

Ahmed M. El-Sherbeeney, Ph.D.
Assistant Professor of
Applied Mechanical Engineering

Applied Mechanical Engineering Department
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CURRICULUM VITAE
January 2026

EDUCATION

Ph.D., West Virginia University (WVU), December '06

- Program: Scholarship as a Graduate Research and Teaching Assistant in Mechanical Engineering
- Research area: Machine Vision; Dissertation topic,
"Evaluation and Optimization of Central Vision Compensation Techniques,"
GPA: 3.43/4.0
- Member of the "WVU Minority Doctoral Fellowship Program," Fall '05, Spring '06

MSME, (Master of Science in Mechanical Engineering), West Virginia University (WVU), May '01

- Program: Scholarship as a Graduate Research and Teaching Assistant in Mechanical Engineering
- Research area: Machine Vision; Master's thesis topics,
"A Non-Invasive Technique for Monitoring Miotic Eye Responses,"
GPA: 3.38/4.0

Bachelor of Science, The American University in Cairo (AUC), June '98

- Major: Mechanical Engineering (specializing in Design and Industrial Engineering); GPA: 3.31/4.0

IGCSE, (International General Certificate for Secondary Education), Misr Language School, June '93;

GPA: 3.75/4.0

HIGHLIGHTS OF QUALIFICATIONS

Work Experience

- **Assistant Professor of Applied Mechanical Engineering**, King Saud University (KSU), Aug '25 – current

Teaching: - AGE-1320, "Introduction to Manufacturing", Aug '25 – current

- AGE-1330, "Statics", Aug '25 – current

- AGE-2320, "Dynamics", Aug '25 – current

- IE-4931/4941, "Senior Design Project", Aug '25 – current

Research: - Cognitive Human Engineering and Engineering Education, Aug '25 – current

Service: Applied Mechanical Engineering Department Committee, *Member*, Aug '25 – current

- **Assistant Professor of Industrial Engineering**, King Saud University (KSU), Sep '10 – Aug '25

Teaching: - IE-341, "Human Factors Engineering", Fall-'10 – current

- IE-352, "Manufacturing Processes – 2: Metal Cutting", Spring-'11 – Winter-'22

- IE-496/497, "Senior Design Project", Fall-'10 – current

- GE-105/106, "Introduction to Engineering Design", Spring-'16 – Fall-'18, Fall-'22

- IE-342, "Work Analysis and Design", Spring-'17

- IE-462, "Industrial Information Systems", Fall-'18 – current

Research: - Cognitive Human Engineering and Engineering Education, Spring-'11 – Aug '25

Service: **College of Engineering:**

- Engineering College, **Alumni and Employment Unit, Head**, Aug '13 – Aug '18
- **Coordinator of the “2013 Arab-Gulf Cooperation Council (GCC) Countries Engineering Students Design Competition”**, Dec '12 – April '13
- College of Engineering Graduation Projects Committee, Member, Sep '10 – Aug '18

Industrial Engineering Department:

- Industrial Engineering Graduation Projects Committee, *Head*, Sep '10 – Sep '21, Member, Sep '10 – Aug '25
- Industrial Engineering Employment and Alumni Affairs Committee, *Head*, Sep '10 – Sep '21
- Industrial Engineering Department Committee, *Member*, Sep '10 – current
- Community Service and Continuous Education, *Member*, Sep '14 – Aug '19
- Industrial Engineering Strategic Plans Implementation Committee, *Member*, Sep '12 – Aug '14
- Industrial Engineering Quality and Accreditation Committee, *Member*, Sep '10 – Aug '14
- Industrial Engineering Scientific Committee, *Member*, Sep '21 – Dec '24
- Industrial Engineering Study Plans Committee, *Member*, Jan '25 – Aug '25

- **Assistant Professor of Engineering**, Fahd Bin Sultan University (FBSU), Sep '09 – Aug '10

Administrative: **Interim Chairman** of the Mechanical Engineering Department, Sep '09 – Aug '10

Teaching: - **Fundamental Math** Courses for Engineering Students, Sep '09 – Aug '10

- **Fundamental Information Technology** Courses, Sep '09 – Aug '10

Service: - Engineering College Committee, member, Sep '09 – Aug '10

- Assisting with Foundation Year Program, administrative duties, Sep '09 – Aug '10

- Admissions Committee, member, Sep '09 – Aug '10

- **Assistant Professor of Engineering**, Al-Jouf University, Mar '08 – Sep '09

Teaching: - GE-104, “**Basics of Engineering Drawing - Manual Drawing and AutoCAD**”, Fall '08, Spring '09

- GE-210, “**Engineering Mechanics (Statics and Dynamics)**”, Fall '08, Spring '09

- ENGL-122, “**English Writing Skills**”, Spring '08

Service: - **ABET Accreditation Committee**, *Head*, Spring '08 - Sep '09

- Quality Assurance and Academic Accreditation Unit, *College of Engineering Representative*, Mar '09 - Sep '09

- Quality Assurance and Public Relations Committee, College of Engineering, *Member*, Sep'08 - Sep '09

- Course Syllabi and Curricula International and National (KSA) Review Committee, *Head*: (Mechanical, Civil, Industrial, Electrical-Power and Communications- Engineering), May '08 - Sep '09

- Course Review and Precision Committee (Engineering), *Member*, Jan' 09 – Sep '09

- Faculty Recruitment (Engineering) Committee, *Member*, Feb' 09 - Sep '09

- **Post-Doctoral / Research Associate:**

MARC-WVU (Mid-Atlantic Retinal Consultants / West Virginia University - Ophthalmology), Feb '07 – July '07

Research on therapies for CNV-AMD (Choroidal Neovascularization due to Age-Related Macular Degeneration)

- **Academic Administration, WVU:**

ABET course material preparation, Engr-102, Engr-293: Fall '06, Spring '06, Fall '05, Smr-2 '02

Assistant **Course Coordinator**, Engr-293: Fall '06

Assistant Coordinator for Freshman Engineering Events: Fall '06

Member of Freshman Engineering **Advising Committee**: Smr-2 '06, Fall '06

Member of committee for **course development**, Engr-102, Engr-293: 2005 – 2006

- **Teaching Instructor (Lecturer / Adjunct Professor), WVU / PSC-WVU:**

Engr-293, WVU, “**Basics of Engineering**,” Fall ‘06 (2 sections, approx. 130 students)
 MAE-320, PSC-WVU (Potomac State College of WVU), “**Thermodynamics**,” Spring ‘06
 MAE-242, PSC-WVU, “**Dynamics**,” Spring ‘06
 Engr-102, WVU, “**Engineering Problem Solving – II (C / C++ / Matlab)**”:

Semesters Taught (*six-year experience*): Smr-2 ‘06, Spr ‘06, Fall ‘05, Smr-2 ‘05, Spr ‘05, Smr-2 ‘04,
 Fall ‘03, Spr ‘03, Fall ‘02, Smr-2 ‘02, Fall ‘01, Smr-2 ‘01,
 Fall ‘00

Engr-101, WVU, “**Engineering Problem Solving – I**,” Smr-2 ‘05, Smr-2 ‘04, Smr-2 ‘03
 Engr-101, PSC-WVU, “**Engineering Problem Solving – I**,” Fall ‘05
 Engr-199, PSC-WVU, “**Orientation to Engineering**,” Fall ‘05
 MAE-241, PSC-WVU, “**Statics**,” Fall ‘05

- **Graduate Teaching Assistant:**

Engr-102, WVU, “**Engineering Problem Solving – II**”; Spring ‘01, Spring ‘02
 MAE-32, WVU, “**Introduction to Mechanical Engineering**,” Fall ‘99
 MAE-41, WVU, “**Statics**,” Spring ‘99
 MAE-42, WVU, “**Dynamics**,” Spring ‘99

- **Graduate Research Assistant:**

LCSEE (Lane Computer Science and Electrical Engineering Dept.), WVU, “**Automated Face Recognition Project**,”
 Dr. Hany Ammar, Dr. Gamal Fahmy, Dr. Lawrence Hornak, 2004 – 2006
MAE (Mech. and Aerospace Engr. Dept.), WVU, “**Contrawound Toroidal Helical Antenna**,” Dr. James E. Smith,
 Fall ‘98 - Smr-II ‘99

- **Engineering Intern**, GME (General Motors Egypt); Departments: Quality Control and Quality Assurance:
 Smr ‘95, Smr ‘96, Smr ‘97

Funded Projects

- **Dysarthric Speech Recognition Systems using End-to-End Deep Learning Models (KSRG -2022-136).**
 Project funded by the King Salman Center For Disability Research, May 2023 – Dec. 2024
- **Researchers Supporting Project (RSP-2020/133).** Project funded by the Distinguished Scientist Fellowship Program (DSFP), King Saud University, Jan. 2020 – current.
- **Smart Manufacturing and Digitalization (RG-1440-047) – PI.** Project funded by the Deanship of Scientific Research, King Saud University, Nov. 2018 – current.
- **Human Engineering (RG-1438-054) – Co-PI.** Project funded by the Deanship of Scientific Research, King Saud University, Feb. 2017 – Jun. 2023.
- **Traffic Sign Evaluation and Redesign of Typeface in Saudi Arabia**, the Multidisciplinary Senior Design Project, Industrial Engineering and Civil Engineering Departments, College of Engineering, Spring ‘16 – Fall ‘16.
- **Design and Development of a Grip Force Training Device for the Rehabilitation of Neurologically Impaired Patients**, the Multidisciplinary Senior Design Project, College of Engineering and Biomedical Technology Department, College of Applied Medical Science, Fall ‘15 – Spring ‘16.
- **Designing, Establishing, and Supervising the College of Engineering at King Saud University, Alumni and Employment Website** (<http://coeksu-alumni.net/>), the College of Engineering, King Saud University, Aug. 2013 – Aug. 2018.

- **2013 Arab-Gulf Cooperation Council (GCC) Countries Engineering Students Design Competition**, Gulf Cooperation Council, King Saud University, 2012 – 2013.
- **Towards Establishing Technical Universities in the Kingdom of Saudi Arabia**, Ministry of Higher Education and King Saud University, Kingdom of Saudi Arabia, 2011.
- **Research on Choroidal Neovascularization due to Age-Related Macular Degeneration**, Mid-Atlantic Retinal Consultants and West Virginia University Department of Ophthalmology, 2007.
- **Automated Face Recognition System**, Lane Department of Computer Science and Electrical Engineering, West Virginia University, August 2003 – July 2005.
- **NOTAI (Non-Invasive Ocular Toxicity Assessment Instrument)**, Mechanical and Aerospace Engineering Department, West Virginia University, November '99 – January '02.

Supervised Graduate Studies

- Ganiyu Gbadegesin, “**Simultaneous Scheduling of Tasks and Preventive Maintenance Periods in a Parallel Machine Environment with Single Server, Setup and Unloading Time**,” Master’s Degree in Industrial Engineering, Academic Co-Advisor, November 2022 – April 2024.
- Riyadh AlSheikh, “**Task and Environment Effect on Lifting Capabilities While Wearing Safety Shoes**,” Doctorate, Head of Proposal Committee, November 2012.

Senior Design Project Supervision (sample)

- Fahad Al-Shiddi, Sulaiman Al-Wasel, and Yazeed Al-Otaibi, “**Design and Evaluation of Warning Traffic Signs in KSA Roads**,” supervised by Woo-Hyung Park, PhD and Ahmed M. El-Sherbeeney, PhD, 2016-2017.
- Industrial Engineering Dept. Students: Faisal Al-Suhaibani, Ibrahim Al-Waiel; Civil Engineering Students: Abdullah Alhazzaa, Abdullah Alarifi, Ibrahim Alanzie, “**Traffic Sign Evaluation and Redesign of Typeface in Saudi Arabia**,” Multidisciplinary Senior Design Project, supervised by Woo-Hyung Park, PhD, Ahmed M. El-Sherbeeney, PhD, and Seongkwan Mark Lee, PhD (Civil Engineering Dept.), Spring 2016 – Fall 2016.
- Industrial Engineering Dept. Students: Saud Almutairi, Khaled Alfehaid, Nawaf Alhelali; Biomedical Technology Dept Students: Abdullah Alarfaj, Ali Algifari, Saleh Alkridees, Humod Albarrak, “**Design and Development of a Grip Force Training Device for the Rehabilitation of Neurologically Impaired Patients**,” Multidisciplinary Senior Design Project, supervised by Woo-Hyung Park, PhD, Ahmed M. El-Sherbeeney, PhD, and Mohamed Bendjaballah, PhD (Biomedical Technology Dept., College of Applied Medical Sciences), Fall 2015 – Spring 2016.
- Abdullah AlAraidh, Rakan AlAbdulhadi, and Anas AlMubarak, “**Design of Color Vision Deficiency Test**,” Senior Design Project, supervised by Ahmed M. El-Sherbeeney, PhD, 2014-2015.
- Hassan Alzahrani, Mohammad Alotibi, and Abdullah Alqahtani, “**Redesign of Long Saudi Arabian License Plate**,” Senior Design Project, supervised by Ahmed M. El-Sherbeeney, PhD, 2014-2015.
- Mohammed Al Hajj, “**Investigating the Effects of Watching 2D and 3D Displays from Different Distances on Visual Fatigue**,” Master’s Thesis, member of examination committee, April 2014.
- Muhannad AlBeyali, Omar Almansour, and Abdullah Abalkhail, “**Design and Development of an Ergonomic Cane**,” Senior Design Project, supervised by Ahmed M. El-Sherbeeney, PhD, 2013-2014.
- Mansure Bakalla, and Mohamed khan, “**Design and Testing of Foldable Electric Solar Bicycle**,” Senior Design Project, supervised by Ahmed M. El-Sherbeeney, PhD and Prof. Saeed Darwish, PhD, 2013.
- Mohammed AlBawardi, Meshal AlDosari, and Meshal Alluhaidan, “**Design and Manufacturing of a Mobility Assistance Mechanism for Handicapped Persons**,” Senior Design Project, supervised by Ahmed M. El-Sherbeeney, PhD and Prof. Saeed Darwish, PhD, 2012 – 2013.
- Ahmed Sultan Al Suhaibani, Hesham Mohammed Al Suhaibani, and Amjad Abdullah Al Suhaibani, “**Redesign of Saudi Arabian License Plate**,” Senior Design Project, supervised by Ahmed M. El-Sherbeeney, PhD, 2010 – 2011.
- Abdullah Al-Dossari, Hisham Al-Khenain, and Abdullah Al-Shoabi, “**Tricycle for Handicapped Persons**,” Senior Design Project, supervised by Ahmed M. El-Sherbeeney, PhD, 2010 – 2011.

Computer Skills

- Computer Languages/Software, including *MATLAB, QBASIC, C, C++, FORTRAN*
- Computer Packages, including *AutoCAD, Adobe Photoshop, Microsoft Office software (Word, Excel, PowerPoint, Access)*

Language Skills

- Excellent command of spoken and written English and Arabic

PUBLICATIONS**Book Chapters**

- Ahmed Nadeem, **Ahmed M. El-Sherbeeny**, Mohammed M. Al-Harbi, Sheikh F. Ahmad. “**Pulmonary Oxidant–Antioxidant Dysregulation in Asthma.**” In: *Reactive Oxygen Species in Biology and Human Health* (Shamim A, ed). Taylor & Francis, CRC Press, UK (2016, In Press)

Journal Articles**Research Profile**

- **Web of Science Profile:** <https://www.webofscience.com/wos/author/record/JAC-4391-2023>.
- **SCOPUS Profile:** <https://www.scopus.com/authid/detail.uri?authorId=14009778200>.
- **Google Scholar Profile:** <https://scholar.google.com/citations?user=c3XJQo0AAAAJ>.
- **ORCID Profile:** <https://orcid.org/0000-0003-3559-6249>.

2026

- Jinze Li, Jianzhou Wang, **Ahmed M. El-Sherbeeny**, et al. **A combined short-term power load forecasting system based on generative adversarial networks.** *Engineering Applications of Artificial Intelligence* 2026; 163(2):112884.

2025

- Omar Saeed, András Székács, Mária Mörtl, Győző Jordán, Azaria Lameck, Mohammed Al-Mashreki, Mostafa Abukhadra, **Ahmed M. El-Sherbeeny**, et al. **Hydrochemical evaluation and risk assessment of the Danube river, Hungary using Canadian indices, geochemical modeling, and simulation techniques.** *Environmental Earth Sciences* 2025;84:603.
- Ahmed Mehaney, **Ahmed M. El-Sherbeeny**, et al. **Machine learning-enhanced surface plasmon resonance biosensor with multilayer BK7/ag/WS₂/graphene architecture for ultrasensitive tuberculosis biomarker detection.** *Microchemical Journal* 2025;190:115397.
- Yanan Zhang, Yufeng Chen, **Ahmed M. El-Sherbeeny**, et al. **Supervisor Design of Unbounded Petri Nets for Discrete Event Systems.** *IEEE Transactions on Systems, Man, and Cybernetics: Systems* 2025;55(10):6611-6620.
- Nazly Samy, Mai Medhat, **Ahmed M. El-Sherbeeny**, et al. **The role of magnetic field on the tunability of Tamm plasmon resonance in magnetic sensors based on the one-dimensional photonic crystals.** *Physics of the Solid State* 2025;67(9):812-820.
- Amuthakkannan Rajakannu, Jacob Wekalao, Hussein Elsayed, **Ahmed M. El-Sherbeeny**, et al. **A high sensitivity terahertz biosensor with hybrid metasurfaces for tuberculosis detection leveraging the integration of machine learning and multi-material resonators.** *Brazilian Journal of Physics* 2025;55(4):189.
- Rabbia Mahum, Ismaila Ganiyu, Lotfi Hidri, **Ahmed M. El-Sherbeeny**, et al. **A novel Swin transformer based framework for speech recognition for dysarthria.** *Scientific Reports* 2025;15:20070.
- Mostafa G. Refaai, **Ahmed M. El-Sherbeeny**, et al. **Assessing surface water quality in Fayoum, Egypt using an integrated WQI-GIS approach for multi-purpose reuse.** *Frontiers in Environmental Science* 2025;13:1649938.

- May N. Bin Jumah, **Ahmed M. El-Sherbeeny**, et al. **Recycling spent black tea as a novel heterogeneous acidic catalyst for efficient biodiesel production from waste cooking oil: Optimization, kinetics, and thermodynamic insights.** [Chinese Journal of Analytical Chemistry](#) 2025;53(11):100594.
- Alshaima Sayed, **Ahmed M. El-Sherbeeny**, et al. **Synthesis and characterization of series of Ca-MCM-41 nanoporous structures for effective elimination of sulfate ions; insight into the used calcium precursor and realistic studies.** [Microporous and Mesoporous Materials](#) 2025;390:113578.
- Mostafa R. Abukhadra, **Ahmed M. El-Sherbeeny**, et al. **Fe₃O₄@SiO₂-APA/OCA-CuCl₂ nanocomposite: an efficient and reusable heterogenous catalyst for three-component synthesis of thiazole derivatives.** [Journal of Sulfur Chemistry](#) 2025;46(3):455-478.
- Mostafa R. Abukhadra, **Ahmed M. El-Sherbeeny**, et al. **Construction of Fe₃O₄@SiO₂-ABA-Amide/BTH-Cu(II) nanocomposite as a reusable magnetic catalyst for reduction of nitroarenes and nitriles to amines.** [Transition Metal Chemistry](#) 2025;50(5):625-641.
- X Sun, Y Wu, H Wang, S He, DJ Young, S Thennadil, CL Raston, MR Abukhadra, **Ahmed M. El-Sherbeeny**, et al. **Vortex fluidic enhanced enzymatic hydrolysis of gelatin from barramundi skin for 3D printing.** [Frontiers in Sustainable Food Systems](#) 2025;9:1443198.
- Sohrab Khan, Munawar Shah, Punyawati Jamjareegulgarn, **Ahmed M. El-Sherbeeny**, et al. **Remotely sensed atmospheric anomalies of the 2022 Mw 7.0 Bantay, Philippines earthquake.** [Advances in Space Research](#) 2025;75(4):3692-3704.
- Qaisar Khan, Mostafa R. Abukhadra, **Ahmed M. El-Sherbeeny**, et al. **Coherent manipulation of the surface plasmon resonance sensing at the dielectric-graphene interface under Cross-Kerr nonlinearity effect.** [Journal of Magnetism and Magnetic Materials](#) 2025;618:172858.
- Muhammad Altaf Nazir, Ome Parkash Kumar, Rashid Ali, Muhammad Dilawar Hussain, Sultan Ullah, Abdul Rauf, **Ahmed M. El-Sherbeeny**, et al. **Enhanced Photocatalytic Performance of ZIF-67@ZIF-11 in Binary MOF Systems for Rapid Removal of Persistent Organic Pollutants.** [Korean Journal of Chemical Engineering](#) 2025;42:547-561.
- F. Alshaima Sayed, Mohamed Hamdy Eid, **Ahmed M. El-Sherbeeny**, et al. **Environmental and health risk assessment of polycyclic aromatic hydrocarbons and toxic elements in the red sea using Monte Carlo simulation.** [Scientific Reports](#) 2025;15:4122.
- Sarfraz Khan, Yousaf Iqbal, Waqar Hussain Shah, Muhammad Shahzad Ahmed, Xinman Chen, Mostafa Abukhadra, and **Ahmed M. El-Sherbeeny**. **Green synthesis, characterization and antimicrobial activity of silver nanoparticles by using Adiantum capillus-veneris as a reducing agent.** [Journal of the Korean Physical Society](#) 2025;86(10):1003-1013.
- Ayman Ameen, Abinash Panda, **Ahmed M. El-Sherbeeny**, et al. **Design and investigation of gamma ray dosimetry with doped polymer-infused porous silicon annular photonic crystal.** [Silicon](#) 2025;17:2071-2087.
- Hassan Akbar, Muhammad Subhan Javed, Bushra Parveen, Ashfaq Ahmad, Asghar Ali, Mostafa R. Abukhadra, **Ahmed M. El-Sherbeeny**, et al. **Investigating the effects of calcination temperature on CdO nanorods for performance of advanced supercapacitors.** [Journal of The Electrochemical Society](#) 2025;172(3):033501.
- Alshaima Sayed, **Ahmed M. El-Sherbeeny**, et al. **Effective and realistic sequestration of Sr²⁺ and B³⁺ ions from the aqueous environments using coral reefs based Ca-MCM-41: Gulf of Suez as case study.** [Frontiers in Chemistry](#) 2025;13:1550726.
- Mostafa R. Abukhadra, Amuthakkannan Rajakannu, **Ahmed M. El-Sherbeeny**, et al. **Facile exfoliation of natural talc into separated mesoporous magnesium silicate nano-sheets for effective sequestration of phosphate and nitrate ions: characterization and advanced modeling.** [Frontiers in Chemistry](#) 2025;13:1571723.
- Ayman Ameen, Suneet Kumar Awasthi, **Ahmed M. El-Sherbeeny**, et al. **One-dimensional porous photonic crystals comprising poly-vinyl alcohol-polymer doped with crystal violet and carbol-fuchsine dyes as a sensitive gamma rays dosimeter.** [Journal of Radiation Research and Applied Sciences](#) 2025;18(2):101459.

- Amna M. Farhan, Eman S. H. Khaled, Ahmed A. Abdel-Khalek, **Ahmed M. El-Sherbeeny**, et al. **Tailoring the synergistic effect of integrated polypyrrole hydrogel on the adsorption activity of rice husk-based activated carbon (polypyrrole/activated carbon composite) for bisphenol-A and 4-chlorophenol: experimental and theoretical analysis.** *Frontiers in Bioengineering and Biotechnology* 2025;13:1556887.
- Muhammad Tariq, Shakeel Ahmad, Muhammad Shahab, Israr Ahmad, **Ahmed M. El-Sherbeeny**, et al. **Hierarchically porous Nb- δ MnO₂@CC as anode material for exceptional high performance aqueous asymmetric hybrid super capacitor.** *Journal of Energy Storage* 2025;119:116432.
- Subhan Ali, Muhammad Shahab, Israr Ahmad, Roshan Ali, **Ahmed M. El-Sherbeeny**, et al. **Boosting sodium-ion battery performance through the sodium doped titanium carbide and iron selenide interfaces: Experimental validation and DFT insights.** *Journal of Energy Storage* 2025;127:117096.
- Carlos Santos, Ulisses Damasceno, Luiz Barros, Sirleis Lacerda, Jean Kamdem, Antonia Duarte, Abid Ali, Mohammad Ibrahim, **Ahmed M. El-Sherbeeny**, et al. **Molecular analysis of the emergence of Allium cepa L. seeds response to saline stress and treatment with essential oil of Cordia verbenacea.** *Scientific Reports* 2025;15:24389.
- Jacob Wekalao, Hussein Elsayed, **Ahmed M. El-Sherbeeny**, et al. **Design and optimization of a hybrid graphene-metallic metasurfaces terahertz biosensor for high-precision detection of reproductive hormones, integrating locally weighted linear regression analysis and 2-bit encoding capabilities.** *The European Physical Journal B: Condensed Matter and Complex Systems* 2025;98(5):87.
- M. Mary, D. Renj, R. Geetha, R. Seles, M. Amalanathan, Mostafa Abukhadra, **Ahmed M. El-Sherbeeny**, et al. **An insight into antimicrobial activity and nonlinear optical activity of 1-acetyl-2-(3-methoxy-4-propoxyphenyl) cyclopropane by theoretical and vibrational approach.** *Spectroscopy Letters* 2025;58(10):992-1009.
- Jacob Wekalao, Hussein Elsayed, **Ahmed M. El-Sherbeeny**, et al. **Design and optimization of a graphene-enhanced terahertz metasurfaces surface plasmon resonance biosensor with multi-material architecture for cancer detection integrating 1D-CNN machine learning for performance prediction and analysis.** *Plasmonics* 2025 (in press).

2024

- Usama Irshad, Rabbia Mahum, Ismaila Ganiyu, Faisal Shafique Butt, Lotfi Hidri, Tamer G. Ali, and **Ahmed M. El-Sherbeeny**. **UTran-DSR: a novel transformer-based model using feature enhancement for dysarthric speech recognition.** *EURASIP Journal on Audio, Speech, and Music Processing* 2024;54.
- Rabbia Mahum, **Ahmed M. El-Sherbeeny**, et al. **Tran-DSR: A hybrid model for dysarthric speech recognition using transformer encoder and ensemble learning.** *Applied Acoustics* 2024;222:110019.
- Hafiz Muhammad Saad, Ahmed Shdefat, Asif Nawaz, **Ahmed M. El-Sherbeeny**, et al. **Enhancing energy balance in wireless sensor networks through optimized minimum spanning tree.** *PLoS ONE* 2024;19(12):e0314104.
- Adeeb A. Ahmed, Yufeng Chen, **Ahmed M. El-Sherbeeny**, et al. **Insertion attack identification in discrete event systems using petri nets with an observer.** *PeerJ Computer Science* 2024;10:e2269.
- Hamza Makhlof Fathy, **Ahmed M. El-Sherbeeny**, et al. **Design of one-dimensional phononic crystals comprising robust Fano edge modes as a highly sensitive sensor for alcohols.** *Frontiers in Physics* 2024;12:1497294.
- Yiran Lu, Hao Lan, Yixiao Wu, Mostafa R Abukhadra, **Ahmed M. El-Sherbeeny**, et al. **The influence of storage conditions on hygiene condition and eicosapentaenoic acid oxidation in Nannochloropsis algae for sustainable food supply.** *Journal of the Science of Food and Agriculture* 2024;Early Access.
- Hussein A. Elsayed, **Ahmed M. El-Sherbeeny**, et al. **Optical properties of the 1D quasiperiodic photonic crystals comprising gyroidal superconductor for THz applications.** *Europhysics Letters* 2024;147 65001.
- Jiayi Lin, Yixiao Wu, Hao Wang, Matt Jellicoe, Shan He, David J. Young, Suresh Thennadil, Colin L. Raston, Charles Brennan, Bin Tian, Mostafa R. Abukhadra, and **Ahmed M. El-Sherbeeny**. **Quality enhancement of**

Barramundi kamaboko using vortex fluidic device modified starch and fish gelatin. [Frontiers in Sustainable Food Systems](#) 2024;8.

- Amir Sultan Khan, Israr Ali Khan, Shah Qasim Jan, **Ahmed M. El-Sherbeeny**, et al. **Probing the effect of time conformal factor on the particle dynamics around AdS Reissner–Nordström black hole.** [Modern Physics Letters A](#) 2024;39(29n30):2450143.
- MH Eid, V Mikita, M, Ramadan HS, EA Mohamed, MR Abukhadra, **Ahmed M. El-Sherbeeny**, et al. **Monte Carlo simulation and PMF model for assessing human health risks associated with heavy metals in groundwater: a case study of the Nubian aquifer, Siwa depression, Egypt.** [Frontiers in Earth Science](#) 2024;12:1431635.
- Jun Wang, Ning Wang, Haoju Wang, Kerang Cao, and **Ahmed M. El-Sherbeeny**. **GCP: A multi-strategy improved wireless sensor network model for environmental monitoring.** [Computer Networks](#) 2024;254:110807.
- Zehan Shen, Shan He, Mostafa R. Abukhadra, **Ahmed M. El-Sherbeeny**, et al. **Isolation and characterisation of zinc-chelating peptides from tilapia (*Oreochromis niloticus*) protein hydrolysate.** [International Journal of Food Science & Technology](#) 2024;59(12):9220–9233.
- Ahmed Mehaney, **Ahmed M. El-Sherbeeny**, et al. **The One-Dimensional Gyroidal Superconductor Photonic Crystals Based Cutoff Frequency Tunability for THz Applications.** [Brazilian Journal of Physics](#) 2024;54,205.
- Norhan Talha, **Ahmed M. El-Sherbeeny**, et al. **Synergetic studies on the thermochemical activation and polyaniline integration on the adsorption properties of natural coal for chlorpyrifos pesticide: steric and energetic studies.** [Scientific Reports](#) 2024;14:21116.
- Mohamed Hamdy Eid, Viktoria Mikita, Mustafa Eissa, Hatem Saad Ramadan, Essam A. Mohamed, Mostafa R. Abukhadra, **Ahmed M. El-Sherbeeny**, et al. **An advanced approach for drinking water quality indexing and health risk assessment supported by machine learning modelling in Siwa Oasis, Egypt.** [Journal of Hydrology: Regional Studies](#) 2024;56:101967.
- Mohamed Eid, Mahmoud, Essam Mohamed, Tamer Nassar, Mostafa R. Abukhadra, **Ahmed M. El-Sherbeeny**, et al. **Comprehensive approach integrating water quality index and toxic element analysis for environmental and health risk assessment enhanced by simulation techniques.** [Environmental Geochemistry and Health](#) 2024;46:409.
- Hussein Elsayed, Aliaa Mohamed, **Ahmed M. El-Sherbeeny**, et al. **Improved performance of temperature sensors based on the one-dimensional topological photonic crystals comprising hyperbolic metamaterials.** [Scientific Reports](#) 2024;14:19733.
- Khalid Mehmood Cheema, Khizer Mehmood, Naveed Ishtiaq Chaudhary, Zeshan Aslam Khan, Muhammad Asif Zahoor Raja, **Ahmed M. El-Sherbeeny**, et al. **Knacks of marine predator heuristics for distributed energy source-based power systems harmonics estimation.** [Heliyon](#) 2024;10(15):e35776.
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Conference Publications

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- Ahmed M. El-Sherbeeny, Woo Hyung Park. (2019). [“Ergonomic Evaluation of Vehicle License Plates used in Saudi Arabia,”](#) *Proceedings of the IEOM Third European Conference*, Pilsen, Czech Republic, July 23-26.

- **Ahmed M. El-Sherbeeny**, Woo Hyung Park, Mohammed A. Alghufaili, and Abdulrahman I. Al-Husseini. (2018). "[An Evaluation of Road Hump Markings in Riyadh: Detectability of the Shapes and Colors](#)," *Proceedings of the IEOM Second European Conference*, Paris, France, July 26-27.
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- Mohammed Alkahtani, **Ahmed El-Sherbeeny**, Mohammed A. Noman, Fawaz M. Abdullah, and Alok Choudhary. (2018). "**Trends in Industrial Engineering and the Saudi Vision 2030**," *Proceedings of the 2018 IISE Annual Conference*, Loews Royal Pacific Resort, Orlando, Florida, USA, May 19-22.
- Mohammed Alkahtani, **Ahmed M. El-Sherbeeny**. (2017). "**Industrial Engineering Higher Education in Saudi Arabia**," (abstract), *Proceedings of the Twenty-Fourth International Conference on Learning (The Learner Research Network)*, University of Hawaii at Manoa, Honolulu, USA, July 19-21.
- **Ahmed M. El-Sherbeeny**, Mohammed Alkahtani, James V. Odom, and James E. Smith. (2017). "**The Partial Cartoon Central Vision Compensation Technique: Subjective Evaluation**," *Proceedings of the International Conference on Industrial Engineering and Operations Management (IEOM)*, Rabat, Morocco, April 11-13.
- Mohammed Alkahtani, **Ahmed M. El-Sherbeeny**, and Fawaz M. Abdullah. (2017). "**Assessing Engineering Minorities in Saudi Arabian Higher Education: Status and Challenges**," *Proceedings of the International Conference on Industrial Engineering and Operations Management (IEOM)*, Rabat, Morocco, April 11-13.
- **Ahmed M. El-Sherbeeny**, Woo Hyung Park, Dr Seongkwan Mark Lee, Ibrahim Alanzie, Faisal Alsuhaibani, Abdullah Alhazzaa, Ibrahim Alwaiel, and Abdul-Azeez Alarifi. (2017). "**Traffic Sign Evaluation and Redesign of Typeface in Saudi Arabia**," (abstract), *Proceedings of the International Conference on Industrial Engineering and Operations Management (IEOM)*, Rabat, Morocco, April 11-13.
- **El-Sherbeeny, AM**. (2014). "**Highlighting the Need for Engineering Education for Females in Saudi Arabia**," *121st ASEE (American Society for Engineering Education) Annual Conference & Exposition*, Indianapolis, Indiana, USA, June 15-18, 2014.
- **El-Sherbeeny, AM**. (2014). "**The Partial Cartoon Central Vision Compensation Technique: Introduction and Evaluation**," *4th International Conference on Multimedia Computing and Systems (ICMCS'14)*, Marrakesh, Morocco, April 14-16, 2014.
- **El-Sherbeeny, AM**, Al Sohibani, HM, Al Suhaibani, AS, Al Suhaibani, AA. (2011). "**Evaluating the Design of the Current Saudi Arabian License Plate**," *41st International Conference on Computers & Industrial Engineering (CIE)*, Los Angeles, CA, October 23-26, 2011.
- **El-Sherbeeny, AM**, Al-Tallaq, K. (2009). "**Technical Challenges Facing New Universities Seeking ABET Accreditation for Engineering Programs in Saudi Arabia – The AlJouf University Experience**," Poster Presentation in: *The Fifth Saudi Technical Conference and Exhibition*, January 11-14, 2009.
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- **El-Sherbeeny, AM**, Hensel, R, Ware, AE, Smith, J. (2006). "**Study Labs as a Practical Means of Enhancing Freshman Engineering Courses**," *The Fall 2006 Convention For the Midwest Section of the American Society of Engineering Education (ASEE)*, Kansas City, Missouri, September 13-15, 2006.
- Fahmy, G, **El-Sherbeeny, A**, Mandala1, S, Abdel-Mottaleb, M, and Ammar, H. (2006). "**The Effect of Lighting Direction/Condition on the Performance of Face Recognition Algorithms**," *SPIE Paper Number 6202-21*, Orlando, Florida, April 17-21, 2006.

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DELIVERED/ORGANIZED PROFESSIONAL PRESENTATIONS, WORKSHOPS, and LECTURES

- **Conference Presentation.** El-Sherbeeny, AM, and Park, Woo Hyung Park. (2019). “Ergonomic Evaluation of Vehicle License Plates used in Saudi Arabia,” *IEOM Third European Conference*, Pilsen, Czech Republic, July 23-26. (presented July 23, 2019).
- **Conference Presentation.** El-Sherbeeny, AM, Alkahtani, M, Odom, JV, and Smith, JE. (2017). “The Partial Cartoon Central Vision Compensation Technique: Subjective Evaluation,” *International Conference on Industrial Engineering and Operations Management (IEOM)*, Rabat, Morocco, April 11-13. (presented April 12, 2017).
- **Conference Presentation.** Alkahtani, M, El-Sherbeeny, AM, Abdullah, FM. (2017). “Assessing Engineering Minorities in Saudi Arabian Higher Education: Status and Challenges,” *International Conference on Industrial Engineering and Operations Management (IEOM)*, Rabat, Morocco, April 11-13. (presented April 12, 2017).
- **Lecture.** El-Sherbeeny, AM. (2016). “[How to Boost your Academic English](#),” *College of Engineering Student Activities Club: “Ithraa’ Program*,” College of Engineering, King Saud University (presented February 10, 2016).
- **Lecture.** El-Sherbeeny, AM. (2016). “Project Preparation Methods - Introduction and Background,” *Graduation Projects Committee*, Industrial Engineering Department, College of Engineering, King Saud University (presented February 29, 2016; October 18, 2015; February 22, 2015; November 03, 2014; April 06, 2014).
- **Conference Presentation.** El-Sherbeeny, AM. (2014). “The Partial Cartoon Central Vision Compensation Technique: Introduction and Evaluation,” *4th International Conference on Multimedia Computing and Systems (ICMCS’14)*, Marrakesh, Morocco (presented April 15, 2014).
- **Lecture.** El-Sherbeeny, AM. (2014). “Overview of Human Factors Engineering,” *Ithraa’ Program/Industrial Engineering Club*, College of Engineering, King Saud University (presented March 4, 2014).
- **Delivered Workshop.** El-Sherbeeny, AM. (2014). “Lessons from the Third Competition for Graduation Projects of Engineering Colleges in GCC Universities,” *Vice Deanship for Development and Quality*, College of Engineering, King Saud University (presented May 11, 2013).
- **Lecture.** El-Sherbeeny, AM. (2011). “Graduation Project Report and Presentation Guidelines,” *Graduation Projects Committee*, Industrial Engineering Department, College of Engineering, King Saud University (presented November 29, 2011; December 22, 2010).
- **Co-Organized Workshop.** El-Sherbeeny, AM. “Institutional Mission and its Relation to Accreditation in Higher Education,” *Alljuf University Quality Assurance and Academic Accreditation Unit*, Sakaka, AlJouf, KSA, Wednesday, May 13, 2009.
- **Co-Organized Workshop.** El-Sherbeeny, AM. “Creating a Vision and Mission for the College of Engineering,” *Alljuf University Quality Assurance and Academic Accreditation Unit*, Sakaka, AlJouf, KSA, Wednesday, Apr 15, 2009.
- **Conference Presentation.** El-Sherbeeny, AM. (2006). “Study Labs as a Practical Means of Enhancing Freshman Engineering Courses,” *The Fall 2006 Convention For the Midwest Section of the American Society of Engineering Education (ASEE)*, Kansas City, Missouri (presented September 15, 2006).
- **Conference Presentation.** El-Sherbeeny, AM. (2006). “The Effect of Lighting Direction/Condition on the Performance of Face Recognition Algorithms,” *SPIE Paper Number 6202-21*, Orlando, Florida. Presentation, April 18, 2006.
- **Conference Presentation.** El-Sherbeeny, AM. (2005). “A Non-Invasive Image Compensation Technique for Retinitis Pigmentosa Patients,” *Developments in Vision Enhancement Technology and Their Evaluation*, Presentation, June 3, 2005, WVU Eye Institute.

DELIVERED PROFESSIONAL TRAINING COURSES

- “Corporate Standards and Ethics” Obeikan Investment Group (May-June 2014).
- “Business Writing” Obeikan Investment Group (March 2014).
- “Good Manufacturing Practices” Obeikan Investment Group (August 2013).

ATTENDED WORKSHOPS and TRAINING

- Attended Workshop, “Competencies in Writing Examination Items,” National Center for Assessment (Qiyas), December 05-06, 2018.
- Attended Workshop, “Employability Skills Assessment Development Workshop,” National Center for Assessment (Qiyas), February 14-15, 2018.
- Attended Training, “Design of Industrial Facilities – The Past and the Present,” King Saud University / Saudi Society for Systems and Industrial Engineering, April 27, 2016.
- Attended Workshop, “Statistical Testing using SPSS,” King Saud University, 10 Hours, February 21-22, 2016.
- Attended Workshop, “KSU – KPI’s and Benchmarking,” King Saud University, 10 Hours, February 07-08, 2016.
- Attended Workshop, “Research Qualitative Analysis,” King Saud University, 10 Hours, February 02-03, 2016.
- Attended Workshop, “Translator and Dictionary,” King Saud University, Monday, March 30, 2015.
- Attended Workshop, “Writing Scientific Papers and Getting them Published,” King Saud University, Tuesday, March 17, 2015.
- Attended the Fourth Symposium on Informatics, “Technologies for People with Special Needs,” College of Computer and Information Sciences, King Saud University, April 23-25, 2013.
- Attended Workshop, “Emotional Intelligence,” King Saud University, 10 Hours, October 26-27, 2010.
- Attended Workshop, “Accreditation Report Standards of the Educational Institution,” King Saud University, 10 Hours, October 23-24, 2010.
- Attended Workshop, “Building Higher Educational Assessment Skills for Teaching Faculty,” Umm AlQura University, Sakaka, AlJouf, KSA, May 30 – June 10, 2009.

AWARDS, RECOGNITION, CERTIFICATIONS, and MEMBERSHIPS

- Recognized by the Deanship for Scientific Research (Public Relations Unit), King Saud University, for **publishing in a top 5% journal**: Enhancing Hotel Employees' Well-being and Safe Behaviors: The Influences of Physical Workload, Mental Workload, and Psychological Resilience. [Oeconomia Copernicana](#) 2024;15(2):765–807, Mar. 06, 2025.
- Recognized by the Deanship for Scientific Research (Public Relations Unit), King Saud University, for **publishing in a top 10% journal**: Verification of Current-State Opacity in Discrete Event Systems by Using Basis Coverability Graphs. [Mathematics](#) 2023;11(8):1798, Sep. 15, 2024.
- Recognized by the Vice Deanship for Development and Quality at the College of Engineering, King Saud University, for the **supervision and development of the College’s Alumni and Employment Unit activities** during the period from Aug. 2013 until Aug. 2018, Sep. 2018.
- Recognized by the IEOM (Industrial Engineering and Operations Management) Society for authoring the **Best Track Paper in Human Factors and Ergonomics**, “An Evaluation of Road Hump Markings in Riyadh: Detectability of the Shapes and Colors”, during *IEOM Second European Conference*, Awards and Recognition Dinner, Renaissance Paris La Defense Hotel, Paris, France, July 27, 2018.
- Recognized by the College of Engineering, King Saud University, for **Participating in Organizing the College of Engineering’s Fifth Alumni Gathering (April 24, 2018)**, during the *Annual Gathering for the College of Engineering Faculty and Staff*, May 11, 2018.
- Recognized by the College of Engineering, King Saud University and BAE Systems – Saudi Arabia, for **Contributing to the Scientific Arbitration of College of Engineering Senior Design Projects**, during the *BAE*

Systems Saudi Arabia Outstanding Graduation Projects Competition, First Semester 1438/1439H (Fall 2017), Jan 10, 2018.

- Recognized by the College of Engineering, King Saud University and BAE Systems – Saudi Arabia, for **supervising the College of Engineering Senior Design Project earning first place**, “Evaluation and Redesign of Road Humps in Riyadh in Terms of Detectability of Road Hump Markings”, during the *BAE Systems Saudi Arabia Outstanding Graduation Projects Competition*, First Semester 1438/1439H (Fall 2017), Jan 10, 2018.
- Recognized by the College of Engineering Students Council, College of Engineering, KSU, **for Participating in the Evaluation of the #إشرح_لي (Explain for me) Competition** during the 1437-1438 (2016-2017) during the *College of Engineering Students Council Annual Activity Ceremony*, May 25, 2017.
- Recognized by the IEOM (Industrial Engineering and Operations Management) Society for supervising the poster earning **third place** in the **IEOM Senior Design Project Poster Competition**, “Traffic Sign Evaluation and Redesign of Typeface”, during *IEOM Annual International Conference*, Sofitel Hotel, Rabat, Morocco, April 12, 2017.
- Recognized by the College of Engineering, King Saud University, for **supervising the Multidisciplinary Senior Design Project earning first place**, “Evaluation and Redesign of road signs currently used in Riyadh”, during the *College of Engineering at KSU Outstanding Graduation Projects Competition*, First Semester 1437/1438H (Fall 2016), Jan. 24, 2017.
- Recognized by the College of Engineering, King Saud University, for **supervising the Multidisciplinary Senior Design Project earning first place**, “Design and Development of a Grip Force Training Device For The Rehabilitation of Neurologically Impaired Patients”, during the *BAE Systems Saudi Arabia Outstanding Graduation Projects Competition*, Second Semester 1436/1437H (Spring 2016), May 24, 2016.
- Recognized by the College of Engineering Student Activities Club, King Saud University, for **participating in the “Ithraa’ Program,”** during the 1436-1437 (2015-2016) activities closing ceremony, May 04, 2016.
- Recognized by the College of Engineering, King Saud University for **organizing the GCC Countries 2013 Engineering Students Design Competition**, during award ceremony, Tuesday, April 16, 2013; and during the college annual party, Thursday, May 16, 2013.
- Recognized by the College of Engineering, King Saud University, for **supervising the Industrial Engineering senior design project earning first place**, “Tricycle for Handicapped Persons”, during the *BAE Systems Saudi Arabia Outstanding Graduation Projects Competition*, Second Semester 1431/1432H (Spring 2011), May 2011
- Recognized by the College of Engineering, King Saud University, for **efforts performed as part of the Quality and Accreditation Committee**, December 2010.
- Award: **Best Industrial Engineering Project by the IIE** (Institute of Industrial Engineers)-Student Chapter, AUC, 1996 – 1997.
- **Dean's List of Honors** (cultural activities and academic achievement), AUC, 1994 – 1998.
- Completed the **Human Participants Protection Education for Research Teams** online course, sponsored by the National Institutes of Health (NIH), November 2004.
- Active member of the **SSSIE** (Saudi Society for Systems and Industrial Engineering), February 2016 – current.
- Active member of the **ASEE** (American Society for Engineering Education), 2006 – current.

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REFERENCES:

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