



# 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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## • *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.

### • *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.

### • *Participated conferences*

- 12<sup>th</sup> International Conference on APPLIED MECHANICS & MECHANICAL ENGINEERING, Military Technical College, May 29-31, **2007**.
- 13<sup>th</sup> International Conference on APPLIED MECHANICS & MECHANICAL ENGINEERING, Military Technical College, May 27-29, **2008**.
- The 4<sup>th</sup> International Conference Mechatronic Systems and Materials, MSM 2008, Bialystok, Poland, July, 14-17, 2008.
- 13<sup>th</sup> Conference on Fracture Mechanics - **Opole, POLAND**, 05 – 07 September **2011**.
- 14<sup>th</sup> International Conference on AEROSPACE SCIENCES & AVIATION TECHNOLOGY ASAT 14 – Military Technical College, Cairo, EGYPT, May 24 – 26, 2011.
- 15<sup>th</sup> International Conference on AEROSPACE SCIENCES & AVIATION TECHNOLOGY ASAT 15 – **Military Technical College**, Cairo, EGYPT, May 28 – 30, **2013**.
- 6<sup>th</sup> 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: 20<sup>th</sup> 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", 12<sup>th</sup> 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", 13<sup>th</sup> 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 4<sup>th</sup> 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", 13<sup>th</sup> 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", 14<sup>th</sup> 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", 15<sup>th</sup> 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", 6<sup>th</sup> 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. 31 No. 21 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: 20<sup>th</sup> 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: 20<sup>th</sup> 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 Er<sup>3+</sup> ions on the physico-mechanical, optical, mechanical, and radiation-protective characteristics of B<sub>2</sub>O<sub>3</sub>-CaO-Bi<sub>2</sub>O<sub>3</sub> 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-Li<sub>2</sub>O-B<sub>2</sub>O<sub>3</sub>-As<sub>2</sub>O<sub>3</sub> glasses: Significant role of As<sub>2</sub>O<sub>3</sub>", *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, "*CeO<sub>2</sub> 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 CO<sub>2</sub>-laser micro-turning for Armox 500T accompanied via N<sub>2</sub> 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. 1, 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, **optical and Quantum Electronics, Vol. 56, 2024**.
32. 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, Volume 224, November 2024, 112053**.
33. **Mamdouh I. Elamy**, Suha A. Mohammed, Ali Basem, Wissam H. Alawee, A.S. Abdullahf, 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, 104912, 2024**.
34. 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, 2024**.