

Eng. Azza Kamal Nabih R&D Expert

Business in brief

Azza is an R&D expert at SECC with 16+ years of experience working in state-of-the-art technologies focusing on tackling Egyptian market pains through technology. Azza is currently focusing on Artificial Intelligence (AI), Blockchain and Internet of Things (IoT) and the best practices to utilize these technologies to address the existing challenges and raise more business opportunities. Azza's main motivation is to enable Egyptian companies to smoothly adapt technologies for better business outcomes.

During her career, Azza has experience in multiple areas including embedded systems, mobile application development, wireless sensor networks, semantic web, project management, training, consultation and process engineering. Azza has practical experience with technology road mapping as a tool to help companies align their business and market needs to their future technological investments.

Azza participated in the EU-funded RECOCAPE project which run in partnership with Tecnalía (Spain), VTT (Finland) and UNIBO (Italy). The project scope was to leverage Egypt's competency in four technologies; SOA/ESB, Semantic Web, MDD and Embedded Ubiquitous Computing.

Beside her technical experience, Azza is an active process team member and she managed to certify and to maintain her department's CMMI accreditation.

Azza obtained her B.Sc. and M.Sc. degrees from Ain Shams University, Faculty of Engineering, Computer and Systems Engineering department in 2004 and 2012 respectively. Within her master's study, Azza has been working in wireless communication with focus on the use of wireless sensors to increase the convenience in smart home systems. She focused on development of positioning techniques used in developing context aware applications.

Organizations

- Software Engineering Competence Center (SECC - ITIDA)

Certifications and designations

- TOGAF 9.1, Open Group, 2015.
- OESF Authorized Certification Engineer For Android (ACE) Application Basic, OESF, 2014.
- Master of Science (M.Sc.) in Computers and Systems Engineering, Faculty of Engineering, Ain Shams University, 2012.
- International Software Testing: ISEB ISTQB Foundation.
- Introduction to Capability Maturity Model Integration (CMMI) for development V1.2.
- Personal Software Process for Engineers I: planning from Software Engineering Institute (SEI).
- Personal Software Process for Engineers II: Quality from Software Engineering Institute (SEI).
- Essentials of Visual Modelling/Fundamentals of Rational Rose/Mastering Object Oriented Analysis and Design, IBM.
- Bachelor of Science (B.Sc) in Computers and Systems Engineering, Faculty of Engineering, Ain Shams University, 2004.

Sources/References

Technical papers:

- Ahmed A. Ali, Iman A. El-Dessouky, Mahmoud M. Abdallah, Azza K. Nabih, "**The Quest for Fully Smart Autonomous Business Networks in IoT Platforms**", The Third Africa & Middle East Conference on Software Engineering, AMECSE 2017, Cairo, Egypt, 12-13 December, 2017.
- Haitham S. Hamza, Ahmed M. Gamaleldin, Mahmoud M. Abdallah, Osama A. Elkader, Azza K. Nabih, Enas Ashraf, "**A technology transfer approach for stimulating innovation of ICT SMEs in Egypt**," Proceedings of eChallenges e-2014 Conference, Belfast - Ireland, 29-30 October, 2014.
- Azza K. Nabih, Mahmoud M. Abdallah, "**Improving Semantic-Based Application Development Experience by SOFIA ADK and RedSIB Integration**," The First Africa & Middle East Conference on Software Engineering, AMECSE 2014, Cairo, Egypt, 21-22 October, 2014.
- Haitham S. Hamza, Enas Ashraf, Azza K. Nabih, Mahmoud M. Abdallah, Ahmed M. Gamaleldin, Shourok Alaa, Kamilia Hosny, Aya Khattab, Ahmed Attallah, "**SALE – An Innovative Platform for Semantically Enriching Next Generation Advertising Services**," The First Africa & Middle East Conference on Software Engineering, AMECSE 2014, Cairo, Egypt, 21-22 October, 2014.
- Haitham S. Hamza, Enas Ashraf, Azza K. Nabih, Mahmoud M. Abdallah, Ahmed M. Gamaleldin, Alfredo D'Elia, Hadeal Ismail, Shourok Alaa, Kamilia Hosny, Aya Khattab, Ahmed Attallah, "**Design and Implementation of an Interoperable and Extendable Smart Home Semantic Architecture using Smart-M3 and SOA**," The Tenth International Conference on Networking and Services, ICNS 2014, Chamonix, France, 20 – 24 April, 2014.
- A.K. Nabih, H. S. Osman, M.M. Gomaa, and G.M. Aly, "**New Fuzzy-Based Indoor Positioning Scheme Using ZigBee Wireless Protocol**," IEEE International Conference on Computer Engineering & Systems ICCES'12, Egypt, 27-29 November 2012.
- A.K. Nabih, M.M. Gomaa, H. S. Osman, and G.M. Aly, "**Modeling, Simulation, and Control of Smart Homes Using Petri Nets**," International Journal of Smart Home, Vol. 5, No. 3, pp. 1-14, July, 2011.
- H. S. Osman, W. Mahjoub, A.K. Nabih, and G.M. Aly, "**JPEG Encoder for Low-Cost FPGAs**," IEEE International Conference on Computer Engineering & Systems ICCES'07, Egypt, 27-29 November 2007.
- 2007.

Technical reports, Tutorials and technical digests:

- Azza Kamal Nabih Hanafi, Mahmoud M. Abdallah, "Design and Implementation of ZigBee Based Infrastructure for Smart Environments" – Technical Report.
- Azza Kamal Nabih Hanafi, Jarkko Kuusijärvi, "Securing Open Semantic Information Brokers in Smart Environment Systems" – Technical Report.
- Azza Kamal Nabih Hanafi, "Semantic Web versus Graph Databases" – Tutorial
- Smart Spaces – Technical Digest.
- Semantic Technologies Applied to Human Resources Management System – Case Study applied to United Ofoq Company.

Talks:

- Azza Kamal Nabih, "Empowering Environments by Semantic Technology – Towards Smarter Hospital Systems," Invited talk at IEEE Engineering in Medicine and Biology Society (EMBS) International Students Conference, Cairo University, Egypt, 8-10 October, 2013