

## **Distinction**

Accomplished administrator and scholar who is student-centric with a passion for learning, research and service.

Inter-disciplinary background and experience enabling a deep appreciation of disciplinary diversity and the ability to identify and pursue initiatives in creative and innovative ways.

International experience in a variety of settings allowing a rich understanding of cultural and ethnic diversity, an awareness of global issues, and the importance internationalization in enriching our students' learning experience.

## **Education**

Harvard University, Harvard Graduate School of Education, Institute for Educational Management (IEM), 2016.

Harvard University, Harvard Graduate School of Education, Institute for Management and Leadership (MLE), 2011.

University of Hawaii at Manoa, USA. Ph.D. 1995. Dissertation: ADDSS: An Aquacultural Development Decision Support System.

University of Hawaii at Manoa, USA. M.A. 1996.

Alexandria University, Alexandria, Egypt. M. Sc. 1991. Thesis: The Use of Visual Information in Industrial Applications.

Alexandria University, Alexandria, Egypt. BS. Hon. 1987. Graduation project: Design and Implementation of a Floppy Disk Controller.

## **Professional Experience**

Professor of Information Systems, (August 2000 – Present, Professor with tenure since August 2009)  
Dakota State University, Madison, SD.

- Pursue research endeavors in the areas of: Analytics and decision support systems and their applications in healthcare, security management and environmental management, and socio-technical system design.
- Teach graduate courses in Big data analytics, Design science, Emerging issues in information systems, Systems analysis and design, and research seminars, advise graduate and undergraduate students, and supervise doctoral student dissertations.

Dean of the College of Information Technology and Professor of Information Systems, (August 2015– August 2017, On leave from Dakota State University)

United Arab Emirates University, United Arab Emirates.

- As the chief academic, financial, and administrative officer of the college, I guide the development of the mission, goals and annual action plans for the College, in alignment with the University's

plans, and am responsible for ensuring and reporting on progress towards achieving the College's goals.

- I provide the leadership and direction needed to create and sustain an environment in which academic excellence is pursued by faculty, staff, administrators and students as it relates to improving the quality and innovation in teaching and learning, building research and scholarship at an international level, and developing lasting partnerships with the community.
- As a member of the University's senior administrative team, I actively participate in various university-level activities, including institutional planning, implementation and evaluation. I also strive to foster cooperation with other Colleges and with the University's support units.
- I managed to work collaboratively with faculty and the senior administrative team to identify and lead several initiatives including developing a strategic plan, reviewing and assessing graduate and undergraduate program offerings, developing a marketing and recruiting plan, assessing and improving the first-year experience for undergraduate students, and revamping the faculty recruiting process.

Dean of Graduate Studies and Research and Professor of Information Systems, (January 2006– July 2015)

Dakota State University, Madison, SD.

- As the founding Dean for Graduate Studies and Research I provided dedicated leadership to the university's graduate programs. I served as the primary advocate and architect for graduate education at the university with responsibilities including strategic planning, policy formulation and implementation, and assurance of academic integrity and quality of academic programs. Central to this role is promoting academic research and linking graduate education with the University's sponsored research activities.
- I had director or oversight responsibilities for new program development; program assessment; program promotion and recruitment; application, admission and graduation; scheduling and registration. I collaborated with and supported the functions and responsibilities of the Graduate Council, the graduate faculty, the graduate program committees and the graduate program admissions committees within each college.
- Overall, I have provided the leadership and vision to develop DSU's graduate programs and research to national prominence. Most notably, are the development of DSU's first doctoral program, the addition of four master programs and most recently another doctoral program, the establishment of two research centers, a 240% increase in graduate student enrollment, a 161% increase in self-support tuition, and a 187% increase in grant awards.
- Continued to pursue research endeavors in the areas of: Analytics and decision support systems and their applications in healthcare, security management and environmental management, and socio-technical system design.
- Taught graduate courses in systems analysis and design, big data analytics and research seminars, advised graduate and undergraduate students, and supervised doctoral students' dissertations.

Graduate Programs Coordinator and Associate professor of Information Systems, (August 2004– December 2005)

College of Business and Information Systems, Dakota State University, Madison, SD.

- The graduate program coordinator supervises and coordinates the administration of the program, serves as a point of contact for graduate students enrolled in the program, and provides a linkage

between the graduate program committee and the graduate faculty. Examples of responsibilities include chairing the program committee, orienting and counseling graduate students, ensuring the quality of their program, and facilitating curriculum changes.

- Conducted research leading to publications and grants and supervised graduate students' research.
- Taught graduate courses in project management and systems analysis and design.

Assistant professor of Information Systems, (August 2000 – 2004)

College of Business and Information Systems, Dakota State University, Madison, SD.

- Conducted research leading to publications and grants and supervised graduate students' research.
- Taught a variety of information systems courses including: Research Seminar (INFS 890), Systems Analysis and Design Using CASE Tools (INFS 720), Project and Change Management (INFS 724), Management and Evaluation of Information Systems (INFS 612), Decision Support Systems (CIS 384), Systems Analysis and Design (CIS 332), COBOL I (CIS 221), and Visual Basic (CIS 130).

Senior Analyst, (October 1998 - August 2000)

Regional Economic Models, Inc., Amherst, MA.

- Designed and implemented a web-enabled multi-dimensional regional information system utilizing Online Analytical Processing (OLAP) technologies.
- Designed and implemented a decision support system for evaluating the economic implications of congestion for the National Cooperative Highway Research Program.
- Market shares research including the use of monopolistic competition models, gravity models and solving non-linear programming problems pertaining to trade flow estimation.

Assistant professor of Information Technology, (April 1996 – September 1998)

Department of Information Technology, Alexandria University, Alexandria, Egypt.

- Conducted research leading to publications and supervised graduate students' research.
- Taught a variety of information systems courses including Decision Support Systems, Information Systems Management, and Data Management.

Associate researcher, (August 1997 - September 1997)

The Research Corporation of the University of Hawaii, Honolulu, HI

- Designed and implemented a decision support system for managing Hawaii's fisheries.
- Assisted in developing a multiple criteria decision-making model for Hawaii's commercial fisheries to be used in performing policy analysis.

Research assistant, (January 1993 - May 1996)

University of Hawaii, Honolulu, HI

- Investigated the potential for utilizing decision support systems (DSS) concept in aquaculture.
- Designed and implemented a DSS for regional aquaculture development.
- Developed a multiple criteria decision-making model for regional aquaculture development.
- Developed a risk-programming model for determining optimal stocking combination.
- Surveyed the use of computer technology in aquaculture management.

Part-time Research assistant, (May 1994 - August 1994, May 1993 - August 1993)

Applied Analysis International, Honolulu, HI

- Adapted and utilized a shrimp production bio-economic spreadsheet model for assessing the financial feasibility of Mahimahi aquaculture in the United States.
- Assisted in developing a business plan for aquaculture investment in Egypt.
- Adapted and utilized a shrimp production bio-economic spreadsheet model for assessing the financial feasibility of sea bream and sea bass aquaculture in Egypt.

Teaching and research assistant, (March 1988 - December 1992)

Department of Information Technology, Alexandria University, Alexandria, Egypt.

- Designed and implemented a user-friendly robotics vision system utilizing image processing and pattern recognition techniques (M.S. thesis).
- Taught Data Management courses for a variety of Data Management certification workshops.

Programmer and systems analyst (September 1987 - April 1989)

Systems Engineering Arab Consultants, Alexandria, Egypt.

- Analyzed business procedure for the Alexandria Shipyard Company
- Identified potential problems, developed and communicated alternative IT solution.
- Designed and implemented management information systems (MIS).
- Trained company employees on the use of the systems.

**University Services**

United Arab Emirates University

- Chair, College of Information Technology Council
- Member, University Academic Council
- Member, University Deans' Council

Dakota State University

- Chair, DSU's Graduate Council
- Chair, DSU's Research Committee
- Institutional Representative, Institutional Review Board
- Member, Academic Affairs Technology Advisory Committee
- Member, South Dakota Board of Regents' Research Affairs Council
- Member, DSU's Executive Council
- Member, DSU's Planning Council
- Member, DSU's Academic Council
- Member, DSU's Tenure and Promotion (P&T) Committee
- Member, D.Sc. graduate admissions and assistantship sub-committees.
- Member, MSIS graduate admissions sub-committees.
- Member, DSU's Faculty Evaluation/P&T guideline development Committee
- Member, DSU 2007-12 Strategic Planning Committee.
- Member, DSU Presidential Search Committee
- Member, DSU's President Marketing Task Force.
- Member, Board of Regents' Homestake research committee
- Member, President of Dakota State University search committee.
- Member, Title III Grants Office Planning sub-committee.

- Member, several faculty recruitment committee.

### **Other Professional Experience**

Program Evaluator – ABET’s Computing Accreditation Commission (CAC) and Engineering Accreditation Committee (EAC) (Spring 2013 - Present)

Peer Corps Reviewer – North Central Accreditation - Higher Learning Commission (Fall 2012 – Present)

### **Professional Development**

AACSB B-School Communication and Development Symposium, March 2017.

IBM Skills Academy, Predictive Analytics Course, March 2017.

IBM Skills Academy, Big Data Developer Course, January 2017. Successfully passed the IBM Academic certificate exam earning the title ‘Big Data Developer Mastery Award’

AACSB Annual Accreditation Conference, September 2016.

ABET-Computing Accreditation Commission (CAC), Program Evaluator Training, June 2013. The training is part of an invitation by ABET-CAC to participate in the Program Evaluator Candidate Training.

Higher Learning Commission (HLC), Non-Financial Reviewer Training, 2013. The training is part of an invitation by HLC to become a nonfinancial reviewer for HLC.

Higher Learning Commission (HLC), Peer Review Intensive Training, 2012. The training is part of an invitation by HLC to become a member of the Peer Corps as a reviewer for HLC.

Society of Research Administration Webinar Series, 2011. Topics covered include capacity building, resource investments, assessment and evaluation, and intellectual property.

Leadership Professional Development Series at DSU, 2011. Sessions covered a variety of topics including leadership, writing performance evaluations, performance management, and sexual harassment prevention.

“Cloud and Grid Computing Services: The Next Generation of Software-as-a-Service”, Hawaii International Conference on Systems Sciences, January 2010.

“Cyberinfrastructure: Foundations for Large-Scale Computing”, Hawaii International Conference on Systems Sciences, January 2010.

Leadership Professional Development Series at DSU, 2010. Sessions covered a variety of topics including leadership skills, building a team culture, networking, negotiating, delegation, and effective interviewing and hiring.

Workshop on “Structural Equation Modeling (SEM) Using SmartPLS Software: Analyzing Path Models Using Partial Least Squares (PLS) Based SEM”, 2008 Americas Conference on Information Systems (AMCIS 2008), August 14-17, 2008, Toronto, Canada.

Workshop on “IS Modeling Techniques”, 2007 Americas Conference on Information Systems (AMCIS 2007), August 9-12, 2007, Keystone, Colorado.

Workshop on “Active Learning in the University Classroom”, 2007 Americas Conference on Information Systems (AMCIS 2007), August 9-12, 2007, Keystone, Colorado.

Workshop on “Implementing Composite Applications using ASP.NET”, 2006 Americas Conference on Information Systems (AMCIS 2006), August 4-6, 2006, Acapulco, Mexico.

Workshop on “Tools and Methods to Assess Knowledge in the Knowledge Economy”, 2006 Americas Conference on Information Systems (AMCIS 2006), August 4-6, 2006, Acapulco, Mexico.

Workshop on “Assessment and Review of Graduate Programs – Doctoral”, Council of Graduate School 46<sup>th</sup> Annual Meeting, December 6-9, 2006, Washington, DC.

Workshop on “Enrollment Planning for Doctoral Institutions”, Council of Graduate School 46<sup>th</sup> Annual Meeting, December 6-9, 2006, Washington, DC.

Tutorial on “Educating Theory from Practice: Developing Significant Theory from Action Research”, 2005 Americas Conference on Information Systems (AMCIS 2005), August 11-14, 2005, Omaha, Nebraska

Tutorial on “Grant Writing in Information Systems Research”, 2005 Americas Conference on Information Systems (AMCIS 2005), August 11-14, 2005, Omaha, Nebraska

Tutorial on “Designing and Teaching Information Security Curriculum”, 2004 Americas Conference on Information Systems (AMCIS 2004), August 5-8, 2004, New York, New York

Tutorial on “Bringing Real-World Issues into MIS Classrooms: A Multi-media Case Study”, 2004 Americas Conference on Information Systems (AMCIS 2004), August 5-8, 2004, New York, New York

Object Oriented Analysis with UML, Rational Software, 2002. Workshop aimed at building object oriented analysis models using the Rational Unified Process (RUP) and the Unified Modeling Language (UML)

Fundamentals of Rational Rose, Rational Software, 2002. Workshop aimed at providing in depth experience with using Rational Rose visual modeling tool.

Architecting and Designing J2EE Applications, Sun Microsystems, 2001. Workshop aimed at building robust enterprise applications with the Java 2 Platform (J2EE). Particular emphasis is placed on scalability, flexibility, maintainability, security and manageability.

Object Oriented Application Analysis and Design, Sun Microsystems, 2001. Workshop aimed at developing object oriented analysis and design using the Unified Modeling Language (UML).

Writing to Win, Nonprofit Management Institute, 2001. Workshop designed for beginning and advanced grant writing.

TeamUP workshop, TEAM technologies Inc., 1994. Workshop aimed at introducing TeamUP, a Total Quality Management (TQM) method for utilizing project management tools in a collaborative fashion with emphasis on team roles and behaviors.

Project design workshop using the Logical Framework approach, TEAM Technologies Inc., 1993. Workshop focused on the concept of Logical Framework, a TQM method for team-based project design implementation and evaluation.

Attended courses in Information Management, Information Technology, Information Sources, Use and Searching, Human Factors in Information Systems Design and Information Handling at the Department of Library and Information Studies, Loughborough University, United Kingdom, as part of the British government technical training program, 1989.

Attended courses in Fundamentals of Unix, National Information Policy, and Unix System Administration (NCR Tower) conducted by the Egyptian National Scientific and Technical

Information Network (ENSTINET), Academy of Scientific Research and Technology, Egypt, 1989 and 1990.

Industrial training program, Schlumberger, Egypt and Pakistan, 1986. Program aimed at establishing necessary technical and personal skills for oil logging field engineers.

## **Key Administrative Accomplishments**

### Strategic planning

- Led the College of Information Technology (CIT), UAEU effort to develop a college-wide strategic plan, supporting annual action plan and budget. The college-wide collaborative effort also ensured alignment with the UAEU's strategic plan.
- Led the development of the college's 2021 Research Strategic plan where we identified a vision and key niche strategic research themes for the college and initiatives in pursuit of this vision.
- Participated in brainstorming sessions leading to the development of UAEU's 2017-21 strategic plan.
- Served on Dakota State University's (DSU's) strategic planning committee leading to the development of DSU's 2007-12 strategic plan.
- Led the development of the strategic plans for the master and doctoral programs in Information Systems at DSU.
- Participated in a state-wide effort to develop the South Dakota Science and Technology plan.

### Enrollment management

- Improved student success at UAEU's CIT through a portfolio of initiatives including enhancing the experience of first-year students (Pre-IT), revamping the advising process, and instituting a mentoring and a tutoring program.
- Led the development and execution of marketing and recruiting plans resulting in a significant increase in graduate student enrollment at DSU.

### Program and curriculum development

- At UAEU's CIT, I initiated a college-wide effort to review and strengthen existing undergraduate and graduate program offerings. Most notably, is the BS in Information Technology (IT) program, and the Ph.D. in IT. The effort is highly collaborative with input from students, employers, alumni, and the college's advisory board.
- Provided the leadership and vision to develop DSU's graduate programs. Most notably, is the development of DSU's first doctoral program. The program had its first graduate in Spring 2009. The program is highly selective and successful with 15% admission and 100% placement of its graduate in academic and industry setting.
- Led the development of a Certificate in Business Analytics and a Master of Science in Analytics.
- Coordinated the development of four online master programs and a second doctoral program.
- I was cognizant of the importance of developing partnerships and collaborations across academic disciplines and across institution. For example, DSU's doctoral program in information systems offered specializations in health information technology and information assurance. Both specializations built on faculty expertise and course offerings in the MS in health informatics and MS in information assurance, respectively. At the master level, the MS in Analytics is a partnership between DSU and South Dakota State University.

- As a graduate coordinator at DSU, I reviewed and updated the Master of Science in Information Systems (MSIS) curriculum in accordance with established curriculum guidelines, evaluated and implemented the distance delivery of the Master of Science in Information Assurance (MSIA) program, and revised the MSIA Wireless security specialization, and reviewed the pre-requisites and sequence for MSIA courses.

#### Accreditation and quality assurance

- Accompanying the development of new programs is my deep commitment to program quality through continual program improvement and accreditation.
- Served as a peer reviewer for the Higher Learning Commission (HLC) and the Accreditation Board for Engineering and Technology's (ABET) Computing Accreditation Committee (CAC) and Engineering Accreditation Committee (EAC).
- Keeping abreast with the attest accreditation issues, I attend accreditation events such as AACSB's Annual Accreditation Conference, Minneapolis MN.
- Led UAEU's CIT ABET re-accreditation and the college's effort for re-accreditation of graduate and undergraduate programs by UAE's Commission for Academic Accreditation, Ministry of Education.
- Served on DSU's Institutional Effectiveness and Assessment committees. Working closely with the Office of Institutional Effectiveness and Assessment, individual colleges, program coordinators, and graduate faculty, I led the effort to revise and update the assessment plans for all graduate programs, compile and analyze assessment data, and develop implementation plans for continued program improvement. This project was part of an Academic Quality Improvement Project (AQIP) as part of the Higher Learning Commission's (HLC) academic quality improvement initiative.
- Led the development of the DSU's doctoral program in information systems 2013 self-study-document and the MSIS 2005 and 2013 external program review effort.

#### Partnerships and fundraising

- Firmly committed to supporting efforts to ensure the sustainability and quality of academic programs. This includes efforts to develop industry partnership, secure grants and contracts, lead intensive fundraising effort, and strategically manage enrollments.
- Proactively built relationships with industry leaders such as IBM, Dell-EMC, Microsoft, and Hitachi to support UAEU's CIT initiatives such as the International Conference on Innovations in Information Technology (IIT) conference and the IT Marathon (a large community outreach event to promote IT education to school aged children).
- Addressed graduate programs enrollments at DSU by leading and implementing a comprehensive marketing and recruitment plan resulting in a significant increase in graduate student enrollment.
- Secured external sponsorships for the 2009 4<sup>th</sup> Mid-West Association for Information Systems (MWAIS) conference held at DSU, and led an effort to forge partnerships with two leading healthcare organizations in the state of South Dakota.
- Developed partnerships with IBM as part of its Academic Initiative and with VMWare's e-Academy. The work with IBM included access to IBM's Academic Skills Cloud and IBM's sponsorship of a Cloud Computing Symposium at DSU.



#### Professional development for faculty and staff

- Committed to supporting faculty members' teaching, professional development, service and intellectual contributions and the professional development of staff. At DSU and UAEU I have consistently encouraged and supported the pursuit of professional training opportunities.
- Served on DSU's Faculty Development Committee responsible for developing campus-wide initiatives supporting faculty teaching and research.
- Presented at new faculty orientation sessions on topics such as time management and development of a research agenda.

#### Research and scholarly support:

- Supported faculty research and scholarly productivity at UAEU's CIT through a number of initiatives. Examples include competitive research grants for establishing research groups, for supporting faculty-student research, and for sponsoring faculty collaborations with their counterparts at renowned international research institutions. I supported faculty through workload accommodations, funding for conference travel, and professional development.
- Led the effort to re-organize the administration and management of the International Conference on Innovations in Information Technology (IIT) hosted by UAEU's CIT.
- Instituted an Invited Speaker series involving world-renowned researchers.
- Led the effort to promote and enrich a research culture across campus at DSU. Effort included chairing DSU's University Research Committee, which championed a 3-year DSU AQIP project entitled "Building a Research Culture at DSU". Other activities include conducting monthly research colloquia and workshops, developing startup grants for faculty, funding student research, communicating the importance of research and scholarly productivity to faculty, mentoring new faculty, inviting renowned speakers, developing corporate partnerships, and revising and developing pertinent policies as it relates to university support and faculty workload.
- Developed DSU's Advanced Informatics Research Lab including DSU's Academic Support Cloud Computing infrastructure for research and education purposes.

#### Promotion and tenure

- As CIT's dean and a member of the DSU's P&T committee, I carefully reviewed the P&T package against the requirements and guidelines as well as any additional specifics pertaining to the case on hand, listen to and discuss the comments and concerns raised by other committee members, and incorporate them in my decision (as appropriate). I am fully aware of the significant personal and institutional ramifications of P&T decisions; I make every effort to evaluate pertinent information to make an informed decision.
- Served on DSU's Standards Documents committee for two cycles. The committee was responsible for developing tenure and promotion guidelines and standards for DSU.

#### Budget and Finance

- As the chief academic and administrative officer of the CIT I am responsible for all financial matters including budget planning and management.
- Managed the budget for the Office of Graduate Studies and Research and a separate budget for DSU's doctoral program in Information Systems in alignment with the DSU's strategic plan.
- Experience with financial systems such as Banner, developing quarterly plans, and using various reporting mechanisms for effective planning and management.

## Diversity

- I am committed to creating and nurturing diversity among faculty, staff and students. I started my academic career as an international graduate student. I taught for two years as an assistant professor of information technology at Alexandria University, the third largest university in Egypt.
- At UAEU, I was exposed first-hand to work in an extremely diverse environment. International faculty at UAEU represent 80% of the number of faculty corresponding to around 65 different nationalities. The experience enriched my understanding and appreciation of cultural differences and sensitivities.
- At DSU, I supported and participated in various diversity-related events. I volunteered to mentor international students as part of a university-wide student-mentoring project. I assisted a group of women faculty and administrators in preparing a grant proposal for enhancing women participation in STEM education.

## Shared governance

- I am a firm believer in shared governance to improve decision quality, create an environment of transparency and trust, and ensure buy-in and successful implementation.
- At the strategic level, I feel that shared governance plays a critical role in developing a vision and supporting a strategic plan for the unit. I recognize the demand on faculty time that shared governance may imply and would strongly encourage faculty to participate in shared governance through recognition, workload accommodations and various mechanisms.

## **Publications**

### *Book chapters (peer-reviewed)*

- El-Gayar, O. F., Deokar, A. V., & Tao, J. (2013). DSS-CMM: A Capability Maturity Model for DSS Development Processes. In D. Power (Ed.), *Engineering Effective Decision Support Technologies: New Models and Applications* (pp. 1-22). Hershey, PA: Engineering Science Reference. doi:10.4018/978-1-4666-4002-3.ch001 (Originally published in *International Journal of Decision Support System Technology* 3 (4)).
- El-Gayar, O. F., and Deokar, A. V. (2012) "An ontology-based model management architecture for service innovation," in Dolk, D., and Granat, J. (Eds.), *Modeling for Decision Support in Network-based Services, Lecture Notes in Business Information Processing*, Springer, Berlin, Volume 42, Pages 143-168.
- Deokar, A. V., & El-Gayar, O. F. (2009). Business Process Management Systems for Supporting Individual and Group Decision Making. In N. Kock (Ed.), *E-Collaboration: Concepts, Methodologies, Tools, and Applications* (pp. 983-991). Hershey, PA: Information Science Reference. doi:10.4018/978-1-60566-652-5.ch075 (reprint)
- El-Gayar, O.F., and Chen, K. (2009). Status and Future Trends of Multimedia Interactivity on the Web. In: *Encyclopedia of Multimedia Technology and Networking* (2<sup>nd</sup> Ed.) Margherita Pagani Idea Group Inc. Hershey, PA.
- El-Gayar, O. F., and Deokar, A. V. (2008) "Distributed model management: Current status and future directions" in *Encyclopedia of Decision Making and Decision Support Technologies*, (Eds.) Adam, F., and Humphreys, P., Idea Group Inc.

- Deokar, A. V., & El-Gayar, O. F. (2008). Business Process Management Systems for Supporting Individual and Group Decision Making. In F. Adam, & P. Humphreys (Eds.) *Encyclopedia of Decision Making and Decision Support Technologies* (pp. 61-68). Hershey, PA: Information Science Reference. doi:10.4018/978-1-59904-843-7.ch007
- El-Gayar, O. F., Deokar, A., & Wills, M. (2008). Current Issues and Future Trends of Clinical Decision Support Systems (CDSS). In N. Wickramasinghe, & E. Geisler (Eds.) *Encyclopedia of Healthcare Information Systems* (pp. 352-358). Hershey, PA: Medical Information Science Reference. doi:10.4018/978-1-59904-889-5.ch046
- El-Gayar, O.F. and Tandekar, K. (2006). An Intelligent Decision Support System (IDSS) for Aquaculture Planning. In: *Intelligent Decision-Making Support Systems: Foundations, Applications, and Challenges* (Eds.) Jatinder Gupta, Guisseppi Forgionne, and Manuel Mora, Springer-Verlag.
- El-Gayar, O., Chen, K., & Tandekar, K. (2005). Multimedia Interactivity on the Internet. In M. Pagani (Ed.), *Encyclopedia of Multimedia Technology and Networking* (pp. 724-730). Hershey, PA: Information Science Reference. doi:10.4018/978-1-59140-561-0.ch102
- Leung, P.S. and El-Gayar, O.F. (1997). The role of modeling in managing and planning of sustainable aquaculture, in: *Sustainable Aquaculture* (Ed.) John E. Bardach, John Wiley and Sons, Inc.

*Articles in peer-reviewed journals*

- Al-Ramahi, M., Liu, J., A. and El-Gayar, O. (2017) Discovering Design Principles for Health Behavioral Change Support Systems: A Text Mining Approach, *ACM Transactions on Management Information Systems*, 8, 2-3, Article 5 (June 2017), 24 pages. DOI: <https://doi.org/10.1145/3055534>.
- Timsina, P., J. Liu, and O.F. El-Gayar (2016). Advanced analytics for the automation of medical systematic reviews, *Information Systems Frontiers* 18(2), 237-52.
- Brooks, P., El-Gayar, O.F., and Sarnikar, S. (2015). A Framework for Developing a Domain Specific Business Intelligence Maturity Model: Application to Healthcare, *International Journal of Information Management* 35, 337-345.
- El-Gayar, O.F., P. Timsina, N. Nawar, and W. Eid. (2013). A systematic review of IT for Diabetes Self-Management: Are we there yet?, *International Journal of Medical Informatics* 82(8), 637-52.
- El-Gayar, O.F., P. Timsina, N. Nawar, and W. Eid. (2013). Mobile Applications for Diabetes Self-Management: Status and Potential, *Journal of Diabetes Science and Technology* 7(1), 247-262. [One of the most downloaded articles in our journal over the past two years]
- El-Gayar, O.F. and Deokar, A. (2013) A semantic service-oriented architecture for distributed model management systems, *Decision Support Systems* 55(1), 374-84.
- Deokar, A.V. and El-Gayar, O.F. (2013). On semantic annotation of decision models, *Information Systems and e-Business Management*, 11(1), p. 93-117.
- Omar F. El-Gayar, Deokar, A., and Tao, J. (2011) DSS-CMM: A capability maturity model for DSS development processes. *International Journal of Decision Support System Technology* 3 (4), 14-34.
- El-Gayar, O.F., Moran, M, and Hawkes, M (2011). Students' Acceptance of Tablet PCs and Implications for Educational Institutions. *Educational Technology and Society*, 14(2), 58-70.

- Deokar, A.V., and El-Gayar, O.F. (2011). Decision-enabled dynamic process management for networked enterprises, *Information Systems Frontiers*, 13(5), 655-668.
- El-Gayar, O.F. and B. Fritz (2010). A web-based multi-perspective decision support system for information security planning. *Decision Support Systems* 50(1), p. 43-54.
- El-Gayar, O. F., Deokar, A. V., and Wills, M. (2010) Evaluating task-technology fit and user performance for an electronic health record system, *International Journal of Healthcare Technology and Management* 11(1/2), 50-65.
- Wills, M., Sarnikar, S., El-Gayar, O. F. and Deokar, A. V. (2010) Clinical knowledge management systems: Literature review and research issues for information systems, *Communications of the Association for Information Systems*, 26(26). (all authors contributed equally).
- Moran, M., Hawkes, M. and El-Gayar, O.F. (2010). Tablet personal computer integration in higher education: Applying the unified theory of acceptance and use technology model to understand supporting factors. *Journal of Educational Computing Research* 42(1), 79-101.
- El-Gayar, O.F. and Wills, M. and Bennett, D. (2008). Examining Healthcare Professionals' Acceptance Of Electronic Medical Records Using UTAUT. *Issues in Information Systems (IIS)* IX(2).
- El-Gayar, O.F. and M. Moran (2007). Examining Students' acceptance of Tablet PC using TAM . *Issues in Information Systems (IIS)* VIII(1).
- El-Gayar, O.F. and K. Tandekar (2007). An XML-based schema definition for model sharing and reuse in a distributed environment. *Decision Support Systems* 43(3), p. 791-808.
- El-Gayar, O.F. and B. Fritz (2006). Environmental Management Information Systems (EMIS) for Sustainable Development: A Conceptual Overview. *Communication of the Association for Information Systems*, Volume 17, Article 34.
- El-Gayar, O.F. (2006). Designing Information Systems Doctoral Programs: Issues and Challenges. *Issues in Information Systems (IIS)* VII(1).
- El-Gayar, O.F. and T. Dennis (2005). Effectiveness of Hybrid Learning Environments. *Issues in Information Systems (IIS)* VI(1).
- Dennis, T., O.F. El-Gayar, and K. Streff (2004). A Model Program in Information Assurance and Computer Security. *Issues in Information Systems (IIS)* V(1).
- Dennis, T., O.F. El-Gayar, and Z. Zhou (2003). Teaching IT in a Hybrid Learning Environment: A case study. *Issues in Information Systems (IIS)*, IV(1).
- El-Gayar, O.F. (2003). Aquaculture in Egypt and Issues for Sustainable Development. *Aquaculture Economics and Management* 7(1&2): 137-154.
- Dennis, T., O.F. El-Gayar, and Z. Zhou (2002). A conceptual framework for hybrid distance delivery for information system programs. *Issues in Information Systems (IIS)*, Volume III.
- El-Gayar, O.F. and P.S. Leung (2001). A Multiple Criteria Decision Making Framework for Regional Aquaculture Development. *European Journal of Operational Research* 133: 462-482.
- El-Gayar, O.F. and P.S. Leung (2000). ADDSS: A Tool for Regional Aquaculture Development. *Aquacultural Engineering* 23 (1-3): 181-202.
- El-Gayar, O.F. (1997). The use of computer technology in aquaculture management. *Aquaculture Economics and Management* 1(1): 109-128.

*Articles in peer-reviewed conference proceedings*

- El-Gayar, O., Nasralah, T. and El-Noshokaty, A. (2019) "Wearable devices for health and wellbeing: Design Insights from Twitter" in Proceedings of the 52th Annual Hawaii International Conference on System Sciences (HICSS-52 '19), IEEE Computer Society, Maui, HI, 2019. (conditional acceptance).
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- El-Gayar, O., Liu, J. and Timsina, P. (2015) "Active Learning for the Automation of Medical Systematic Review Creation" in Proceedings of the 21<sup>st</sup> Americas Conference on Information Systems (AMCIS '15), Puerto Rico.
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*Conference proceedings and presentations*

- Al-Omari, A.; El-Gayar, O. F.; Deokar, A., and Walters, J. (2012) "Information Security Policy Compliance: An Ethical Perspective" In Proceedings of the 7th Midwest Association for Information Systems Conference (MWAIS '12), Green Bay, WI.
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- Sarnikar, S. and El-Gayar, O. (2011) "A Query Classification System for Organizing and Satisfying Clinician Information Needs from a Clinical practice Data warehouse" Winter Conference on Business Intelligence, Salt Lake City, UT, March 10-12, 2011.
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- El-Gayar, O.F. and Deokar, A. (2007). A Service-Oriented Architecture for Distributed Decision Support Systems in a Collaborative Business Environment. 9<sup>th</sup> International Conference on Decision Support Systems, January 2-4, 2007, Kolkata, India.
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- El-Gayar, O.F. (2006). A web services-based architecture for model sharing and reuse. South Dakota EPSCoR State Conference, September 25-26, 2004, Rapid City, South Dakota.
- El-Gayar, O.F. and Kanchana (2004). An XML Based Schema Definition for Biocomplexity Model Management. South Dakota NSF-EPSCoR EPS-0091948, September 8-9, 2005, Brookings, South Dakota.
- El-Gayar, O.F. (2004). Designing a PhD program in IS: Issues and challenges. Proceeding of the International Conference on Global Integration of Graduate Programs (GIGP 2004), November 26-30, 2004, Amman, Jordan.
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- El-Gayar, O.F. and Kanchana (2004). An XML-based framework for Biocomplexity model sharing on the Internet. 2004 Rushmore Regional Conference on Biocomplexity, August 11-12, 2004, Sioux Falls, South Dakota.
- El-Gayar, O.F. and B. Fritz (2004). Decision Support in Information Systems Security. Center of Excellence in Computer Information Systems 2004 Spring Symposium, April 23, 2004, Madison, South Dakota.
- Dennis, T., O.F. El-Gayar (2003). The Master of Science in Information System at Dakota State University: Challenges and lessons learned. Proceeding of the International Conference on Global Integration of Graduate Programs, September 9-13, 2003, Kiev, Ukraine.
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- Treyz, G., O.F. El-Gayar, and F. Treyz (1999). Inter- and Intra-state trade flow estimation in the absence of trade flow data, presented at the 46<sup>th</sup> North American Meeting of the Regional Science Association International, November 8-14, 1999, Montreal, Quebec, Canada.
- Shalaby, S.M., S.K. Guiguis, and O.F. El-Gayar (1998). Potential Impact and Solutions to Y2K Problem. 8<sup>th</sup> International Conference On Computer Theory and Application, Alexandria, Egypt.

El-Gayar, O.F., P.S. Leung and L.W. Rowland (1995). An aquacultural development decision support system (ADDSS): A preliminary design, presented at the First International Conference on Multiple Objective Decision Support Systems for Land, Water and Environmental Management, co-sponsored by the World Association of Soil and Water Conservation, University of Hawaii, U.S.A., July 23 - 28, 1995, Honolulu, Hawaii, U.S.A.

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#### *Miscellaneous reports*

El-Gayar, O.F. and J. Fang (1999). Fisheries Management Decision Support System, Users' Manual. Joint Institute of Marine and Atmospheric Research, University of Hawaii.

#### **Editorial Activities:**

Reviewer, Communications of the ACM, Decision Support Systems Journal, Information Systems Frontier, Decision Sciences, Knowledge-Based Systems Journal, The DATA BASE for Advances in Information Systems, Journal of Business Analytics, JMIR mHealth and uHealth, Journal of Medical Internet Research, BMC Health Services Research, European Conference on Information Systems, European Journal of Operational Research, Hawaii International Conference on Systems Sciences (HICSS), ACM Symposium on Applied Computing, Americas Conference on Information Systems, Decision Sciences Institute, and International Conference for Information Systems (ICIS).

#### **Grants and contracts awarded**

Co-PI - \$1Million 3 years NASA ROSES decisions grant entitled "Improving decision support tools and decision-making processes for renewable energy planning and assessment using NASA Earth-Sun Systems data and modeling results"

Awarded \$20,000 from NSF-EPSCoR, Summer 2004. The project entitled " Model Management for Biocomplexity: The Use of Structured Modeling and XML ".

Awarded \$15,000 from NSF-EPSCoR, Summer 2003. The project entitled " Managing Biocomplexity: The Use of Fuzzy Multiple Criteria Decision Making".

Awarded \$4,500 from the Office of Distance Education, Dakota State University, Summer 2003. The purpose of the grant was to develop e-learning solution for CIS 347 Decision Support Systems.

Awarded \$3,500 (with Terry Dennis and Zehai Zhou) from the Center for the Advancement of Technology, Teaching and Learning (CATTL), Dakota State University, Summer 2003. Project Title: Effectiveness of Hybrid Learning Environments.

Awarded \$3,500 (with Terry Dennis and Zehai Zhou) from the Center for the Advancement of Technology, Teaching and Learning (CATTL), Dakota State University, Summer 2003. Project Title: Measuring the Effectiveness of Different Delivery Methods in Teaching Graduate Courses with Different Types of Content.

Awarded \$250, 000 (as a collaborator with PingSun Leung, Naresh Pradhan, and Sam Pooley) from the Pelagic Fisheries Research Program. Project title "Modeling longline effort dynamics and protected species interaction".

Awarded \$279,850 through Rational Software Inc.'s, Software Engineering for Educational Development (SEED) program for software licenses for Rational Rose and an instructor kit. Also, the grant includes a 50% off list price of any Rational University courses.

Awarded \$15,000 from NSF-EPSCoR, Summer 2002. The project entitled "Decision Support For Software Development Processes: The Use Of Statistical Process Control And Visualization Techniques".

Awarded \$4,500 from the Office of Distance Education, Dakota State University, Summer 2002. The purpose of the grant was the redesign of two courses (CIS 347 Decision Support Systems and INFS 720 Systems Analysis and Design Using CASE Tools) for online delivery.

Awarded \$4,000 from the Office of Distance Education, Dakota State University, Summer 2001. The purpose of the grant was the redesign of two courses (CIS 267 Systems Analysis and Design and INFS 612 The Management and Evaluation of Information Systems) for online delivery.

Awarded \$4,250 from Center of Excellence (Coleman Foundation) for the development of an online module entitled "Software Project Estimation", Summer 2001.

### **Professional Memberships**

Association of Information Systems (AIS)

Association for Computing Machinery (ACM)

Decision Sciences Institute (DSI)

Institute of Operations Research and Management Science (INFORMS)

Multiple Criteria Decision Making (MCDM) WorldScan.

Syndicate of Engineers, Egypt.

### **Honors and Awards**

Invited Member, Gamma Sigma Delta Honor Society, Hawaii Chapter (1995).

Graduate research assistantship and full tuition waiver, University of Hawaii (January 1993 - May 1996)

British Government Technical Cooperation Award (September 1989 – December 1989)

Honor Board for outstanding achievements, Alexandria University, Egypt (1987).

Undergraduate Fellowships for outstanding achievements, Alexandria University, Egypt (1982-1987).

Certificate of Merit awarded in recognition of outstanding results in the General Certificate of Education – Math Section, Victory College (1983).

Certificate of Merit awarded in recognition of devoted services while serving as a prefect at Victory College (1982).

Certificate of Merit awarded for being the first at the Secondary 2 Science promotion examination, Victory College (1982).

### **References**

Available upon request.