



Germien Gerges Sedhom Gerges

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Professional Summary

- 13 Years of Experience in Academic Education and Research Field.
- Experienced in institutions administrative tasks.
- Experienced in course specification, NARS, and academic standards.
- Member of the quality assurance and accreditation team in Delta Higher Institute for Engineering & Technology.

Reference Websites:

- ORCID: orcid.org/0000-0002-4484-0007
- Google Scholar: Dr. Germien Gerges - Germien G. Sedhom- with h-index 4
- ResearchGate: Germien Gerges Sedhom - with h-index 3

Work Experience

- ❖ Lecturer, Department of Communication and Electronics Engineering, Delta Higher Institute for Engineering & Technology, Delta Academy (2021-until Now)
 - ✓ Teaching work
 - Preparing and giving lectures in the following subjects: mobile communication, electrical communication. Digital communication system, Radar system, and communication and presentation skills.
 - Preparing courses and their question banks.
 - Preparing Electronic exams and practical tests.
 - Supervision of graduation projects.
 - Carrying out academic counseling work for the student.

- Participate in the exams control room.
- ✓ The work of the Quality Assurance Unit
 - Coordinator of the Communications and Electronics Engineering Department at the Delta Higher Institute for Engineering and Technology.
 - Head of the Standard of Financial Resources and Material Facilities Supporting the Communications and Electronics Engineering Program at the Higher Delta Institute for Engineering and Technology.
 - Member of the scientific research and scientific activities standard at Delta Higher Institute for Engineering and Technology.
 - Academic guidance work for students at Delta Higher Institute for Engineering and Technology.
- ❖ **Assistant Lecturer, Department of Communication and Electronics Engineering, Delta Higher Institute for Engineering & Technology, Delta Academy (2014 - 2021)**
 - Member of the Quality Assurance Unit.
 - Training the student on practical experiments in laboratories.
 - Teaching many courses, laboratory tests.
 - Contribute to student registration and academic advising.
 - Supervising Graduation Projects.
- ❖ **Teaching Assistant, Department of Communication and Electronics Engineering, Delta Higher Institute for Engineering & Technology, Delta Academy (2010 - 2014)**
 - Training the student on practical experiments in laboratories.
 - Teaching the Following Courses: mobile communication, electrical communication, Digital communication system, Radar system, electronic engineering, digital and logic circuits, computer skills, analog and digital communication Labs, Statistics & Probability Theory, mathematics 1, mathematics 3, mathematics 4, and mathematics 5.

Education

- **Ph. D. in Engineering Science, Electronics, and Electrical Communication Engineering, Department of Electronics and Electrical Communication Engineering, Faculty of Electronic Engineering, Menoufia University- 2021.**
 - ✓ Submitted Thesis: *Non-orthogonal Multiple Access Techniques for Fifth Generation Cellular Systems.*
- **M. Sc. in Engineering Science, Electronics and Electrical Communication Engineering, Department of Electronics and Electrical Communication Engineering, Faculty of Electronic Engineering, Menoufia University- 2014.**
 - ✓ Submitted Thesis: *Dynamic Resource Allocation in Multi-carrier System.*
- **B. Sc. in Electronic Engineering, Department of Electronics and Electrical Communication Engineering, Faculty of Electronic Engineering, Menoufia University- 2009.**
 - ✓ **Graduation Project: Implementation of physical layer of WiMAX using FPGA.**
 - ✓ **Graduation Grade: Very Good with honors at a rate of (81.19%).**

List of Publications

1. Mohammed Abd-Elnaby, Germien G. Sedhom, Nagy W. Messiha, Fathi E. Abd El-Samie, and Xu Zhu, "Subcarrier Gain based Power Allocation in Multicarrier Systems," *Journal of Telecommunications and Informations Technology (JTIT)*, pp. 62-67, Jan 2014.

2. M. Abd-Elnaby, G. G. Sedhom and N. W. Messiha, "CI. Subcarrier Gain based Power Allocation in Multicarrier Systems," *2013 30th National Radio Science Conference (NRSC)*, 2013, pp. 131-140, Doi: 10.1109/NRSC.2013.6587919.
3. G. G. Sedhom, M. Abd-Elnaby and N. W. Messiha, "Efficient subcarrier-power allocation scheme for multiuser OFDM systems," *2014 International Conference on Engineering and Technology (ICET)*, 2014, pp. 1-8, Doi: 10.1109/ICEngTechnol.2014.7016765.
4. M. Abd-Elnaby, G. Sedhom, N. W. Messiha, & et al, "Fair subcarrier-power allocation scheme for multiuser multicarrier systems," *J. Cent. South Univ.*, vol. 22, pp. 3033–3041, 2015, Doi: 10.1007/s11771-015-2840-z.
5. M. Abd-Elnaby, G. G. Sedhom, N. W. Messiha, and M. Elwekeil, "Efficient User Pairing Algorithm for Enhancement of Spectral Efficiency and Interference Cancellation in Downlink NOMA System," in *Wireless Network*, vol. 27, pp. 1035-1047, 2021, Doi: 10.1007/s11276-020-02495-w.
6. M. Abd-Elnaby, G. G. Sedhom and M. Elwekeil, "Subcarrier-User Assignment in Downlink NOMA for Improving Spectra Efficiency and Fairness," in *IEEE Access*, vol. 9, pp. 5273-5284, 2021, Doi: 10.1109/Access.2020.3047985.
7. M. Abd-Elnaby, G. G. Sedhom, E. -S. M. El-Rabaie and M. Elwekeil, "An Optimum Weighted Energy Efficiency Approach for Low Complexity Power Allocation in Downlink NOMA," in *IEEE Access*, vol. 10, pp. 80667-80679, 2022, Doi: 10.1109/ACCESS.2022.3194539.
8. M. Abd-Elnaby, G. G. Sedhom, EL-Sayed M. El-Rabaie, and M. Elwekeil, "NOMA for 5G and beyond: literature review and novel trends," *wireless network*, vol. 29, no. 4, pp. 1629-1653, 2023, Doi: DOI: 10.1007/s11276-022-03213-4.
9. Basma M. Yousef, Germien G. Sedhom, and Alshimaa H. Ismai, "U-Shape Wideband Slot Antenna for 5G Mobile Phone Applications" *International Journal of Wireless and Ad Hoc Communication*, Vol. 5, no. 2, pp. 77-83, 2022, Doi: 10.54216/IJWAC.050206.
10. Germien G. Sedhom, Alshimaa H. Ismail, and Basma M. Yousef, "Literature Review and Novel Trends of Mobile Edge Computing for 5G and Beyond" *Journal of Artificial Intelligence and Metaheuristics*, vol. 2, no. 2, pp. 18-28, 2022, Doi: 10.54216/JAIM.020202.
11. Alshimaa H. Ismail, Germien G. Sedhom, and Zainab H. Ali, "Enhanced Active Queue Management-Based Green Cloud Model for 5G system using K-Means", *International Journal of Wireless and Ad Hoc Communication*, vol. 6, no. 2, pp. 65-72, 2023, D: 10.54216/IJWAC.060206.

Skills

- E-learning Platforms and Course Management Systems.
- Preparation of Electronic Exams Using MOODLE Platform.

- Quality Assurance and Accreditation Measurement.
- Course Specification, NARS, and Academic Standards.
- Preparation of Scientific Materials and Courses.
- Ability to Learn, Practice and Adapt to New Technologies and Systems.
- English Writing and Speaking.

Recent Activities and Certificates

- Training course in Benha Company for Electronic Industries (2007)
- Training course in Telecom Egypt (2008).
- MATLAB Course - Menoufia University - 2008.
- Training course at the Scientific and Technological Excellence Center in Cairo, which included:
 - Engineering and applications of optical fiber technology.
 - Electronic design engineering.
 - Engineering of communication networks, computers and encryption systems (2009)
- Mobile Communication course (CDMA) - Cairo University - 2008.
- Toefl English Course from AMIDEAST Center in Cairo - 2014
- FPGA Course.
- English Proficiency Exam (EPE) Equivalent to TOEFL, Menoufia University, 2021.
- Digital Transformation Course - Menoufia University - 2021.
- Examination systems and student evaluation course for colleges and institutes of higher education - The National Authority for Education Quality Assurance and Accreditation - 2022.
- Program and Course Description Course - The National Authority for Education Quality Assurance and Accreditation - 2023.

References

1. Prof. El-Sayed Mahmoud El-Rabaie, Department of Electronics and Electrical Communications, Faculty of Electronic Engineering, Menoufia University.
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2. Prof. Fathi E. Abd El-Samie, Department of Electronics and Electrical Communications, Faculty of Electronic Engineering, Menoufia University.
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3. Moawad I. Dessouky, Department of Electronics and Electrical Communications, Faculty of Electronic Engineering, Menoufia University.
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