



Prof. Dr. Laila M. ElFangary

Professor of Information Systems

AI Governance, Generative AI and Prompt Engineering

Sector-Specific AI Curriculum and Technical Content Development, Academic Quality Review

251 Golf Views, Palm Hills, 6th of October City 12566, Egypt

Telephone +20 122 327 0216. Nationality: Egyptian

Email: lailaelfangary@gmail.com (enquiries), lailaelfangary@fci.capu.edu.eg, laila.elfangary@ngu.edu.eg

ORCID: <https://orcid.org/0000-0001-8482-7926>

Scopus Author Profile: <https://www.scopus.com/authid/detail.uri?authorId=24469778200>

Google Scholar: <https://scholar.google.com/citations?user=3luqT6kAAAAJ&hl=en>

LinkedIn: <https://www.linkedin.com/in/lailaelfangary>

Professional Profile

Professor of Information Systems with senior leadership experience across higher education, curriculum development, quality assurance, corporate governance and digital transformation. Work now concentrates on AI governance, generative AI education and sector-specific AI capacity building for regulated industries.

Technical Content Developer and Academic Quality Reviewer for Egypt's first national AI for Banking Diploma, an initiative of the Central Bank of Egypt, the Egyptian Banking Institute and NewGiza University, and Founding Developer of the Artificial Intelligence for Business undergraduate program, approved in March 2026 for implementation in 2026/2027. The current development pipeline extends the same approach to healthcare, auditing and real estate development.

Author of more than fifty peer-reviewed papers spanning generative AI, MLOps, IoT security, healthcare AI, data mining, data warehousing, e-commerce and information systems, eleven of them as sole author. Supervisor of 23 completed doctoral and master's dissertations, adjudicator of more than fifty, and a member of the Supreme Council of Universities Scientific Committees, which assess candidates for Professor and Associate Professor nationwide. Teaching, training and advisory work is delivered in English and in Arabic.

Consulting, Training and Advisory Services

- **AI governance and responsible AI integration:** design of ethical, sustainable AI frameworks and their embedding into institutional curricula, policy and practice.
- **Sector-specific AI program design:** end-to-end curriculum architecture for banking, healthcare, auditing and real estate audiences, from learning outcomes through module content to assessment.
- **Generative AI and prompt engineering:** prompt design, testing and evaluation; large language model implementation; and the governance of generative systems in regulated environments, informed by an MBA in Prompt Engineering.
- **Executive education and training:** AI, generative AI, FinTech and governance programs for banking and corporate audiences, and train-the-trainer programs for faculty, delivered in person or remotely.
- **Technical content development and academic quality audit:** authoring of curriculum content and technical frameworks for regulated-sector programs, with slide-by-slide review for content accuracy, terminology, consistency and teaching quality, supported by formal written quality-review reports.
- **Quality assurance and accreditation readiness:** program and course specifications, self-assessment, external audit, and national accreditation standards (NAQAAE).
- **Board, governance and ethics advisory:** Certified Director (CDCP) of the Egyptian Institute of Directors, an affiliate of the Financial Regulatory Authority, in collaboration with the International Finance Corporation, with prior board experience in the Egyptian private sector.
- **FinTech and digital transformation education:** Certified FinTech Practitioner of The London Institute of Banking and Finance, with sector grounding from early practice in commercial banking.
- **Research design, supervision and examination:** doctoral and master's supervision, dissertation adjudication, and journal peer review.

Available for external training, consulting, generative AI and prompt engineering, technical content development and advisory engagements, in English and Arabic, in Egypt and internationally.

Core Expertise

AI governance and responsible AI integration	Generative AI curriculum strategy	Prompt engineering and LLM implementation
Sector-specific AI program design	AI for banking and FinTech education	Executive education and professional training
Academic quality assurance and accreditation	Curriculum and program development	Corporate governance, internal controls and ethics
Information systems and MIS	Business analytics, data mining and data warehousing	E-commerce, digital analytics and online marketing
Research supervision and dissertation examination	Journal peer review and editorial service	Program specification and self-assessment (NAQAEE)

Institutions and Organisations Worked With

Central Bank of Egypt, Egyptian Banking Institute, NewGiza University (SOBF Executive Education), Injaz Consulting Group and Injaz Institute, Supreme Council of Universities, Ministry of Higher Education and Scientific Research, Egyptian Institute of Directors (Financial Regulatory Authority), International Finance Corporation through the EIoD, Springer Nature, Microsoft, Oracle, Intel, the American University in Cairo, Northumbria University through the Educational Leadership Consortium, and the European Union.

AI and Sector-Specific Education Leadership

AI for Banking Diploma: National Initiative of the CBE, EBI and NewGiza University (SOBF)

Academic Contributor, Technical Content Developer and Academic Quality Reviewer, 2025 to present

Egypt's first specialised diploma in Artificial Intelligence for the banking sector, launched under the "Digital Academy" powered by FinTech Egypt, an initiative of the Central Bank of Egypt. The memorandum of understanding was signed in the presence of the CBE Governor, Mr Hassan Abdalla, and the NGU President, Prof. Dr Ahmed Sameh Farid, together with senior leadership of NGU, Injaz Consulting Group and the School of Business and Finance. The initiative also marked the launch of the SOBF Executive Education arm.

- **Technical subject-matter expert:** founding developer, and Lead Academic Representative and Technical SME for SOBF, on the content development committee for the five integrated training programs comprising the diploma.
- **Content curation:** researched and recommended academic resources, engineered technical frameworks, and developed curriculum content for the AI modules.
- **Collaborative development:** finalised the technical structure of the program alongside lead representatives from Injaz and the Central Bank of Egypt, ensuring the academic content met the strategic standards required for the national banking sector.
- **Delivery and reach:** the diploma is offered to banks operating under the supervision of the Central Bank of Egypt, with participants nominated by their own institutions. Participants may enrol in individual programs or complete all five consecutively to earn the full diploma; the large majority of the first cohort enrolled for the full diploma.
- **Cohort composition:** two cohorts delivered to date. The first drew nominees from thirteen institutions, twelve commercial, Islamic and specialised banks together with the Central Bank of Egypt itself, spanning functions from information technology, information security and risk to digital banking, analytics and finance. Approximately half of the nominees held roles at head-of-department level or above, among them general managers, an assistant managing director and a chief information security officer.
- **Academic quality review:** prepared formal quality-review reports covering Programs 1 to 5 and completed a comprehensive academic quality review of the diploma materials, a slide-by-slide audit across

22 teaching days and 1,518 slides, with observations on content accuracy, terminology, consistency and teaching quality.

- **Public recognition:** the official NGU announcement of the alliance states that its technical, professional and academic expertise was guided by Eng. Abdel Moneim Darwish, CEO of Injaz Tech, the technology consulting arm of Injaz Consulting Group, and by Professor Dr Laila El Fangary, NGU Professor of Information Systems.
- **Sources:** Central Bank of Egypt, "Launch of the 1st Specialized AI Diploma for the Banking Sector", <https://www.cbe.org.eg/en/news-publications/news/2026/01/27/12/06/launch-1st-specialized-ai-diploma-for-the-banking-sector>; NewGiza University, "A Strategic Alliance Shaping the Future of Banking", <https://ngu.edu.eg/ng-news-events/a-strategic-alliance-shaping-the-future-of-banking-launch-of-egypts-first-ai-diploma-for-banking/>; and the Egyptian Banking Institute diploma page, <https://ebi.gov.eg/ai-for-banking-diploma/>.

Artificial Intelligence for Business, Undergraduate Program

Founding Developer, NewGiza University, School of Business and Finance, approved March 2026

- Designed the full undergraduate program and its course specification, for implementation in the 2026/2027 academic year.

Current AI Program Development Pipeline

- AI for Healthcare, curriculum and executive-education development in progress.
- AI for Auditing, curriculum and executive-education development in progress.
- AI for Real Estate Developers, curriculum and executive-education development in progress.

Professional Experience

Capital University was formerly Helwan University. Institutional names are retained according to the period and the source wording.

Capital University (formerly Helwan University), Faculty of Computers and Artificial Intelligence

Ain Helwan, Helwan 11795, Cairo, Egypt. Continuous academic appointment since 1996, with the roles below.

Professor, Information Systems Department, November 2010 to present

- **Curriculum leadership:** developed and modernised course curricula in information systems, corporate governance and business analytics, integrating ethical practice into the teaching of technology and business management.
- **Research supervision:** doctoral and master's supervision across information systems, data mining, healthcare AI and IoT security, with dissertation examination for universities across Egypt.
- **Academic delivery:** lectures and workshops at the intersection of information systems, digital transformation and business practice.

Head of Information Systems Department, September 2022 to June 2023

- **Leadership and management:** oversaw departmental operations, budget, staffing and technology resources, ensuring alignment with university policy.
- **Curriculum development:** led the modernisation of the information systems curriculum in line with industry and technological trends, embedding ethical considerations throughout.
- **Research direction and faculty development:** set departmental research direction and mentored faculty toward peer-reviewed publication.
- **Quality assurance and stakeholder engagement:** ran continuous quality assessments against national standards and built industry and academic collaborations to advance departmental programs.

Vice Dean of Graduate Studies and Research, January 2010 to May 2011

- **Graduate program management:** directed the development and administration of graduate programs and chaired meetings on program development, faculty contribution and research initiatives.
- **Academic and industry collaboration:** coordinated the Oracle Academic Initiative Program between the Faculty of Computers and Information and Oracle Egypt, 2003 to 2010.
- **Community and social support:** board member of the social support fund and leader of the scouts committee.

Vice Dean of Community Service and Environmental Development, September 2008 to December 2009

- **Sustainability integration:** embedded sustainability into academic curricula and community activity, increasing the environmental and social impact of the faculty.
- **Partnership development:** coordinated the IT Academy established in 2008 with Microsoft and the Ministry of Communication and Information Technology, giving students and the wider academic community software, training and certification at minimal cost.
- **Technology for sustainability:** led projects applying technology to social and environmental benefit.

Associate Professor, Information Systems Department, September 2005 to November 2010

- Delivered courses across the information systems curriculum and led the faculty's program specification and self-assessment work, described under Quality Assurance and Accreditation Leadership below.

Lecturer, Information Systems Department, July 1997 to August 2005

- Taught information systems courses on the application of technology in business, and served on the committee that prepared and translated the Statutes of the Faculty of Computers and Information in 2003.

Assistant Lecturer, Information Systems Department, 1996 to 1997

- Supported course delivery and provided academic support to undergraduate students in information systems.

NewGiza University, School of Business and Finance

Part-Time Professor. Km 22, Cairo Alexandria Desert Road, Egypt. September 2022 to present. Faculty profile listed on the school page: <https://ngu.edu.eg/ng-academic/school-of-business-and-finance/>

- Teach undergraduate courses on the ethical and responsible use of Artificial Intelligence in business and finance, integrating AI tools into the curriculum with an emphasis on responsible and sustainable application.
- Conduct training sessions for students and faculty on ethical AI practice.
- Founding Developer of the Artificial Intelligence for Business undergraduate program, and Academic Contributor, Technical Content Developer and Academic Quality Reviewer of the AI for Banking Diploma, 2025 to present, as detailed above.

American University in Cairo, School of Business, Economics and Communications

Part-Time Assistant Professor, Management Department. New Cairo, Egypt. 2002 to 2005. <https://www.aucegypt.edu/>

- Taught management information systems and finance courses, emphasising critical thinking and ethical decision-making in business.

Ain Shams University, Faculty of Commerce

Lead Trainer, Middle Management Training Program. Abbassia, Cairo, Egypt. 2003 to 2004. <https://www.asu.edu.eg/163/page>

- Lead trainer in a two-year program delivered by the Educational Leadership Consortium: the Faculty of Commerce at Ain Shams University; General Technology, representing Northumbria University at Newcastle in the United Kingdom; the Program Planning Monitoring Unit, representing the Ministry of Education; and the European Union.
- Delivered and received training in problem solving, leadership and management skills, change management, educational reform, teaching and learning, strategic planning, staff development, management information systems, inspection and evaluation, communication skills, and quality assurance and accreditation.

The Paste and Juice Company S.A.E.

Board Member (Expert). 4th Industrial Zone, Sadat City, Menoufia, Egypt. 2000 to 2006. <https://www.paste-juice.com/>

- Board expert on technology. Led the development and launch of the company's website in 2002, establishing its digital presence and customer engagement channel.

Misr America International Bank

Accountant. Garden City, Cairo, Egypt. 1986 to 1987.

- Auditing, financial transaction management and regulatory compliance within a commercial banking institution.

National Committee Appointments

Member, Permanent Scientific Committee for Promotions, Supreme Council of Universities

Examining scientific production for appointment to the positions of Professor and Associate Professor of Computers and Information and Management Information Systems. Cairo University Headquarters, Giza. September 2022 to present. Committee membership listing:

<https://scicom.scu.eg/show/showCommitteeMembers.aspx>

- Serve on a nine-member national committee evaluating the scientific production of candidates for appointment to Professor and Associate Professor in Computers, Information and Management Information Systems.
- Appointed to the Fourteenth three-year Cycle (2022 to 2025) and reappointed to the Fifteenth Cycle (2025 to 2028), currently serving.

Member, Egyptian Sector Committee for the Computer and Information Systems Institutes

Ministry of Higher Education and Scientific Research, Egypt. April 2024 to April 2025.

- Appointed by Ministerial Decree Number 757 of 24 April 2024, issued by the Minister of Higher Education and Scientific Research.
- Responsible for the comprehensive evaluation of the quality of education in Computer and Information Systems Institutes nationwide, covering management and managerial experience, work environment and automated student-affairs systems, physical and laboratory capabilities, quality-unit effectiveness and accreditation compliance, published scientific research and faculty development, and equivalence and course-material quality.

Education

Ph.D. in Business Administration, Specialisation: Management Information Systems

Faculty of Commerce and Business Administration, Capital University (formerly Helwan University), Ain Helwan, Cairo, Egypt. July 1997.

MBA, Prompt Engineering

Apsley Business School London, Third Floor, Apsley House, 176 Upper Richmond Road, London SW15 2SH, United Kingdom. Awarded 16 September 2025. Institution: <https://www.apsley.university/>

- EQF Level 7, 120 ECTS, official program length 24 months. Overall classification: MBA at EQF 7, giving access to study at EQF Level 8. All seven units were completed within a single academic year, June 2024 to September 2025, on an accelerated route reflecting prior professorial standing, through full-time study combining teaching practice, classroom study and written examinations.
- Modules, each at EQF 7: Artificial Intelligence I, II and III; Strategic Financial Analysis; Strategic Human Resource Management; Business Research Methodology; and a Research Dissertation of 30 ECTS. Artificial Intelligence I and the Research Dissertation were graded Excellent.
- Issued with a Europass Diploma Supplement following the model of the European Commission, the Council of Europe and UNESCO/CEPES.

Master of Business Administration

American University in Cairo, Egypt. January 1991.

Bachelor of Arts in Economics (Honors)

American University in Cairo, Egypt. February 1985.

Professional Certifications and Continuing Development

Certified FinTech Practitioner (CFP)

The London Institute of Banking and Finance, part of Walbrook. March to July 2024. Program: <https://www.walbrook.ac.uk/libf/professional-qualifications/digital-banking/certified-fintech-practitioner/>

- A five-module practitioner program for mid-career banking and financial-technology professionals, conferring Certified FinTech Practitioner status and LIBF membership.
- Coverage: the reshaping of banking business models by FinTech; core technologies and their effect on financial product design and distribution; risk and regulation internationally; growth strategy; and venture success, including funding, valuation, collaboration and exit. Applied areas include digital, neo- and challenger banking; wealthtech and robo-advisory; alternative and embedded finance; data, AI and machine learning; and blockchain, distributed ledger technology and digital-currency regulation.

Certified Director, Corporate Directors Certification Program (CDCP)

Egyptian Institute of Directors (EIoD), Financial Regulatory Authority, Smart City, 6th of October, Egypt. January to March 2024. Program: <https://exam.eiod.org/course/info.php?id=34>

- Offered by the International Finance Corporation through the Egyptian Institute of Directors, an affiliate of the Financial Regulatory Authority, with the certificate accredited by the IFC and the FRA. The program covered strategic oversight, the role of the board in disclosure and transparency, the protection of shareholder rights, risk management, and sustainable corporate governance.

Microsoft Certified Solution Developer, and Microsoft Certified Professional with Site Builder

Microsoft. March 1999 to June 2001. Microsoft Learn transcript: <https://learn.microsoft.com/en-us/users/lailaelfangary-8263/transcript/vmzo6t6mx2x9lmg>

- Networking Essentials; Windows 2000 Server; Visual Basic, covering fundamentals, development and enterprise development; SQL Server 7.0 administration and database implementation; Web Site Fundamentals; FrontPage 98; Site Server 3.0; and Visual InterDev.

Continuing Professional Development

- **Generative AI, 2023:** Prompt Engineering for ChatGPT (Coursera); Career Essentials in Generative AI (Microsoft and LinkedIn); Generative AI for Business Leaders; Ethics in the Age of Generative AI; Building ChatGPT Plugins; and related specialisations in generative AI for research, project management and business application.
- **Business intelligence and data productivity, 2023:** advanced Excel dashboards and pivot-table reporting, and PowerPoint essential training and infographic design (LinkedIn Learning).

Teaching Portfolio

- **Artificial intelligence, generative AI and FinTech:** Artificial Intelligence for Business, AI for Banking, AI for Healthcare, AI for Auditing, AI for Real Estate Developers, Foundations of FinTech, Prompt Engineering, Generative AI Governance, LLM Implementation, and the ethical and responsible use of AI in business and finance.
- **Information systems, MIS and business technology:** Management Information Systems, Systems Analysis and Design, E-Business and E-Commerce, and Digital Analytics and Online Marketing.
- **Advanced analytics and data:** Business Analytics, Data Mining, Data Warehousing, and Information Retrieval.
- **Governance, ethics and business core:** Corporate Governance, Internal Controls, Financial Accounting, Strategic Management, and Economics of Organizations.
- **Graduate and research training:** Research Methods, graduate supervision and dissertation examination, and quality assurance, program specification and academic program review.

Authorship, Supervision and Peer Review

- **Supervision:** 23 completed doctoral and master's dissertations, with four currently in progress.
- **Examination:** adjudicator for more than fifty doctoral and master's dissertations.
- **Peer review:** Journal Peer Reviewer for Education and Information Technologies (Springer Nature), January 2024 to present. The journal has been listed in Scopus Q1 since 2005.
- **Publisher relationship:** published in the Springer Nature journal Education and Information Technologies in 2010, and peer reviewer for that journal since 2024, a continuing relationship with the publisher as both author and referee.
- **Sole and lead authorship:** sole author of eleven peer-reviewed papers, eight journal articles and three conference papers, among them the 2024 IJACSA article on generative models in Egyptian higher education and the 2010 Springer article in Education and Information Technologies, and lead author of a further eight.
- **Research direction:** led and contributed to research initiatives in information systems, AI, MLOps, data mining, information retrieval, e-commerce, data warehousing, healthcare AI, IoT security and governance.

Quality Assurance and Accreditation Leadership

- Lead Coordinator, "Establishing Quality Assurance Mechanisms at Helwan University", project code B-131-K0, August 2004 to May 2007. Spearheaded the program specification and self-assessment exercise for the Faculty of Computers and Information; managed the coordination and development of course specifications, program reports and faculty reports; and oversaw financial reporting and compliance under the Higher Education Enhancement Project Fund (HEEPF) of the Ministry of Higher Education, Egypt.
- Member of the implementation team that developed the Strategic Plan for Quality Assurance at Capital University (formerly Helwan University), January 2006.
- Workshop on Self-Evaluation of Higher Education Institutions, and Workshop for External Auditors of Higher Education Institutions, National Authority for Quality Assurance and Accreditation of Education (NAQAAE), February 2010.

Publications

46 peer-reviewed publications from a record of more than fifty, grouped by intellectual contribution and ordered within each group from the most recent to the oldest. The most recent is dated 2025.

Venues include PLOS ONE; Information (MDPI); Education and Information Technologies (Springer Nature); Information Sciences Letters; the International Journal of Advanced Computer Science and Applications; Computer and Information Science; and the IEEE conference proceedings of ISDA, ICDS, ICCIT, NCM, FCST and INFOS.

Generative AI and Higher Education

1. ElFangary, L. M. (2024). *Roadmap for generative models redefining learning in Egyptian higher education*. International Journal of Advanced Computer Science and Applications (IJACSA), 15(2). <https://doi.org/10.14569/IJACSA.2024.0150216>

MLOps, DevOps, IoT Security and AI Operations

2. Elgamal, Z. S., ElFangary, L., & Fahmy, H. (2025). *The impact of using MLOps and DevOps on container-based applications: A survey*. Faculty of Computers and Artificial Intelligence Helwan International Journal, 7(1), 51 to 63. <https://doi.org/10.21608/fcihib.2025.261807.1105>
3. Elgamal, Z. S., ElFangary, L., & Fahmy, H. (2024). *A machine learning operations (MLOps) monitoring model using BI-LSTM and SARSA algorithms*. International Journal of Advanced Computer Science and Applications (IJACSA), 15(10). <https://doi.org/10.14569/IJACSA.2024.0151060>
4. Bahaa, A., Sayed, A., ElFangary, L., & Fahmy, H. (2022). *A novel hybrid optimization enabled robust CNN algorithm for an IoT network intrusion detection approach*. PLOS ONE, 17(12), e0278493. <https://doi.org/10.1371/journal.pone.0278493>

5. Bahaa, A., Abdelaziz, A., Sayed, A., Elfangary, L., & Fahmy, H. (2021). *Monitoring real time security attacks for IoT systems using DevSecOps: A systematic literature review*. Information (Switzerland), 12(4), Article 154, 1 to 23. <https://doi.org/10.3390/info12040154>
6. Elfangary, L., Bahaa, A., & Sayed, A. (2018). *A secured interoperable data exchange model*. International Journal of Advanced Computer Science and Applications, 9(1), 253 to 260.
7. Sayed, A., Bahaa, A., & Elfangary, L. (2016). *A proposed interoperable architecture for educational software systems*. International Journal of Engineering Sciences and Research Technology, 5(12), 941 to 947. <https://doi.org/10.5281/zenodo.222236>

Machine Learning, Healthcare AI, Smart Grids and Applied AI

8. Rashwan, A. R., ElFangary, L., & Azzam, S. M. (2024). *A comparative study of artificial intelligence techniques for categorization and prediction of heart diseases*. Computing and Information Bulletin (CIB), Faculty of Computers and Artificial Intelligence, Helwan University, 6(1). <https://doi.org/10.21608/FCIHIB.2023.211465.1087>
9. Rashwan, A. R., ElFangary, L., & Azzam, S. M. (2023). *Predicting heart disease using modified GoogLeNet convolutional neural network architecture based on the heart sound*. Information Sciences Letters, 12(11), 2837 to 2858. <https://www.naturalspublishing.com/files/published/x33lk029v7r88r.pdf>
10. Abed, A. H., Nasr, M., El-Fangary, L., & Abd Elhamid, L. (2021). *Applications of IoT in smart grids using demand respond for minimizing on-peak load*. International Journal of Computer Science and Information Security (IJCSIS), 19(8), 95 to 119.
11. Shehata, N. S., Nasr, M., El Fangary, L., & Abd El Hamid, L. (2021). *Algorithms of deep learning: Convolutional neural network role with colon cancer disease*. International Journal of Advanced Networking and Applications, 13(1), 4827 to 4832.
12. Al-Sadek, A. F., ElFangary, L., & Yassin, A. E. A. (2012). *Fuzzy-based approach for filling the metabolic pathway hole*. International Journal of Computer Science Issues (IJCSI), 9(6/1), 137 to 143.
13. Elfangary, L. M., Yassin, A. E. A., & Al-Sadek, A. F. (2012). *RGB MAPS: A proposed database for solving metabolic pathway hole*. 8th International Conference on Informatics and Systems (INFOS 2012), Cairo, Egypt, DE44 to DE52.

Data Mining, Algorithms, Information Retrieval and Applied Analytics

14. ElFangary, L. M., Hazman, M., & Abdallah, A. (2012). *Mining the impact of climate change on animal production*. International Journal of Computer Applications, 59(18), 25 to 29.
15. Abd-Elmegid, L. A., El-Sharkawi, M. E., El-Fangary, L. M., & Helmy, Y. K. (2010). *Vertical mining of frequent patterns from uncertain data*. Computer and Information Science, 3(2), 171 to 179.
16. Helmy, Y. K., El Sharkawi, M. E., ElFangary, L. M., & Abdel Megid, L. (2009). *Vertical mining of frequent patterns using diffset groups*. International Conference on Intelligent Systems Design and Applications (ISDA), Pisa, Italy, 1196 to 1201. IEEE Computer Society. <https://doi.org/10.1109/ISDA.2009.167>
17. ElFangary, L. M. (2009). *Applying an enhanced algorithm for mining incremental updates on an Egyptian newspaper website*. Fifth International Joint Conference on INC, IMS and IDC (NCM 2009), Seoul, Korea, 1131 to 1135. IEEE Computer Society. <https://doi.org/10.1109/NCM.2009.151>
18. ElFangary, L. M. (2009). *Mining data of buffalo and cow production in Egypt*. 4th International Conference on Frontier of Computer Science and Technology (FCST 2009), Shanghai, China, 382 to 387. IEEE. <https://doi.org/10.1109/FCST.2009.27>
19. ElFangary, L. M., Ahmed, M., & Bakr, S. (2009). *Review of k-nearest neighbour search methods based on grid indexing technique*. International Conference on Information and Knowledge Engineering (IKE 2009), Las Vegas, NV, USA, 608 to 614. CSREA Press.
20. ElFangary, L. M., & Atteya, W. A. (2008). *Mining medical databases using proposed incremental association rules algorithm (PIA)*. Second International Conference on Digital Society (ICDS), Sainte Luce, 88 to 92. IEEE Computer Society. <https://doi.org/10.1109/ICDS.2008.10>
21. ElFangary, L. M., & Atteya, W. A. (2008). *Mining databases by means of an incremental association rule learner*. Third International Conference on Convergence and Hybrid Information Technology (ICCIT), 2, Busan, Republic of Korea, 891 to 896. IEEE Computer Society. <https://doi.org/10.1109/ICCIT.2008.211>

22. Helmy, Y. K., El-Sharkawi, M. E., El-Fangary, L. M., & Abd-Elmegid, L. A. (2005). *Efficient mining of frequent itemsets over window-based data streams*. Third International Conference on Informatics, Faculty of Computers and Information, Cairo University, 272 to 281.
23. ElFangary, L. M. (2004). *Forecasting the load data for Cairo power system*. Egyptian Computer Science Journal, 25(2), 37 to 50.
24. ElFangary, L. M. (2002). *A comparative study of e-business models for Egypt*. First International Conference on Intelligent Computing and Information Systems (ICICIS 2002), Ain Shams University, Cairo, Egypt, 323 to 329.

Data Warehousing, Database Security, Web Security and Temporal Data

25. Farhan, M. S., Marie, M. E., El-Fangary, L. M., & Yehia, K. (2012). *Transforming conceptual model into logical model for temporal data warehouse security: A case study*. International Journal of Advanced Computer Science and Applications (IJACSA), 3(3), 115 to 122.
26. Salama, S. E., Marie, M. I., El-Fangary, L. M., & Helmy, Y. K. (2012). *Web anomaly misuse intrusion detection framework for SQL injection detection*. International Journal of Advanced Computer Science and Applications (IJACSA), 3(3), 123 to 129.
27. Farhan, M. S., Marie, M. E., El Fangary, L. M., & Helmy, Y. K. (2011). *An integrated conceptual model for temporal data warehouse security*. Computer and Information Science, 4(4), 46 to 57. <https://doi.org/10.5539/cis.v4n4p46>
28. Salama, S. E., Marie, M. I., El Fangary, L. M., & Helmy, Y. K. (2011). *Web server logs preprocessing for web intrusion detection*. Computer and Information Science, 4(4), 123 to 133. <https://doi.org/10.5539/cis.v4n4p123>
29. ElFangary, L. M., Ahmed, M., & Bakr, S. (2009). *A comparative study of spatial-temporal database trends*. International Journal of Computer Science and Network Security (IJCSNS), 9(12), 75 to 88.
30. Helmy, Y. K., El Bastawisy, A. H., El Fangry, L. M., & Ezzat Salama, S. M. (2005). *Derived event detection in XML documents*. Fortieth Annual Conference of Statistics, Computer Science and Operations Research, Institute of Statistical Studies and Research, Cairo University.
31. Helmy, Y. K., El Bastawisy, A. H., El Fangry, L. M., & Farhan, M. S. (2005). *A temporal extension for multidimensional object oriented conceptual model*. Fortieth Annual Conference of Statistics, Computer Science and Operations Research, Institute of Statistical Studies and Research, Cairo University.

E-Commerce, E-Government, Web Technologies, Information Systems and E-Learning

32. Haggag, E., El Fangary, L., & Elzanfaly, D. (2012). *Proposed approach toward efficient web usage mining*. 8th International Conference on Informatics and Systems (INFOS), NLP-49 to NLP-54. IEEE.
33. Sultan, T., ElFangary, L. M., & Soliman, M. M. (2010). *Software reengineering: Process model and supporting techniques, a case study applied on Egypt Post*. Egyptian Computer Science Journal, 35(3), 17 to 35.
34. ElFangary, L. M. (2010). *Mining of Egyptian missions' data for shaping new paradigms*. Education and Information Technologies. Springer Science and Business Media. <https://doi.org/10.1007/s10639-010-9124-x>
35. Sharaf ElDin, A., ElFangary, L. M., & Khamayseh, F. T. (2009). *Evaluation of learner achievement within active multimodal presentation (AMP) and static e-learning modes*. Egyptian Computer Science Journal, 32(1), 11 to 27.
36. ElFangary, L. M., Kholeif, S., & Afify, G. M. (2008). *Automated negotiation decision making approaches: Experimental study*. Sixth International Conference on Informatics and Systems (INFOS 2008), Cairo University, DSS 18 to DSS 23.
37. Sharaf Eldin, A., ElFangary, L. M., & Khamayseh, F. T. (2007). *Interactive multimodal tools and learner engagement to support active e-learning*. 2nd Palestinian International Conference on Computer and Information Technology, Palestine Polytechnic University, 73 to 78.
38. Mazen, S. A., ElFangary, L. M., & Bahaa, M. (2006). *Implementation of customer service tracking using the active document model*. Egyptian Computer Science Journal, 28(2), 52 to 70.
39. Elmanadili, Y. S., ElFangary, L. M., & Ismail, W. S. (2006). *A proposed module for a semi-automatic generalization in GIS context*. International Journal of Intelligent Computing and Information Science, 6(1), 103 to 114.

40. Sultan, T., ElFangary, L., & Abdel Hameed, H. (2005). *Analysis of e-government in Egypt with focus on Safaga City project*. Management Engineering Society Conference: Project Management Vision for Better Future, Egyptian Society of Engineers, Cairo, 4/6 1 to 18.
41. Sharaf Eldin, A., & ElFangary, L. M. (2005). *Measuring the effectiveness of Egyptian electronic commerce websites using the web assessment method*. Egyptian Computer Science Journal, 27(2), 14 to 28.
42. ElFangary, L. M. (2000). *Assessment of controls over availability, service integrity, security and privacy for enabling e-commerce on the Internet: An applied study on Egypt ISPs*. The Scientific Magazine for Research and Commercial Studies, Faculty of Commerce and Business Administration, Helwan University, 56 to 85.
43. ElFangary, L. M. (2000). *Perception of Internet related activities with focus on e-commerce: A comparative study among Faculty of Computers and Information students at Helwan University*. The Scientific Magazine for Research and Commercial Studies, Faculty of Commerce and Business Administration, Helwan University, 89 to 109.
44. ElFangary, L. M. (2000). *Towards an Islamic information network with focus on Islamic banks: A proposed model*. Egyptian Computer Science Journal, 22(1), 155 to 200. Presented at King Abdul Aziz Public Library, Riyadh, Saudi Arabia, 31 October to 3 November 1999.
45. ElFangary, L. M. (1999). *Analysis of the utilization of information technology in Egyptian business associations*. The Scientific Magazine for Research and Commercial Studies, Faculty of Commerce and Business Administration, Helwan University, 245 to 274.
46. ElFangary, L. M. (1998). *Evolution of information centers in Egypt: An applied study of Nolan's stages of growth model*. Science and Art (Research and Studies), Helwan University, 123 to 166.

Presentations, Conferences and Workshops

Invited Presentations and Keynotes

- **Keynote speaker**, 27th Scientific Conference on Generative AI and Models: Exploring the Future of Education and Healthcare for Egyptian Institutions. Egyptian Society for Information Systems and Computer Technology, Academy of Scientific Research, Cairo, 27 April 2024.
- **Invited presentation, delivered online**: Fuller, S., and ElFangary, L., "Review and Roadmap of AI in Egypt: Trends and Directions Shaping the Future with FinTech." Innovation and Futurepreneurship, the Anglo-German Conference "Showcasing Innovation and Talent", Rathaus Stralsund, Germany, 29 to 30 November 2024. Hosted by the Duke of Wellington Academic Campus, supported by the City Government of Stralsund and opened by the Lord Mayor, Dr Alexander Badrow.
- Review article, "Recent Trends in Internet Computing and Electronic Commerce", submitted to the permanent committee for the promotion of associate professors, August 2005.

Conferences, Seminars and Workshops

- Member of the Operational Support Committee, First International Conference on Intelligent Computing and Information Systems (ICICIS 2002), Ain Shams University, Cairo, 24 to 26 June 2002.
- Presentations and seminars on Awareness of Academic Program Specifications Guidelines and Forms, Faculty of Computers and Information, 2004 to 2009.
- Two-day workshops on Quality Standards in Teaching; Credit Hour Systems; Strategic Planning; Conference Organization; Research Team Management; and Code of Ethics. Competency Development and Training Centre, November 2009 to January 2010.

Honours and Awards

- **Certificate of Recognition, 7 July 2026**. Technical Content Developer and Academic Quality Reviewer, AI for Banking Diploma, SOBF Executive Education, NewGiza University. Signed by Prof. Dr Khaled Hegazy, Dean of the School of Business and Finance.
- **Certificate of Appreciation, 27 April 2024**. Keynote speaker, Academy of Scientific Research, Cairo.
- **Best Paper Award, IARIA, 2008**. International Academy Research and Industry Association, for "Mining Medical Databases Using Proposed Incremental Association Rules Algorithm (PIA)", Second International Conference on Digital Society.

- **Recognition Award as a Trainer, June 2004.** Middle Management Training Program, a two-year program of the Educational Leadership Consortium comprising Ain Shams University; Northumbria University, Newcastle; the Ministry of Education; and the European Union.
- **Letters of appreciation for distinguished performance, 2004.** Awarded by the Chair of the Management Department, School of Business, Economics and Communication, American University in Cairo, for the Spring and Fall 2004 semesters, with a student evaluation average of 4.6 out of 5.
- **Certificate of Recognition, 2002.** First International Conference on Intelligent Computing and Information Systems (ICICIS 2002), Ain Shams University, Cairo.

Institutional and Community Service

Heliopolis Association, 2006 to 2018

- Head of the education development, technology and training committee and member of the schools' board of trustees, 2006 to 2011, within the One Hundred Schools Development Project, later expanded to 500 public schools in underprivileged communities in Greater Cairo.
- Directed staff training and implemented programs that brought participating schools to NAQAAE accreditation and quality-assurance requirements, coordinating financing through the Social Development Fund, training delivery with the Future Generation Foundation and partners including Berlitz, Dale Carnegie and Westwood Misr, and technology implementation with the Ministry of Communication and Information Technology, Intel, Epson and Smart International (Canada). Schools were equipped with internet-connected computer labs, classroom connectivity and multimedia facilities, and donated Intel Classmate PCs gave every student regular hands-on computer use, supported by monthly teacher training.

Skills and Languages

Mother tongue: Arabic

Language	Listening	Reading	Spoken interaction	Spoken production	Writing
English	Proficient	Proficient	Proficient	Proficient	Proficient
French	Basic	Basic	Basic	Basic	Basic

Professional Competencies

- **Communication:** conveying complex technology, AI and governance concepts through lectures, workshops and international conferences, tailored to diverse audiences; building institutional partnerships and facilitating cross-disciplinary collaboration.
- **Organisational and managerial:** as Vice Dean and Head of Department, directed academic and administrative initiatives spanning curriculum development, faculty advancement and resource management, including the coordination of institutional programs with Microsoft and Oracle.
- **Technical:** advanced use of AI tools for research, teaching and digital content creation; database management and Microsoft Office; and the implementation and management of technology solutions in educational settings.
- **Governance and ethical leadership:** raising corporate governance standards through technological insight and AI-enabled decision support; ensuring compliance with regulatory standards in educational institutions; and sustainability advocacy grounded in the Vice Deanship of Community Service and Environmental Development, the Heliopolis schools program, and the teaching of corporate governance and ethics.

الأستاذة الدكتورة ليلي محمد الفنجري، أستاذ نظم المعلومات

أستاذ نظم المعلومات بخبرة تمتد إلى ما يقرب من ثلاثة عقود في التدريس والبحث العلمي والقيادة الأكاديمية والخدمة الوطنية في مصر. تشمل مجالات عملها حوكمة الذكاء الاصطناعي، والذكاء الاصطناعي التوليدي، وهندسة الأوامر، وتعلم الآلة، والتتقيب في البيانات، ونظم المعلومات، وتحليلات الأعمال، وحوكمة الشركات، والاستراتيجية الرقمية، والتكنولوجيا المالية، وبناء القدرات في الذكاء الاصطناعي للقطاعات المنظمة. وتشغل حاليًا منصب أستاذ بنظام الدوام الجزئي في كلية إدارة الأعمال والتمويل بجامعة نيوجيزة، وأستاذ بقسم نظم المعلومات بكلية الحاسبات والذكاء الاصطناعي بجامعة العاصمة (جامعة حلوان سابقًا).

حصلت على بكالوريوس الآداب في الاقتصاد بمرتبة الشرف وماجستير إدارة الأعمال من الجامعة الأمريكية بالقاهرة، والدكتوراه في إدارة الأعمال تخصص نظم المعلومات الإدارية من جامعة العاصمة (جامعة حلوان سابقًا). وفي عام 2025 حصلت على ماجستير إدارة الأعمال في هندسة الأوامر من كلية أسلي لإدارة الأعمال بلندن، وهو برنامج بالمستوى السابع في الإطار الأوروبي للمؤهلات بواقع 120 وحدة ECTS. كما تحمل شهادة عضو مجلس إدارة معتمد (CDCP) من مركز المديرين المصري، التابع للهيئة العامة للرقابة المالية، بالتعاون مع مؤسسة التمويل الدولية، وشهادة ممارس معتمد في التكنولوجيا المالية من معهد لندن للمصرفية والتمويل، إضافة إلى خبرة سابقة في العمل المصرفي وعضوية مجلس إدارة إحدى الشركات المساهمة المصرية.

تشمل أعمالها الحديثة عضوية اللجنة العلمية الدائمة للترقيات بالمجلس الأعلى للجامعات، الدورة الرابعة عشرة (2022-2025) والدورة الخامسة عشرة (2025-2028)، والمشاركة في تقييم الجودة على مستوى القطاع لمعاهد الحاسبات ونظم المعلومات في مصر. وهي المطور المؤسس لبرنامج بكالوريوس الذكاء الاصطناعي لإدارة الأعمال بجامعة نيوجيزة، الذي اعتمد في مارس 2026 لبدء تطبيقه في العام الأكاديمي 2027/2026، كما تعمل مساهمًا أكاديميًا ومطورًا للمحتوى التقني ومراجعًا للجودة الأكاديمية لدبلوم الذكاء الاصطناعي للقطاع المصرفي، وهو مبادرة وطنية للبنك المركزي المصري والمعهد المصرفي المصري وجامعة نيوجيزة بالتعاون مع مجموعة إنجاز للاستشارات. ويمتد خط التطوير الحالي إلى برامج الذكاء الاصطناعي للرعاية الصحية والمراجعة والتطوير العقاري.

ويقدم الدبلوم للبنوك الخاضعة لإشراف البنك المركزي المصري، ويُرشَّح المشاركون من مؤسساتهم. وقد نُفذت دفعتان حتى تاريخه؛ ضمت الدفعة الأولى مرشحين من ثلاث عشرة مؤسسة، منها اثنا عشر بنكًا من البنوك التجارية والإسلامية والمتخصصة إضافة إلى البنك المركزي المصري ذاته، من إدارات تمتد من تكنولوجيا المعلومات وأمن المعلومات وإدارة المخاطر إلى الصيرفة الرقمية وتحليلات الأعمال والتمويل. وشغل نحو نصف المرشحين مناصب برتبة رئيس إدارة فأعلى، من بينهم مديرون عامون ومساعد عضو منتدب ورئيس تنفيذي لأمن المعلومات. وشملت المراجعة الأكاديمية إعداد تقارير جودة رسمية للبرامج من الأول إلى الخامس، ومراجعة تفصيلية شريحة بشرية امتدت إلى 1,518 شريحة عبر 22 يومًا تدريبيًا، وحظيت بشهادة تقدير من كلية إدارة الأعمال والتمويل بجامعة نيوجيزة في 7 يوليو 2026.

وقد شغلت سابقًا مناصب رئيس قسم نظم المعلومات، ووكيل الكلية للدراسات العليا والبحوث، ووكيل الكلية لشئون خدمة المجتمع وتنمية البيئة. وأشرفت على 23 رسالة علمية مكتملة وتشرف حاليًا على 4 رسائل، وحكمت أكثر من 50 رسالة دكتوراه وماجستير. وهي محكم علمي بمجلة Education and Information Technologies التابعة لدار Springer Nature والمفهرسة في Scopus ضمن الربع الأول. ويضم سجلها العلمي أكثر من 50 بحثًا منشورًا في دوريات ومؤتمرات محكمة، منها PLOS ONE و Information و Springer Nature ومؤتمرات IEEE، أدرج منها 46 بحثًا في هذه السيرة الذاتية، وحازت جائزة أفضل بحث من IARIA عام 2008. وهي متحدث رئيسي في المؤتمر العلمي السابع والعشرين للذكاء الاصطناعي التوليدي والنماذج، أكاديمية البحث العلمي، القاهرة، أبريل 2024.

وتتاح لها المشاركة في عضوية مجالس الإدارة والمجالس الاستشارية، وتصميم البرامج والمناهج، ومراجعة الجودة الأكاديمية، وتطوير المحتوى التقني، والتدريب والتعليم التنفيذي في مجالات الذكاء الاصطناعي التوليدي وهندسة الأوامر والتكنولوجيا المالية والحوكمة، باللغتين العربية والإنجليزية، داخل مصر وخارجها.

References

- **Professor Doctor Yehia Moustafa Kamal Helmy**, Head of the Business Information Systems Department, Faculty of Commerce, Capital University (formerly Helwan University), Cairo, Egypt. Email ymhelmy@yahoo.com.
- **Professor Doctor Khaled Hegazy**, Dean of the School of Business and Finance, NewGiza University, Giza, Egypt. Email khegazy@ngu.edu.eg.