

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

## Curriculum Vitae

**Name:** Ahmad M. Alshamrani  
Professor of Operations Research

**Date of Birth:** 18 / 01 / 1969

### **Scientific Degrees:**

#### **Bachelor Degree:**

Bachelor of Science in Operations Research,  
from King Saud University, in 1992.  
GPA: 4.30 out of 5.

#### **Master Degree:**

Master of Science in Management Science,  
from Case Western Reserve University, USA, in 1997.  
GPA: 4 out of 4.

#### **Doctorate Degree:**

Ph.D. in Operations Research,  
from Case Western Reserve University, USA, in 2002.  
GPA: 4 out of 4.

Ph.D. Dissertation title: Combined Routing and Product Take Back Strategies in Reverse Logistics.

### **Working Experience:**

- Teaching computer programming courses at the Ministry of Education from 12/10/1992 to 2/4/1993.
- A Teaching Assistant at King Saud University and a graduate student at Case Western Reserve University, USA, from 3/4/1993 to 22 /1/2003.
- Assistant Professor at the Department of Statistics and Operations Research, King Saud University, from 22/1/2003.
- Associate Professor at the Department of Statistics and Operations Research, King Saud University, from 4/9/2012.
- Full Professor at the Department of Statistics and Operations Research, King Saud University, from 20/6/2023.

- Supervising the Department of Statistics and Information at King Saud University from 27/2/2003 to 5/2/2005.
- A consultant at the Ministry of Higher Education from 28/3/2005 till 12/9/2015.
- A chairman of the Statistics and Operations Research Department, College of Science, King Saud University, from 3/11/2007 till 17/8/2015.

### **Applied Scientific Experience:**

A research team member of following projects:

- "Building a System for Extracting and Integrating Information from Different Sources to Support Decision Making".
- "Faculty Evaluation at King Saud University", and building the project database.
- Electronic Information Exchange Between the Ministry of Civil Service and Related Authorities.
- Membership of the project team to establish the National Center for Higher Education Statistics.
- The rapporteur of the Curriculum Committee in the Department of Statistics and Operations Research.
- The rapporteur of the Evaluation and Academic Accreditation Committee for the Statistics and Operations Research Department.
- Membership of the Evaluation and Academic Accreditation Committee for College of Science at King Saud University.
- Membership in the permanent advisory committee for nominating college vice deans, department heads, and assistant heads.
- Giving consultation in different topics in Applied Math and Statistics and related softwares.
- Teaching courses in Statistics, Operations Research, and Computer Programming for students at colleges of Science, Engineering, and Computer.
  - Introduction to Statistics and Probability
  - Probability and Engineering Statistics
  - Linear Programming
  - Integer Programming
  - Network Analysis
  - Introduction to Computer Programming
  - Structured Programming

- Teaching Operations Research subjects at the National Defense University (Formerly the Saudi Armed Forces Command and Staff College) and at King Abdullah bin Abdulaziz Command and Staff College at the Ministry of National Guard.
- Teaching a course in Operations Research at King Faisal Air College.
- Teaching a course in Operations Research at Professional Technical Training Institute.

### **Scientific Publications:**

- “Darcy-Forchheimer Model of Auto-catalytic Involving Rotating Micropolar Fluid With Hall Current Effect: Backpropagation of Taguchi Methodology Approach”, by M. Saraswathy, Ahmad M. Alshamrani, et. al., Modern Physics Letters B, Vol. 39, Issue 36, pp. 1-41 (2025).
- “Intuitionistic Fuzzy Macont Method for Logistics 4.0 Based Circular Economy Interested Regions Assessment in the Agri-food Sector”, by Arunodaya Raj Mishra, Ahmad M. Alshamrani, et. al., Facta Universitatis-Series Mechanical Engineering, Vol. 23, Issue 3, pp. 407-432 (2025).
- “Intuitionistic Fuzzy Distance Measure-based Approach for Adopting the Blockchain Technology in the Logistics Industry”, by Pratibha Rani, Ahmad M. Alshamrani, et. al., Facta Universitatis-Series Mechanical Engineering, Vol. 23, Issue 3, pp. 555-578 (2025).
- “Adoption of Smart Manufacturing Technologies in Small and Medium Enterprises Using Picture Fuzzy Combinative Distance-Based Assessment Model”, by Pratibha Rani, Ahmad M. Alshamrani, et. al., Journal of the Knowledge Economy (2025).
- “Evaluation and Prioritization of Software Packages for Remote Education Assistance Using Picture Fuzzy Comprehensive Distance-based Ranking Approach”, by Ahmad M. Alshamrani, et. al., Applied Soft Computing Journal, Vol. 182, Article Number 113606 (2025).

- “New Oscillation Results for Noncanonical Quasilinear Differential Equations of Neutral Type”, by Hail S. Alrashdi, Ahmad M. Alshamrani, et. al., AIMS Mathematics, Vol. 10, Issue 6, pp. 14372-14391 (2025).
- “Decision-Making-Based Solar Panel Selection: Sugeno-Weber Operators and Fermatean Fuzzy Distance Measure with AROMAN Methodology”, by Pratibha Rani, Ahmad M. Alshamrani, et. al., Cognitive Computation, Vol. 17, Issue 3, Article Number 102 (2025).
- “New Distance Measure-based RANCOM-AROMAN Approach for Evaluating Sustainable Human Resource Management Factors in the Manufacturing Firms”, by Pratibha Rani, Ahmad M. Alshamrani, et. al., Operational Research, Vol. 25, Issue 2, Article Number 41 (2025).
- “A Comprehensive Study of Nonlinear Mixed Integro-Differential Equations of the Third Kind for Initial Value Problems: Existence, Uniqueness and Numerical Solutions”, by Ahmed S. Rahby, Ahmad M. Alshamrani, et. al., Axioms, Vol. 14, Issue 4, Article Number 282 (2025).
- “An extended TOPSIS technique based on correlation coefficient for interval-valued q-rung orthopair fuzzy hypersoft set in multi-attribute group decision-making”, by Rana Muhammad Zulqarnain, Ahmad M. Alshamrani, et. al., Complex & Intelligent Systems, Vol. 11, Issue 6, Article Number 262 (2025).
- “Pythagorean fuzzy comprehensive distance-based ranking approach for assessing industry 4.0 adoption strategies in the automotive manufacturing sector”, by Pratibha Rani, Ahmad M. Alshamrani, et. al., Advanced Engineering Informatics, Vol. 65, Article Number 103359 (2025).
- “Assessment of agricultural sustainability in agro-climatic regions of India: A single-valued neutrosophic distance measure-based hybrid ranking framework”, by Arunodaya Raj Mishra, Ahmad M. Alshamrani, et. al., Advanced Engineering Informatics, Vol. 65, Article Number 103323 (2025).

- “Assessing the industry 4.0 strategies in the automobile manufacturing firm using a combined compromise solution-based ranking method”, by Arunodaya Raj Mishra, Ahmad M. Alshamrani, et. al., *Applied Soft Computing*, Vol. 174, Article Number 113037 (2025).
- “Sustainable benchmarking of e-scooter micromobility systems: A hybrid q-rung orthopair fuzzy score function and distance measure-based ranking approach”, by Arunodaya Raj Mishra, Ahmad M. Alshamrani, et. al., *Engineering Applications of Artificial Intelligence*, Vol. 143, Article Number 109934 (2025).
- “Investigating Oscillations in Higher-Order Half-Linear Dynamic Equations on Time Scales”, by Ahmed M. Hassan, Ahmad M. Alshamrani, et. al., *Symmetry*, Vol. 17, Issue: 1, Article Number 116 (2025).
- “Assessment of digital transformation indicators to prioritize sustainable financial services using q-rung orthopair fuzzy rough decision-making model”, by Pratibha Rani, Ahmad M. Alshamrani, et. al., *Applied Soft Computing*, Vol. 170, Article Number 112715 (2025).
- “Picture fuzzy compromise ranking of alternatives using distance-to-ideal-solution approach for selecting blockchain technology platforms in logistics firms”, by Pratibha Rani, Ahmad M. Alshamrani, et. al., *Engineering Applications of Artificial Intelligence*, Vol. 142, Article Number 109896 (2025).
- “Interval-Valued Intuitionistic Fuzzy Yager Power Operators and Possibility Degree-Based Group Decision-Making Model”, by Pratibha Rani, Ahmad M. Alshamrani, et. al., *Cognitive Computation*, Vol. 17, Issue 1, Article Number 37 (2024).
- “Artificial intelligence's impact on drug delivery in healthcare supply chain management: data, techniques, analysis, and managerial implications”, by Ibrahim M. Hezam, Ahmad M. Alshamrani, et. al., *Journal of Big Data*, Vol. 11, Issue 1, Article Number 177 (2024).
- “Fourth-order differential equations with neutral delay: Investigation of monotonic and oscillatory features”, by H. Salah,

Ahmad M. Alshamrani, et. al., AIMS Mathematics, Vol. 9, Issue 12, pp. 34224-34247 (2024).

- “Artificial intelligence-based optimization techniques for optimal reactive power dispatch problem: a contemporary survey, experiments, and analysis”, by Mohamed Abdel-Basset, Ahmad M. Alshamrani, et. al., Artificial Intelligence Review, Vol. 58, Issue 1, Article Number 2 (2024).
- “Fermatean fuzzy distance and Sugeno-Weber operators-based SPC-MARCOS approach for sustainable supplier evaluation in the healthcare supply chain”, by Adel Fahad Alrasheedi, Ahmad M. Alshamrani, et. al., Scientific Reports, Vol. 14, Issue 1, Article Number 27373 (2024).
- “Energy supplier selection using Einstein aggregation operators in an interval-valued q-rung orthopair fuzzy hypersoft structure”, by Muhammad Saqlain, Ahmad M. Alshamrani, et. al., AIMS Mathematics, Vol. 9, Issue 11, pp. 31317-31365 (2024).
- “Enhanced Oscillation Criteria for Non-Canonical Second-Order Advanced Dynamic Equations on Time Scales”, by Ahmed M. Hassan, Ahmad M. Alshamrani, et. al., Symmetry, Vol. 16, Issue 11, Article Number 1457 (2024).
- “Optimal decisions for green products with advanced payment scheme and selling price-dependent demand under interval uncertainty”, by Hachen Ali, Ahmad M. Alshamrani, et. al., Mathematical Methods in the Applied Sciences, Vol. 47, Issue 18, pp. 13948-13972 (2024).
- “Decision-Analytics-Based Risk Allocation in the Micromobility Sector: Sugeno-Weber Operators and Picture Fuzzy Distance Methodology”, by Adel Fahad Alrasheedi, Ahmad M. Alshamrani, et. al., Cognitive Computation, Vol. 16, Issue 6, pp. 3122-3148 (2024).
- “Nonlinear dynamical behavior and energy harvesting analyses of flexoelectric MEMS under residual stresses: Application of machine learning for simulating the system”, by Fengyan Wang & Ahmad M. Alshamrani, Mechanics of Advanced Materials and Structures, Vol. 31, Issue 28, pp. 11115-11133 (2024).

- “Energy absorption in composite structure reinforced with advanced functionally graded nano-materials: Artificial intelligence and numerical approaches”, by Guang Chen, Ahmad M. Alshamrani, et. al., *Mechanics of Advanced Materials and Structures*, Vol. 31, Issue 28, pp. 10264-10278 (2024).
- “Decision support framework for healthcare waste disposal techniques assessment using an integrated picture fuzzy gained and lost dominance score-based approach”, by Arunodaya Raj Mishra, Ahmad M. Alshamrani, et. al., *Engineering Applications of Artificial Intelligence*, Vol. 138, Part B, Article Number 109394 (2024).
- “Oscillatory behavior of solutions of third order semi-canonical dynamic equations on time scale”, by Ahmed M. Hassan, Ahmad M. Alshamrani, et. al., *AIMS Mathematics*, Vol. 9, Issue 9, pp. 24213-24228 (2024).
- “Generalized Similarity Measure for Multisensor Information Fusion via Dempster-Shafer Evidence Theory”, by Zhe Liu, Ahmad M. Alshamrani, et. al., *IEEE Access*, Vol. 12, pp. 104629-104642 (2024).
- “An efficient multi-level thresholding method for breast thermograms analysis based on an improved BWO algorithm”, by Simrandeep Singh, Ahmad M. Alshamrani, et. al., *BMC Medical Imaging*, Vol. 24, Issue 1, 36 pages (2024).
- “Oscillatory behavior of solutions of second-order non-linear differential equations with mixed non-linear neutral terms”, by Ahmed M. Hassan, Ahmad M. Alshamrani, et. al., *Frontiers in Applied Mathematics and Statistics*, Vol. 10, 11 pages (2024).
- “Advanced color image encryption using third-order differential equations and three-dimensional logistic map”, by M. Abdul-Hameed, Ahmad M. Alshamrani, et. al., *AIP Advances*, Vol. 14, Issue: 7, 16 pages (2024).
- “A comprehensive stochastic-based adaptive robust model for transmission”, by Khalid A. Alnowibet, Adel F. Alrasheedi,

Ahmad M. Alshamrani, *Electric Power Systems Research*, Vol. 234, Article Number 110546, 9 pages (2024).

- “Solution of the SIR epidemic model of arbitrary orders containing Caputo-Fabrizio, Atangana-Baleanu and Caputo derivatives”, by Eman Ziada, Ahmad M. Alshamrani, et. al., *AIMS Mathematics*, Vol. 9, Issue 7, pp. 18324-18355 (2024).
- “Eye diseases detection using deep learning with BAM attention module”, by Amna Zia, Ahmad M. Alshamrani, et. al., *Multimedia Tools and Applications*, Vol. 83, pp. 59061–59084 (2024).
- “Nonlinear guided waves in the sandwich nanostructure coupled with piezoelectric actuator: Introducing machine learning approach to measure nonlinear phase velocities”, by Lei Chang , Hao Wu , Ahmad M. Alshamrani, *Measurement*, Vol. 230, Article ID 114511, 25 pages (2024).
- “Complex q-rung orthopair fuzzy Yager aggregation operators and their application to evaluate the best medical manufacturer”, by Shumaila Javeed , Ahmad M. Alshamrani, et. al., *Applied Soft Computing*, Vol. 157, , Article ID 111532, 13 pages (2024).
- “The efficient data-driven solution to estimate the nonlinear bending of sandwich doubly curved panel subjected to transient loading”, by Liu, Yan and Ahmad M. Alshamrani, et. al., *Aerospace Science and Technology*, Vol. 147, , Article ID 108980, 26 pages (2024).
- “Dynamic Analysis of a Simple Cournot Duopoly Model Based on a Computed Cost” by S. S. Askar and Ahmad M. Alshamrani, *Discrete Dynamics in Nature and Society*, Vol. 2024, , Article ID 9912671, 17 pages (2024).
- “Novel hybrid kepler optimization algorithm for parameter estimation of photovoltaic modules”, by Reda Mohamed, Ahmad M. Alshamrani, et. al., *Scientific Reports*, Vol. 14, , Issue 1, 26 pages (2024).

- “Cournot-Bertrand Duopoly Model: Dynamic Analysis Based on a Computed Cost”, by Sameh Askar and Ahmad M. Alshamrani, *Complexity*, Volume 2024, Article ID 5594918, 15 pages (2024).
- “A computational sustainable approach for energy storage systems performance evaluation based on spherical-fuzzy MCDM with considering uncertainty”, by Abduallah Gamal, Ahmad M. Alshamrani, et. al., *Energy Reports*, Vol. 11, pp. 1319-1341 (2024).
- “Characterizing the time-dependent external force on the cars' hood door in accident using deep neural networks”, by Qiong Cheng, Ahmad M. Alshamrani, et. al., *Materials Today Communications*, Vol. 38, pp. 1–17 (2024).
- “An efficient four-level programming model for optimizing tri-stage adaptive robust transmission expansion planning”, by Khalid A. Alnowibet , Adel F. Alrasheedi, and Ahmad M. Alshamrani, *Electric Power Systems Research*, Vol. 228, pp. 1–10 (2024).
- “A smart predict-and-optimize framework for microgrid’s bidding strategy in a day-ahead electricity market”, by Adel F. Alrasheedi , Khalid A. Alnowibet , and Ahmad M. Alshamrani, *Electric Power Systems Research*, Vol. 228, pp. 1–11 (2024).
- “Delay Differential Equations with Several Sublinear Neutral Terms: Investigation of Oscillatory Behavior”, by Waed Muhsin, Ahmad M. Alshamrani, et. al., *Symmetry*, Vol. 15, Issue 12, pp. 1–12 (2023).
- “Kneser-Type Oscillation Criteria for Half-Linear Delay Differential Equations of Third Order”, by Fahd Masood, Ahmad M. Alshamrani, et. al., *Symmetry*, Vol. 15, Issue 11, pp. 1–18 (2023).
- “More Effective Conditions for Testing the Oscillatory Behavior of Solutions to a Class of Fourth-Order Functional Differential Equations”, by Hail S. Alrashdi, Ahmad M. Alshamrani, et. al., *Axioms*, Vol. 12, Issue 11, pp. 1–13 (2023).
- “Fourth-Order Neutral Differential Equation: A Modified Approach to Optimizing Monotonic Properties”, by Amany

Nabih, Ahmad M. Alshamrani, et. al., *Mathematics*, Vol. 11, pp. 1–15 (2023).

- “A Novel Binary Kepler Optimization Algorithm for 0–1 Knapsack problems: Methods and Applications”, by Mohamed Abdel-Basset, Ahmad M. Alshamrani, et. al., *Alexandria Engineering Journal*, Vol. 82, pp. 358–376 (2023).
- “Optimizing jointly mining decision and resource allocation in a MEC-enabled blockchain networks”, by Mohamed Abdel-Basset, Ahmad M. Alshamrani, et. al., *Journal of King Saud University – Computer and Information Sciences*, Vol. 35, pp. 1–20 (2023).
- “Performance Enhancement in Clustering Cooperative Spectrum Sensing for Cognitive Radio Network Using Metaheuristic Algorithm”, by Vikas Srivastava, Ahmad M. Alshamrani, et. al., *Scientific Reports*, Vol. 13:16827, pp. 1–14 (2023).
- “Optimizing the Monotonic Properties of Fourth-Order Neutral Differential Equations and Their Applications”, by H. Salah, Ahmad M. Alshamrani, et. al., *Symmetry*, Vol. 15, pp. 1–18 (2023).
- “Fourth-Order Emden–Fowler Neutral Differential Equations: Investigating Some Qualitative Properties of Solutions”, by Mansour Alatwi, Ahmad M. Alshamrani, et. al., *Symmetry*, Vol. 15, pp. 1–16 (2023).
- “Sustainable Flue Gas Treatment System Assessment for Iron and Steel Sector: Spherical Fuzzy MCDM-Based Innovative Multistage Approach”, by Mohamed Abdel-Basset, Ahmad M. Alshamrani, et. al., *International Journal of Energy Research*, Vol. 2023, pp. 1–25 (2023).
- “New Conditions for Testing the Asymptotic Behavior of Solutions of Odd-Order Neutral Differential Equations with Multiple Delays”, by Ahmad M. Alshamrani, et. al., *Axioms*, Vol. 12, pp. 1–15 (2023).
- “Investing in wind energy using bi-level linear fractional programming”, by Adel F. Alrasheedi, Ahmad M. Alshamrani, Khalid Alnowibet, *Energies*, Vol. 16, pp. 1–14 (2023).

- “Integrating rough-entropy and rough-TOPSIS methods for evaluating the legatum prosperity pillars of weakest performing countries”, by Ahmad M. Alshamrani and Ibrahim M. Hezam, *Measurement and Control*, Vol. 56, Issue 9-10, pp. 1670-1683 (2023).
- “An Efficient Evolution-Based Technique for Moving Target Search with Unmanned Aircraft Vehicle Analysis and Validation”, by Mohamed Abdel-Basset, Ahmad M. Alshamrani, et. al., *Mathematics*, Vol. 11, pp. 1–21 (2023).
- “Integrating Trapezoidal Fuzzy Best-Worst Method and Single-valued Neutrosophic Fuzzy MARCOS for Efficiency Analysis of Surface Water Treatment Plants”, by Priyanka Majumder, Ahmad M. Alshamrani, et. al., *Soft Computing*, pp. 1–24 (2023).
- “Performance Evaluation of Ingenious Crow Search Optimization Algorithm for Protein Structure Prediction”, by Ahmad M. Alshamrani, et. al., *Processes*, Vol. 11, pp. 1–15 (2023).
- “Bi-level transmission expansion planning considering prohibited operating zones and multi-fuel units”, by Ahmad M. Alshamrani, et. al., *Sustainable Energy, Grids and Networks*, Vol. 34, pp. 1–8 (2023).
- “A combined intuitionistic fuzzy closeness coefficient and a double normalization-based WISP method to solve the gerontechnology selection problem for aging persons”, by Ibrahim M. Hezam , Ahmad Alshamrani, et. al., *AIMS Mathematics*, Vol. 8(6), pp. 13680–13705 (2023).
- “Assessment of autonomous smart wheelchairs for disabled persons using hybrid interval-valued Fermatean fuzzy combined compromise solution method”, by Ibrahim M. Hezam , Ahmad Alshamrani, et. al., *Sustainable Energy Technologies and Assessments*, Vol. 57, pp. 1-17 (2023).
- “A Bilevel Stochastic Optimization Framework for Market-Oriented Transmission Expansion Planning Considering Market Power”, by Khalid A. Alnowibet , Ahmad M. Alshamrani and Adel F. Alrasheedi, *Energies*, Vol. 16, pp. 1-15 (2023).

- “An intuitionistic fuzzy entropy based gained and lost dominance score decision making method to select and assess sustainable supplier selection”, by Ibrahim M. Hezam , Ahmad Alshamrani, et. al., AIMS Mathematics, Vol. 8(5), pp. 12009-12039 (2023).
- “Geometric Aggregation Operators for Solving Multicriteria Group Decision-Making Problems Based on Complex Pythagorean Fuzzy Sets”, by Ibrahim M. Hezam , Ahmad Alshamrani, et. al., Symmetry, Vol. 15, pp. 1-29 (2023).
- “Optimal Design of an Eco-Friendly Transportation Network under Uncertain Parameters”, by Ahmad Alshamrani, et. al., Sustainability, Vol. 15, pp. 1-26 (2023).
- “Transmission Expansion Planning Considering a High Share of Wind Power to Maximize Available Transfer Capability”, by Ahmad Alshamrani, et. al., IEEE Access, Vol. 11, pp. 23136-23145 (2023).
- “Evaluation of nanostructured electrode materials for high-performance supercapacitors using multiple-criteria decision-making approach”, by Ibrahim M. Hezam , Ahmad Alshamrani, et. al. , Electronic Research Archive , Vol. 31, Issue 4, pp. 2286–2314 (2023).
- “Strategic generation expansion planning considering prohibited operating zones a game-theoretic analysis”, by Ahmad Alshamrani, Adel F. Alrasheedi , Khalid A. Alnowibet, Electrical Engineering, Vol. 105, Issue: 3, pp. 1747-1760 (2023).
- “A Joint Optimization Model for Transmission Capacity and Wind Power Investment Considering System Security”, by Ahmad Alshamrani, et. al., IEEE Access, Vol. 11, pp. 15578-15587 (2023).
- “A mixed-integer quasi-convex optimization model for joint transmission network and wind power investment problem”, by Ahmad Alshamrani, Electric Power Systems Research, Vol. 217 (2023).

- “Binary light spectrum optimizer for knapsack problems An improved model”, by Mohamed Abdel-Basset , Ahmad Alshamrani, et. al., Alexandria Engineering Journal, Vol. 67 (2023).
- “An Integrated BWM-TOPSIS-I Approach to Determine the Ranking of Alternatives and Application of Sustainability Analysis of Renewable Energy”, by Ahmad Alshamrani, et. al., Axioms , Vol. 12 (2023).
- “Integrated stochastic transmission network and wind farm investment considering maximum allowable capacity”, by by Khalid Alnowibet, Ahmad Alshamrani and Adel Alrasheedi, Electric Power Systems Research, Vol. 215 (2023).
- “An Image-Encipherment Algorithm Using a Combination of a One-Dimensional Chaotic Map and a Three-Dimensional Piecewise Chaotic Map”, by Sameh Askar , Ahmad Alshamrani , et. al., Mathematics , Vol. 11 (2023).
- “A unit commitment based-co-optimization of generation and transmission expansion planning to mitigate market power”, by Adel Alrasheedi , Khalid Alnowibet , Ahmad Alshamrani, Electric Power Systems Research, Vol. 214 (2023).
- “A Hybrid Stochastic Robust Model for Transmission Expansion Planning under an Ellipsoidal Uncertainty Set”, by Khalid Alnowibet and Ahmad Alshamrani, Electric Power Components and Systems, Vol 50, Issue:19-20, pp. 1174-1185 (2022).
- “A new offloading method in the green mobile cloud computing based on a hybrid metaheuristic heuristic algorithm”, by Ahmad Almadhor, Ahmad Alshamrani , et. al., Sustainable Computing: Informatics and Systems, Vol. 36 (2022).
- “Local Grey Predictor Based on Cubic Polynomial Realization for Market Clearing Price Prediction”, by Akash Saxena, Ahmad Alshamrani , et. al., Axioms , Vol. 11 (2022).
- “A Demand Side Management Control Strategy Using RUNge Kutta Optimizer (RUN)”, by Ankit Kumar Sharma , Ahmad M. Alshamrani , et. al., Axioms, Vol. 11 (2022).

- “A Family of Hybrid Stochastic Conjugate Gradient Algorithms for Local and Global Minimization Problems”, by Khalid Abdulaziz Alnowibet, Ahmad M. Alshamrani, et. al., Mathematics, Vol. 10 (2022).
- “An Amended Whale Optimization Algorithm for Optimal Bidding in Day Ahead Electricity Market”, by Kavita Jain, Ahmad M. Alshamrani, et. al., Axioms, Vol. 11 (2022).
- “Efficient Modified Meta-Heuristic Technique for Unconstrained Optimization Problems”, by Khalid Alnowibet, Ahmed M. Alshamrani, et. al., Axioms, Vol. 11 (2022).
- “A game-theoretic model for wind farm planning problem A bi-level stochastic optimization approach”, by Ahmad M. Alshamrani , et. al. , Sustainable Energy Technologies and Assessments , Vol. 53 (2022)
- “A Hybrid Approach Based on Principal Component Analysis for Power Quality Event Classification Using Support Vector Machines” , by Ahmad M. Alshamrani , et. Al. , Mathematics, Vol. 10 (2022)
- “A Hybrid Stochastic Deterministic Algorithm for Solving Unconstrained Optimization Problems” , by Ahmad M. Alshamrani , et. Al. , Mathematics , Mathematics , Vol. 10 (2022)
- “The arising of cooperation in Cournot duopoly games”, by S. S. Askar, Ahmad M. Alshamrani, and K. Alnowibet, Applied Mathematics and Computation, Vol. 273, pp. 535–542 (2016).
- “Dynamic Cournot duopoly games with nonlinear demand function”, by S. S. Askar, Ahmad M. Alshamrani, and K. Alnowibet, Applied Mathematics and Computation, Vol. 259, pp. 427–437 (2015).
- “Analysis of Nonlinear Duopoly Game: A Cooperative Case”, by S. S. Askar, Ahmad M. Alshamrani, and K. Alnowibet, Discrete Dynamics in Nature and Society, Volume 2015, Article ID 528217, 1-5 (2015).

- “Image Encryption Algorithm Based on Chaotic Economic Model”, by S. S. Askar, A. A. Karawia, and Ahmad Alshamrani, *Mathematical Problems in Engineering*, Volume 2015, Article ID 341729, 1-10 (2015).
- “The dynamics of economic games based on product differentiation”, by S.S. Askar, Ahmad Alshamrani, *Journal of Computational and Applied Mathematics*, Vol. 268, 1 October 2014, Pages 135-144 (2014).
- “Optimal control of a stochastic production-inventory model with deteriorating items”, by Ahmad M. Alshamrani, *Journal of King Saud University – Science*, Vol. 25. pp. 7-13 (2013).
- “The generalized Gompertz distribution”, by A. El-Gohary, Ahmad Alshamrani, and Adel Naif Al-Otaibi, *Applied Mathematical Modelling*, Vol. 37, pp. 13-24 (2013).
- “Adaptive Control of a Two-Item Inventory Model with Unknown Demand Rate Coefficients”, by Ahmad M. Alshamrani, *Journal of Applied Mathematics*, Vol. 2012, Special Issue, 16 pages (2012).
- “Adaptive Control of a Reverse Logistic Inventory Model with Uncertain Deteriorations and Disposal Rates”, by Ahmad M. Alshamrani, *Advances in Operations Research*, Vol. 2012, Special Issue, 11 pages (2012).
- “Estimation of parameters including a quadratic failure rate semi-Markov reliability model”, by El-Gohary, A. and Ahmad Alshamrani, *International Journal of Reliability and Applications*, Vol. 12 (1), pp. 1-14 (2011).
- “Optimal Control of a Two-Item Inventory System with Different Types of Item Deterioration”, by Awad . El-Gohary and Ahmad Alshamrani, *Economic Quality Control*, Vol. 26, pp. 201-213 (2011).
- “Modal Control of a Reverse Logistic Inventory Model With Deterioration”, by A. El-Gohary and Ahmad Alshamrani. *International Journal of Applied Mathematics*. Vol. 22 No. 2, pp. 179 – 188 (2009).

- “Reverse logistics: simultaneous design of delivery routes and returns strategies”, by Ahmad Alshamrani, Kamlesh Mathur, Ronald H. Ballou. *Computers & OR* 34(2): 595-619 (2007).

### **Training Workshops:**

- E-learning Strategies (28/10/2025).
- Artificial Intelligence for Educational Content Design (3/9/2025).
- Data analysis and visualization using Power BI (16/4/2025).
- Designing E-educational Materials (27/1/2025).
- Artificial Intelligence Tools to Detect Plagiarism (23/4/2024).
- Employing technological innovations in the educational process (27/9/2023).
- Educational classes using Articulate Storyline (12/9/2023).
- Cloud computing and its applications in education (18/10/2022).
- Using Google tools in education (12/10/2022).
- Development and establishment of academic programs (2-3 /3/2021).
- Learning Technology Training Program, Center for Teaching Excellence, Waterloo University, Canada (27-31/07/2015).
- 2015 SIAM International Conference on Data Mining, Society for Industrial and Applied Mathematics, Vancouver Canada (April 30-May 2/2015).
- Quality Management System in Learning Association (ISO 9001:2008) (20-22/04/2015).
- Geographical Information System (GIS) (5-6/04/2015).
- Operations and Supply-Chain Management (04/03/2015).
- Introduction to Mobile Learning and Delivery Methods (15-17/02/2015).
- Cloud Storage (11/02/2015).
- References Management Using EndNote (7-8/12/2014).
- Professional Enrichment Program, Teaching and Learning Institute, Dalhousie University, Canada (23-27/06/2014).
- Production of Digital Content by Course Lab (2-3/03/2014).
- Improving the Quality of Examination Essays: Design and Marking (27/02/2014).

- Outcome Based Learning: Design and Evaluation of an Approach (26/02/2014).
- High Quality Professional Teaching: Working Towards Excellence (25/02/2014).
- Understanding Student Approaches to Learning Beliefs and Practices (23/02/2014).
- Scientific Publishing in International Periodicals (14-15/11/2012).
- Incorporating Technology into University Teaching (02-04/04/2012).
- Developing Teaching e-Portfolio (20/03/2012).
- Discipline and Pedagogy Based Teaching (19/03/2012).
- Micro-Teaching (18/03/2012).
- Students Learning Support (11/03/2012).
- Learning Outcomes Assessment (28-29/02/2012).
- College Effective Teaching (26-27/02/2012).
- Course Design and Construction (25/02/2012).
- Blended Learning: Applications in Blackboard (19-20/11/2011).
- Use “R” Conference, at University of Warwick, UK (16-18/08/2011).
- Academic Staff Development Programme, at Queen Margaret University, UK (04-15/07/2011).
- Academic Leadership Development Workshop (16-17/05/2011).
- Modern Methods of Management Development (30/04-01/05/2011).
- Students Learning Outcomes Assessment (02-03/04/2011).
- Preparing the Teaching Portfolio (26/03/2011).
- Using DIA Software in Drawing and Illustrations (07-08/12/2010).
- Open Source Softwares (28-29/11/2010).
- Presentations Using PowerPoint (25-26/10/2010).
- Academic Leadership Development Program, at University of Melbourne, Australia (19-24/07/2010).
- Being a Leading Academic Through Turbulent Times ( 27-28 / 02 / 2010).
- Active Learning ( 5-7 / 01 / 2010).
- Using Photoshop in Teaching and Research (23-25/05/2009).
- Academic Departments Leaderships (9-10/11/2009).

- Parametric and Non-Parametric Statistical Tests Using SPSS (2-4/5/2009).
- Academic Leadership (21-23/4/2009).
- Building a World Class Program (11-13/4/2009).
- Working Toward Program Accreditation (3-5/4/2009).
- Performance Management (27-29/5/2008).