Nour Eldin Safwat

Avionics Engineer, Ph.D.

Contact

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Linked In

Key Skills

- Programming: Python, MATLAB
- Data Visualization: MS Excel
- Modeling: OPNET
- Flight Data Analysis: AGS, ADREAS, IGS, ROSE

Profile

Organized and dependable candidate successful at managing multiple priorities with a positive attitude. Willingness to take on added responsibilities to meet team goals.

Experience

October 2010—Present
Workshop Avionics Engineer • Egypt Air • Egypt, Cairo

- Repair, testing, maintenance, modification, and overhaul of avionics flight computers up to PCB level using fully automatic and semi-automatic test benches (ATEC 5000 and ATEC 6 Series Automated Test Bench).
- Carry out tasks including inspection, repair, modification, assembling, and testing using CMM's (Component Maintenance Manuals) circuit/wiring diagrams, and other vendor documentation required to carry out the task.
- Operation, maintenance, and repair of Computer Automated Test Benches (ATEC 5000 / 6 Series).
- Ensure that received avionics components have proper documentation.
- Perform and document maintenance tasks carried out on work order packages.
- Read out, decode, and analysis of FDR (Flight Data Recorders)
- Perform FDR mandatory parameters check.

May 2010—October 2010
Maintenance Engineer, National Air Navigation Services Company Egypt, Cairo

- operating and maintenance of navigation ground stations.

December 2009—April 2010
Light Current Engineer • Gamma security system • Egypt, Cairo

- Install and maintains CCTV, Fire Alarm, and Fire Fighting.

Education

September 2022

- Doctor of Philosophy: Electrical Engineering, Egypt, Cairo

  Ph.D. thesis title is " Unmanned Aerial Vehicles in 5G ". This thesis focuses on air-to-ground, and air-to-air channel modeling, optimal 3D placement, and multi-UAVs deployment considering co-channel Interference.

November 2014

- Master of Science: Electrical Engineering, Egypt, Cairo

  Master thesis title is "Aircraft Data Network Simulation and Evaluation". This thesis presents the evolution of Aircraft Data Networks. It discusses various Avionics data network protocols. Also, it represents a comprehensive simulation model for Avionics Full-duplex switched Ethernet (AFDX) network.

July 2009

- Bachelor of Science: Electrical Engineering, Egypt, Cairo

  Graduation Project: Network Planning & Optimization for 2G & 3G Mobil Networks.

Publications

- 2022 — Safwat, Nour El-Din, I. M. Hafez, and Fatma Newagy. ***"UGPL: A MATLAB application for UAV-to-Ground path loss calculations."*** Software Impacts 12 (2022): 100277.
- 2022 — Safwat, Nour El-Din, Ismail Mohammed Hafez, and Fatma Newagy. ***"3D placement of a new tethered UAV to UAV relay system for coverage maximization."*** Electronics 11.3 (2022): 385.
- 2021 — Safwat, Nour El-Din, Ismail M. Hafez, and Fatma Newagy. ***"Air-To-Air Channel Model for UAVs In Dense Urban Environments."*** 2021 5th International Conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques (ICEECCOT). IEEE, 2021.
- 2020 — Safwat, Nour El-Din, Fatma Newagy, and Ismail M. Hafez. ***"Air-to-ground channel model for UAVs in dense urban environments."*** IET Communications 14.6 (2020): 1016-1021.
- 2015 — Safwat, Nour El-Din, Abdelhalim Zekry, and Mohamed Abouelatta. ***"Avionics Full-duplex switched Ethernet (AFDX): Modeling and simulation."*** 2015 32nd National Radio Science Conference (NRSC). IEEE, 2015.

- 2014 Safwat, Nour El-Din, M. A. El-Dakroury, and Abdelhalim Zekry. ***"The evolution of aircraft data networks."*** International Journal of Computer Applications 94.11 (2014): 27-32.

Awards

- 2021 Certificate of Best Paper Presenter Award in the 5th International Conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques (ICEECCOT-2021) in association with IEEE Bangalore Section and IEEE Mysore Sub Section, organized by GSSS Institute of Engineering & Technology for Women, Mysuru on 10th & 11th December 2021.

- 2015 Certificate of student Best Paper Award Offered by the international union of Radio Science (URSI) at the 2015 32nd National Science Conference.