



## 2024 IEEE 4<sup>th</sup> International Maghreb Meeting of the conference on Sciences and Techniques of Automatic Control and Computer Engineering



# Conference Program



May 19 - 21, 2024 – Tripoli – LIBYA  
University of Tripoli

**WELCOME**

**Program Booklet**

**2024 IEEE**

**MI-STA2024**

**19-21 MAY - 2024**  
**University of Tripoli,**  
**Tripoli – Libya**

# Program of 4<sup>th</sup> IEEE MI-SAT 2024

|                   | 9:00 - 10:00          | 10:00-11:00  | 11:00-11:30  | 11:30-13:30           |  | 13:30-15:00                               | 15:00-17:00   |                                    |  |                                      |
|-------------------|-----------------------|--|--------------|-----------------------|--|---|---|------------------------------------|--|--------------------------------------|
| <b>Day</b>        | <i>Room 1</i>         | <i>Room 1</i>  |              |                       | <i>Room 1</i>                                | Lunch                                     |   | <i>Room 1</i>                      | <b>Information Systems</b>                       |                                      |
| SUNDAY 19/5/2024  | OPENING CEREMONY      | Keynote #1 + Keynote # 2   | Coffee Break | <b>Oral Session 1</b> | <i>Room 2</i>                                |   | <b>Advanced Control System</b>                              | <b>Oral Session 2</b>              | <i>Room 2</i>                                    | <b>Networking and Communications</b> |
|                   |                       |  |              | <i>Room 3</i>         | <b>Computer Networks and Cloud Computing</b> |   | <i>Room 3</i>   | <b>Renewable Energy Conversion</b> |  |                                      |
|                   |                       |  |              | <i>Room 4</i>         | <b>Tele-communication Engineering</b>        |   | <i>Room 4</i>   | <b>Signal and Image Processing</b> |  |                                      |
|                   |                       |  |              |                       |  |   |   |                                    |  |                                      |
| MONDAY 20/5/2024  | Keynote 3             | Discussion Panel   | Coffee Break | <b>Oral Session 1</b> | <i>Room 1</i>                                | <b>Security and Information Assurance</b> | <b>Oral Session 2</b>                                       | <i>Room 1</i>                      | <b>Artificial and Computational Intelligence</b> |                                      |
|                   |                       |  |              | <i>Room 2</i>         | <b>Power Distribution System</b>             | <i>Room 2</i>                             | <b>Automatic Control Systems</b>                            |                                    |  |                                      |
|                   |                       |  |              | <i>Room 3</i>         | <b>Microwaves and antennas</b>               | <i>Room 3</i>                             | <b>Database and Data Mining +Human Computer Interaction</b> |                                    |  |                                      |
|                   |                       |  |              | <i>Room 4</i>         | <b>Machine Learning</b>                      | <i>Room 4</i>                             | <b>Wireless/ Mobile Communication</b>                       |                                    |  |                                      |
| TEUSDAY 21/5/2024 | <b>Oral Session 1</b> | <i>Room 1</i>  | Coffee Break |                       | Keynote 4                                    | CLOSING CEREMONY                          |   |                                    |  |                                      |
|                   | <i>Room 2</i>         | <b>Artificial and Computational Intelligence</b>                 |              |                       |  |   |   |                                    |  |                                      |
|                   | <i>Room 3</i>         | <b>Tele-Communication Engineering + Software Engineering</b>     |              |                       |  |   |   |                                    |  |                                      |
|                   | <i>Room 4</i>         | <b>Information Systems + Machine Learning</b>                    |              |                       |  |   |   |                                    |  |                                      |
|                   |                       | <b>Control in Power Electronics + Control of Robotic Systems</b> |              |                       |  |   |   |                                    |  |                                      |

# **Keynote Speakers**



**Speaker1: Habib M. Kammoun**, IEEE Africa and Middle East Zone Representative, University of Sfax, Tunisia

**Talk Title:** *Benefits of Publishing with IEEE*

The talk presents how to publish a technical paper with IEEE and the benefits of publishing research works, such as visibility, reputation, professional development, etc. IEEE Xplore continues to be the most cited publisher worldwide. The talk offers advice on everything from how the IEEE publishing process works to basic writing tips and submitting a manuscript.

**Biography:** Habib M. Kammoun received the Ph.D. degree in computer science from the National Engineering School of Sfax (ENIS), University of Sfax, Tunisia. He is head of the Computer Science Department, Faculty of Sciences, University of Sfax. He is a member of the Research Groups in Intelligent Machines (REGIM) Laboratory, University of Sfax and a member of the Machine Intelligence Research Labs (MIR Labs), USA. His research interests include soft computing, computational intelligence, intelligent transportation systems, and smart cities. He is a program committee member within several IEEE conferences and transactions.

Habib is the current IEEE Africa and Middle East zone representative and IEEE MGA board member. He was the secretary of the IEEE Africa Council and the chair of the IEEE R8 conference committee, and volunteered in several IEEE committees. He organized some well known IEEE international conferences and received IEEE awards.



**Speaker2: Prof. Ahmed Hassan Yousef** is the Vice President for academic affairs at Egypt University of Informatics.

**Talk Title:** *The Arabic Natural Language Processing applications*

Arabic Natural Language Processing applications are highly needed in different domains. Over two decades, many tasks will be investigated including sentiment analysis, Arabic and Arabizi named entity recognition, sarcasm detection, dialect detection, analyzing social media, fake news detection, professional social networking data extraction, specialized syntactic search engines, topic modelling, duplicate record detection and cross language record mapping. With the invasion of generative artificial intelligence and large language models and the fast evolution in these technologies, benchmarks and evaluation methods are highly needed to assess the current situation and define the future research directions. This is not limited to natural text but can be extended to multimodal sentiment analysis, software code smells detection and converting code between multiple programming languages for portability across multiple platforms like Android and IOS

### ***Biography***

Prof. Ahmed Hassan Yousef is the Vice President for academic affairs at Egypt University of Informatics. He is a Computer Engineering Professor in Ain Shams University. As an IEEE volunteer, he served as the chair of the Egyptian section. His research interests include software systems engineering, informatics, high performance computing, and natural language processing



**Speaker3: Prof Abdel Aitouche**, University of Lille, CRISTAL, France

**Talk Title:** *Robust Fuzzy Fault Tolerant Control of Wind Energy Systems subject to sensor and actuator faults*

The dynamic behavior of wind turbines varies widely along their operating range. Robust controllers, which are specifically designed to cope with nonlinear dynamics through the use of linearization techniques and other methods have been widely applied to the design of wind turbine control systems. Nonlinearities and system uncertainties are the most important difficulties in designing controllers that ensure stability and acceptable closed-loop performance. A robust fuzzy scheduler fault tolerant control is proposed to tackle multivariable nonlinear systems subject to sensor faults, actuator faults and parameter uncertainties. Takagi–Sugeno fuzzy model is employed to represent the nonlinear wind energy systems, and then a model-based fuzzy scheduler controller design use the concept of general-distributed compensation. Takagi–Sugeno fuzzy systems are classified into three families based on the input matrices and a fault tolerant control synthesis procedure is given for each family. In each family, sufficient conditions are derived for robust stabilization, in the sense of Lyapunov method and Taylor series stability, for the Takagi–Sugeno fuzzy system with parametric uncertainties, sensor faults, and actuator faults. The sufficient conditions are formulated in the format of linear matrix inequalities. The effectiveness of the proposed controller design methodology is finally demonstrated through a wind energy system with doubly fed induction generators to illustrate the effectiveness of the proposed method.

### ***Biography***

Abdel Aitouche was born in Algiers and he received his diploma of Engineer in Supelec (France) in 1980 in Electrotechnique. He joined SONELEC in 1980 and after A company of RadioNavigation since 2 years. He joined the Institute Algerian of Petroleum (IAP) in 1983 at 1987. He got his PHD Thesis in University of Nancy I in 1990 in the field of Automation. Abdel Aitouche was lecturer in Hautes Etudes d'Ingénieurs de Lille, France (Graduate School of Engineering) since 1991 and Professor since 2009. He is Searcher at Center of research in Informatics, Signal and Automation, Lille (CRISAL) since 1997 (associated with the CNRS, French National Center For Scientific Research). Since 2020, he belongs to the team Softe (System OF SysTem Engineering) of CRISAL. He is Emeritus Searcher at the Laboratory CRISAL since October 2022, University of Lille. He is member of MCA (Mediterranean Control Society) and member of INCOSE (International Council on Systems Engineering). Aitouche's research interests' concern fault tolerant systems (FTS), nonlinear control and fault tolerant control (FTC) and model based fault detection and diagnosis (FDD). Their application domains are mainly intelligent, embedded systems, process engineering, combustion engine, fuel cells and renewable energy (Wind, PV). He has published more than 300 papers



**Speaker4: Prof Abdulmajid Hussain** , a Professor of Software engineering at Sebha University,

**Talk Title:** *Green software engineering*

Green software engineering is one aspect of efforts to combat the global climate problem. It aims to improve everything related to the production and use of various engineering technologies and systems in a way that reduces the causes of pollution resulting from excessive exploitation of unfriendly engineering systems. This talk aims to highlight the methods and means used to improve software engineering in a way that contributes to reducing the harm associated with the production and exploitation of various engineering systems.

### ***Biography***

Abdulmajid Hussain is a Professor of Software engineering at Sebha University, where he has been teaching since 2008. He completed his PhD at University Malaya, and his MSc at Leeds University. He worked as an assistant professor at KICT, IIUM, from 2005 to 2007 then he rejoined Sebha University till now. Professor Abdulmajid is very passionate about teaching and is committed to providing his students with the knowledge and skills they need to succeed in the IT industry. In terms of the research, his research interests lie in the area of software engineering, ranging from *requirements engineering* to *interaction design*. At the national level, he has collaborated actively in many national committees for quality improvement of IT education. He has served on the National Executive Committee for redesigning the Information Technology Curriculum of National Secondary Schools, and he co-authored IT textbooks for the 2<sup>nd</sup> and 3<sup>ed</sup> year students of secondary schools. He also published two books on Software Engineering and Software Modelling using UML.



## *Discussion panel:*

### **Assessing the Role of Research Centers in Libyan higher education institutions**

- **Current Landscape:** Summary of the research centers in Libyan universities. Their goals, governing frameworks, and areas of specialization.
- **Effect and Significance:** Evaluate the influence of research institutes on Libya's scholarly and scientific community. Talk about the innovations, societal effect, and knowledge generation that these centers have produced.
- **Cooperation and Networking:** Determine the degree of cooperation and networking that exists both with outside partners and among research centers at Libyan institutions. Talk about the advantages and difficulties of multidisciplinary cooperation as well as the possibility of enhancing alliances with business, governmental organizations, and foreign institutions.
- **Funding and Sustainability:** Look at the financing schemes and environmental practices that Libyan university research centers use. Talk about the difficulties in obtaining funds.
- **Opportunities and Challenges:** List the main obstacles that Libyan university research institutes must overcome, including a lack of funding, inadequate infrastructure, and red tape. Talk about how to overcome these obstacles and take advantage of growth and development possibilities. Examine how research centers might help Libya's socioeconomic development and national priorities be addressed.
- **Future Vision:** Thoughts on how research centers at Libyan universities should develop going forward. Talk about new developments, possible expansion regions, and the influence of research centers on the direction of research and higher education in Libya

# Plan of Sessions



**&**



# First Day

**Sunday, May 19, 2024**



# Plenary Session 1

ROOM I

## Plenary Session 1

**Time (10:00 -10:30)**

**Chairmen's:** Dr. Nuredin Ahmed and Dr. Kiz abozid

**Speaker 1 :** Prof. Habib M. Kammoun

**Title:** *Benefits of Publishing with IEEE*

## Plenary Session 2

**Time (10:30 -11:00)**

**Chairmen's:** Dr. Nuredin Ahmed and Dr. Kiz abozid

**Speaker 2:** Prof. Ahmed Hassan Yousef

**Title:** *The Arabic Natural Language Processing applications*

# SESSION

# 1



**Time (11:30-13:30)**



**ROOM 1: Artificial and Computational Intelligence**

**ROOM 2: Advanced Control System**

**ROOM 3: Computer Networks and Cloud Computing**

**ROOM 4: Tele-Communication Engineering**

# ROOM 1

| <b>Session: Artificial and Computational Intelligence</b>  |                 |  |   |
|--|-----------------|--|---|
| <b>Chairs: Youssef Gdura , Nada Alhamd , Suad El-Geder</b> |                 |  |   |
| <b>Time</b>  | <b>Paper ID</b> | <b>Paper Title</b>   | <b>Authors</b>  |
| 11:30-11:45  | 5               | Named Entity Recognition for Identifying Entities Related to Illegal Migration in Libya: An Analysis of Twitter Textual Data | Essgaer, Mansour*                                     |
| 11:45-12:00  | 32              | Addressing the Libyan Arabic Dialect Identification: A Comparative Study of Ensemble Classification Methods                  | Essgaer, Mansour*                                     |
| 12:00-12:15  | 56              | Investigating the Impact of Control Parameters on the Performance of the harmony search algorithm by Parametric Analysis     | Misbah, Jalal*; Daeri, Amer M; Saad, Abdulbaset       |
| 12:15-12:30  | 60              | Solar Radiation Prediction In Libya Using Neural Networks  | Ali, Morad*; Almezghwi, Khaled                        |
| 12:30-12:45  | 61              | Enhancing Network Security in SDN: Detecting Low-Rate DDoS Attacks Using Decision Trees                                      | AlMomin, Hasen*; GARGOURI, Amir; Ghorbel, Mohamed Ali |
| 12:45-13:00  | 68              | Detecting Cognitive Decline in Alzheimer's Disease using Brain Signals: An EEG Based Classification Approach                 | Mohammed, Asmaa*                                      |
| 13:00:13:15  | 69              | Utilizing Eeg Signals For Epilepsy Seizure Detection   | Alfughi, Hana Ghait*; Maamar, Ali; Mohammed, Asmaa    |

## ROOM 2

| <b>Session: Advanced Control System</b>                              |                 |  |  |
|--|-----------------|--|--|
| <b>Chairs: Mahmoud Elfandi , Mohamed Eldardar , Ahmed Abougarair</b> |                 |  |  |
| <b>Time</b>  | <b>Paper ID</b> | <b>Paper Title</b>   | <b>Authors</b>   |
| 11:30-11:45  | 91              | Enhanced On-Off Control for Wind Energy Conversion System Electromagnetic Torque Ripple Minimization based on Whale Optimization Algorithm | BOUCHEMHA, Amel*; BRAHMI, OUSSAMA; Kahla, Sami; Ghenai, Chaouki            |
| 11:45-12:00  | 277             | Robustness Analysis of A Class of MPC Tuning Strategy  | Emhemed, Abdulrahman A.A.*   |
| 12:00-12:15  | 146             | Effect of VGPN on Missile GNC System Performance   | Kshinba, Abdulghafoor Ahmed*   |
| 12:15-12:30  | 280             | Singularity Configurations Investigation of FANUC LR MATE 200ID arm Manipulator  | Kinsheel, Azedien*; Kharidege, Ahmed                                       |
| 12:30-12:45  | 165             | Sliding-Mode Controller for Collective Transport using Decentralized Multi-Robot Systems   | abed, hadel*; Edardar, Mohamed M   |
| 12:45-13:00  | 271             | An Upgraded Back-stepping DC-Link Voltage Controller for On-Grid Photovoltaic Systems  | messaoudi, fethi*; Belgacem, Mbarki; Farhani, Fethi; abderrahmen, zaafouri |
| 13:00:13:15  | 294             | Modelling and Control of Sphere and Cylinder System  | Ahmed Alshareef, Tawfeeq N. Ahmed  |

## ROOM 3

| <b>Session: Computer Networks and Cloud Computing</b>             |                 |  |   |
|---|-----------------|--|---|
| <b>Chairs: Mahmud Mansour , Abdelsalam Maatuk, Sarra Elrabiei</b> |                 |  |   |
| <b>Time</b>   | <b>Paper ID</b> | <b>Paper Title</b>   | <b>Authors</b>  |
| 11:30-11:45   | 238             | Wireless Sensor Network Hop Count Theory Modeling and Deep Learning Prediction   | Sati, Salem*; Abugharsa, Afif   |
| 11:45-12:00   | 49              | Machine Learning Based Real-time Self-driving Car for Sudanese Autonomous Vehicular Markets                                      | Ahmed, Mayada; Saeed, Rashid A.; Mohammed, Omer; Elamin, Ahmed; Abdelaziz, Omer; Mohammed, Ahmed; Elbasheir, Mohammed S.* |
| 12:00-12:15   | 46              | Chain Links on Wheels: A Security Scheme for IoV Connectivity through Blockchain Integration                                     | Abdaljlil, Sana A*; Thabit , Fursan   |
| 12:15-12:30   | 185             | Diagnosis of Iron Deficiency in Lemon Plants Using Combined FMM/Histogram/GLCM Features and SVM Classifier on Leaf Images        | elayeb, zainab elayeb*; Elrowayati, Ali A.; Ben Sasi, Prof. Ahmed Yousef  |
| 12:30-12:45   | 42              | Comparison of Network's Performance by Applying Integrated Services and Differentiated Services Quality of Service Models        | Nisreen Bin Ltayef ; Radwan, Khlood; Alshaebi, Malak  |
| 12:45-13:00   | 228             | Estimate Control Interval for Optimal Link State Routing to Achieve High Performance   | sarreb, rebah D*  |
| 13:00:13:15   | 267             | Building an Affordable Portable Storage Area Network (SAN) with Raspberry Pi: Design, Implementation, and Performance Evaluation | Attar Bashi, Zainab*; Ahmad Nasser, Muhammad Solihin ; Mohd Aman, Azana Hafizah; Abuzaraida, Mustafa                      |



## ROOM 4

| Session: Tele-Communication Engineering                   |          |  |   |
|---|----------|--|---|
| Chairs: Tamam ben Musa, Amer Azrek, Sana Ahmed Abdaljilil |          |  |   |
| Time  | Paper ID | Paper Title  | Authors   |
| 11:30-11:45   | 82       | A Systematic Review of Routing Optimization in the Internet of Vehicle                                     | ahmed, zeinab; Hashim, Aisha Hassan Hassan A.; Saeed, Rashid A.; Elbasheir, Mohammed S.*  |
| 11:45-12:00   | 96       | Improved Stable Energy Balancing Based Clustering Routing Protocol for IoUT using Meta-heuristic Technique | Sayed Ali , Elmustafa*; Saeed, Rashid A.; Khidir Eltahir , Ibrahim; O. Khalifa, Othman ; Hassan, Mohamed                                |
| 12:00-12:15   | 97       | Energy-Aware Task Completion Delay Optimization of Space-Aerial Enabled MEC System                         | Barakat, Mohammed K; Ali Elnaim, Areeg ; Saeed, Rashid A.; M. Saeed, Mamoon ; Edam, Salaheldin ; Babeker, Amin ; Sayed Ali , Elmustafa* |
| 12:15-12:30   | 123      | Adaptive Wavelet Techniques for Pattern Analysis   | Abdaljlil, Sana A*; Abdallatif, Munira  |
| 12:30-12:45   | 126      | Shielding Effectiveness of Mesh Wire at Low Frequencies in Near Magnetic Field                             | Elshami, Ibtihal Fawzi T*; Gaddafi, Anwer ; Elgayar, Ali ; Elsity, Waffa ; Elmangosh, Naila ; Yousuf, Fathiyah ; Elgaud, Mohamed        |
| 12:45-13:00   | 270      | Enhancing Deep Semantic Communication Systems (Deep-SC) using the Pre-trained Models; BERT and BART        | A. Benmus, Tammam *; Embarek , Omar Wahed   |
| 13:00:13:15   | 274      | Machine Learning-Based Energy Optimization Routing Protocol For Wireless Sensor Networks                   | Bhieh, Amhmed*  |

# SESSION

## 2



**Time (15:00-17:00)**



**ROOM 1: Information Systems**

**ROOM 2: Networking and Communications**

**ROOM 3: Renewable Energy Conversion**

**ROOM 4: Signal and Image Processing**

# ROOM 1

| <b>Session: Information Systems</b>                               |                 |   |  |
|---|-----------------|---|--|
| <b>Chairs: Azedin Sllame , Khaled Almezghwi , Nuri Ben Baraka</b> |                 |   |  |
| <b>Time</b>   | <b>Paper ID</b> | <b>Paper Title</b>  | <b>Authors</b>   |
| 15:00-15:15   | 77              | A Framework for improving software development process hybridization of extreme programming, feature - driven development and waterfall         | Hagal, Mohamed Ali*; Al-Awami, Abdel-Fattah ; Elakeili, Salwa  |
| 15:15-15:30   | 89              | Choosing The Right Automated Software Testing Tool  | Aburas, Ali A*   |
| 15:30-15:45   | 135             | Adoption of Blockchain Technology in the Packaged Beverage Supply Chain   | Inayatulloh, Inayatulloh*                                      |
| 15:45-16:00   | 136             | Blockchain and IoT Technology Adoption Model for Improved Elderly Health Monitoring   | Inayatulloh, Inayatulloh*                                      |
| 16:00-16:15   | 148             | The Impact of Social Media on Bipolar Disorder Patients   | Alamrouni, Asraa*; Maatuk, Abdelsalam M; Gebril, Marwa Fadllah |
| 16:15-14:30   | 197             | The attitude towards using technology learning at a Technical Higher Institute in Libya within the framework of the Technology Acceptance Model | Taktek, Ebtesam*   |
| 14:30:14:45   | 223             | Assessing the Readiness of Implementing Strategic Information Systems in Libyan HEIs and Universities   | Salem, Somia Salem*; Maatuk, Abdelsalam M                      |

## ROOM 2

| Session: Networking and Communications                      |          |   |   |
|---|----------|---|---|
| Chairs: Tammam A. Benmus , Sami Bizzan, Sana Ahmed Abdaljil |          |   |   |
| Time  | Paper ID | Paper Title   | Authors   |
| 15:00-15:15   | 39       | Intelligent Mobile User Resource Allocation in 6G for Multi-Access Edge Computing                                     | Saeed, Mamoon; Saeed, Rashid A.; Mokhtar, Rania; Gaid, AbdulGuddoos; ahmed, zeinab; Elbasheir, Mohammed S.* |
| 15:15-15:30   | 55       | Improving the security and reliability of SDN controller REST APIs using JSON Web Token (JWT) with OpenID and auth2.0 | Muragaa, Wisam H A*; elhejazi, mahmoud  |
| 15:30-15:45   | 75       | Parallel Decoder of Polar Codes   | ANDI, ALIA AHMED*; ALSABIRI, ALFAYTOURI; HADID, KHALED; ALHAJJI, NAJWAY; SALEH, NADIA; EL NEFATI, MUSAB     |
| 15:45-16:00   | 119      | Optimize ISAR Imaging Techniques for Diverse Moving Targets   | Aref, Ibrahim A.*; Emhemmed, Adel Saad ; Elgadi, Yahya  |
| 16:00-16:15   | 175      | 6LoWPAN - Technical Features and Challenges in IoT: A Review  | Abood, Albahloul ; Hasan, Walid Khalifa*; Khaled, Haitham   |
| 16:15-14:30   | 183      | Evaluation of BER, Reliability and throughput during the vertical coexistence of 4G LTE and 5G NR                     | Ray, Jayanta Kumar*   |
| 14:30:14:45   | 209      | An Enhanced Method To Secure The High Embedding Capacity Steganography Based On LSB Indicator                         | ALBKOSH, FTHI M*; S. S. Mohamed, Alsadegh ; Abdalsam Albakoush, Aml ; Ahmed Albkush, Abdullah               |

# ROOM 3

| <b>Session: Renewable Energy Conversion</b>                       |                 |   |   |
|---|-----------------|---|---|
| <b>Chairs: Omar Alrabti, Abdunnaser Shamekh, Mohamed Jalboub.</b> |                 |   |   |
| <b>Time</b>   | <b>Paper ID</b> | <b>Paper Title</b>  | <b>Authors</b>  |
| 15:00-15:15   | 254             | Measurement-based Data Center Complete Load Model Construction & Power Quality Assessment at Distribution Level | Hfouda, Nada; Zubi, Hazem *   |
| 15:15-15:30   | 54              | Experimental Investigation on The Performance of Solar Cooker (Medium Size) Under Derna City Climate Conditions | Abdel hadi, Mahmood ; Alshowgi, Mohammed ; almuntasir, Ahmed ; Hamad Yonies , Ghaida ; Eshhata Alshokr, Hadeel ; Finosh, Sulafa ; Aldali, Yasser* |
| 15:30-15:45   | 72              | Rooftop Solar PV System in Libya  | Hareb, Majd*; Hareb, Fathi Omar   |
| 15:45-16:00   | 155             | Optimal Sizing of Hybrid Renewable System for Residential Appliances  | Jomah, Omer Saleh; Almabsout, Emad ; Ahmed, Abdussalam Ali; Khaleel, Mohamed Mohamed; Nassar, Yasser F; Alsharif, Abdulgader H*                   |
| 16:00-16:15   | 157             | Simulating Photovoltaic Emulator Systems for Renewable Energy Analysis  | Jomah, Omer Saleh; Mohamed, Dr. Nachaat; Ahmed, Abdussalam Ali; Alsharif, Abdulgader H*; Khaleel, Mohamed Mohamed; Nassar, Yasser F               |
| 16:15-14:30   | 218             | Potential installation of the Rooftop PV system in Brega Petroleum Marketing Company and its economic benefits  | Alhashmi , Adel Alhashmi*   |
| 14:30:14:45   | 239             | Design of 20MW Grid-Connected Photovoltaic Power Plant in Tawergha  | Shamekh, Abdunnaser Sassi*  |

## ROOM 4

| Session Signal and Image Processing                        |          |  |  |
|--|----------|--|--|
| Chairs: Osama Alkishriwo , Osama Abusaid , Bashir Khamoudi |          |  |  |
| Time   | Paper ID | Paper Title  | Authors  |
| 15:00-15:15  | 44       | Improving Block Matching and 3 Dimensions (BM3D) Filtering for Image Noise Removal Using Discrete Wavelet Transformation (DWT)     | Kshem, Warda*; Khmag, Asem   |
| 15:15-15:30  | 45       | Design and Simulation of a 3D Model Lower Limb Exoskeleton for Rehabilitation  | Ahmed, Mayada; Saeed, Rashid A.; Ali, Abdallah; Awas, Wadah; Hamid, Monzir; Alhafiz, Mohammed; Elbasheir, Mohammed S.* |
| 15:30-15:45  | 65       | An Effect of Huffman Encoding with Hybrid Edge Detection in LSB Image Steganography  | ELGHAYER, ARIJ MUKHTAR*; Abushaala, Ahmed Mohamed  |
| 15:45-16:00  | 247      | Real-Time Vehicle Speed Estimation   | Ganoun, Ali A.*; ALWINDI, Mohamed; TOMBOKTI, Taha  |
| 16:00-16:15  | 205      | SR TI-LFA vs rLFA: A Comparative Study on Network Resilience   | Ben Saud, Najia*; Mansour, Mahmud M  |
| 16:15-14:30  | 212      | Toward Security Enhancement for Deep Learning-Based Channel Estimation Model Under Adversarial Attacks in Next-G Wireless Networks | Alaqtaa, Maab Ramadhan*; Abusaid, Osama  |
| 14:30:14:45  | 8        | Radio Frequency Energy Harvesting with Power Splitting Scheme in Wireless Sensor Network   | Alazhary, Fatima Ali*  |

# Second Day

Monday, May 20, 2024



## ROOM I

### **Plenary Session 1**

**Time (9:00 -10:00)**

**Chairmen's:** NasarAldain Shashoa and Mohamed Chaabane

**Speaker 1 :** Prof Abdel Aitouche

**Title:** *Robust Fuzzy Fault Tolerant Control of Wind Energy Systems subject to sensor and actuator faults*

### **Discussion Panel:**

**Time (10:00 -11:00)**

**Chairmen's:** Ali Kanon

**Title:** **Assessing the Role of Research Centers in Libyan higher education institutions**



# SESSION

# 1



**Time (11:30-13:30)**



**ROOM 1: Power Distribution System**

**ROOM 2: Security and Information Assurance**

**ROOM 3: Microwaves and antennas**

**ROOM 4: Machine Learning**

# ROOM 1

| <b>Session Security and Information Assurance</b>             |                 |  |   |
|---|-----------------|--|---|
| <b>Chairs: Omar M Sallabi , Ikraiam Fawzi, Mohamed Babana</b> |                 |  |   |
| <b>Time</b>   | <b>Paper ID</b> | <b>Paper Title</b>   | <b>Authors</b>  |
| 11:30-11:45   | 74              | Cyber Risk Management of Third-Party Relationships: The need for An Assessment Guidelines To Regulate Private Sectors in Libya   | MOHAMED, IMAN<br>AHMEID*  |
| 11:45-12:00   | 80              | Digital Image Encryption Based on Elliptic Curve Cryptography  | Hasan, Mahmoud Hasan*   |
| 12:00-12:15   | 118             | Using A Penetration Testing Tool in Cyber SecurityEnhancing in an Expanded Communications Network  | Aboajela Msaad, Mariam*;<br>Ben zitoun, Nada; Elayeb,<br>Aseel  |
| 12:15-12:30   | 131             | Decentralized Hotel Reservations: Blockchain Integration for Incentivized Data Sharing and Smart Contracts   | ktari, jalel*; FRIKHA, Tarek;<br>Rekik, Majdi; Gassara,<br>Oussema; Boujelben,<br>Marwen; Ben amor, Nader |
| 12:30-12:45   | 182             | A holistic approach for Cyber Security Vulnerability Assessment Based on Open Source tools: Nikto, Acunitx, ZAP, Nessus and Enhanced with AI-Powered tool “ImmuniWeb AI” | Sllame, Azeddien M.*; Tomia<br>, Tayma; Rahuma , Ruqia  |
| 12:45-13:00   | 208             | A Comparative Study of MPLS Layer 2 and Layer 3 VPNs   | Mansour, Mahmud M*  |
| 13:00:13:15   | 132             | Implementation of a semi-empirical model for controlling radiation sterilization processes   | SAWAN, SALAH*;<br>Lazurik, Valentina;<br>Zolotukhin, Oleksandr ;<br>Lazurik, Valentin                     |

## ROOM 2

| <b>Session: Power Distribution System</b>                 |                 |   |   |
|---|-----------------|---|---|
| <b>Chairs: Mohamed EKhalat, Labib Daloub, Nuri Kalefa</b> |                 |   |   |
| <b>Time</b>   | <b>Paper ID</b> | <b>Paper Title</b>  | <b>Authors</b>  |
| 11:30-11:45   | 198             | Practical Evaluation of Overcurrent Protective Relay Performance in Power Distribution System                                   | Hamouda, Mohamed Daw*;<br>G. Mrehel, Omar .   |
| 11:45-12:00   | 290             | Optimizing Unit commitment problem with the daynamic programming method (DP) using MATLAB software                              | Jalboub, Mohamed K*   |
| 12:00-12:15   | 98              | Design and Implement a PC-Based SCADA Education System, Part I: Power System Frequency Control and Governor Response            | Almanfi, Abdullah Ayad*   |
| 12:15-12:30   | 268             | Empowering Remote Regions: Modeling and Simulation of a 1.54 MW Off-Grid Fuel Cell System for Sustainable Energy Independence   | Ben Hamad, Khlid; Alazoumi Alkrim, Outman ; Luta, Doudou Nanitamo*  |
| 12:30-12:45   | 147             | An Investigation into the Impact of Symmetrical Voltage Sag on the Performance of Three Phase Induction Motors-Based Simulation | Altaira, Murad*; Agela, Gaber; Issa, Anis   |
| 12:45-13:00   | 152             | Assessing Random Power Flow for Vehicle-to-Grid Operation based on Monte Carlo Simulation                                       | Jomah, Omer Saleh; Alsharif, Abdulgader H*; Ahmed, Abdussalam Ali; Nassar, Yasser F; Mohamed, Dr. Nachaat; Imbayah, Ibrahim |
| 13:00:13:15   | 100             | Comprehensive Review and Applications of Power Electronic Transformer for Optimal Power Integration                             | Asiegbu, Adimchinobi D*; Almaktoof, Ali AMA   |

## ROOM 3

| <b>Session: Microwaves and antennas</b>                       |                 |   |   |
|---|-----------------|---|---|
| <b>Chairs: Abdulatif Khrwat , Bashir Khamoudi , Adel Saad</b> |                 |   |   |
| <b>Time</b>   | <b>Paper ID</b> | <b>Paper Title</b>  | <b>Authors</b>  |
| 11:30-11:45   | 26              | A compact band notched ultra-wide band patch antenna with U- shaped resonators  | Akila, Hanein ; EL-Halabi, Heba*                                |
| 11:45-12:00   | 53              | Flexible Wideband Microwave Absorbers with Frequency Selective Surface Based on Mechanically Treated Foiled Polymer Film    | Boiprav, Olga*; Abdaljlil, Sana A; Bogush, Vadim                |
| 12:00-12:15   | 78              | Charcoal-Containing Microwave Fiber Absorbers   | Belousova, Elena*; Ayad, Hisham ; Abdelgani , A Mostafa Hussian |
| 12:15-12:30   | 272             | Mutual Coupling Suppression Techniques Used for compact 5G MIMO antennas  | Abdullah, Abdulati Ibrahim*                                     |
| 12:30-12:45   | 291             | Modelling and Simulation of Radar Cross Section Based on Parameters Affecting Surface Shape                                 | Karashen; Heba*, Alazraq, Ali                                   |
| 12:45-13:00   | 215             | Enhancing Agricultural Practices through IoT: A Dual-Modality Approach for Network Resilience and User Engagement           | Bello, Adamou A*; Almaktoof, Ali AMA                            |
| 13:00:13:15   | 71              | The Influence of Abrupt Symmetrical Voltage Sag on the Characteristics of Doubly Fed Induction Generator-Based Wind Turbine | Agela, Gaber*; Altaira, Murad                                   |

# ROOM 4

| <b>Session: Machine Learning</b>                                |                 |  |   |
|---|-----------------|--|---|
| <b>Chairs: Amna Elhawil , Abdoulmenim Bilah , Omar Abossada</b> |                 |  |   |
| <b>Time</b>   | <b>Paper ID</b> | <b>Paper Title</b>   | <b>Authors</b>  |
| 11:30-11:45   | 64              | Customer churn prediction using machine learning: Case study of a libyan internet service provider company | Alariyibi, Alhaam*  |
| 11:45-12:00   | 115             | Human activity recognition using AUTOML approach   | ELBOUSHI , Nadine*; NAGEM, TAREK A M; Alamami, Esra AA      |
| 12:00-12:15   | 164             | Long Short-Term Memory Employed for Classifying P300-based BCI   | Aljlaly , Ahlam; Elshami, Ibtihal Fawzi T*; Almjbari, Ahmed |
| 12:15-12:30   | 170             | Cyber Threat Detection using Machine Learning  | Gaddah, Firas W*; El-Geder, Suad F                          |
| 12:30-12:45   | 174             | Domain Adaptation Generative Model for Segmenting 3D MRI Pediatric Brain                                   | Shaari, Hala M*; Kevric, Jasmin -; Ahmed, Nureidin AS       |
| 12:45-13:00   | 178             | Improving Facial Expression Recognition in HCI: Traditional Techniques and Comparative Analysis            | Alshwehdi, Rayhan Soliman*; Eltarhouni, Wafa                |
| 13:00-13:15   | 235             | Virtual Smart Mirror as a Personal Trainer using Machine Learning  | Ali, Afra*  |

# SESSION

## 2



**Time (15:00-17:00)**



**ROOM 1:** Artificial and Computational Intelligence

**ROOM 2:** Automatic Control Systems

**ROOM 3:** Database and Data Mining +Human Computer Interaction

**ROOM 4:** Wireless/ Mobile Communication

# ROOM 1

| <b>Session: Artificial and Computational Intelligence</b>      |                 |  |   |
|--|-----------------|--|---|
| <b>Chairs: Mohamed Eljhani , Hala Elhabrush , Nada Alhamdi</b> |                 |  |   |
| <b>Time</b>  | <b>Paper ID</b> | <b>Paper Title</b>   | <b>Authors</b>  |
| 15:00-15:15  | 201             | Airline Scheduling Model Using Genetic Algorithm   | Elberkawi , Hiba R. *;<br>Kablan, Aya; Eldharif, Eslam<br>Ali                             |
| 15:15-15:30  | 217             | EEG Motor Imagery Classification using Graphical Neural Networks with Attention Mechanism  | Zegallai, Heba Medhat*;<br>emsilkh, Donya   |
| 15:30-15:45  | 229             | Classification of Cervical Cancer using Convolutional Neural Networks  | Alasbily, Sara Amer*;<br>elmoshity, salwa idres;<br>Younus, Salema Saad; Bozed,<br>Kenz M |
| 15:45-16:00  | 236             | A CNN based Crosswalk Guidance for the visually impaired that combines a Fuzzy Logic Controller and Genetic Algorithm.                       | Almajdoub, reim Abdalkader*   |
| 16:00-16:15  | 257             | Efficient Real-time Information Extraction from Book Cover Images Using YOLOv8 and SpaCy: A Novel Approach to Text Detection and Recognition | Alghemi, Nawal Saad*;<br>alkhadafe, Hasan Mr; Nasir,<br>ibrahim M                         |
| 16:15-14:30  | 275             | University Students' Attendance by Utilizing Face Recognition Approach Based on Deep Learning Technique                                      | Alqadhi, Anas*;<br>Khmag,<br>Asem   |
| 14:30:14:45  | 22              | Electron Mobility Calculations and Scattering Effects in GaN Compound Semiconductor  | Ikraiam, Fawzi A*   |

## ROOM 2

| <b>Session: Automatic Control Systems</b>                      |                 |  |  |
|--|-----------------|--|--|
| <b>Chairs: Ali Elmolhi , Moftah Albacosh , EShada Elwefati</b> |                 |  |  |
| <b>Time</b>  | <b>Paper ID</b> | <b>Paper Title</b>   | <b>Authors</b>   |
| 15:00-15:15  | 124             | Control of CSTR Using Active Disturbance Rejection Control and Model Predictive Control                                    | Ahmed Farhat Zrigan  |
| 15:15-15:30  | 167             | Optimal Control for Underactuated mechanical system  | Ahmed Mohamed Esharef  |
| 15:30-15:45  | 87              | Controlling Surface Roughness in Additive Manufacturing: Unveiling the Dominance of Neural Networks Over Linear Regression | Abdulshahed, Ali M*  |
| 15:45-16:00  | 33              | Performance of dynamic Power Assignments for Downlink NOMA System  | babana, mohamed*; Emhamed, Mohamed nuri Hussin; Alsharef, ALwaleed |
| 16:00-16:15  | 262             | An Automated Detection Model of Prepaid Mobile Phone Cards Using YOLOv5  | aljearni, zahai*; alkhadafe, Hasan Mr; Nasir, ibrahim M            |
| 16:15-14:30  | 43              | Adaptive Model Predictive Control for Achieving Lane Tracking  | Ibrahim Attawil  |
| 14:30:14:45  | 36              | Dynamics and Optimal Control of Quadcopter   | H. Abdsalam  |



# ROOM 3

| <b>Session: Database and Data Mining +Human Computer Interaction</b> |                 |  |  |
|--|-----------------|--|--|
| <b>Chairs: Khlid Ben Hamad, Mariam Aboajela Msaad, Salah Sawan</b>   |                 |  |  |
| <b>Time</b>  | <b>Paper ID</b> | <b>Paper Title</b>   | <b>Authors</b>   |
| 15:00-15:15  | 81              | Automatic Generation of Epsilon (Eps) value for DBSCAN Using Genetic Algorithms                                      | Gebril, Issa H*; El-Mouadib, Faraj; Mansori, Hafsa   |
| 15:15-15:30  | 230             | An Automatic Approach for Transforming Relational Databases into OWL Ontologies                                      | Gebril, Marwa Fadllah*; Maatuk, Abdelsalam M; Alamrouni, Asraa   |
| 15:30-15:45  | 111             | Development of a decentralized application for managing food supply chain based on blockchain                        | ktari, jalel*; Frikha, tarek; Hsairi, Melek; Lakhal, Ibrahim; Naifar, Fatma; Bouaziz, Assil; Ben amor, Nader |
| 15:45-16:00  | 141             | An Enhanced Software Maintenance Approach Based on World-Class Manufacturing Standard                                | Rajab, Hanan*  |
| 16:00-16:15  | 202             | The Impact of Trust, Perceived Credibility, and Perceived Self-Efficacy on The Acceptance of Mobile Banking in Libya | Abuhlfaia, Khaled*; Abuhlfaia, Khaled; Mohamed, Marwa  |
| 16:15-14:30  | 219             | Securing Democracy: Implementing a Blockchain-Based E-Voting System in Libya   | Elrabiei, Sarra M*   |
| 14:30:14:45  | 66              | The Correlation Between Architecture Smells, Package Stability and Reusability: A Case Study                         | Elfallah, Ehab*  |

## ROOM 4

| Session Wireless/ Mobile Communication                   |          |   |  |
|--|----------|---|--|
| Chairs: Kenz Abzid , Ramdan Khalifa , Mustafa Salim Agha |          |   |  |
| Time   | Paper ID | Paper Title   | Authors  |
| 15:00-15:15  | 288      | Multiband PIFA Antenna Design with Optimized Defected Ground Plane Using Genetic Algorithm                              | Wakrim, Layla*   |
| 15:15-15:30  | 292      | AI-Based QoS Optimization in Post-Disaster Ad Hoc Networks: Top-K Path Enumeration with Multicriteria Decision Analysis | Wakrim, Layla*   |
| 15:30-15:45  | 145      | Efficiency Investigation of Wireless Power Transfer System for Biomedical Implants                                      | Shennib, Mohamed A*;<br>Elsaadi, Mussa   |
| 15:45-16:00  | 52       | Capacity Enhancement Based on mMIMO for Cognitive Radio NOMA in Future 6G Networks                                      | Eisa, Mohamed Hassan;<br>Singh2, Manwinder ; Bilal,<br>Khalid Hamed; Saeed, Rashid<br>A.; Elmutasim, Dr. Imadeldin<br>Elsayed ; Elbasheir,<br>Mohammed S.* |
| 16:00-16:15  | 94       | On Demand User Association And Load Distribution with Guaranteed Rate in Multi UAVs Assisted Cellular Networks          | Omran , Allafi *; Beltayib,<br>Abduladeem; Abdelmoaty,<br>Ahmed  |
| 16:15-14:30  | 102      | Analysis of Different Architectures for RSSI Based Indoor Localization using Trilateration Technique                    | souissi, rihab*; ktata , ilef ;<br>sahnoun, salwa;<br>FAKHFAKH, Ahmed;<br>Derbel, Prof. Dr. Faouzi   |
| 14:30:14:45  | 283      | Power Control Optimization for Enhanced LTE Network Resilience Against illegal RF Repeaters                             | Ganoun, Ali A.*; Alghazzawi<br>, Muad M  |

# Third Day

Tuesday, May 21, 2024



# SESSION

# 1



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



**ROOM 1:** Artificial and Computational Intelligence

**ROOM 2:** Tele-Communication Engineering + Software Engineering

**ROOM 3:** Information Systems + Machine Learning

**ROOM 4:** Control in Power Electronics + Control of Robotic Systems

# ROOM 1

| <b>Session: Artificial and Computational Intelligence</b>    |                 |  |   |
|--|-----------------|--|---|
| <b>Chairs: Nuredin Ahmed , Yusra Maatug , Sarra Elrabiei</b> |                 |  |   |
| <b>Time</b>  | <b>Paper ID</b> | <b>Paper Title</b>   | <b>Authors</b>  |
| 9:00-9:15  | 70              | Depression Detection Based On Eeg Signals Using Machine Learning Algorithms  | Musbah, Fatima M*;<br>Mohammed, Asmaa;<br>Aghnaya, Hajer Belqasim   |
| 9:15-9:30  | 151             | Diagnosing Diabetes Using Binary Whale Optimization Algorithm-Based Feature Selection  | Ali, Marium Kh.*; lawgali,<br>Ahmed                                 |
| 9:30-9:45  | 169             | An Improved Genetic Algorithm Tool for Exam Timetabling Solutions  | Eldharif, Eslam Ali*;<br>Sallabi, Omar M.;<br>Eltharif, Asma        |
| 9:45-10:00   | 184             | Crosswalk Guidance System for the Blind and visually impaired Based on CNN with Hybrid Technique integrating Fuzzy Logic Controller and Genetic Algorithm. | Almajdoub, reim Abdalkader*   |
| 10:00-10:15  | 187             | Chest X-ray Image Synthesis Using Deep Convolutional GANs  | Alhamdi, Nada A.*;<br>Sunni, Mohammed                               |
| 10:15-10:30  | 191             | Enhancing Speech Emotion Recognition using ConvLSTM Model: A Cross-Dataset Analysis  | Ben-Sauod, Reem;<br>Alshwehdi, Rayhan Soliman*;<br>Eltarhouni, Wafa |
| 10:30-10:45  | 196             | Exploring Knowledge Landscapes: Clustering and Topic Modeling of Sebha University Scientific Publications  | Essgaer, Mansour*   |

## ROOM 2

| <b>Session Tele-Communication Engineering + Software Engineering</b> |                 |  |  |
|--|-----------------|--|--|
| <b>Chairs: Nafaa Shebani, Sana Ahmed Abdaljlil, Kaled Algadamsi</b>  |                 |  |  |
| <b>Time</b>  | <b>Paper ID</b> | <b>Paper Title</b>   | <b>Authors</b>   |
| 9:00-9:15  | 282             | Simulation of Critical Mission (Public service Paradigms Applicable to Offshore Rig Platform for Oil and Gas Revenue ) | M. Ammar, Abdussalam *; Y. Ellafi, Amira                                       |
| 9:15-9:30  | 286             | Minimizing the viruses' propagation in interconnected complex networks   | WAKRIM, layla*; SIHAM,   |
| 9:30-9:45  | 248             | Beyond the MRI: Revolutionizing Brain Tumor Detection with Deep Learning   | Soufi, Youcef*; khemaissia, seddik S   |
| 9:45-10:00   | 116             | Deadlock-free verification of the SACI-1 OBC using Circus Time Action and FDR  | El Sherif, Adnan*; Agina, Duaa   |
| 10:00-10:15  | 140             | An Optimal Optimization of Software development Cost Estimation Using Genetic Algorithm                                | Maeyouf, Mabroukah A.*   |
| 10:15-10:30  | 83              | Optimizing the performance of signalized intersection using Synchro Simulation Software                                | Mohamed , Abubakr Almahdi *; Bughrara, Neral ; tarhuni, Fares; Alsaiti, Ashraf |

## ROOM 3

| <b>Session: Information Systems + Machine Learning</b>        |                 |  |  |
|---|-----------------|--|--|
| <b>Chairs: Faraj El-Mouadib, Hala Shaari , Khamis Aljribi</b> |                 |  |  |
| <b>Time</b>   | <b>Paper ID</b> | <b>Paper Title</b>   | <b>Authors</b>   |
| 9:00-9:15   | 227             | The Quality of e-Banking Services and their Role in Achieving Customer Loyalty: A Case Study               | Al-Abdali, Marwa ; Maatuk, Abdelsalam ; Gebril, Marwa Fadllah*; Al-Saadi, Ahlam              |
| 9:15-9:30   | 273             | Evaluating the Extent of Application of Software Engineering Concepts in Graduation Projects: A Case Study | ali, taghreed zidan*; Hagal, Mohamed Ali; Elmarzaki, Howayda abedallah; Maatuk, Abdelsalam M |
| 9:30-9:45   | 51              | Comparing Performance of Ultrasonic type and Magnetic Type Flowmeters for Desalination Applications        | Elgali, Ahmidah*   |
| 9:45-10:00  | 255             | Sarcasm Detection in Libyan Arabic Dialects Using Natural Language Processing Techniques                   | Ala, Azalden*; Dogman, Aboagela ; Ammer, Fathi   |
| 10:00-10:15   | 264             | On Object Detection and Explainability with Sonar Imagery  | El-Mihoub, Tarek A.*; El Gadi, Abdulhakim ; Nolle, Lars; Stahl, Frederic                     |
| 10:15-10:30   | 295             | Breast Cancer Histopathology Images Detection  | Tabet, Mohammed A*   |
| 10:30-10:45   | 297             | IoT based system for greenhouses remote monitoring and climate control                                     | ghoul, yamna*  |

## ROOM 4

| <b>Session: Control in Power Electronics + Control of Robotic Systems</b>  |                 |   |   |
|--|-----------------|---|---|
| <b>Chairs: Dr. Daw Sassi , Dr. Mahmoud Elfandi , Eng. Zeyad Abdulhamed</b> |                 |   |   |
| <b>Time</b>  | <b>Paper ID</b> | <b>Paper Title</b>  | <b>Authors</b>                                    |
| 9:00-9:15  | 31              | Control Technique of MPPT Utilizing for Boost Converter Applied to Small Renewable Energy System and a DC Microgrid for Remote Area | Zentani, Ahmed T; Almaktoof, Ali AMA; Kahn, M.T.E |
| 9:15-9:30  | 190             | THD Mitigation in Parallel Voltage Source Converters Through Fuzzy Logic Control and SVPWM Technique                                | Ghambirlou, Khaled Esmail SH*                     |
| 9:30-9:45  | 240             | Modified Asymmetric 25-level H-bridge Multilevel Inverter   | Abdulhamed, Zeyad E*; Ajala, Mohaned              |
| 9:45-10:00   | 246             | A New Topology of Multi-Level Inverter  | Abdulhamed, Zeyad E*; Elgheriani, Mohamed         |
| 10:00-10:15  | 121             | Comparative Evaluation of PID Controller Tuning through Conventional and Genetic Algorithm  | I. Alkaber  |
| 10:15-10:30  | 211             | Sliding Mode Control based on Backstepping for Quadrotor  | Abeer K*Almhrm,                                   |
| 10:30-10:45  | 37              | Model Predictive Control for Optimizes Battery Charging Process   | Mohammed Ashreadi, Ma'arif, Alfian                |



**Plenary Session 1**

**Time (11:30 -12:00)**

**Chairmen's: Dr. Tawfek Atawel and Dr. Abdelsalam**

**Maatuk**

**Speaker 1 : *Prof Abdulmajid Hussain***

**Title: *Green Software Engineering***

**Time (12:00 -1:00)**

**CLOSING CEREMONY**