



**2022 IEEE 2nd International Maghreb Meeting of the  
conference on Sciences and Techniques of Automatic  
control and computer engineering**



# **Conference Program**



**23-25 MAY 2022**

**Dar Tallil Hotel, Sabratha – Libya**

# WELCOME

**Program Booklet**

**2022 IEEE**

**MI-STA2022**

**23-25 MAY**

**Dar Tallil Hotel, Sabratha – Libya**



# Program of 2<sup>nd</sup> IEEE MI-SAT2022

Time	Day			
	SUNDAY, 22	MONDAY, 23	TUESDAY, 24	WEDNESDAY, 25
9:00-10:00		OPENING CEREMONY	ORAL SESSIONS	ORAL SESSIONS
10:00-11:00		KEYNOTE SPEAKER 1		
11:00-11:30		COFFEE BREAK		
11:30-12:30		ORAL SESSIONS	ORAL SESSIONS	ORAL SESSIONS
12:30-01:30				
1:30-2:30		LUNCH		
2:30-3:15	Registration	ORAL SESSIONS	KEYNOTE SPEAKER 4	KEYNOTE SPEAKER 6
3:15-4:30			KEYNOTE SPEAKER 5	WORKSHOP
4:30-5:00		COFFEE BREAK		
5:00-6:30		KEYNOTE SPEAKER 2	ORAL SESSIONS	COFFEE BREAK
		KEYNOTE SPEAKER 3		CLOSING CEREMONY

# Plan of Sessions



**&**



# Monday 23 May, 2022

TIME	PLACE	EVENT
9:00-10:00	Room 1	Opening Ceremony and Registration
10:00-11:00	Room 1	Keynote Speaker 1
11:00-11:30	Coffee Break	
11:30-1:30	Session 1	
	Room 1	Tele-Communication Engineering
	Room 2	Advanced Control Systems Engineering
	Room 3	Signal and Imaging Processing
	Room 4	Renewable Energy Conversion
1:30-2:30	Lunch	
2:30-4:30	Session 2	
	Room 1	Networking and communications
	Room 2	Power System and Control
	Room 3	Circuits, Electronics & Micro-electronics
	Room 4	Software Engineering
4:30-5:00	Coffee Break	
5:00-6:30	Room 1	Keynote Speaker 2
	Room 1	Keynote Speaker 3

## Tuesday 24 May, 2022

Time	Place	Event
<b>9:00-11:00</b>	<b>Session 1</b>	
	<b>Room 1</b>	<b>Information Technology</b>
	<b>Room 2</b>	<b>Intelligent system and Robotics</b>
	<b>Room 3</b>	<b>Signal and Imaging Processing</b>
	<b>Room 4</b>	<b>Modelling and Simulations</b>
<b>11:00-11:30</b>	<b>Coffee Break</b>	
<b>11:30-1:30</b>	<b>Session 2</b>	
	<b>Room 1</b>	<b>Tele-Communication Engineering</b>
	<b>Room 2</b>	<b>Networking and communications</b>
	<b>Room 3</b>	<b>Information Technology and E-learning</b>
	<b>Room 4</b>	<b>Power System and Control</b>
<b>1:30-2:30</b>	<b>Lunch</b>	
<b>2:30-3:30</b>	<b>Room 1</b>	<b>Keynote Speaker 4</b>
<b>3:30-4:30</b>	<b>Room 1</b>	<b>Keynote Speaker 5</b>
<b>4:30-5:00</b>	<b>Coffee Break</b>	
<b>5:00-6:30</b>	<b>Session 3</b>	
	<b>Room 1</b>	<b>Networking and communications</b>
	<b>Room 2</b>	<b>Modeling and Simulation</b>
	<b>Room 3</b>	<b>Intelligent system and Robotics</b>
	<b>Room 4</b>	<b>Renewable Energy Conversion</b>

## Wednesday 25 May, 2022

Time	Place	Event
<b>9:00-11:00</b>	<b>Session 1</b>	
	<b>Room 1</b>	<b>Tele-Communication Engineering</b>
	<b>Room 2</b>	<b>Renewable Energy and Smart Grid</b>
	<b>Room 3</b>	<b>Advanced Control Engineering</b>
	<b>Room 4</b>	<b>Health Informatics</b>
<b>11:00-11:30</b>	<b>Coffee Break</b>	
<b>11:30-1:30</b>	<b>Session 2</b>	
	<b>Room 1</b>	<b>Advanced Control Systems</b>
	<b>Room 2</b>	<b>Renewable Energy Conversion</b>
	<b>Room 3</b>	<b>Tele-Communication Engineering</b>
<b>1:30-2:30</b>	<b>Lunch</b>	
<b>2:30-3:30</b>	<b>Keynote Speaker 6</b>	
<b>3:30-5:00</b>	<b>Workshope</b>	
<b>5:00-5:30</b>	<b>Coffee Break</b>	
<b>5:30-6:30</b>	<b>Closing Ceremony</b>	

# First Day

**Monday, May 23, 2022**





# SESSION

# 1



**Time (11:30-1:30)**



- ROOM 1: Tele-Communication Engineering**
- ROOM 2: Advanced Control Systems Engineering**
- ROOM 3: Signal and Imaging Processing**
- ROOM 4: Renewable Energy Conversion**

## ROOM 1

<b>Session: Tele-Communication Engineering</b>			
<b>Chairs: Tammam Benmusa , Bashir Khamoudi</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
11:30-11:50	9	Investigation and Study of the Performance of a DVB Over Satellite Link Using M- ary PSK	Hager Bishi, Somya Alshepane, Kharia Alhdar and Saaida Alnour
11:50-12:10	136	Designing and Analysis of Underwater Optical Wireless Communication Systems	Ali Farij Kaeib, Omar A. Alshawish, Suhayl Ali Altayf Altayf and Mohamed.A. Gamoudi
12:10-12:30	32	A Secure MIMO Wireless Communication Systems Based on Hamiltonian Graphs and Artificial Noise	Raed Mesleh, Mohammad Abudayah, Omar Hiari and abdelhamid Younis
12:30-12:50	51	16-ary Modulation based Uncoded Space-Time Labeling Diversity with Four Transmit Antenna for Future Wireless Communication Systems	Shaheen Solwa, Mohamed K. Elmezughi, Dauda Ayanda, Ali Almaktoof and Omran Salih
12:50-1:10	268	Classification of the Libyan International Internet Traffic using Deep Packet Inspection Tools	Tammam Benmusa, Abdulmoaz Layas and Adam Asbali

## ROOM 2

<b>Session: Advanced Control Systems Engineering</b>			
<b>Chairs: Moftah Bakush , Naser Shtawa</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
11:30-11:50	165	Detection and diagnosis of induction motor's broken rotor bars in Kalman filter based drives	Samieh Abu Saad, Baderadin Elforjani, Naima Hamad, Khaled Almezghwi, Fengshou Gu and Andrew Ball
11:50-12:10	163	Predictive control of fractional Hammerstein models	Chouaibi Dhouha and Chagra Wassila
12:10-12:30	193	Detection of three-phase induction motor faults using deep network-based transfer learning techniques	Alasmer Ibrahim
12:30-12:50	203	Distributed Nonlinear State Estimation using SDRE Kalman Filter	Salah Abokhatwa
12:50-1:10	15	Towards achieving an optimum speed performance for DC servo motors via Fuzzy logic controllers	Hamza Alzarok
1:10-1:30	271	A Biologically Inspired Adaptive Model Theory For Humanoid Robot Arm Control	Seddik Khemaissia and Youcef Ysoufi

## ROOM 3

<b>Session: Signal and Imaging Processing</b>			
<b>Chairs: Ismail Shrena , Nabil Drawil</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
11:30-11:50	31	Cryptography using Affine Hill Cipher Combining with Hybrid Edge Detection (Canny-LoG) and LSB for Data Hiding	Fatima Yahia and Ahmed Abushaala
11:50-12:10	199	PalmPrint Recognition using Deep Convolutional Neural Networks	Salema Younus, Ezz Abdulali, Kenz Bozed and Sif Eddine Boudjellal
12:10-12:30	200	Performance Analysis of Brain Tumor Detection Based on Gradient Boosting Machine -CNN model	Wedad A.Elhola and Kenz A.Bozed
12:30-12:50	208	Assessment of Coriolis meters as instrumentation for gas void fraction measurement in air–liquid multiphase flow in a pipeline riser system	Salem Brini Ahmed, Aliyu Aliyu, Yahaya Baba, Rehil Omar Abdulhadi Omar and Hoi Yeung
12:50-1:10	167	Improve the Detection and Segmentation of Lung Nodule X-ray Images	Elhusain Saad
1:10-1:30	172	Multispectral palmprint recognition based on three descriptors: LBP, Shift LBP, and Multi Shift LBP with LDA classifier	Salwua K. Aqreerah, Alhaam Alariyibi and Wafa El-Tarhouni

## ROOM 4

<b>Session: Renewable Energy Conversion</b>			
<b>Chairs: Mohamed Abdusalam , Nuri Fello</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
11:30-11:50	2	Solar Integration in Water Desalination Systems A Literature Review	Ali Muftah, Hacen Dhahri, Leila Zili-Ghedira and Mabruk Abugderah
11:50-12:10	126	Developing New Solid Oxide Fuel Cell electrolyte for Advanced Clean Energy Generation during the Pandemic (COVID-19)	Abeer Farouk Al-Attar
12:10-12:30	164	Modeling and Simulation of a Hybrid Gas Turbine Power Plant-Solar Photovoltaic Plant System used in Messla Oil Field	Abdulbaki Allous, Hassan El-Gamal and El-Arabi Attia
12:30-12:50	43	Mechanical behavior study of PPCF material as solar photovoltaic backsheets	Albashir Elfaqih and Ibrahim Tawil
12:50-1:10	204	Performance Analysis of a Phase-Locked-Loop-based Synchronization Technique for Grid Connected-Photovoltaic Systems	Kalunga D. Mulembo, Ali Almaktoof, Mohamed K. Elmezughi, Abdurazag M. Khalat and Shaheen Solwa
1:10-1:30	56	Practical Implementation of A Modified Hybrid Bridge Multi-level Inverter Circuit	Zeyad E.Abdulhamed, Abdulhamid H.Essuri, Nourdeen A.Abodhir and Faysil A.Azreeq

# SESSION

## 2



**Time (2:30-4:30)**



**Room 1: Networking and communications**

**Room 2: Power System and Control**

**Room 3: Circuits, Electronics & Micro-electronics**

**Room 4: Software Engineering**

## ROOM 1

<b>Session: Networking and Communications</b>			
<b>Chairs: Menshawi K Menshawi , Abdulati Abdullah</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
2:30-2:50	17	Comparison of Genetic Algorithm Crossover Operators on WSN Lifetime	Yousef Jaradat, Mohammad Masoud, Ismael Jannoud, Ahmad Manasrah and Amer Zerek
2:50-3:10	59	Connectivity-Based Dissemination Protocol for VANET	Fatma Salem
3:10-3:30	121	Influence of Spatial Correlation Over the Channel Estimation in 6G Cell-Free Massive MIMO Network	Jamal Amadid, Asma Khabba, Zakaria El Ouadi, Layla Wakrim and Abdelouhab Zeroual
3:30-3:50	137	An Efficient Hybrid Pilot design for Channel Estimation in Massive MIMO Systems	Jamal Amadid, Asma Khabba, Layla Wakrim, Zakaria El Ouadi and Abdelouhab Zeroual
3:50-4:10	151	Authentication Protocol for Wireless Sensor Network in the Internet of Things (IoT)	Hala Elhabrush and Shubat Ahmeda
4:10-4:30	230	Optimization of Basic 25 Gb/s TDM-PON for New Era application	Ahmed Feituri, M.F.L. Abdullah, Abdulhameed Swedan, Redhwan Shaddad and Hager Suliman

## ROOM 2

<b>Session: Power System and Control</b>			
<b>Chairs: Ali Elfalleh , Abdul Hamid H.Esuri</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
2:30-2:50	10	Impact of Mechanical Storage System Technologies: A Powerful Combination to Empowered the Electrical Grids Application	Mohamed Khaleel, Tahir Ghandoori, Abdussalam Ahmed, Ahmed Alnagrat, Abdulgader Alsharif and Adel Abulifa
2:50-3:10	153	Voltage Control of Standalone Single Phase Self-Excited Induction Generator for Variable Speed Wind Turbine Using Bang Bang-PWM Controller	Abdullah Al-Manfi, Wael Mohamed and Elsalhin Elsalhin
3:10-3:30	238	Power Quality Improvement in Grid Connected PV System using Fuzzy Logic Controller based Maximum Power Point Tracing(MPPT)	Mohamed Idris Abozaed and Rowad Ali Muhammad Al-Habhab
3:30-3:50	157	The optimum location of capacitor to improve the voltage of 220/66 kV Substation Using ETAP Software	Sand Al-Refai and Adel Rafa
3:50-4:10	107	Enhancing Time Consuming Computation of Probabilistic Available Transfer Capability with Wind Resources using Probabilistic Collocation Method	Abdelwahab Alhammi and Alejli Alhengari

## ROOM 3

<b>Session: Circuits, Electronics &amp; Micro-electronics</b>			
<b>Chairs: Sami Bizzan , Elhusain Saad</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
2:30-2:50	11	High Driven Sub-harmonically Up-conversion Mixers based Schottky Diodes	Mussa Elsaadi, Hana Elsaady, Ritaj Matroud and Omar Juakah
2:50-3:10	78	Time Delay and Power Consumption Mitigation in VLSI Through Scalable Bias Technique	Tijjani Adam
3:10-3:30	152	Single-Ended Voltage Controlled Ring Oscillators Comparisons in 65nm Process	Sami Bizzan, Abdulmoied Omar and Alharari AlSORI Alharari
3:30-3:50	185	Study of Radio Absorbing Properties of Layered Oxide and Carbon Containing Composite Materials	Olga Boiprav, Natalia Pevneva and Hisham Ayad
3:50-4:10	233	Performance analysis and simulation design of a soft switching Cuk DC/DC converter with controllers	S.M Masum, Salma Nazia Rahman, Md. Mozammel Haque and Md. Sohel Rana

## ROOM 4

<b>Session: Software Engineering</b>			
<b>Chairs: Adel. A. M. Abosdel , Nagmden Miled Nasser</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
2:30-2:50	145	SSwIoT: Smart Algorithm for IoT Swarm Tasks Allocation	Ayad Keshlaf, Mustafa Aswad and Khari Armih
2:50-3:10	147	Decision Support System: Analysis And Design Methodology	Huweida Darbi and Eiman Saleh
3:10-3:30	149	Improving Use Case Points Techniques to Supporting Size Estimation of Software Projects	Mohammed Sultan, Tawfig Tawill, Mohamed Hagal and Salwa Elakeili
3:30-3:50	254	A Novel Method for Estimate the Structure Design Complication of Multi-Agents Based Systems	Howayda Elmarzaki, Tawfig Tawuill, Salwa Elakeili and Abdelsalam Maatuk
3:50-4:10	258	Using a Multi-agent System to Better Simultaneous Collaboration Software Systems	Rabeia Elfargane, Khamisa Yousef, Eiman Saleh and Naeima Abd Elati

# Second Day

Tuesday, May 24, 2022



# SESSION

# 1



**Time (9:00-11:00)**



- Room 1: Information Technology**
- Room 2: Intelligent system and Robotics**
- Room 3: Signal and Imaging Processing**
- Room 4: Modelling and Simulation**



# ROOM 1

<b>Session: Information Technology</b>			
<b>Chairs: Abdusamea Ibrahim , Nada Alhamdi</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
9:00-9:20	18	Development of an Evolutionary Cost-Sensitive Decision Tree Algorithm For Multiclass Problems	Mohammad Kassim and Sunil Vadera
9:20-9:40	33	Channel Polarization Analysis Using BEC	Alia Andi, Najway Alhajji, Nadia Salih and Ruqayah Alqathafi
9:40-10:00	186	Green Machine Learning for Green Cloud Energy Efficiency	Rashid Saeed, Elmustafa Sayed, Othman Khalifa, Mona Bakri Hassan, Rania A. Mokhtar and Aisha A. Hashim
10:00-10:20	237	Iris Recognition Using Artificial Neural Network	Nada Alhamdi, Mohamed Aldebri and Moad Alkout
10:20-10:40	115	Comparison Of Scheduling Schemes In Ipv4 And Ipv6 To Achieve High Qos	Amaymah Alajeeli Mohammed and Ghadah Ahmed Madani
10:40-11:00	266	The single packet Low-rate DDoS attack detection and prevention in SDN	Wisam Muragaa

# ROOM 2

<b>Session: Intelligent system and Robotics</b>			
<b>Chairs: Nasar Aldian Shashoa , Abdunaser Tresh</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
9:00-9:20	58	Multi-Start, Random Reselection of Algorithms or Both?	Tarek El-Mihoub, Lars Nolle, Christoph Tholen, Ibrahim Aref and Iring Paulenz
9:20-9:40	197	A Low-Cost Rehabilitation System for Upper Limb Amputees	Fathiyah Yousuf, Abdelfattah Alwarfali, Hanan F. Busedra and Ibtihal Elshami
9:40-10:00	246	Position Feedback Control of Lagrangian Robotic Systems via an Affine PD-Based Control Law. Part 1: Design of LMI Conditions	Sahar Jenhani, Hassène Gritli and Giuseppe Carbone
10:00-10:20	247	Position Feedback Control of Lagrangian Robotic Systems via an Affine PD-Based Control Law. Part 2: Improved Results	Sahar Jenhani, Hassène Gritli and Giuseppe Carbone
10:20-10:40	257	Efficient Real-Time Executive for ARM-Based Microcontroller	Abdurrahman Kraza, Nabil M. Drawil and Amna Elhawil
10:40-11:00	267	Using of Neural Network-Based Controller to Obtain the Effect of Hub Motors Weight on Electric Vehicle Ride Comfort	Abdussalam Ahmed, Abdulgader Alsharif and Triwiyanto Triwiyanto

## ROOM 3

<b>Session: Signal and Imaging Processing</b>			
<b>Chairs: Said Elkhetafi , Abdalnaser Kaeib</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
9:00-9:20	80	Assessment of Image Quality Parameters for Computed Tomography	Iman Abdulkarim, Karima Elmasri and Ibtesam Hassan
9:20-9:40	139	Iris recognition system based on fuzzy local binary pattern histogram and multiple classifiers	Amina Abdo, Wafa El-Tarhouni, Waleed Younus and Amna Abraheem
9:40-10:00	141	Digital Image Watermarking Method Based on LSB and DWT Hybrid Technique	Seddeq Ghrare, Abduladim Alamari and Hajer Abdulhakim Tawfiq
10:00-10:20	174	Finger Knuckle Print recognition based on the combination of the Multi Shift Local Binary Pattern descriptor with Discrete Fourier Transform	Asma Arjiah, Wafa El-Tarhouni and Ahmed Lawgali
10:20-10:40	195	Facial Emotion Recognition Based on Deep Learning	Sarah Amer and Kenz A.Bozed
10:40-11:00	222	Ensemble Machine Learning Model for Classification of Handwritten Digit Recognition	Mariam Omar, Kenz Amhmed and Wafa El-Tarhouni

## ROOM 4

<b>Session: Modelling and Simulation</b>			
<b>Chairs: Rajab Alhanesh , Hend Eissa</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
9:00-9:20	146	Comparison between harmonic identification techniques of active filter with experimental validation	Moufid Mohammedi and Bahi Tahar
9:20-9:40	155	Experimental investigation of damping performance for viscoelastic material as the core of three layers laminated plate	Mohammed Abuqunaydah, Muhsin Sulayman and Mohamed Elmkharram
9:40-10:00	69	Performance Evaluation of Multimedia over MPLS VPN and IPSec Networks	Azeddien Sllame
10:00-10:20	113	Evaluating the Fast Rerouting with MPLS Networks as a Fault Tolerance Mechanism with OSPF and IS-IS routing protocols	Azeddien Sllame, Mohammed Mohsen Hasanain and Abdulrahman Seddik Abujreda
10:20-10:40	123	Comparative analysis of Hydroplaning in Electric and ICE Vehicles	Mostafa Aboelsaoud, Ahmed Taha, Mohamed Abo Elazm and Hassam Elgamal
10:40-11:00	188	A Technique to Energy Poverty Reduction in Sub-Saharan Africa for Smart Metering and Energy Access Programs	Bennour Bacar, Ali Almaktoof, Abdurazag M. Khalat and Mohamed K. Elmezughi

# SESSION

## 2



**Time (11:30-1:30)**



**Room 1: Tele-Communication Engineering**

**Room 2: Networking and communications**

**Room 3: Information Technology and E-learning**

**Room 4: Power System and Control**

# ROOM 1

<b>Session: Tele-Communication Engineering</b>			
<b>Chairs: Mustafa Salem Agha , Nafaa Shebani</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
11:30-11:50	154	Wideband Angled Dipole Array Antenna with a Suppressed Sidelobe Levels For Beamforming Applications	Mahmoud Amer, Moustafa Abdalla and Abdullah Abograin
11:50-12:10	194	Evaluate Performance of High gain 2x2 MIMO Microstrip Antenna Operating at 28 GHz	Alyani Ismail, Mohd Rasid, Mohd Hamidon, Raja Abdullah and Nafaa Shebani
12:10-12:30	206	BER Performance Analysis using TCM Coding Over AWGN and Fading Channels	Sana Abdaljlil, Amer Zerek, Amer Daeri and Hend Eissa
12:30-12:50	215	Impact of Thermal Noise on Communication System Performance	Sana Abdaljlil, Olga Boiprav, Amer Zerek and Amani Saleh
12:50-1:10	259	Design of a Vivaldi antenna using particle swarm optimization for 5G applications	Hisham Jamom, Abdullah Abograin and Moustafa Abdalla
1:10-1:30	261	Design of Wideband Metamaterial Absorber Using Multiple Ring Resonators For X-Band Applications	Abdullah Abograin, Dafer Bekderna and Adel Emhemmed

# ROOM 2

<b>Session: Networking and communications</b>			
<b>Chairs: Nuredin Ahmed , Khaled suleiman</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
11:30-11:50	86	Vehicle Coverage Range and Vehicle Traffic Density effect on Contention level over VANET in Highway using OLSR Routing Protocol	Mohamed Alrfaaei and Abdulkader Akki
11:50-12:10	104	Enhancement the routing protocols in sensor networks	Bashir Gelili and Khawla Alzaruuq
12:10-12:30	7	Analyzing the Social behavior of mobile Subscribers using CDR and Neo4j technology	Salwa Ali and Nassir Abuhamoud
12:30-12:50	12	Improving Network's Performance by Applying Different Quality of Service Mechanisms	Nisreen Benltayef, Marwa Alzogni, Amira Abu-Gunaydah and Ebtisam Alhmadi
12:50-1:10	19	TCP Congestion Analysis of Wired and Wireless Links Using NS3	Jaefar Himeedah, Almuatacim Hamouda, Mothana Taher and Salem Sati
1:10-1:30	158	Performance Analysis of VoIP traffic over MANETs under Different Routing Protocols	Abdusalam Yahya and Kamal Tawer

## ROOM 3

<b>Session: Information Technology and E-learning</b>			
<b>Chairs: Abdelsalam Muraja Maatuk , Ahmed Maher</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
11:30-11:50	46	Decision Tree Algorithms for Predictive Modeling in Breast Cancer Treatment	Huda Kutrani and Saria Eltalhi
11:50-12:10	68	Biological and Tumor Markers in Early Prediction Phase of Breast Cancer Using Classification and Regression Tree: Sebha Oncology Center as a Case study	Asma Aagal and Mansour Essgaer
12:10-12:30	156	A Comparative Study on Various Deep Learning Techniques for Arabic NLP Syntactic Tasks on Noisy Data	Mohammed Elsheh and Shaima Abushaala
12:30-12:50	114	Private Tutoring During COVID in Jordan. Improving Academic Performance, or Chasing After an Illusion?	Ahmad Manasrah, Mohammad Masoud, Yousef Jaradat, Mohammad Alia and Amer Zerek
12:50-1:10	128	Assessing the Usability and Perceived Usefulness of a Moodle Platform within Libyan Higher Education institution	Khaled Abuhlfaia, Marwa Mohamed and Ali Abusenina
1:10-1:30	142	Transfer Learning For Crowded Counting	Othman Khalifa, Abdulgani Albagul, Aisha Hashim and Noreaha Abdul Malik Hashim

## ROOM 4

<b>Session: Power System and Control</b>			
<b>Chairs:, Omar Mrehel , Ali Mehna</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
11:30-11:50	124	Application of Voltage Control Techniques in South Western Libyan Network to Enhance Voltage Stability with Future Load Forecasting	Salma Belal Ali, Ahmed Tahir and Belkasem T. Magid Obadi
11:50-12:10	92	Analysis the Fault Effect on the Operation of Distance Relay in Presence of FACTS Controller for Apart of Libyan Network	Mohamed Jalboub, Assouri Salman, Marwa Nasrat and Alejeli Alhengari
12:10-12:30	94	Investigate the Effect of Connecting Multiple FACTS Controller on Voltage Stability and Power Transfer Capabilities	Mohamed Jalboub, Karima Hawisa and Mohamed Alganga
12:30-12:50	217	Improvement of Voltage Profile in Libyan Transmission Network Using Particle Swarm Optimization Technique	Abdulsalam Almabrouk, Osama Hebala and Samah Elsafty
12:50-1:10	13	Microgrid For Saving Critical Loads	Anis Issa and Murad Altaira
1:10-1:30	244	Wireless power Transfer Technology for Catching the Power losses caused by the Flux Leakage in Induction Machines	Nagi Mohamed, Abdussalam Khamis and Osama Gali

# SESSION

## 3



**Time (5:00-6:40)**



**Room 1: Networking and communications**

**Room 2: Modelling and Simulation**

**Room 3: Intelligent system and Robotics**

**Room 4: Renewable Energy Conversion**

# ROOM 1

<b>Session: Networking and communications</b>			
<b>Chairs: Sliman yaklaf , Moustafa Abdalla</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
5:00-5:20	190	Green Machine Learning Approach for QoS Improvement in Cellular Communications	Mamoon M. Saeed, Elmustafa Sayed Ali, Rashid Saeed, Rania Mokhtar, Othman Khalifa and Mohammad Abdul Azim
5:20-5:40	212	Mobile Edge Computing Issues and Proposed Solution	Musbah A. Sharf and Omar Aldawibi
5:40-6:00	214	A Proposed Research Methodology to Improve the Effectiveness of Information Technology Projects	<u>Abdelsalam Elrashdi, Bilal Aljabour and Rami Radwan</u>
6:00-6:20	218	Enhancing the FSO link range under very clear air and thin fog conditions in Albayda - Libya	Ibrahim Mohamed, Reem Abraheem and Alia Salih
6:20-6:40	14	Effect of Nonlinear Power Amplifier on 32- QAM Performance Using Different Communication Channels.	Fathia Hussain, Layla Wakrim, Huda Basheer and Amer Zerek

# ROOM 2

<b>Session: Modelling and Simulation</b>			
<b>Chairs: Suleiman Erateb , Nizar Ramadan</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
5:00-5:20	64	Semi-empirical models of electron beam control in radiation technologies	Salah Sowan, Valentin Lazurik, Vladimir Rudychev and Valentina Lazurik
5:20-5:40	88	Offline Writer Identification using Deep Convolution Neural Network	Amal Durou, Ibrahim Aref, Tarek El-Mihoub, Suleiman Erateb, Tarik Ghalut and Adel Emhemmed
5:40-6:00	210	Modeling and simulation of a hybrid power system for Hospital in Sabratha, Libya via HOMER software	Ahmed Aisa, Abd Alhkeem Alkhrbash and Mohammed Almoner
6:00-6:20	42	Investigating the Applicability of Horizontal to Tilted Sky-Diffuse Solar Irradiation Transposition Models for Key Libyan Cities	Nassir Abuhamoud and Yasser Nassar
6:20-6:40	57	Propagation Channel Modeling Utilizing Discrimination Analysis for Outdoor Environment	Basem Amer, Alhasan Almahroug and Abdusamea Omer

## ROOM 3

<b>Session: Intelligent system and Robotics</b>			
<b>Chairs: Abdussalam Ahmed, Ali Elmelhi</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
5:00-5:20	76	A New algorithm for a novel physiotherapy robot for upper-lower limbs	Ahmed Alarga, Ashraf Abdallah and Abdussalam Ahmed
5:20-5:40	96	Assisting Blind People Using Object Detection with Vocal Feedback	Heba H. Najm, Khirallah S. Elferjani and Alhaam A. Alariyibi
5:40-6:00	127	Amphibious Rover for Search and Rescue Applications	Mustafa Ayad, Suleiman Erateb and Khaled Ayad
6:00-6:20	173	Survey of Various Graphical Password Techniques and Their Schemes	Amna J. Al-Ojali, Kenz A. Bozed and Wafa Eltarhouni
6:20-6:40	205	Real Time Classification for Robotic Arm Control Based Electromyographic Signal	Ahmed Abougarair, Ali Elmelhi, Hanadi Gnan and Nasar Aldian Shashoa

## ROOM 4

<b>Session: Renewable Energy Conversion</b>			
<b>Chairs: Mohamed Jalboub , Essaid Shuia</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
5:00-5:20	118	Dynamic Behaviour of induction generator connected to wind turbine	Adel Rafa, Nouri Daw and Ibrahim Naser
5:20-5:40	21	Reduction the Reflection Losses in Solar Cells by Analysis of Mixed and Different Nano-Grating Shapes	Reyad Alfarah, Amal Boukar and Almonir Algnoni
5:40-6:00	134	Investigation and a review of the solar installations	Boukerche Ali, Lekhchine Salima and Bahi Tahar
6:00-6:20	23	Power Management and Sizing Optimization for Hybrid Grid-Dependent System Considering Photovoltaic/Wind/Battery/Electric Vehicle	Abdulgader Alsharif, Chee Wei Tan, Razman Ayop, Abdussalam Ali Ahmed, Mohamed Mohamed Khaleel and Abobaker K Abobaker
6:20-6:40	49	Voltage imbalance investigation in residential LV distribution networks with rooftop PV system	Abujafer Issa and Omar Mrehel



# Third Day

Wednesday, May 25, 2022



# SESSION

# 1



**Time (9:00-11:00)**



- Room 1: Tele-Communication Engineering**
- Room 2: Renewable Energy and Smart Grid**
- Room 3: Advanced Control Engineering**
- Room 4: Health Informatics**

## ROOM 1

<b>Session: Tele-Communication Engineering</b>			
<b>Chairs: Almukhtar Alhamrouni , Kheriya Alhaddar</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
9:00-9:20	25	Studying and Investigation of an Adaptive Unscented Kalman Filter as Target Tracking Algorithm Using Matlab	Abdussalam Ammar, Amira Ellafi, Amer Zerek and Kenz Bozed
9:20-9:40	72	Massive MIMO: In which Side Should It Be to Achieve The Highest Capacity	Omar Abu Ella
9:40-10:00	75	Magnetic Field Shielding Behavior of Mesh Wire in Low Frequencies	Ibtihal Elshami, Mohd Zarar Jenu, Khalid Elwrfalli, Ali Elgayar, Naila Elmangosh, Fathiyah Hamid and Mohamed Elgaud
10:00-10:20	98	Design and Analysis of Dipole Ultra Wide Band Antenna for Wireless Applications	Khaled Suleiman, Shipun Hamzah and Abobaker Albishti
10:20-10:40	41	Multiband Option and Size Reduction of PIFA antenna by using Genetic Algorithm and Gridded Structure	Layla Wakrim, Asma Khabba, Jamal Amadid, Rkia Oubah, Amer Ragab Zerek and Saida Ibnyaich

## ROOM 2

<b>Session: Renewable Energy Conversion</b>			
<b>Chairs: Hamid Sherwale , Nouri Khalifa</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
9:00-9:20	63	a novel passive cooling of photovoltaic module temperature reduction using truncated fins: a simulation study	Abdelnaser Elbreki, Mohamed Almakhtar and Faisal Mohamed
9:20-9:40	67	Comparison Between Global MPPT Techniques for PV Array Systems Subjected to Different Partially Shaded Conditions	Alhasan Hamad Almalih, Moneer A Faraj and Aiman Nouh
9:40-10:00	77	Control And Power Management of DC Microgrid Based Wind/Battery/Supercapacitor	Albasher Mohammed Abdulelah, Bouchhida Ouahid and Soufi Youcef
10:00-10:20	85	Performance of Pumping System Under Partial Shading	Amira Lakhdara, Tahar Bahi and Abdelkrim Moussaoui
10:20-10:40	87	Modeling and experimental investigation for performance enhancement of a PV module using an air cooling system in semi-arid region in Libya	Alhusayn Almalih, Yasser Aldali and Moftah Alshaikh

## ROOM 3

<b>Session: Advanced Control Systems Engineering</b>			
<b>Chairs: Mahmoud Elfandi , Matouk Elamari</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
9:00-9:20	66	The Application of Infrared Thermography and Image Processing in Condition Monitoring Systems of Turning Processes	Milad Elgargni
9:20-9:40	132	Fuzzy Logic Controlled Voltage transfer ratio of a Matrix Converter under Harmonic Distortion	Aziz Boukadoum, Abla Bouguerne and Tahar Bahi
9:40-10:00	144	Comparative Study Between a Novel Direct Torque Control and Indirect Field Oriented Control of Three-Phase Induction Motors	Abdussalam Khamis, Ali Abbas and Mahmoud Algoul
10:00-10:20	187	Using Power Flow Control Technology to Increase the Capability and flexibility of the Existing Electrical Transmission System of Libya	Khalid Elamari

## ROOM 4

<b>Session: Health Informatics</b>			
<b>Chairs: Tawfig M.Abdelaziz , Nureidin Ahmed</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
9:00-9:20	6	Assessment of Healthcare Workers' Level of Knowledge and Practices of Using Robotics During Covid-19	Abdelbaset Elghriani, Younis A. Younis and Abdelsalam M. Maatuk
9:20-9:40	45	Preprocessing Breast Cancer Dataset from Ultrasound Screening to Improve Data Quality for Diagnosis Modelling	Saria Eltalhi, Huda Kutrani, Raouf Azzuz and Fathia Elbadri
9:40-10:00	175	Compartment Models for Drug Diffusion in the Body	Guzlan Miskeen, Sana Fadil and Ahlam Alhadi
10:00-10:20	177	Wavelet Transform Based Image Fusion for Brain Tumor Detection	Munira Abdallatif and Hend Eissa
10:20-10:40	260	Smartphone application for personal health records of children with kidney disease: the CKP-PHR application	Eiman Saleh, Rabeia Elfargane, Sahar Al-Araibi and Saraya Al Taweel

# SESSION

## 2



**Time (11:30-1:30)**



**Room 1: Advanced Control Systems Engineering**

**Room 2: Renewable Energy Conversion**

**Room 3: Tele-Communication Engineering**

# ROOM 1

<b>Session: Advanced Control Systems Engineering</b>			
<b>Chairs: Ausama Hadi Ahmed, Ali Said Zayed</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
11:30-11:50	224	Control and Design 6-Pulse STATCOM Using Novel 2-Vector Closed Loop Control Algorithm	Ali Al-Mathnani, Ali Lesewed and Rasim Ali
11:50-12:10	201	State Estimation of an Inverted Pendulum on Cart System by Kalman Filtering and Optimal Control (LQG)	Abdulbasit Alhinqari
12:10-12:30	179	Development of Robotic 3D Printing System	Al-Hassan Al-Zentani and Azeddien Kinsheel
12:30-12:50	250	Design and development Intelligent Medical Care Bed Using Voice Recognition	Moeid Elsokah and Amer Zerek
12:50-1:10	183	Evaluation of Electric Vehicle Stability Using Fractional PID and Fuzzy PID Based Controllers	Abdussalam Ali Ahmed, Ahmed Sami, Abdulgader Alsharif, Ahmed Salem Daw Alarga, Johnson Santhosh and A. Albagul

# ROOM 2

<b>Session: Renewable Energy Conversion</b>			
<b>Chairs: Khalid Salem Ali Aleja , Abdunnase Shamekh</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
11:30-11:50	122	Comparison of a Hybrid Power System with a Conventional Diesel System	Nouri Khalifa, Ashraf Saleh Zayed, Adel Hamad Rafa and Abdunnasser Sassi Shamekh
11:50-12:10	225	Study of a Meteorological Conditioning for Solar-Driven Ejector Refrigeration Systems: Energy analysis.	Abdulhakim Agll and Abdalbasit Ashure
12:10-12:30	103	Performance Comparison Study of Solid Oxide Fuel Cell With Direct Oxidation in Three Fuel Types	Ibrahim Tawil, Farag Bsebsu, Ezuldeen B. Abraheem and Albashir Elfaqih
12:30-12:50	170	Evaluation of Nine Two-Parameter Probability Distributions for Modeling Wind Speed Data at Three Sits in Western Mountain- Libya	Hosni Mokhtar Ali Mokhtar, Milod Zakaria Ahmed Azzabi and Rida Emhammed Khamiss Khamiss

## ROOM 3

<b>Session: Tele-Communication Engineering</b>			
<b>Chairs: Abdullah Abograin, Lwaa Gafer Ahmed</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
11:30-11:50	29	Investigation and Simulation the Effect of nonlinear Amplifier on 16- PAM Modulation	Hanan Morgham, Sana Abdaljlil, Fatima Laassiri and Fatima Zahra Messaoud
11:50-12:10	269	Performance Analysis of 80 Gb/s XGS-PON Configuration for Future Co-Existing Scenario	Mohammed Khamdan, Abdulhameed Swedan and Bashir Khamoudi
12:10-12:30	140	Study of 5G Technology Effects on Public Health and Aviation Safety	Abdussalam Ammar, Amira Ellafi and Amer Zerek
12:30-12:50	252	Theoretical and Practical Study on Attenuation in Optical Fibers	Eman Garmoud



# Time (3:30-5:00)

## WORKSHOP

## ROOM 1

<b>Session: The effects of open science and IoT on sustainable development</b>			
<b>Chairs: Amer Daeri, Ayad Keshlaf and Mustafa Aswad</b>			
<b>Time</b>	<b>Paper ID</b>	<b>Paper Title</b>	<b>Authors</b>
03:30-04:15	WS_01	The expectation of open science on the development of forthcoming IoT technologies.	Omar Bouzid Khari Armih
04:15-05:00	WS_02	The role of IoT on sustainability development program in Libya	Amer Daeri

