Sahar Abdelrahman Ismail

- **One of the top 2% Scientists worldwide 2024 by Stanford university ranking.**
- ***Google Scholar(h-index = 18):*** https://scholar.google.com/citations?user=kVgyT1oAAAAJ&hl=en&oi=ao
- *Associate professor in Computer Systems Engineering, **Faculty of Engineering- Shoubra, Benha University.***
- *Director of University Center for Career Development **(UCCD), Benha University, Cairo, Egypt." UCCD was undertaken in cooperation with the American University in Cairo (AUC)".***
- *Director of Creativity and Innovation Support Unit**, Faculty of Engineering- Shoubra, Benha University, Cairo, Egypt.***
- *Vice Director of Quality Assurance and International Accreditation Unit, **Faculty of Engineering-Shoubra, Benha University, Cairo, Egypt.***

Main Area of Interest: Cybersecurity and Information Security, Artificial Intelligence & Machine Learning, Data Science and Big Data Analytics, Cloud Computing, Computer Vision & Digital Image Processing, Bioinformatics and Biomedical engineering, Smart Cities and IoT, Human Computer Interaction, Natural Language Processing, Electronic Systems, Computer Networks, Web Development and Mobile Applications, ABET accreditation.

Contact Information

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Education (Start with the highest degree)

University	Country
Benha University	Egypt
Degree and Specialization	**Title / Completion Date**
Phd. In Computer Systems Engineering	Reconstruction of High-Resolution Image from a Set of Low-Resolution Images / Jan 2008
University	**Country**
Benha University	Egypt
Degree and Specialization	**Title / Completion Date**
M.Sc. Computer Systems Engineering	An Artificial Intelligence Technique Applied to Machine Aided Translation / May 2003
University	**Country**
Benha University	Egypt
Degree and Specialization	**Title / Completion Date**
B.Sc. Electronics & Communication Engineering	Expert System Technique In The Field of Economics / 1997 (Distinction with honor Ranked 1st on the faculty level)

Previous Academic Experience:

- *An Acting Vice Dean for Development and Quality Assurance, College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from 2011 till 2013)*
- *An Acting Vice Dean for Educational Affairs, College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from 2011 till 2012).*
- *Assistant of Vice-Dean of Quality Assurance and Academic ABET Accreditation, College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from 2018 till 2019)*
- *A Member of University Scientific Council, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from 2016 till 2017)*
- *A Member of University Graduate Studies Council, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from 2016 till 2018)*
- *A Member of University Permanent Committee for Studies and Development, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from 2016 till 2017).*
- *A Member of National Curriculum and Courses Committee for Preparatory Year, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (2020).*
- *A Member of ABET Accreditation Committee of College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from 2018 till 2018)*
- *A Program Leader, Computer Science Department, College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from 2013 till 2016)*
- *A Member of Master Program Committee (in Cybersecurity), College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from 2018 till 2021)*

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> - *A Member of Bachelor Program Committee (in Artificial Intelligence Sciences), College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from 2020 till 2021).*
> - *A Member of ABET Accreditation Committee* of College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Saudi Arabia. (2014 - 2018).
> - *A member of Quality Assurance Unit*, Faculty of Engineering-Shoubra, Benha University, Cairo, Egypt. (2010-2011).

Job Title	Academic Affiliation	From (date)	To (date)
Associate Professor	Faculty of Engineering - Shoubra, Electrical Engineering Dept., Egypt	Jan 2022	Present

Job responsibilities

- Teaching, Scientific Research, and Administrative work (**ABET** Accreditation, Entrepreneurship, Creativity and Innovation Support, Graduation Projects, Internship, Partnerships Units and Committees)

Job Title	Academic Affiliation	From (date)	To (date)
Associate Professor, Acting Vice Dean for Development and Quality Assurance, Acting Vice Dean for Educational Affairs. Assistant of Vice-Dean of Quality Assurance & ABET Accreditation, and Program Leader of Computer Science Dept.	College Of. Computer and Information Science, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia	September 2011	August 2021

Job responsibilities

- Teaching, Scientific Research, and Administrative work (**ABET** Accreditation, Entrepreneurship, Creativity and Innovation Support, Graduation Projects, Internship, Partnerships Units and Committees)

Publications/Patents

Google Scholar(h-index = 18): https://scholar.google.com/citations?user=kVgyT1oAAAAJ&hl=en&oi=ao
Scopus: el-Rahman, Sahar A. - Author details - Scopus Preview
Some Publications(some of them):

1. Al-Shamayleh, A.S., Riasat, H., Alluhaidan, A.S. et al. ***Novel transfer learning based acoustic feature engineering for scene fake audio detection***. Scientific Reports 15, 8066 (2025).
2. S. A. El-Rahman, A. E. Mansour, L. Jamel, M. A. Alohali, M. Seifeldin and Y. Alkady, "***C-HIDE: A Steganographic Framework for Robust Data Hiding and Advanced Security Using Coverless Hybrid Image Encryption with AES and ECC***," in IEEE Access, doi: 10.1109/ACCESS.2025.3546255.
3. A. El_Rahman, S., Saleh Alluhaidan, A., & Marzouk, R. (2024). ***Fraud Detection in IoT Environment Based on Machine Learning Approaches***. Interciencia.58(11):58-108.
4. Abdrabou, M., Gebali, F., Shawky, M.A. et al. ***Advanced security framework for low Earth orbit satellites in space information network***. J Wireless Com Network 2024, 87 (2024).
5. Arfoura, Mahmoud-E; Alkhatib, Ahmad; Alsekait, Deema-Mohammed; Alshinwan, Mohammad; Sahar A. El_Rahman; Rosiyadi, Didi; AbdElminaam, D.S, "***A Low Complexity ML-Based Methods for Malware Classification***", Computers, Materials & Continua Journal, 2024.
6. Hussein, Z., Salama, M.A. & El-Rahman, S.A. ***Evolution of blockchain consensus algorithms: a review on the latest milestones of blockchain consensus algorithms***. Cybersecurity 6, 30 (2023).
7. Sahar A. El_Rahman, Alluhaidan, A.S. "***Blockchain technology and IoT-edge framework for sharing healthcare services***". Soft Computing Journal, Vol. 25, 13753–13777 (2021).
8. R. Marzouk, A. S. Alluhaidan and S. A. El Rahman, "***An Analytical Predictive Models and Secure Web-Based Personalized Diabetes Monitoring System***," in IEEE Access, 2022, doi: 10.1109/ACCESS.2022.3211264.
9. S. A. El_Rahman, Alluhaidan AS (2024) "***Enhanced multimodal biometric recognition systems based on deep learning and traditional methods in smart environments***". PLoS ONE 19(2): e0291084.
10. Sahar A. El_Rahman, Tarek A. El-Shishtawy, Raafat A. El-Kammar, "***A Knowledge-Based Machine Translation Using AI Technique: A Knowledge-Based Machine Translation***", International Journal of Software Innovation (IJSI), Vol. 6, No. 3, Article 7, pp. 79-92, July 2018.

Activities/Projects:

Grants:

Grants	Status
Airstacknet: a stacking ensemble-based approach for air quality prediction	Completed (2023)
Blockchain technology and IoT-edge framework for sharing healthcare services	Completed (2021)
Predicting breast cancer survivability based on machine learning and features selection algorithms	Completed (2020)
Efficient HEVC steganography approach based on audio compression and encryption in QFFT domain for secure multimedia communication	Completed (2020)
Multimodal biometric systems based on different fusion levels of ECG and fingerprint using different classifiers	Completed (2019)

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Others

Honors & Awards (some of them)
- One of the top 2% Scientists worldwide 2024 by Stanford university ranking.
- Scientific Excellence (Benha University, Cairo, Egypt) – 2020 to 2024.
- Scientific Excellence (Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia) – since 2017.

Membership (some of them)
- Senior Member of IEEE Since 2019.
- Member of IACSIT since 2013.
- Member of IAENG since 2011.
- Member of ISOC since 2015.
- Member of the Egyptian Engineers' Syndicate since 1997.

Professional Development (some of them)
- EMC Academic Associate, Data Science and Big Data Analytics
- EMC Academic Associate, Cloud Infrastructure and Services
- IBM Academic Certificate for Mobile Application Developer Mastery Award
- IBM Academic Certificate for Blockchain Developer Mastery Award

Professional Experience& Activities (some of them)
- *A Member of Academic Accreditation Steering Committee, College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from 2013 till 2016).*
- *A Member of Assessment Committee, Computer Science Department, College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from 2016 till 2019)*
- *A Member of Curriculum and Courses Committee, College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from 2015 till 2018)*
- *A Member of Scientific Research unit, College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from 2015 till 2016).*
- *A Member of Scientific Journal Committee, College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from January 2017 till August 2017)*
- *A Member of Postgraduate Studies Committee, College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from 2015 till 2016)*
- *A Member of Strategic Plan Committee, College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from January 2015 till September 2015)*
- *A Member of the Competitions Committee for Teaching Assistant and Lectures, College of Computer and Information Sciences and Community College, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Academic year (2011-2012) & 1st semester (2012-2013))*
- *A Member of the Academic Study Plan committee, College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Starting from 2013 till 2015)*
- *A Member of Academic Advising Committee, Computer Science Department, College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Academic year (2013-2014))*
- *A Member of Internship Committee, Computer Science Department, College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Academic year (2013-2014))*
- *A Member of Qualify Assurance and Academic Accreditation Committee for the Computer Science Department, College of Computer and Information Sciences, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia. (Academic year (2013-2014)).*
- *A Member of Program Committee, 4th symposium on data mining applications (SDMA2016), 30 March 2016, Megrin data mining Center (MEGDAM), Riyadh, Saudi Arabia, March 30th, 2016.*
- *Workshops Committee Chairman, International Conference on Cloud Computing (ICCC15), Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia, 27-28 April 2015.*
- *A Member of the Conference Steering Committee, International Conference on Cloud Computing (ICCC15), Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia, 27-28 April 2015.*
- *A Member of the Registration Committee, International Conference on Cloud Computing (ICCC15), Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia, 27-28 April 2015.*
- *A secretary of the Council of Electrical Engineering Department, Faculty of Engineering, Shoubra, Benha University, Cairo, Egypt. (Academic year (2009-2010))*
- *A member of Quality Assurance Unit, Faculty of Engineering, Shoubra, Benha University, Cairo, Egypt. (Academic year (2010-2011))*
- *A Chairman of Internship Committee of Electrical Engineering Department, Faculty of Engineering, Shoubra, Benha University, Cairo, Egypt. (Starting from September 2021 till September 2024)*
- *A Chairman of Postgraduates Exams Unit of Electrical Engineering Department, Faculty of Engineering, Shoubra, Benha University, Cairo, Egypt. (Starting from October 2022 till April 2024)*
- *A Chairman of Scientific Research Plan Committee of Computer Engineering Program, Electrical Engineering Department, Faculty of Engineering, Shoubra, Benha University, Cairo, Egypt. (Starting from 2022 till 2023)*

Reviewer of Some Journals and Conferences(some of them)
- IEEE Access
- Springer - Journal of Ambient Intelligence and Humanized Computing
- Springer - International Journal of Wireless Personal Communications.
- Springer - International Journal of Mobile Networks and Applications
- Elsevier - Computer and Electrical Engineering
- Some of Conferences and Workshops: 9th IEEE-GCC 2017, ICCC15, NCCC 2016, SDMA2016, ICCSE2018, ICFIR 2019, ICC2019, JAC-ECC2023.