

JAC-ECC 2020 Technical Program



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IEEE Fukuoka Section

JAC-ECC2020 Conference Program

(At-A-Glance)

Day 1: Monday, December 14, 2020

| Times | Activity\ Session | |
|----------------------|--|---|
| 9:00 – 10:00 | Connection Setup | |
| 10:00 – 10:30 | Opening Session Hosts by: Prof. Mohammed Abo-Zahhad, (Conference Chair, E-JUST), Prof. Koji Inoue , (Conference Chair, Kyushu University), and Prof. Maha Elsabrouty, E-JUST Room: JAC-ECC 2020 Virtual Room 1 | |
| 10:30 – 11:15 | Session 1 Chairs: Prof. Koji Inoue, Kyushu University, Japan; Prof. Ahmed Ragab Elbiely, Cairo University, Prof. Adel Bedair, E-JUST Room: JAC-ECC 2020 Virtual Room 1 Keynote #1: Prof. Haruichi Kanaya, Kyushu University Japan “Radio Wave Energy Harvesting Circuit and its Medical Applications” | |
| 11:15 – 12:00 | Session 2 Chairs: Prof. Salah Obyya, Zewail City, Prof. Elsayed Elrabie, Menoufia University, Prof. Waheed K. Zahra, E-JUST Room: JAC-ECC 2020 Virtual Room 1 Keynote #2: Prof. Ahmed ElWakil , University of Sharjah, UAE “Super capacitors: Modeling, Performance and Applications” | |
| 12:00 – 12:45 | Session 3 Chairs: Prof. Nabil Ismail, Menoufia University, Prof. Usama Sayed, Assiut University, Prof. Amin Shoukry, E-JUST Room: JAC-ECC 2020 Virtual Room 1 Keynote #3: Prof. Magdy Saeb, Arab Academy of Science and Technology “How to Thwart Rubber Hose Attacks?” | |
| 12:45 – 13:30 | Lunch Break | |
| 13:30 – 14:45 | Technical Session #1 Selected Topics in Internet of Things (IoT) Chairs: Prof. Abdelhalim Zekry, Ain Shams University, Prof. Ayman Elsayed, Menoufia University, Dr. Ahmed Abd El-Malek, E-JUST Room: JAC-ECC 2020 Virtual Room 1 | Technical Session #2 Selected Topics in Microwave and Antennas Chairs: Prof. Saber Zain, Menoufia University, Prof. Elsayed Essam, Assuit University, Prof. Adel Bedair, E-JUST Room: JAC-ECC 2020 Virtual Room 2 |
| 14:45 – 16:00 | Technical Session #3 Selected topics in Signal, Image, and Video Processing Chairs: Prof. Meawad Eldessouky, Menoufia, Uni. Prof. Fathy Abdelsamie Menoufia, Uni. Dr. Moataz Abdelwahab, E-JUST Room: JAC-ECC 2020 Virtual Room 1 | Technical Session #4 Selected topics in Communications and Biomedical Chairs: Prof. Mohamed Elsaid Nasr, Tanta University, Prof. Ashraf Khalaf, Minia University, Prof. Maha Elsabrouty, E-JUST Room: JAC-ECC 2020 Virtual Room 2 |

Day 2: Tuesday, December 15, 2020

| Times | Activity\Session |
|---------------|---|
| 9:00 – 10:00 | Connection Setup |
| 10:00 – 10:45 | <p style="text-align: center;">Session 4</p> <p>Chairs: Prof. Ahmed Hassan, Nile University, Prof. Satoshi Goto, E-JUST, Prof. Samir Elsagheer, E-JUST</p> <p style="text-align: center;">Room: JAC-ECC 2020 Virtual Room 1</p> <p>Keynote #4: Dr. Hoda Baraka, Advisor of Minster for Technology Talents Development, Ministry of Communications and Information Technology</p> <p style="text-align: center;">“Digital Egypt Builders Initiative (DEBI)”</p> |
| 10:45 – 11:30 | <p style="text-align: center;">Session 5</p> <p>Chairs: Prof. Hadia Elhennawy, Ain Shams University, Ehab K. I. Hamad, Aswan University, Dr. Ahmed Allam, E-JUST</p> <p style="text-align: center;">Room: JAC-ECC 2020 Virtual Room 1</p> <p>Keynote #5: Prof. Mahmmoud Abdallah, Military Technical College, Egypt</p> <p style="text-align: center;">“Effective Trends in Enhancement of MIMO Antennas”</p> |
| 11:30 – 12:00 | Coffee Break |
| 12:00 – 13:30 | <p style="text-align: center;">Technical Session #5</p> <p style="text-align: center;">Selected topics in Circuits and Systems (6 papers)</p> <p>Chairs: Prof. Mohy Aldin Ahmed Abo-Elsoud, Mansoura University Prof. Fathi A. Farag, Zagazig University Prof. Mohammed Sayed, E-JUST</p> <p style="text-align: center;">Room: JAC-ECC 2020 Virtual Room 2</p> |
| 12:00 – 12:45 | <p style="text-align: center;">Next Generation Wireless Networks in Smart Cities Workshop</p> <p style="text-align: center;">Session # W1</p> <p>Chairs: Prof. Hesham Badawi, NIT, Prof. Osamu Muta, Kyushu University, Dr. Rami Zewail, E-JUST</p> <p style="text-align: center;">Room: JAC-ECC 2020 Virtual Room 1</p> <p>Invited Speaker #1: Prof. Celimuge Wu, The University of Electro-Communications.</p> <p style="text-align: center;">“Collaborative Intelligence for Internet of Vehicles”</p> |
| 12:45 – 13:30 | <p style="text-align: center;">Next Generation Wireless Networks in Smart Cities Workshop</p> <p style="text-align: center;">Session # W2</p> <p>Chairs: Prof. Hussein Mouftah, University of Ottawa, Ontario, Canada, Prof. Massoud Elghoniemy, Alexandria University, Prof. Mostafa Soliman, E-JUST</p> <p style="text-align: center;">Room: JAC-ECC 2020 Virtual Room 1</p> <p>Invited Speaker #2: Prof. Ahmed Khattab, Cairo University, Egypt</p> <p style="text-align: center;">“Precision Agriculture: An IoT Field for Smart Farming”</p> |
| 13:30—14:30 | Lunch Break |
| 14:30 – 15:15 | <p style="text-align: center;">Next Generation Wireless Networks in Smart Cities Workshop</p> <p style="text-align: center;">Session #W3</p> <p>Chairs: Prof. Mona Shokair, Menoufia University, Prof. Osama Omer, Aswan University, Prof. Sabah M. Ahmed, E-JUST.</p> <p style="text-align: center;">Room: JAC-ECC 2020 Virtual Room 1</p> <p>Speaker #3: Prof. Mohammed Abo-Zahhad, E-JUST</p> <p style="text-align: center;">“Next Generation Wireless Communication for Smart Cities”</p> |

TECHNICAL SESSION 1

Day 1, December 14th, 2020 Time: 13:30-14:45

Selected Topics in Internet of Things (IoT), Time: 13:30-14:45, Room: [JAC-ECC 2020 Virtual Room 1](#)

Chair: Prof. Abdelhalim Zekry, Ain Shams University, Prof. Ayman Elsayed, Menoufia University, and
Dr. Ahmed Abd El-Malek, E-JUST

| Order | Paper No. | Authors | Paper Title |
|-------|-----------|---|---|
| 1 | 38 | Farhad Mehdipour | A Review of IoT Security Challenges and Solutions |
| 2 | 20 | Ahmed Hussein, Reham Tarek, Haytham Osama, Khaled Elsayed and Rana Fawzy | An AODV-Based Routing Scheme for Bluetooth Low-Energy based Mesh Networks |
| 3 | 9 | Ahmed Abbas, Abdelhalim Zekry, Khaled Youssef and Imbaby Mahmoud. | Simulink based Modeling and Performance Analysis of NB-IoT Uplink Scheduler |
| 4 | 35 | Ahmed Bahr, Mehaseb Ahmed, Sami Doliel, El Sayed El Rabaie and Fathi Sayed. | Power Aware 3D UAV Placement for IoT Emergency Communication |

TECHNICAL SESSION 2

Day 1, December 14th, 2020 Time: 13:30-14:45

Selected Topics in Microwave and Antennas, Time: 13:30-14:45, Room: [JAC-ECC 2020 Virtual Room 2](#)

Chair: Chairs: Prof. Saber Zain, Menoufia University, Prof. Elsayed Essam, Assuit University, and
Prof. Adel Bedair, E-JUST

| Order | Paper No. | Authors | Paper Title |
|-------|-----------|---|---|
| 1 | 24 | Alaa Hediya, Ahmed Attiya and Walid El-Deeb. | New Design of High-Efficiency Low-SAR Coupled Folded Antenna for 5G Applications |
| 2 | 40 | Tarek Sallam and Abdel Rahman Mohamad. | Rigorous Analysis of Complex Reflection Coefficient of a Microwave Source |
| 3 | 34 | David Lotfy, Ahmed Shaker and Korany Mahmoud. | Microwave Absorber with Optimized and Perforated Matching Layer for Double Layer Resistive- FSS |
| 4 | 18 | Alaa Khairalla and Mohamed A. Y. Abdalla. | Frequency Reconfigurable High Efficiency Power Amplifier For 5G Communication |

TECHNICAL SESSION 3

Day 1, December 14th, 2020 Time: 14:45-16:00

Selected topics in Signal, Image, and Video Processing, Time: 14:45-16:00, Room: [JAC-ECC 2020 Virtual Room 1](#)

Chair: Prof. Meawad Eldessouky, Menoufia, University, Prof. Fathy Abdelsamie, Menoufia, University, and Dr. Moataz Abdelwahab, E-JUST

| Order | Paper No. | Authors | Paper Title |
|-------|-----------|--|--|
| 1 | 12 | Doaa Youssef and Salah Hassab-Elnaby. | Investigating speckle pattern produced by biological tissue via image quality assessment |
| 2 | 11 | Mohammed Badawy, Nabil Ismail, and Samir Alamrity. | Implementation of Industrial Process Measurements Using Safe Tomography Techniques |
| 3 | 16 | Reda Ammar, Amir El-Safrawey, Walid El-Shafai, Huda Ashiba, Atef Abou Elazm and Fathi E. Abd El-Samie. | Histogram Processing for Quality Enhancement of Industrial Videoscope Images |
| 4 | 21 | Aly Mostafa and Abdelhalim Zekry. | UTC(NIS) Steering Techniques with Few Number of Atomic Clocks |

TECHNICAL SESSION 4

Day 1, December 14th, 2020 Time: 14:45-16:00

Selected topics in Communications and Biomedical, Time: 14:45-16:00, Room: [JAC-ECC 2020 Virtual Room 2](#)

Chair: Prof. Mohamed Elsaid Nasr, Tanta University, Prof. Ashraf Khalaf, Minia University, and Prof. Maha Elsabrouty, E-JUST

| Order | Paper No. | Authors | Paper Title |
|-------|-----------|---|---|
| 1 | 13 | Sherief Hashima, Kohei Hatano, Hani Kasban, Mohamed Rihan and Ehab Mohamed. | Multiagent Multi-Armed Bandit Techniques for Millimeter Wave Concurrent Beamforming |
| 2 | 39 | Nariman Abdel-Salam | Design of SDR Simulation for Wireless Communication between Ground Station and CubeSat Implemented by LabVIEW |
| 3 | 17 | Mohamed Maher, Fathi Abd El-Samie and Osama Zahran. | A Novel Semi-Dynamic Bandwidth Allocation for the Integrated EPON and WiMAX Based on Auction Process |
| 4 | 1 | Saeed Mohsen, Abdelhalim Zekry, Mohamed Abouelatta. and Khaled Youssef. | A Self-Powered Wearable Sensor Node for IoT Healthcare Applications |

TECHNICAL SESSION 5

Day 2, December 15th, 2020 Time: 12:00-13:30

Selected topics in Circuits and Systems, Time: 12:00-13:30, Room: [JAC-ECC 2020 Virtual Room 2](#)

Chair: Prof. Mohy Aldin Ahmed Abo-Elsoud, Mansoura University, Prof. Fathi A. Farag, Zagazig University, and Prof. Mohammed Sayed, E-JUST

| Order | Paper No. | Authors | Paper Title |
|-------|-----------|---|---|
| 1 | 26 | Ahmed W. Ebrahim, Ibrahim I. Arafa, Hossam Hendy, Yehia Z. Elhalwagy and Ahmed Omar Elfarouk. | Initial Alignment Of Strap-down Inertial Navigation System On Stationary Base For High-Speed Flying Vehicle |
| 2 | 28 | Theodora Rezk, Sameh Ibrahim, Ghazal Fahmy and Hani Ragai. | A 433 MHz e-GaN HEMT based Power Oscillator for Far Field Wireless Power Transfer |
| 3 | 22 | Salem Hegazy, Ahmed Kamel, Ibrahim Arafa and Yehia Elhalwagy. | MEMS Gyro Noise Estimation and Modeling for Precise Navigation Simulation |
| 4 | 27 | Salem Hegazy, Ahmed Kamel, Ibrahim Arafa and Yehia Elhalwagy. | Improved Multi-Position Calibration Method for Mechanical Inertia Measurement Units |
| 5 | 31 | Heba Abdelmoneim, Abdelhalem Zekry and Ahmed Shaker. | Solar Cell Modification for Large Area Motion Detection: Proof of Concept |
| 6 | 5 | Fatma M. Abdelhamied, Korany R. Mahmoud, Mohamed Hussein and Salah S. A. Obayya | Design and Analysis of Hexagonal Dipole Nano-Rectenna Based on MIIM Diode for Solar Energy Harvesting |

Contact Persons

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