

C.V. (Curriculum Vitae)



Personal Data:

Name : Nabil Sabor Nafea Kolta.
Date of Birth : January, 10, 1984, Assiut, Egypt.
Marital status : Married.
Current Job : Assistant Professor.
Address : Electrical Engineering Department, Faculty of Engineering, Assiut University, Assiut 71516, Egypt.
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Education:

1. **Bachelor degree** in Electrical Engineering, Communications and Electronics with honor from Assiut University-June 2006
2. **Master degree** in Electrical Engineering, Communications and Electronics from Assiut University-April 2011.
Thesis entitled: "*Design of Digital Filters Using Artificial Immune Algorithm*"
3. **Ph. D degree** in Electrical Engineering, Communications and Electronics from Niigata University, Japan and Assiut University, Egypt (Channel System) -December 2016.
Thesis entitled: "*Energy Saving in Wireless Sensor Networks*"
4. **Ph. D degree** in Electrical Engineering, Communications and Electronics from Niigata University, Japan -March 2017.
Thesis entitled: "*Optimized-Based Routing Protocols for Improving the Performance of Wireless Sensor Networks*"

Teaching Experience

- **Employment History:**
 - Working as a demonstrator at the Electrical Engineering Department, Assiut University, Assiut, Egypt from February, 27, 2007 till May, 27, 2011.
 - Working as an assistant lecturer from May, 28, 2011 till October, 28, 2014.
 - Manager of the mechanization of questionnaires courses project (July 2011- April 2012).
 - Working as Ph. D. researcher at Electrical Engineering Department, Niigata University, Niigata, Japan from October, 29, 2014 till September, 28, 2016.
 - Working as an assistant lecturer from September, 28, 2016 till January, 23, 2017.
 - Working as an assistant professor from January, 24, 2017.till now.
- **Course Taught:**
 - Assisted in teaching the following undergraduate courses (2007-2014):
 - » Electronics Lab (1st Year).
 - » Electronics Lab (2nd Year).
 - » Analysis and Design of Electronic Circuits (I) (3rd Year).
 - » Integrated Circuits (3rd year).

- » Electrical Measurements (3rd year).
- » Wireless Communications (4th Year).
- » Analysis and Design of Electronic Circuits (II) (4th Year).
- » Digital Exchanges (4th Year).
- » Communications and Electronics Lab (4th Year).
- Taught the following undergraduate courses (2017):
 - » Digital Image Processing (1st Year).
 - » Digital Circuits Design (1st Year).
 - » Digital Lab (2nd Year).
- **Co-Supervising Research Projects:**
 - Assisted in supervising B.Sc. projects for undergraduate students (Communication & Electronic section):
 - » Emergency Telemedicine System using Zigbee Model (Matlab Approach) (2007).
 - » Portable Wireless ECG Monitoring System (2008).
 - » Chaotic System (2009).
 - » Emergency Telemedicine System using GSM Modem (C# Approach) (2009).
 - » Emergency Telemedicine System using GSM Modem (Java Approach) (2010).
 - » Secure Communication using Chaotic System (2010).

Research Area:

- » Signal and Image Processing.
- » Data Compression.
- » Biomedical Signal Processing.
- » Multi Resolution Analysis and Wavelet Transforms.
- » Hyperchaotic Complex Systems.
- » Digital Filters.
- » Evolutionary Optimization Techniques such as Genetic Algorithms, Immune Algorithms.
- » Wireless Communication.
- » Wireless Sensor Networks.
- » Compressive Sensing.

Publications:

1. M. Abo-Zahhad, S. M. Ahmed, **N. Sabor** and A. F. Al-Ajlouni, "Design of Two-Dimensional Recursive Digital Filters with Specified Magnitude and Group Delay Characteristics using Taguchi-based Immune Algorithm", *Int. J. of Signal and Imaging Systems Engineering*, vol. 3, no. 3, pp. 222-235, 2010.
2. M. Abo-Zahhad, S. M. Ahmed, **N. Sabor** and A. F. Al-Ajlouni, " The Convergence Speed of Single-And Multi-Objective Immune Algorithm Based Optimization Problems", *Signal Processing: An International Journal*, vol. 4, no. 5, pp. 247-266, 2010.
3. M. Abo-Zahhad, S. M. Ahmed, **N. Sabor** and A. F. Al-Ajlouni, "Digital Filters Design Educational Software Based on Immune, Genetic and Quasi-Newton Line Search Algorithms", *Int. J. of Innovation and Learning*, vol. 9, no. 1, pp. 35-62, 2011.

4. M. Abo-Zahhad, S. M. Ahmed, **N. Sabor** and A. F. Al-Ajlouni, "Design of Immune Algorithm Based Two-Dimensional Recursive Digital Filters Using Multi-Level Orthogonal Arrays", *28th National Radio Science Conference NRSC 2011*, April 26-28, 2011, National Telecommunication Institute, Cairo, Egypt.
5. M. Abo-Zahhad, S. M. Ahmed, **N. Sabor** and A. F. Al-Ajlouni, "A New Method for Fastening the Convergence of Immune Algorithms Using an Adaptive Mutation Approach ", *J. of Signal and Information Processing*, vol. 3, no. 1, pp.86-91, 2012.
6. Gamal M. Mamhoud, Mansour E. Ahmed and **Nabil Sabor**, " On Autonomous and Nonautonomous Modified Hyperchaotic Complex LU Systems", *Int. J. of Bifurcation and Chaos*, vol. 21, no. 7, pp. 1913-1926, 2011. **(IF= 1.355)**
7. Mohammed Abo-Zahhad, Sabah M Ahmed, **Nabil Sabor** and Ahmad F Al-Ajlouni, " Wavelet Threshold Based ECG Data Compression Technique Using Immune Optimization Algorithm", *Int. J. of Signal Processing, Image Processing and Pattern Recognition*, vol. 8, no. 2, pp. 307-360, 2015.
8. **N. Sabor**, M. Abo-Zahhad, S. Sasaki and S. M. Ahmed, "An Unequal Multi-hop Balanced Immune Clustering protocol for wireless sensor networks", *Applied Soft Computing*, vol. 43, pp.372-389, 2016. **(IF= 2.857)**
9. **N. Sabor**, S. Sasaki M. Abo-Zahhad, and S. M. Ahmed, " A Graphical-based Educational Simulation Tool for Wireless Sensor Networks, Simulation Modelling Practice and Theory, vol. 69, pp. 55-79, 2016. **(IF= 1.482)**
10. **N. Sabor**, S. Sasaki M. Abo-Zahhad, and S. M. Ahmed, "An Immune-Based Energy-Efficient Hierarchical Routing Protocol for Wireless Sensor Networks ", *SERSC International Journal of Future Generation Communication and Networking (IJFGCN)*, vol. 9, no. 9, pp. 47-66, 2016
11. **N. Sabor**, S. Sasaki M. Abo-Zahhad, and S. M. Ahmed, " A Comprehensive Survey on Hierarchical-based Routing Protocols for Mobile Wireless Sensor Networks: Review, Taxonomy and Future Directions", *Wireless Communications and Mobile Computing Hindawi Journal*, vol. 2017, pp. 1-23, 2017. **(IF= 0.922)**
12. M. Abo-Zahhad, S. M. Ahmed, **N. Sabor** and S. Sasaki, "A New Energy-Efficient Adaptive Clustering Protocol Based on Genetic Algorithm for Improving the Lifetime and the Stable Period of Wireless Sensor Networks", *International Journal of Energy, Information and Communications*, vol. 5, no. 3, pp. 47-72, 2014.
13. M. Abo-Zahhad, S. M. Ahmed, **N. Sabor** and S. Sasaki, "Coverage Maximization in Mobile Wireless Sensor Networks Utilizing Immune Node Deployment Algorithm", *27th Annual IEEE Canadian Conference on Electrical and Computer Engineering (CCECE 2014)*, Toronto, Ontario, Canada, vol. 27, pp. 1 – 6, 2014.
14. M. Abo-Zahhad, S. M. Ahmed, **N. Sabor** and S. Sasaki , "Immune Node Deployment Algorithm for Mobile Wireless Sensor Networks with Limited Mobility based on Probabilistic Sensing Model", *32nd National Radio Science Conference, IEEE*, 6th of October City, Egypt, pp. 259 – 267, March 2015.
15. M. Abo-Zahhad, S. M. Ahmed, **N. Sabor** and S. Sasaki, "Rearrangement of Mobile Wireless Sensor Nodes for Coverage Maximization Based on Immune Node Deployment Algorithm", *International Journal Computers and Electrical Engineering*, vol. 43, pp. 76–89, April 2015. **(IF= 1.084)**

16. M. Abo-Zahhad, S. M. Ahmed, **N. Sabor** and S. Sasaki, "Utilization of Multi-Objective Immune Deployment Algorithm for Coverage Area Maximization with Limit Mobility in Wireless Sensors Networks", *IET Wireless Sensor Systems*, vol. 5, no. 5, pp. 250–261, 2015.
17. M. Abo-Zahhad, S. M. Ahmed, **N. Sabor** and S. Sasaki, "Mobile Sink based Adaptive Immune Energy-Efficient Clustering Protocol for Improving the Lifetime and Stability Period of Wireless Sensor Network", *IEEE Sensors Journal*, vol. 15, no. 8, pp. 4576-4586, 2015. **(IF= 1.889)**
18. M. Abo-Zahhad, **N. Sabor**, S. Sasaki and S. M. Ahmed, "A Centralized Immune-Voronoi Deployment Algorithm for Coverage Maximization and Energy Conservation in Mobile Wireless Sensor Networks", *Information Fusion Journal*, vol. 30, pp. 36-51, 2016. **(IF= 4.353)**