technology University of Benghazi Gamal Bohouta Swinburne University of Technology Sarawak Hadi N. Afrouzi Engineering College, Misurata University Hassan Aldeeb Hassan Amreiz London College UCK/Derby University Hend Eissa University of Tripoli University of Benghazi Howayda Elmarzaki Huda Kutrani University of Benghazi Ibrahim Ighneiwa University of Benghazi Ibtihal Elshami College of Electrical and Electronics Technology University of Benghazi Jalila Alferjany Kenz A. Bozed University of Benghazi University of Benghazi Khadiga Eltira University of Benghazi Khaled Gouda Higher Institute of Science and Technology, Ghadames Khalid Abdelkader





