

JAC-ECC 2023

Technical Program



وزارة الاتصالات
وتكنولوجيا المعلومات
Ministry of Communications
and Information Technology



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JAC-ECC2023 Conference Program

(At-A-Glance)

Day 1: Monday, December 18, 2023

| Times | Activity\Session | | |
|---------------|---|---|---|
| 9:00 – 10:00 | Registration and Reception | | |
| 10:00 – 10:35 | <p style="text-align: center;">Opening Session Hosts by: Prof. Maha Elsabrouty, E-JUST, Egypt Room: E-JUST Campus (Prof. Abo-Ismael Theater)</p> <p>10:00 – 10:05 National Anthems of Egypt and Japan</p> <p>10:05 – 10:10 Prof. Haruichi Kanaya, Conference Co-Chair, Kyushu University, Japan</p> <p>10:10 – 10:15 Prof. Ahmed Hassan, Conference Co-Chair, EUI, Egypt</p> <p>10:15 – 10:20 Prof. Adel B. Abdelrahman, Conference Chair, E-JUST, Egypt</p> <p>10:20 – 10:25 Prof. Toshio Fukuda, IEEE Fellow, E-JUST Vice President of Research</p> <p>10:25 – 10:30 Prof. Reem Bahgat, EUI President</p> <p>10:30 – 10:35 Prof. Amr Adly, IEEE Fellow, E-JUST President</p> | | |
| 10:35 – 11:20 | <p style="text-align: center;">Keynote Session 1 Room: E-JUST Campus (Prof. Abo-Ismael Theater) Chairs: Prof. Maha Elsabrouty, E-JUST, Egypt, and Prof. Osamu Muta, Kyushu University, Japan Keynote #1: Prof. Eiji Okamoto, Nagoya Institute of Technology, Japan “Overview of Non-Terrestrial Network Utilization in 6G”</p> | | |
| 11:20 – 12:15 | Coffee Break | | |
| 12:15 – 13:00 | <p style="text-align: center;">Keynote Session 2 Room: E-JUST Campus (Prof. Abo-Ismael Theater) Chairs: Prof. Haruichi Kanaya, Kyushu University, Japan and Prof. Adel B. Abdelrahman, E-JUST, Egypt Keynote #2: Manuel Vázquez, IEEE Fellow, Institute of Materials Science of Madrid, Consejo Superior de Investigaciones Científicas, Spain “Cylindrical Micro- and Nanowires: From Curvature Effects on Magnetization to Sensing Applications”</p> | | |
| 13:00 – 13:45 | <p style="text-align: center;">Keynote Session 3 Room: E-JUST Campus (Prof. Abo-Ismael Theater) Chairs: Prof. Tanemasa Asano, Kyushu University, Japan, and Prof. Mohamed S. Sayed, E-JUST, Egypt Keynote #3: Prof. Masaaki Kuzuhara, IEEE Fellow, Kwansai Gakuin University, Japan “Gallium Nitride (GaN) High-Electron-Mobility Transistors (HEMTs) for High-Voltage Power Applications with Enhanced Efficiency”</p> | | |
| 13:45 – 14:15 | <p style="text-align: center;">Invited Session 1 Room: E-JUST Campus (Prof. Abo-Ismael Theater) Chairs: Prof. Mohammed Abo-Zahhad, E-JUST, Egypt, Dr. Sherif Hashima, RIKEN-AIP, Japan Invited Speaker #1: Eng. Bassem Boshra, CEO and Founder of SpimeSenseLabs “IoT Technology Trends and Impact on Job Profiles”</p> | | |
| 14:15 – 15:00 | Lunch Break | | |
| 15:00 – 16:30 | <p style="text-align: center;">Technical Session #1 Selected Topics in Microwave and Antennas Room: 206</p> | <p style="text-align: center;">Technical Session #2 Selected Topics in Signal, Image, and Video Processing Room: Prof. Abo-Ismael Theater</p> | <p style="text-align: center;">UG PBL Competition Assessment</p> |

| Times | Activity\Session | | | | |
|---------------|---|--|---|---|---|
| 16:30 – 18:00 | Technical Session #3 Selected Topics in Microwave and Antennas Room: 201 | Technical Session #4 Selected Topics in Artificial Intelligence Room: 203 | Technical Session #5 Selected Topics in Communications Room: 204 | Technical Session #6 Selected Topics in Internet of Things Room: 210 | ITI Training Session “IoT Technology Trends for Smart Cities” Eng. Bassem Boshra, CEO and Founder of SpimeSenseLabs Room: Prof. Abo-Ismael Theater Chairs: Prof. Mohamed S. Sayed, E-JUST, Egypt |
| 18:00 – 19:00 | UG Ceremony Room: E-JUST Campus (Prof. Abo-Ismael Theater) | | | | |

Day 2: Tuesday, December 19, 2023

| Times | Activity\Session | | | |
|---------------|--|--|--|---|
| 09:00– 10:00 | Registration and Reception | | | |
| 10:00 – 10:45 | Keynote Session 4 Room: E-JUST Campus (Prof. Abo-Ismael Theater) Chairs: Prof. Toshio Fukuda, IEEE Fellow, E-JUST, Egypt, Prof. Mohsen Ghaly, E-JUST, Egypt Keynote #4: Prof. Tatsuya Yokotani, Kanazawa Institute of Technology, Japan “Relationship between Academic Research and Standardization” | | | |
| 10:45 – 11:30 | Keynote Session 5 Room: E-JUST Campus (Prof. Abo-Ismael Theater) Chairs: Prof. Elsayed Elrabie, Menoufia University, Egypt, and Prof. Osamu Muta, Kyushu University, Japan Keynote #5: Dr. Sherief Hashima, RIKEN-AIP, Japan “Artificial Intelligence-aided Reconfigurable Intelligent Surface-aided 6G Networks” | | | |
| 11:30 – 12:15 | Coffee Break | | | |
| 12:15 – 13:00 | Keynote Session 6 Room: E-JUST Campus (Prof. Abo-Ismael Theater) Chairs: Prof. Walid Gomaa, E-JUST, Egypt, and Prof. Ahmed Fares, E-JUST, Egypt Keynote #6: Prof. Amr Elmasry, Egypt University of Informatics, Egypt “New Trends in Graph Theoretic Algorithm” | | | |
| 13:00 – 13:30 | Sponsors Exhibitions | | | |
| 13:30 – 14:30 | Lunch Break | | | |
| 14:30 – 16:00 | Technical Session #7 Selected Topics in Artificial Intelligence Room: 203 | Technical Session #8 Selected Topics in Communications Room: 204 | Technical Session #9 Selected Topics in Circuits and Systems Room: 201 | Technical Session #10 Selected Topics in Biomedical Eng. Room: 210 |
| 16:00 – 16:15 | Coffee Break | | | |
| 16:15 – 17:45 | Technical Session #11 Selected Topics in Artificial Intelligence Room: 203 | Technical Session #12 Selected Topics in Communications Room: 204 | Technical Session #13 Selected Topics in Circuits and Systems Room: 201 | Technical Session #14 Selected Topics in Biomedical Eng. Room: 210 |

Day 3: Wednesday, December 20, 2023
Physical Attendance at EUI Campus (Auditorium)
(Zoomed to E-JUST: Library Theater)

| Times | Activity\Session |
|---------------|---|
| 09:00– 10:00 | Registration and Reception |
| 10:00 – 10:45 | Keynote Session 7 Room: EUI Campus (Auditorium) Chairs: Prof. Hoda Mokhtar, EUI, Egypt, and Prof. Mohamed El Sharkawy, EUI, Egypt Keynote #7: Prof. Walid G. Aref, Purdue University, USA “On Location-Optimized Data Systems: Challenges and Opportunities” |
| 10:45 – 11:30 | Keynote Session 8 Room: EUI Campus (Auditorium) Chairs: Prof. Amr El-Sherif, EUI, Egypt, and Dr. Youssri Youssri, EUI, Egypt Keynote #8: Dr. Hossam Osman, Ministry of Communication and Information Technology “Technology Innovation for Economic Growth” |
| 11:30 – 12:15 | Coffee Break |
| 12:15 – 13:00 | Keynote Session 9 Room: EUI Campus (Auditorium) Chairs: Prof. Hala Zayed, EUI, Egypt, and Dr. Nader Mansour, EUI, Egypt Keynote #9: Prof. Alaa Sheta, Southern Connecticut State University, USA “Machine Learning in Sleep Medicine: A Focus on Obstructive Sleep Apnea” |
| 13:00 – 13:45 | Keynote Session 10 Room: EUI Campus (Auditorium) Chairs: Dr. Mohamed Taher, EUI, Egypt, and Dr. Basma Hassan, EUI, Egypt Keynote #10: Dr. Ramy Ahmed Fathy, Chief Expert, NTRA, Egypt “Frameworks for Trustworthiness Evaluation; Towards a Trustworthy ICT” |
| 13:45 – 14:45 | Lunch Break |
| 14:45 – 15:30 | Invited Session 2 Room: EUI Campus (Auditorium) Chairs: Dr. Ramy Farouk, EUI, Egypt, and Dr. Mohamed Ismail, EUI, Egypt Invited Speaker #2: Prof. Hesham Farouk, Ministry of Communication and Information Technology “Digital Egypt Builder Initiative (DEBI): Achievements and Future” |
| 15:30 – 16:15 | Keynote Session 11 Room: EUI Campus (Auditorium) Chairs: Prof. Amr El Masry, EUI, Egypt, and Prof. Iman Ashour, EUI, Egypt Keynote #11: Prof. Mohamed Zahran, New York University, USA “Toward a New Era of Computer Architecture” |
| 16:15 – 17:00 | Closing Session |

OPENING SESSION

Day 1, December 18, 2023 Time: 10:00-10:45

Hosts by: Prof. Maha Elsabrouty, E-JUST, Egypt

| Times | Activity |
|----------------------|---|
| 10:00– 10:05 | National Anthems of Egypt and Japan |
| 10:05 – 10:10 | Prof. Haruichi Kanaya, Conference Co-Chair, Kyushu University, Japan |
| 10:10 – 10:15 | Prof. Ahmed Hassan, Conference Co-Chair, EUI, Egypt |
| 10:15 – 10:20 | Prof. Adel B. Abdelrahman, Conference Chair, E-JUST, Egypt |
| 10:20 – 10:25 | Prof. Toshio Fukuda, IEEE Fellow, E-JUST Vice President of Research |
| 10:25 – 10:30 | Prof. Reem Bahgat, EUI President |
| 10:30 – 10:35 | Prof. Amr Adly, IEEE Fellow, E-JUST President |

TECHNICAL SESSION 1

Day 1, December 18, 2023 Time: 15:00-16:30

Selected Topics in Microwave and Antennas, Room: 206

Chair: Prof. Saber Zainud-Deen, Menoufia University, Egypt, and Prof. Ahmed Allam, E-JUST, Egypt, and Dr. Anwer Sayed, Electronics Research Institute, Egypt

| Order | Paper No. | Authors | Paper Title |
|-------|-----------|--|--|
| 1 | 99 | Saber Zainud-Deen, Hend Malhat and Mona Badawy | Time-Modulated Linear Frequency Diverse Array for Multi-Target Detection |
| 2 | 82 | Tanemasa Asano, Hideaki Iwahori, Ahmed Allam, Osamu Muta, Haruichi Kanaya and Adel B. Abdel-Rahman | Experimental Study on Microwave Heating of Soil for Nematode Control |
| 3 | 56 | Yassmeen Afify, Ahmed Allam and Adel Bedair | Comparative Study of Lumped and Distributed-Element Matching Networks on Performance of 2.45 GHz Rectifier |
| 4 | 65 | Esraa Mansour, Mohamed I. Ahmed, Ahmed Allam, Ramesh K. Pokharel and Adel B. Abdel-Rahman | A Simulation Study on Triple-Square Complementary Split-Ring Resonator for Non-Invasive Blood and Aqueous Solutions Measurements |
| 5 | 100 | Shaymaa Gaber, Anas Zainud-Deen, Hend Malhat and Mona Badawy | Joint Communication Radar Systems Based on Time-Modulated Plasma-Based Intelligent Reflecting Surface |

TECHNICAL SESSION 2

Day 1, December 18, 2023 Time: 15:00 - 16:30

Selected Topics in Signal, Image, and Video Processing, Room: Prof. Abo-Ismael Theater

Chair: Prof. Mohammed Abo-Zahhad, E-JUST, Egypt, and Dr. Moataz Abdelwahab, E-JUST, Egypt

| Order | Paper No. | Authors | Paper Title |
|-------|-----------|---|--|
| 1 | 113 | Adel Abdel-Rahman, Ahmed Allam, Moataz Abdelwahab, Mostafa Elsharkawy, Bassam Kobasy, Habib Eltabakh and Omar Essam | A Smart Blind Stick with Object Detection, Obstacle Avoidance, and IoT Monitoring for Enhanced Navigation and Safety |
| 2 | 108 | Ali Waleed, Ibrahim Nezar, Amel Mohamed, El-Sayed El-Rabaie and Nariman Abdel-Salam | RDIFR: Robust Digital Image Forgery Recognition System for Image Splicing Using Deep Learning |
| 3 | 57 | Bassel Yasser, Amel Mohamed, El-Sayed El-Rabaie and Nariman Abdel-Salam | CBSB: Robust Cancelable Biometric System for Banks Using Deep Learning |
| 4 | 29 | Mohamed Abdu, Sahar Abdelrahman Ismail and Rania Ziedan | Machine Diagnosis by Anomalous Sound Detection Using AI Techniques |
| 5 | 68 | Mohammed S. Sayed, Mostafa Elsharkawy, Bassam Kobasy, and Habib Eltabakh | Enhancing Lane Detection for Autonomous Vehicles Using Image Processing and Real-Time Analysis |

TECHNICAL SESSION 3

Day 1, December 18, 2023 Time: 16:30-18:00

Selected Topics in Microwave and Antennas, Room: 201

Chair: Prof. Adel B. Abdelrahman, E-JUST, Egypt, and Prof. Hend Malhat, Menoufia University, Egypt and Dr. Mohamed Ismail, Electronics Research Institute, Egypt

| Order | Paper No. | Authors | Paper Title |
|-------|-----------|--|---|
| 1 | 78 | Patrick Odong, Ahmed H. Abd El-Malek, Ahmed Allam, Asano Tanemasa and Adel B. Abdel-Rahman | Recharging Zero Energy Devices: Multi-Frequency RF Energy Harvesting Perspective |
| 2 | 91 | Hala Mohammed Elsayed, Anwer S. Abd El-Hameed, Ahmed Allam, Ramesh Pokharel and Adel Bedair Abdel-Rahman | Substrate Integrated Waveguide Sensor for Noninvasive Glucose Measurement |
| 3 | 16 | Kyrillos Youssef, Ahmed Abd El-Malek, Haruichi Kanaya and Mohammed Abo-Zahhad | Optimization of Coaxial Feed Position Selection and Exploitation of Metasurface to Improve Microstrip Antenna Radiation Performance |
| 4 | 111 | Mostafa Nassar, Rania Abdallah, Heba Soliman and Esmat Abdallah | Mutual Coupling Reduction Techniques for Dual Band MIMO Antenna |

TECHNICAL SESSION 4

Day 1, December 18, 2023 Time: 16:30-18:00

Selected Topics in Artificial Intelligence, Room: 203

Chair: Prof. Ahmed Zaky, E-JUST, Egypt, and Prof. Samir Elsagheer, E-JUST, Egypt

| Order | Paper No. | Authors | Paper Title |
|-------|-----------|--|---|
| 1 | 61 | Kibitok Abraham, Moataz Abdelwahab and Mohammed Abo-Zahhad | Classification of Libya Floods and Morocco Earthquakes Using CNN-Based Deep Learning Models |
| 2 | 4 | Mohamed A. Khamis, Basem Galal and Walid Gomaa | Deep learning is Competing with Random forest in Computational Docking |
| 3 | 84 | Samir Elsagheer, Yara Atallah and Hassan Hashem | Enhancing Road Safety using the Internet of Vehicles: A Machine Learning-Based Collision Detection Approach |
| 4 | 95 | Mohamed Issa, Osama Abdelatif and Ibrahim Ziedan | Optimization of PID Controller Parameter Estimation using the Geometric Mean Optimizer |
| 5 | 105 | Abdelrahman Mahmoud, Youssef Mohamed, Ahmed Anter and Ahmed Zaky | EEG-Based Detection of Pornography Addiction: Deep Learning Models with Attention Mechanism for Unveiling Neurocognitive Patterns |

TECHNICAL SESSION 5

Day 1, December 18, 2023 Time: 16:30-18:00

Selected Topics in Communications, Room: 204

**Chair: Prof. Mohamed E. Nasr, Tanta University, Egypt,
and Prof. Maha Elsabrouty, E-JUST, Egypt**

| Order | Paper No. | Authors | Paper Title |
|-------|-----------------|--|--|
| 1 | 62 [Virtual] | Tomohiro Matsuyama, Takumi Suzuki, Shuhei Saito, Hirofumi Suganuma and Fumiaki Maehara | Throughput Improvement through FTN-based MIMO Signaling in Fixed Wireless Access |
| 2 | 31 [Virtual] | Zhuoran Li, Osamu Muta and Yutaka Jitsumatsu | Performance Evaluation of Cooperative Positioning with User-Terminal Collaboration |
| 3 | 42 | Atsuko Yokotani, Hiroshi Mineno and Tetsuya Yokotani | High reliable information transfer in the IoT platform: C-NAT |
| 4 | 89 | Albert A. Lysko and Mpho Nkosi | Sharing Experiences: Near Line-Of-Sight TVWS |
| 5 | 60 | Seiji Kozaki, Hiroshi Mineno and Tetsuya Yokotani | Evolution of optical access networks and implementing low-latency transfer systems |

TECHNICAL SESSION 6

Day 1, December 18, 2023 Time: 16:30-18:00

Selected Topics in Internet of Things, Room: 210

Chair: Prof. Mohammed Abo-Zahhad, E-JUST, Egypt, and Dr. Rami Zewail, E-JUST, Egypt

| Order | Paper No. | Authors | Paper Title |
|-------|-----------------|--|---|
| 1 | 34 | Mervat Elalem, Mohamed A. Sobh and Ayman M. Bahaa El-Din | xPython, Novel Secure Real-Time Operating System for IoT Subsystems Development using Micro-Python Language |
| 2 | 86 | Mohammed Abo-Zahhad, Ahmed A. Zakaria, Amro M.A. Abozeid and Mohammed M. Abo-Zahhad | A Real-Time Health Monitoring System for Remote Cardiac Patients |
| 3 | 80 [Virtual] | Nelson Giovanni Agudelo C, Juan Carlos AmÉzquita Tovar and Yuli Andrea Rodriguez Parra | Alternative communication system for emergency situations |
| 4 | 97 [Virtual] | Norman Nelufule, Tanita Zothile Singano, Daniel Shadung and Kelebogile Masemola | Privacy-Preservation and Containment in IoT Forensics Investigations: A Comparative Study. |
| 5 | 14 | Mohamed Issa and Mohamed Ghetas | Scheduling Model for IoT in Hybrid Fog-Cloud Computing |

TECHNICAL SESSION 7

Day 2, December 19, 2023 Time: 14:30-16:00

Selected Topics in Artificial Intelligence,

Room: 203

Chair: Prof. Walid Gomaa, E-JUST, Egypt and Prof. Ahmed Fares, E-JUST, Egypt

| Order | Paper No. | Authors | Paper Title |
|-------|-----------|---|--|
| 1 | 21 | Maggie Shammaa, Sara Younes, Maggie Mashaly and Ahmed El-Mahdy | CNN-Based Receiver Architecture for Full-Duplex MIMO Communication Systems |
| 2 | 51 | Ahmed Omar, Mohamed Abbas, Khalil Yousef and Kasem Khalil | An Efficient Deep Learning Approach for sEMG Hand Gesture Classification |
| 3 | 24 | Mahmoud Nawar, Abdalla Saad, Basem Elhalawany and Ahmed Fares | Decision Transformer-Powered Traffic Control System |
| 4 | 87 | Mahmoud Taha, Abdulwahab Al-Sammak, Shady Elmashad and Ahmed B.Zaky | ArmorNet: Animated cartoon pornography detection using transformer network |
| 5 | 8 | Nada Mossad, Youssef Mohamed, Ahmed Fares and Ahmed Zaky | Arabic text sentiment analysis and emotion classification using transformers |

TECHNICAL SESSION 8

Day 2, December 19, 2023 Time: 14:30-16:00

Selected Topics in Communications,

Room: 204

Chair: Prof. Osamu Muta, E-JUST, Egypt, and Dr. Osama Elnahas, Borg El Arab Technological University, Egypt

| Order | Paper No. | Authors | Paper Title |
|-------|--------------|--|---|
| 1 | 45 | Mohamed Rihan, Tim Due, Mohammadami Wakilifar, Dirk Wubben and Armin Dekorsy | RAN Functional Split Options for Integrated Terrestrial and Non-Terrestrial 6G Networks |
| 2 | 102 | Rania Helal, Ahmed Nasser and Osama Elnahas | Direction of Arrival Estimation Approach Based on Gauss-Newton Method |
| 3 | 35 [Virtual] | Seddiki Manel, Mouaici Mouna and Benchaïba Mahfoud | Toward an autonomous centroid-based deployment of Multi-UAV for full disaster area coverage |
| 4 | 47 | Mohamed Tharwat Waheed, Hazem Abdelaziem, Ibrahim Mahmoud and Ammar Mohamed | Clustering techniques for frame delay variations in mobile networks |

TECHNICAL SESSION 9

Day 2, December 19, 2023 Time: 14:30-16:00

Selected Topics in Circuits and Systems

Room: 201

Chair: Prof. Mohammed S. Sayed, E-JUST, Egypt and Dr. Ahmed Shalaby, Benha University, Egypt

| Order | Paper No. | Authors | Paper Title |
|-------|--------------|---|--|
| 1 | 28 | Marwa Mansour and Islam Mansour | Transformer Tank VCO based on Inverse Class-F Architecture for mm-Wave Applications using 180nm CMOS Technology |
| 2 | 46 | Ahmed Mohamed Abdel Razik and M.Riad Elghonemy | A Novel Approach to AES S-BOX and Inverse S-BOX Design on FPGA Devices |
| 3 | 50 [Virtual] | Yuka Otani and Akira Yamawaki | An investigation of line and frame-based descriptions on designing sprite drawing hardware in high-level synthesis |
| 4 | 49 [Virtual] | Amr Mohamed Rashed, Ziad Amr Abd-Elghafar and Islam Nashaat | A Complete Automated Analog Flow from Design Generation to Post-layout Verification |

TECHNICAL SESSION 10

Day 2, December 19, 2023 Time: 14:30-16:00

Selected Topics in Biomedical Engineering,

Room: 210

Chair: Dr. Rami Zewail, E-JUST, Egypt and Dr. Sameh Nashaat, E-JUST, Egypt

| Order | Paper No. | Authors | Paper Title |
|-------|-----------|---|--|
| 1 | 98 | Hossameldin Mahmoud, Mustafa Elattar and M. Saeed Darweesh | Joint Sign Language Recognition and Translation using Keypoint Estimation |
| 2 | 15 | Mohamed Abdelmagid, Marwa Yusuf, Basem M. Elhalawany and Ahmed Fares | Dual Deep Learning for Sleep Classification |
| 3 | 71 | Mohamed Mahmoud and Sherif Elgohary | Transfer Learning for Multi-label Emotion Recognition: A Promising Approach for Biomedical Applications |
| 4 | 103 | Samir Elsagheer, Mohamed Sayed and Mohsen Hassan | Efficient Automatic External Defibrillator using the Slope of Hilbert Transformed ECG Signals |
| 5 | 92 | Hany Shaker, Asmaa Sayed, Safaa Mahran, Mohamed Abbas, Kasem Khalil and Khalil Yousef | Towards a Low-cost Non-Invasive Patient Operated Electric Muscle Stimulator for People with Spinal Cord Injuries |

TECHNICAL SESSION 11

Day 2, December 19, 2023 Time: 16:15-17:45

Selected Topics in Artificial Intelligence,

Room: 203

Chair: Prof. Ahmed Fares, E-JUST, Egypt and Prof. Ahmed Zaky, E-JUST, Egypt

| Order | Paper No. | Authors | Paper Title |
|-------|-----------|---|---|
| 1 | 23 | Arwa Fawzy, Ahmed Hassan, Ahmed Gad, Haitham El-Hussieny and Ahmed B.Zaky | DeepCat: A Deep Learning Approach to Understand Your Cat's Body Language |
| 2 | 64 | Nour Abosen, Ahmed Safwat, Omnia Nabil, Ahmed Zaky and Samir Elsaygher | Improving Diabetes Forecasting: An Ensemble Approach with Feature Selection in Time Series Analysis |
| 3 | 94 | Hend Bakr, Ahmed M.Salama, Ahmed Fares and Ahmed B.Zaky | Physician Scheduling using Constraint Satisfaction Programming |
| 4 | 93 | Hend Bakr, Amira Abozaid, Samir Elsaygher and Ahmed Zaky | Hybrid Machine Learning Classification for Tipple Negative Breast Cancer |
| 5 | 63 | Yousef Adel, Mostafa Dorrah, Ahmed Ashraf, Abdallah Elsaadany, Mahmoud Mohamed, Mariam Wael and Ghada Khoriba | AraQA: An Arabic Generative Question-Answering Model for Authentic Religious Text |

TECHNICAL SESSION 12

Day 2, December 19, 2023 Time: 16:15-17:45

Selected Topics in Communications,

Room: 204

Chair: Prof. Elsayed Elrabie, Menoufia University, and Dr. Sherief Hashima, RIKEN-AIP, Japan

| Order | Paper No. | Authors | Paper Title |
|-------|-----------|---|--|
| 1 | 12 | Mohammed Yacoub, Bishoy Sharobim, Marwan Fetteha, Heba Aslan and Lobna Said | Pseudo Random Number Generators Employing Three Numerical Solvers of Chaotic Generators |
| 2 | 74 | Muhammad Hosam, Mohamed Ehab, Baraa Mohamed, Dina Saad, Fatma Gamal, Osama Elnahas and Omar Abd-Elgaber | Reinforcement Learning based Sum Rate Maximization for UAV-Assisted NOMA System |
| 3 | 104 | Hamsa Mahmoud Hosny, Mohamed El-Shazly, Nehal Eazaly and Osama Elnahas | Data-Driven Technique for Resource Allocation in 5G-IoV Network |
| 4 | 25 | Fatty Salem, Reham Khairy and Ihab Ali | Ultra-Lightweight Authentication Scheme for Securing the Substation and Control Center Communications in Smart Grids |
| 5 | 1 | Adham Haggag, Adham Nassar, Alhassan Khaled, Mazen Khattab, Rania Soliman, Mohamed E. Gad and M. Saeed Darweesh | Detecting Sleeping Cells in Cellular Networks Based on One-Class Support Vector Machines Algorithm and Deep Autoencoders |

TECHNICAL SESSION 13

Day 2, December 19, 2023 Time: 16:15-17:45

Selected Topics in Circuits and Systems,

Room: 201

Chair: Prof. Mohammed S. Sayed, E-JUST, Egypt and Dr. Ahmed Shalaby, Benha University, Egypt

| Order | Paper No. | Authors | Paper Title |
|-------|-----------|--|--|
| 1 | 114 | Alamir Hassan, Abdallah Yehia, Rami Zewail, Omar Abdel-Rahim, Mohamed Shahin and Moayadeldin Tamer | Advances in Lithium-Ion Battery SOC Prediction: A Data-Driven GRU-RNN Framework. |
| 2 | 96 | Eman Atef, Mohamed Abbas and Khalil Yousef | A Low Power Modified Strong-ARM Latch-Based Comparator for Biomedical Applications in 130nm CMOS Technology |
| 3 | 107 | Jeremiah Amisshah, Omar Abdel-Rahim, Diaa-Eldin Mansour, Sobhy Abdelkader and Sammy Kinga | Efficiency Enhancement in Virtual Power Plant through an Improved Particle Swarm Algorithm for Optimal Power Generation Optimization |

TECHNICAL SESSION 14

Day 2, December 19, 2023 Time: 16:15-17:45

Selected Topics in Biomedical Engineering,

Room: 210

Chair: Prof. Tanemasa Asano, Kyushu University, Japan and Dr. Sameh Nashaat, E-JUST, Egypt

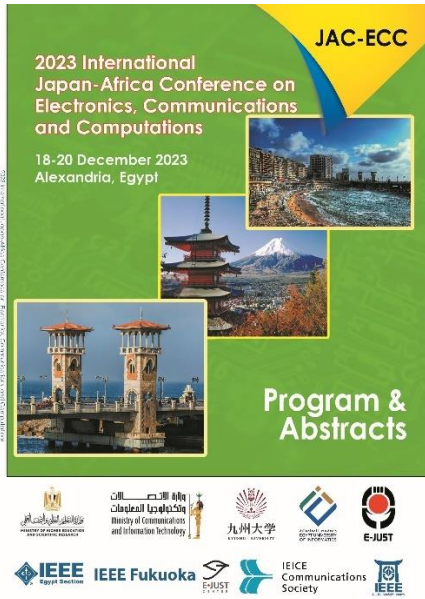
| Order | Paper No. | Authors | Paper Title |
|-------|--------------|--|---|
| 1 | 44 | Aya Taghian, Ahmed H. Abd El-Malek, Mohammed S. Sayed and Mohammed Abo-Zahhad | Towards an Augmented Reality Goggles Integrated with a Mobile-Based Medication Adherence System |
| 2 | 75 | Adel B. Abdelrahman, Ahmed Allam, Rami Zewail, Esraa Mansour, Abdelazim Atta, Abdelrahman Ashraf and Mohamed H. Shahin | Review on Non-Invasive ML-Enhanced Electromagnetic Blood Glucose Monitoring |
| 3 | 59 [Virtual] | Menduh Furkan Aslan, Omar Kerbouche, Tuğba Selcen Navruz and Mustafa İlker Beyaz | A Magnetic Sensor for Artery Pressure Monitoring |
| 4 | 55 | Mohammed Sayed, Samir Elsagheer and Mohsen Hassan | Efficient Low Cost Automatic External Defibrillator Circuit |
| 5 | 110 | Wongani Moyo, Ahmed Allam, Adel Behair and Asano Tanemasa | Metamaterial based unidirectional antenna for bone fracture detection |

Contact Persons

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