



CURRICULUM VITAE

Dr. Mamdouh Ibrahim Elamy Morsy

*Department of Industrial Engineering,
College of Engineering,
Northern Border University, Arar, Saudi Arabia*



• *Personal Information*

- **Date of Birth:** 04/01/1976
- **Nationality:** Egyptian
- **Marital Status:** Married, (3 children)
- **Religion:** Muslim
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 - **Mob:** +966590806923, +966581169606, +201222502683, +201222502684.
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• *Current Occupation*

- Associate Professor in the Department of Production Engineering and Mechanical Design, Faculty of Engineering, Menoufia University, Egypt.
- Assistant Professor in the Department of Industrial Engineering, College of Engineering, Northern Border University, Kingdom of Saudi Arabia.

• *Education and Academic Degrees*

- **Degree:** Ph.D. in Mechanical Design and Applied Mechanics (Dynamics of Machines)
- **Year:** June (2014)
- **Faculty:** Faculty of Engineering
- **University:** Minoufiya University
- **Thesis Title:** "Dynamic Analysis of a Rotating Composite Shaft".

- **Degree:** M.Sc. in Mechanical Design and Applied Mechanics
- **Year:** July (2007)
- **Faculty:** Faculty of Engineering
- **University:** Minoufiya University
- **Thesis Title:** "Dynamic Analysis of an Adhesive Bonded Joint for Composite Structures".

- **Degree:** B.Sc. in Production Engineering and Mechanical Design
- **Year:** May (2001)
- **Faculty:** Faculty of Engineering
- **University:** Minoufiya University

• *Language & Computer Skills*

- English: very good (Reading/writing/speaking).
- ICDL Certificate.
- Programming Languages: FORTRAN and MATLAB.
- Finite Element Software's: ANSYS, SolidWorks and MATLAB.

• *Teaching Experience*

- My teaching experience focuses on the specialty of mechanical engineering in the field of machine dynamics and robotics.
- Also, my teaching experience in industrial engineering specializes in the fields of industrial control & automation, and automation, & industrial robots.
- From 2016 until now: Assistant Professor in Industrial Engineering, Northern Border University, Kingdom of Saudi Arabia.
- From 2004 - 2007: Teaching assistant in the Department of Production Engineering and Mechanical Design, Faculty of Engineering, Menoufia University, Egypt.
- From 2007 - 2014: Assistant lecturer in the Department of Production Engineering and Mechanical Design, Faculty of Engineering, Menoufia University, Egypt.
- From 2014 - 2024: Assistant Professor, Department of Production Engineering and Mechanical Design, Faculty of Engineering, Menoufia University, Egypt.
- From 30/04/2024: Associate Professor, Department of Production Engineering and Mechanical Design, Faculty of Engineering, Menoufia University, Egypt.

• *Teaching and Research Topics*

- Applied Mechanics
- Mechatronics
- Theory of Machines
- Dynamics of Machines
- Mechanical Design
- Machine Tool Design
- Engineering Drawing
- Mechanical Vibration
- Material Handling System Design
- Automatic Control
- Production Engineering
- Kinematics of Mechanisms and Robotics
 - Facilities Planning and Design
 - Human Factor Engineering
 - Engineering Mechanics
 - Maintenance and replacement policies
 - Materials Engineering
 - Modeling and Simulation of Dynamic Systems
 - Industrial Quality Control
 - Control and Industrial Automation.

- Probabilities and Statistics.
- Material handling and packing.
- Automation and robotics
- Industrial robots
- Machine dynamics
- Engineering ethics
- Industrial safety engineering
- Dynamics of Mechanisms and Robotics
- B. Sc project.

• *Experience Certificates*

- Modern teaching strategies, Deanship of University Education Development, Northern Border University, from 27-28/02/2022 (10 hr).
- Formulating and measuring learning outcomes for academic programs, Deanship of University Education Development, Northern Border University, remotely, on 22/05/2022 (4 hr).
- Attending a workshop on evaluation methods according to the fields of learning, Deanship of University Education Development, Northern Border University, remotely, on 15/12/2022 (5 hr).
- Attending an electronic course on how to detect the impact factor and classify international journals using the digital library, Deanship of Library Affairs, Northern Border University, remotely, on 03/02/2021 (2 hr).
- Attending a workshop on learning outcomes in line with the National Qualifications Framework, Deanship of University Education Development, Northern Border University, remotely, on 08/12/2022 (5 hr).
- Attending a program on self-evaluation measures, performance indicators and benchmark comparisons, Deanship of University Education Development, Northern Border University, on 23/05/2022 (5 hr).
- Attending a training course on the description of (Programs, Courses, and Field experiences), Deanship of University Education Development, Northern Border University, on 14-16/04/2020 (6 hours).
- Attending a training course on (course report, field experience report, program annual report), Deanship of University Education Development, Northern Border University, on 21-23/04/2020 (6 hours).

• *Certificates of Appreciation*

- Participation in the Second Student Guidance Forum, University Vice Presidency for Academic Affairs, Jazan University, remotely, on 29/03/2021.
- A certificate of appreciation for providing requirements and evidence and participating in academic accreditation sessions, the University Vice President for Development, Quality and Community Service, Northern Border University.
- A certificate of appreciation for participating in quality work for the industrial engineering program to obtain academic accreditation. ABET, President of the University. Northern Border University.
- A certificate of appreciation for participating in quality work for the industrial engineering program to obtain academic accreditation. ABET, Dean of the College of Engineering. Northern Border University.

- Certificate for participation in implementing a training program entitled (Occupational Safety and Health Management) as a community service on 9/19/2024 for one day at a rate of two hours, Northern Borders University, University Agency for Postgraduate Studies and Scientific Research.

• *Participating committees*

- Member of the Board of the Department of Industrial Engineering, College of Engineering, Northern Border University
- Member of the Program Committee of the Department of Industrial Engineering, Northern Border University.
- Member of the Academic Schedules Committee for the Department of Industrial Engineering from 2016 to 2018.
- Member of the Student Guidance Committee for the Department of Industrial Engineering from 2016 to 2018.
- Member of the committee preparing exam schedules for the Department of Industrial Engineering from 2019 until now.
- Member of the Laboratories and Learning Resources Committee, Department of Industrial Engineering, Northern Border University.
- Member of the Quality and Academic Accreditation Committee, Department of Industrial Engineering, Northern Border University.
- Member of the Postgraduate Studies Committee of the Department of Industrial Engineering, Northern Border University.
- Member of the Academic and Student Activities Committee, Department of Industrial Engineering, Northern Border University.
- Member of the Scientific Research Committee of the Department of Industrial Engineering, Northern Border University.
- Member of the Performance Measurement Committee, College of Engineering, Northern Border University.

• *Community Service*

- Participation in implementing a training program entitled (***Occupational Safety and Health Management***) as a community service on 9/19/2024 for one day at a rate of two hours, Northern Borders University, University Agency for Postgraduate Studies and Scientific Research.
- Participation in implementing a training program entitled (***Industrial Robotics***) as a community service on 12/12/2024 for one day at a rate of two hours, Northern Borders University, University Agency for Postgraduate Studies and Scientific Research.

• *Participated conferences*

- 12th International Conference on APPLIED MECHANICS & MECHANICAL ENGINEERING, Military Technical College, May 29-31, **2007**.
- 13th International Conference on APPLIED MECHANICS & MECHANICAL ENGINEERING, Military Technical College, May 27-29, **2008**.
- The 4th International Conference Mechatronic Systems and Materials, MSM 2008, Bialystok, Poland, July, 14-17, 2008.
- 13th Conference on Fracture Mechanics - ***Opole, POLAND***, 05 – 07 September **2011**.

- 14th International Conference on AEROSPACE SCIENCES & AVIATION TECHNOLOGY ASAT 14 – Military Technical College, Cairo, EGYPT, May 24 – 26, 2011.
- 15th International Conference on AEROSPACE SCIENCES & AVIATION TECHNOLOGY ASAT 15 – *Military Technical College*, Cairo, EGYPT, May 28 – 30, **2013**.
- 6th International Conference on Trends in Mechanical and Industrial Engineering (ICTMIE'2015), Sept. 13-14, 2015 Dubai (UAE).
- The International Conference of Engineering Sciences& Applications, Aswan, Egypt, January, 28-31, 2016.
- ICEEP 2018: 20th International Conference on Environmental Engineering and Protection, January, 22-23, 2018 at Dubai, (UAE).

• **Recent Publications**

1. Hamada, A. A., Ghoneam, S. M. and **EL-Elamy, M. I.**, “Dynamic Analysis of an Adhesive Bonded Joint for Composite Structures”, 12th International Conference on APPLIED MECHANICS & MECHANICAL ENGINEERING, Military Technical College, May 29-31, **2007**.
2. Ghoneam, S. M., Hamada, A. A. and EL-Elamy, M. I., “Dynamic Response of an Adhesive Bonded Joint for Composite Structure”, 13th International Conference on APPLIED MECHANICS & MECHANICAL ENGINEERING, Military Technical College, May 27-29, 2008.
3. Ghoneam, S. M., Hamada, A. A. and **EL-Elamy, M. I.**, " Experimental and Analytical Investigations of the Dynamic Analysis of Adhesively Bonded Joints for Composite Structures" The 4th International Conference Mechatronic Systems and Materials, MSM **2008**, Bialystok, Poland, July, 14-17, **2008**.
4. S. M. Ghoneam, A. A. Hamada and **M. I. EL-Elamy**," Dynamic Analysis of Cracked Composite Shafts", 13th Conference on Fracture Mechanics - **Opole, POLAND**, 05 – 07 September **2011**.
5. S. M. Ghoneam, A. A. Hamada and **M. I. EL-Elamy**," Dynamic Analysis of a Rotating Composite Shaft", 14th International Conference on AEROSPACE SCIENCES & AVIATION TECHNOLOGY ASAT 14 – *Military Technical College*, Cairo, EGYPT, May 24 – 26, **2011**.
6. S. M. Ghoneam, A. A. Hamada and **M. I. EL-Elamy**, "The Effect of Stacking Sequence and Coupling Mechanisms on Eigen-Nature of Composite Shafts", 15th International Conference on AEROSPACE SCIENCES & AVIATION TECHNOLOGY ASAT 15 – *Military Technical College*, Cairo, EGYPT, May 28 – 30, **2013**.
7. K. M. Khader, **M. I. EL-Elamy**, "Using Composite Materials for Improving Wind Turbine Performance", 6th International Conference on Trends in Mechanical and Industrial Engineering (ICTMIE'2015), **Sept. 13-14, 2015** Dubai (UAE).
8. Y. Rihan, S. Ayyad, and **M. I. Elamy**, "A Study on the Residual Stresses in Resistance Spot Welding", *I-manager's Journal on Material Science*, Vol. 3 1 No. 2 1 July - September **2015**
9. M. S. EL-Wazerya, **M. I. Elamy**, and S. H. Zoalfakar, "Experimental Investigation on the Mechanical Behavior of Glass Fiber Reinforced Polyester Resin Composite" *The International Conference of Engineering Sciences& Applications, Aswan, Egypt, January, 28-31, 2016*.

10. A. M. Easa and **M. I. Elamy**, "Influence of Drilling Parameters and Volume Fraction Ratios on Hole Quality of (GFRP) Composites", *International Journal of Advanced Engineering and Global Technology*, Vol-04, Issue-03, 1904 – 1911, May, **2016**.
11. A. M. Easa, **M. I. Elamy** and A. S. Esia, "Analysis of Surface Integrity in Drilling of GFRP Composite When Using Two Types of Cutting Tools and Different Volume Fraction Ratios ", *International Journal of Advanced Engineering and Global Technology*, Vol-04, Issue-04, 2080 – 2087, August, **2016**.
12. A. M. Easa, **M. I. Elamy** and A. S. Esia,, " Analyzing the Effect of Machining Parameters and Fiber Orientation on the Surface Roughness during Drilling of (GFRP) Composites", *International Journal of Advanced Engineering and Global Technology*, Vol-02, Issue-05, 1523-1531, March, **2017**.
13. N. M. Mohamed, M. S. EL-Wazery, **M. I. EL-Elamy**, S. H. Zoalfakar, " Mechanical and Dynamic Properties of Hybrid Composite laminates", *International Journal of Advanced Engineering and Global Technology*, Vol-05, Issue-03, 1703-1725, May, **2017**.
14. MS El-Wazery, **MI El-Elamy**, SH Zoalfakar, "Mechanical properties of glass fiber reinforced polyester composites", *International journal of applied science and engineering*, 14 (3), 121-131, **2017**.
15. K. M. Khader, **M. I. EL-Elamy**, O. A. Nada, " Multi-criteria Selection and Improvement of Effective Design for Generating Power from Sea Waves", **ICEEP 2018: 20th International Conference on Environmental Engineering and Protection**, January, 22-23, **2018** at Dubai, (UAE).
16. K. M. Khader, **M. I. EL-Elamy**, " Power and Wear Reduction Using Composite Links of Crank-Rocker Mechanism with Optimum Transmission Angle", **ICEEP 2018: 20th International Conference on Environmental Engineering and Protection**, January, 22-23, **2018** at Dubai, (UAE).
17. O S, Hussiena, **M I, Elamy**, " Optimal Placement of Dampers on Multistorey Frames Using Dynamic Analysis ", *Strength of materials*, Vol. 3, 158-168, **2020**.
18. K. M. Khader, Shehab A. Mansour, Ibrahim M. El Fahham and **Mamdoh I. Elimy** , "Dynamic Performance Enhancement of Vertical Wind Turbine Using Composite Blades Reinforced by Zinc-Oxide Nanoparticles", *MANSOURA ENGINEERING JOURNAL*, (MEJ), Vol-45, Issue-03, 39-49, **2020**.
19. M. Gamila, W.M. Faroukb and **Mamdouh I. Elamy**, "Effect of Friction Stir Processing Parameters on the Mechanical and Dynamic Responses of AA5052-H32", *ENGINEERING RESEARCH JOURNAL (ERJ)*, Vol-51, Issue-02, 188-199, **2022**.
20. **Mamdouh I. Elamy**, "Dynamic Analysis of Rotating Continuous Drive Friction Welding Joints of Al alloy (6061AA) ", *ERJ Engineering Research Journal Faculty of Engineering Menoufia University*, Vol. 46, No. 1, pp. 43-53, January **2023**.
21. **Mamdouh I. Elamy**, "Improving the Dynamic Performance of the Crank-Rocker Mechanism Using Composite Links", *ERJ Engineering Research Journal Faculty of Engineering Menoufia University*, Vol. 46, No. 4, pp. 471-484, October **2023**.
22. Mohamed Fterich, **Mamdouh Ibrahim Elamy**, Ezzeddine Touti, and Hatem Bentaher, "Experimental and numerical study of tomatoes drying kinetics using solar dryer equipped with PVT air collector", *Engineering Science and Technology, an International Journal*, Vol. 47, 101524, **2023**.
23. Norah A. M. Alsaif, Hanan Al-Ghamdi, Z. Y. Khattari, M. S. Shams, R. A. Elsad, M. S. Sadeq, Adel M. El-Refaey, Y. S. Rammah, and **Mamdouh I. Elamy**, "Experimental and simulation investigation of the effects of Er³⁺ ions on the

- physico-mechanical, optical, mechanical, and radiation-protective characteristics of B2O3-CaO-Bi2O3 glasses", *Journal of the Australian Ceramic Society*, Vol. 60, pp. (207–220), **2024**.
24. Hanan Al-Ghamdi, Norah A.M. Alsaif, Z.Y. Khattari, Yasser Rammah, R.A. Elsad, Zakia Alhashem, Hasna Alali, Ashraf Farha & **Mamdouh I. Elamy**, "Mechanical, electrical properties and gamma-rays buildup factors of CaO-Li2O-B2O3-As2O3 glasses: Significant role of As2O3", *Journal: Radiation Physics and Chemistry*, Vol. 215, 111355, February **2024**.
 25. Majed Masmali, **Mamdouh I. Elimy**, Mohamed Fterich, Ezzeddine Touti and Ghulam Abbas, "*Comparative Studies on Load Frequency Control with Different Governors connected to Mini Hydro Power Plant via PSCAD Software*", *Engineering, Technology & Applied Science Research*, Vol. 14, No. 1, (12975-12983), **2024**.
 26. Gharam A. Alharshan, Ahmed M. A. El-Seidy, **Mamdouh I. Elamy**, Islam M. Nabil, Adel M. El-Refaey, R. A. Elsad, M. S. Shams, A. M. Abdelghany, and Y. S. Rammah, "*CeO2 additive to bismo-borate glasses: synthesis, structure, physical characteristics, and radiation protection competence*". *Journal of Materials Science: Materials in Electronics*, Vol. 35:862, pp. (1-14), **2024**.
 27. W.M. Farouk, Ahmed Mohamed, Wagih Marzouk, **Mamdouh I. Elamy**, Faiz Abo ghriba, Ahmed Abu-Oqail, Mohamed Abu-Okail. "*Prediction analysis and an experimental investigation of precision process of CO2-laser micro-turning for Armax 500T accompanied via N2 Gas*", *Optics & Laser Technology*, Vol. 177, 111093, **October 2024**.
 28. **Mamdouh I. Elamy**, Wissam H. Alawee, Ali Basem, Suha A. Mohammed, A.S. Abdullah, Hasan Sh. Majdi, T. E. M. Atteya , Z.M. Omara, M.M. Younes, "*An experimental comparison for thermos-economic performance of five different designs of solar stills*", *Case Studies in Thermal Engineering*, Vol. 59, 104561, **July 2024**.
 29. **Mamdouh I. Elamy**, Fadl A. Essa, Ali Basem, Suha A. Mohammed, Wissam H. Alawee, A.S. Abdullah, Azher M. Abed, Z.M. Omara, W.M. Farouk, "*Novel cylindrical solar still integrated with parabolic solar concentrators, vapor extraction fan, and nano-enhanced phase change material*", *Desalination journal*, Vol. 585, **2024**.
 30. Gharam A. Alharshan, **Mamdouh I. Elamy**, Shimaa Ali Said, A.M.A. Mahmoud, Ragab A. Elsad4, Nasra M. Ebrahim, "*Dielectric and gamma ray shielding properties of lead doped Lithium-zinc-borosilicate*", *Journal of Electronic Materials*, Vol. 53 (9), pp. 5671-5681, **2024**.
 31. Gharam A. Alharshan, **Mamdouh I. Elamy**, Nasra M. Ebrahim, A.M.A. Mahmoud, Y.S. Rammah, R.A. Elsad, M. Hamed Misbah, Shimaa Ali Said, "*Physical, structural, and optical characteristics of the glasses system based on lanthanum-doped phosphate*", *Optical and Quantum Electronics*, Vol. 56 (1179), **2024**.
 32. **Mamdouh I. Elamy**, Suha A. Mohammed, Ali Basemd, Wissam H. Alawee, A.S. Abdullah, A. Aldabesh, Hasan Sh Majdi, Z.M. Omara, Fadl A. Essa, "*Enhancing coiled solar still performance with vertical wick distiller, reflectors, nanomaterial-infused PCM, and condenser integration*", *Case Studies in Thermal Engineering*, Vol. 61, **2024**, 104912.
 33. **Mamdouh I. Elamy**, Suha A. Mohammed, Ali Basem, Wissam H. Alawee, A. Aldabesh, A.S. Abdullah, Hasan Sh Majdi, Z.M. Omara, Fadl A. Essa, "*Augmenting thermal performance in tubular solar stills: A multifaceted strategy with wick cords, integrated baffles, reflectors, and nano-PCM*", *Results in Engineering*, Vol. 23, **2024**, 102771.
 34. **Mamdouh I. Elamy**, Fadl A. Essa, Suha A. Mohammed, Wissam H. Alawee, Ali Basem, A.S. Abdullah, Hasan Sh. Majdi, Hayder A. Dhahad, Z.M. Omara, Y. Gamiel, "*Enhancing spherical solar still thermal performance with built-in baffles, reflectors, and nanoparticle phase change material*", *Solar Energy*, Vol. 284, **2024**, 113060.
 35. Hossein Maleki, Parviz Asadi, Arman Sedghi, Naghdali Choupani, Amirhossein Moghanian, **Mamdouh I Elamy**, "*(Alumina and graphene)/ PLA nanocomposites manufactured by digital light processing 3D printer*", *Journal of Materials Research and Technology*, Vol. 32, pp. 3120-3134, **2024**.

36. Ayman Hoballah, Suha A Mohammed, Ali Basem, AS Abdullah, Wissam H Alawee, Hasan Sh Majdi, ZM Omara, **Mamdouh I Elamy**, Fadl A Essa, "Improving the efficiency and productivity of solar distillation by creative design and heater and baffle integration", *Results in Engineering*, Vol. 24, **2024**, 103210.
37. Gharam A Alharshan, **Mamdouh I Elamy**, Shimaa Ali Said, AMA Mahmoud, RA Elsad, Islam M Nabil, Nasra M Ebrahim, "Effect of lanthanum oxide on the radiation-shielding, dielectric, and physical properties of lithium zinc phosphate glasses", *Radiation Physics and Chemistry*, Vol. 224, **2024**, 112053.
38. **Mamdouh I Elamy**, Suha A Mohammed, Ali Basem, Wissam H Alawee, AS Abdullah, Hasan Sh Majdi, ZM Omara, Fadl A Essa, "Optimizing cord pyramid solar distillers: A comprehensive study on square baffles, reflectors, and phase transition materials", *Case Studies in Thermal Engineering*, Vol. 63, **2024**, 105304.
39. **Mamdouh I Elamy**, Mohamed Abd Elaziz, Mohammed Azmi Al-Betar, A Fathy, M Elmahdy, "Enhanced random vector functional link based on artificial protozoa optimizer to predict wear characteristics of Cu-ZrO₂ nanocomposites", *Results in Engineering*, Vol. 24, **2024**, 103007.
40. Nada Alfryyan, Norah A.M. Alsaif, Z.Y. Khattari, Hanan Al-Ghamdi, R.A. Elsad, M.S. Shams, Adel M. El-Refaey, A.S. Abouhaswa, **Mamdouh I Elamy**, Y.S. Rammah, "PVC reinforced with Pb_{1/2}Ni_{1/2}Fe₂O₄ spinel ferrites nanoparticles: Development of linear/nonlinear optical, dielectric characteristics and γ - rays buildup-factors of for optical and radiation safety applications", *Optical and Quantum Electronics, Optical and Quantum Electronics*, Vol. 57 (1), 1-21, **2025**.
41. Moataz H Ata, GT Abdel-Gaber, Nasser Ahmed, Ahmed Abu-Oqail, **Mamdouh I Elamy**, WM Farouk, Mohamed Abu-Okail, "An Investigation of Microstructural and Tribological Characteristics of an Innovative Hybrid Aa 1050/X Wt.% Ni+ Cu+ Fe Produced by Mechanical Mixing Accompanied by Additive", *Under publication*.