

Ahmed Hammad

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- ASSISTANT PROFESSOR AT FACULTY OF INFORMATION TECHNOLOGY AT ISRA University IN JORDAN 2024/2025
- ASSISTANT PROFESSOR AT FACULTY OF COMPUTERS SCIENCE AT NUB UNIVERSITY 2023/2024
- PHD DEGREE IN ELECTRONICS ENGINEERING AND COMMUNICATIONS / FACULTY OF ENGINEERING / MANSOURA UNIVERSITY | 2023
- MSC DEGREE IN ELECTRICAL COMMUNICATIONS / FACULTY OF ENGINEERING / MANSOURA UNIVERSITY | 2017
- TOEFL ITP® TEST / AMIDEAST

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QUALIFICATION SUMMARY

- Assistant Professor at IU - Faculty of Information Technology - computer science department. (Full time)
- Assistant Professor at NUB – Faculty of Computer Science - Nahda University in BeniSuef. (2023/2024)
- Deputy Director of the Quality Assurance Unit at Computer Science Department - Nahda University in BeniSuef. (2023/2024)
- Training certificates from the National Authority for Quality Assurance and Accreditation of Education (NAQAAE) - EGYPT.
 1. Strategic planning for faculties and institutes of higher education.
 2. Self-evaluation of faculties and institutes of higher education.
 3. Description of programs and courses for faculties and institutes of higher education.
 4. Teaching strategies for faculties and institutes of higher education.
 5. Exam systems and evaluation of learning outcomes for faculties and institutes of higher education.
 6. External review of faculties and institutes of higher education.
- Consultant in ABET program for NILE HIGHER INSTITUTE FOR ENGINEERING AND TECHNOLOGY.
- Teaches Undergraduate martials.
- Reviewer for international journals (IEEE ACCESS, SPRINGER, IET & JIAT).
- Senior Instrument and control manager for DELTA COMPANY FOR FERTILIZERS & CHEMICAL INDUSTRIES. (until 31/8/2023)

SCIENTIFIC BIODATA

1. Doctor of philosophy in Engineering (PhD)

Specializing: in Electronics Engineering and Communications.

Research Topic: Energy Management Systems Based on Wireless Sensor Networks in Intelligent Structures

Graduation: 2023, Faculty of Engineering

Mansoura University, Mansoura, Egypt.

2. Master of Science in Engineering (M.Sc.).

Specializing: in Electrical Communication Engineering.

Research topic: Wireless Sensor Networks Powered by Ambient Energy Harvesting

Graduation: Nov. 2017, Faculty of Engineering

Mansoura University, Mansoura, Egypt.

3. Bachelor of Science in Electrical and Computer Engineering (B.SC).

Specializing: in Electronics and Communications Engineering.

Graduation: July 2011, MET, Mansoura, Egypt.

Level in National or International Classification: Very Good with Honours Degree (80, 84%).

Graduation Project Grade: Excellent

Work experience

Teaching Assistant: 2011 – 2023 | MISR HIGHER INSTITUTE FOR ENGINEERING AND TECHNOLOGY IN MANSOURA (MET) & BRITISH ACADEMY (ILLI) & ONLINE COURSES

Skills and Experience:

Professional skills:

- Understanding of Communications and Networking (Design and Optimization)
- Preparation of the Laboratory Experiments that concern the Communications engineering.
- Good in understanding and derivation of the scientific information.
- Preparation Program and Institutional strategic plan and their annual reports.
- Measuring course learning outcomes (CLOs) and make mapping with program learning outcome (PLOs) and Key Performance Indicators (KPIs).

Computer skills:

- Microsoft applications (Windows, Word, Excel, PowerPoint, and Internet).
- Communications and Networking Programs (MATLAB, python, Omnet++ and OPNET)
- Good in understanding and solving hardware and software problems of a computer.

TEACHING EXPERIENCE

For Undergraduate (bachelor's degree):

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| 1. Problem Solving Techniques. | 2. SOFTWARE QUALITY. | 3. SOFTWARE PROJECTS MANAGEMENT. |
| 4. Software Engineering 1 & 2. | 5. Cloud Computing. | 6. NETWORK OPERATING SYSTEM/LINUX. |
| 7. IT Essentials. | 8. Computer Networks 1. | 9. Antenna and Wave Propagation. |
| 10. Data Structure. | 11. ADVANCED COMPUTER NETWORKS. | 12. Electronics Labs. |
| 13. Computer Architecture. | 14. Artificial intelligence. | 15. Communication Labs. |
| 16. Computer Language 1 & 2. | 17. Advanced Computer Networks and Programming by VHDL. | 18. Antenna and Wave Propagation Labs. |
| 19. Database Systems. | 20. Computer Applications in Electrical Communication Engineering. | 21. Virtual Labs for Training. |
| 22. Embedded Systems. | 23. Advanced Computer Programming. | 24. Communication Networks. |
| 25. Semiconductors. | 26. Signal Analysis. | 27. Signal Processing. |
| 28. Communication Systems. | 29. Pattern recognition | 30. Network security |

| Sep. 2013: Studying the Pre-Master courses: | Jan. 2018: Studying Acceptance PhD Exam courses: | Sep. 2018: Studying Pre-PhD courses: |
|---|--|--------------------------------------|
| Advanced Engineering Mathematics | Analog and Digital communications | Pattern recognition |
| Quantum Electronics | Digital signal processing | Network security |
| Image Processing | Image Processing | Digital signal processing |
| Computer Applications | Computer Networking | Communication networks |
| Technical language in engineering | VLSI Circuit Design | Nano-photonics |
| Research Point "Wireless Sensor Networks" | Antenna and wave propagation | Selected topics in communications |
| | Electrical circuits | |

Publications

I have written regularly for a variety of legal magazines and publications, both print media and digital. Some of my recent contributions include:

- Hammad A, Mohamed MA, Abdel-Atty HM (2022) Enhancement of the performance of wireless sensor networks using the multihop multiantenna power beacon path selection method in intelligent structures. PLoS ONE 17(11): e0276940. <https://doi.org/10.1371/journal.pone.0276940>. [Q1] Web of science & scoups journal
- "An Optimized Distributed Routing Protocol for Energy Management Systems Based on Wireless Sensor Networks in Intelligent and Smart Structures," IJECES, Vol. 13 No. 4 (2022) DOI: <https://doi.org/10.32985/ijeces.13.4.3>. [Q4] Web of science & scoups journal
- "An energy-efficient wireless sensor network routing protocol powered by ambient energy harvesting," International Journal of Wireless and Mobile Computing (IJWMC), vol. 14, no.4, pp. 378-386, Jul 2018. [Q2] scoups journal DOI: 10.1504/ijwmc.2018.093861.
- "Routing Protocol for Wireless Sensor Networks Powered by Ambient Energy Harvesting," International Journal of Scientific & Engineering Research (IJSER), vol. 8, no. 3, pp. 278-285, March 2017. DOI: 10.14299/ijser.2017.03.003.
- "Effectiveness of Power Harvesting in Hierarchical Routing Protocols in Wireless Sensor Networks," International Journal of Computer Applications (IJCA), vol. 152, no. 1, pp. 9-19, October 2016. DOI: 10.5120/ijca2016911750.

ACADEMIC SERVICE

I have reviewed several international research in my field in famous journals.

1. Reviewed for Journal: **Wireless Personal Communications.**
2. Reviewed for Journal: **IET Communications.**
3. Reviewed for Journal: **IEEE ACCESS.**
4. Reviewed for Journal: **Journal of Advances in Information Technology.**

Licenses & certifications

Amazon Web Services (AWS)

1. AWS Educate Getting Started with Compute
2. AWS Educate Getting Started with Networking
3. AWS Educate Getting Started with Storage
4. AWS Educate Introduction to Cloud 101

Issued Mar 2024

Instrumentation and control Engineer: 5/2015 – 8/2023 | DELTA COMPANY FOR FERTILIZERS & CHEMICAL INDUSTRIES

My job is to make sure that these systems and processes operate effectively, efficiently, safely and I am responsible for designing, developing, installing, managing, and maintaining equipment which is used to monitor and control engineering systems, machinery and processes.

1. I have worked in Three sectors:

I.Compressors and ammonia unit: it consists of five compressors, drums, heat exchangers, reactors, pumps, turbines, motors, and tanks.

- KT101 (4 stages) to produce air with pressure 40kg/cm² and 246°C.
- KT102 (4 stages) to produce SYN GAS 225kg/cm² and 135°C.
- KT103 (2 stages) to produce NH³ 18kg/cm² and 127°C.
- KT201A/B (4 stages) to produce CO² 150kg/cm² and 135°C.

II.Boilers sector: Three boilers (BABCOCK HITACHI K.K. YOKOHAMA WORKS) produce superheated steam 420ton/h, 107kg/cm² and 350°C.

III.Co – Generation plant [combined heat and power (CHP) is the use of a heat engine or power station to generate electricity and useful heat at the same time] with Power output of 17.7 MW(e).

2. Responsibilities

- Testing, maintaining, and modifying existing systems.
- Designing and developing new control systems.
- Analysing data and presenting findings in written reports managing operations.
- Working collaboratively with design engineers, operation engineers, purchasers, and other internal staff.
- Liaising with clients, suppliers, contractors, and relevant authorities.
- Project management within cost and time constrained environments.
- Understanding and ensuring compliance with relevant health and safety regulations and quality standards.
- Providing advice and consultancy support purchase.
- Install thrust, vibration, and speed system for compressors. (GE Bently Nevada 3500 Series and GE Bently Nevada 3000 Series).
- Vortex, Turbine and Coriolis flow meters.
- Alarm system – Rochester.
- Temperature transmitters (RTD, Thermocouples).
- Temperature controllers.
- Digital & Analog Tachometer Gauges.
- Pressure, temperature, flow gauges.
- Switches.
- PID controllers.
- Flame Scanners and amplifiers in Burners in steam boilers.
- Ball Valve, Plug Valve, Gate Valve, Butterfly Valve, Globe Valve, Solenoid, Angle Seat Valves, Diaphragm valve, Piston valve ...etc.
- HART 375 Field Communicator for smart and electronic devices.
- Advanced process control (APC).
- Aware by distributed control systems (DCS) yokogawa centum VP and yokogawa centum Cs 3000.
- Aware by programmable logic controllers (PLC) (Gefanuc-9070).
- Aware by operation of turbines, pumps, heat exchanger, drums, reactors etc.

Hobbies and interests

I enjoy reading scientific articles, running, swimming, and playing chess. I also love going to the gym and make a new friendship.

References

Prof. Mohammed Abdel-Azim (Supervisor on PhD) - Vice President of Mansoura University for Community Structure Development Affairs-
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