

# CURRICULUM VITAE



## **PERSONAL INFORMATION**

Name: Nabil Wanas Abdel Aziz Musa.  
Sex: Male.  
Date of birth: 10 July 1970.  
Nationality: Jordanian.  
Marital Status: married.  
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## **EDUCATIONAL BACKGROUND**

\*Degree Awarded Ph.D., Mechanical Engineering.  
Academic Rank Associate Professor (Feb 26, 2019)  
Specialty: Applied Mechanics.  
Particular Specialty: Building Mechanics.  
Ph.D. dissertation: Critical states of elongated beam and shell Structures under action of moving loads.  
University Name: National Transport University.  
University country: Kyiv-Ukraine.  
Graduation date: 10 May 2007.  
\*Degree Awarded Master Degree., Mechanical Engineering.  
Specialty: Aircraft and Aero Engines Maintenance.  
University Name: The Kyiv International University of Civil Aviation.  
University country: Kyiv-Ukraine.  
Graduation date: June 1995.

## **Duties and responsibilities**

- Teach academic courses in Applied Mechanics according to quality standards.
- Supervise graduation projects, research, and postgraduate theses (Master's and Ph.D.).
- Provide academic guidance and assist students in academic and professional planning.
- Conduct and publish scientific research in the field of Applied Mechanics.
- Provide scientific consulting and participate in relevant conferences and seminars.
- Engage in community service through workshops, seminars, and preparing studies related to community issues.
- Contribute to the development of academic policies; implement academic, and research quality assurance standards.

## **Experiences**

- Oct. 2024 due date, Associate Professor, Head of Department of Mechanical Engineering, and renewable energy at Philadelphia University, Jordan.
- Feb.2019 due date, Associate Professor in the Mechanical Engineering department at Philadelphia University, Jordan.
- Oct.2011- Mar.2019 Assistant Prof. in the Mechanical Engineering department at Philadelphia University, Jordan.
- 29 Mar. 2009 -16 Sep.2010 Assistant Prof. in Mechanical Department at King Khalid University, Abha, Saudi Arabia.
- 01 Feb. - 01 June 2008, Assistant Prof. at Wadi Elseer Engineering College –UN, Jordan.
- Sep. 2003 – Feb. 2007, Lecturer at Mechanical Engineering Department – National Transport University.

## **Subjects Taught**

- Mechanical Engineering Design.
- Theory of Machines.
- Mechanics of Materials (Strength of Materials)
- Engineering Mechanics – Statics
- Engineering Mechanics – Dynamics
- Fluid Mechanics.
- Engineering Instrumentation and Measurements
- Engineering Analysis (1, 2) – Differential Equations
- Finite Element Method
- Applied Engineering Mathematics.

## **Community service activities**

- Advisory Committee for Equivalency of Certificates – Jordanian Engineers Association, Jan 2018 due Dec 2022
- Professional Practice Committee - Jordanian Engineers Association, Jan 2023 due date.
- Member of the jury for graduation projects in mechanical engineering, Jordanian Engineers Association, years 2019 and 2020.
- Arbitration of scientific research in mechanical engineering – Jordan Journal of Mechanical and Industrial Engineering.

## **PUBLICATIONS**

- Musa Nabil. Propagation of harmonic waves in an elastic based Beam. Bulletin of National Transport University, 2004, No. 9, pp 417-420.
- Gulyaev V.I. M. Nabil, Resonant Interaction of a Beam and an elastic foundation during the motion of a periodic System of concentrated Loads. ISSN 1063-7095, Russian Original Vol.40No. 5 May 2005. Page 560.
- Gulyaev V.I., Nabil Musa. Resonance interaction of beam and Elastic foundation at the movement of periodic system of concentrated loads. – J. Appl. Mech., 2005, No.5, pp116-123.
- Gajdachuk V.V., Nabil Musa. Dynamics of cylindrical shell Under the action of moving inner stepwise pressure field. – Strength of materials and theory of constructions, 2005, No. 74, pp 104-114.
- Musa Nabil. Critical state of a cylindrical shell under the action of a moving load. - Proc. Of the 62 scientific conferences of the teaching staff. Kyiv; NTU, 2006, P. 261.
- Musa Nabil. Critical States of a cylindrical shell under the action of moving exponentially decaying loads. - Bulletin of National Transport University, 2006, No. 11, 180-183.
- Gulyaev V.I, Lugovoy P.Z, Zaets' Yu. O, Nabil M. Evolution of the fronts of quasi-compressional and quasi-shear discontinuous waves in inhomogeneous transversely isotropic elastic media. International Applied Mechanics Journal, Vol. 47, No. 1, June 2011 (Russian Original Vol. 47, No. 1, January 2011)
- Nabil W. Musa, V. I. Gulyayev, G. M. Ivanchenko, Yu. A. Zaets, Hasan Al-Dabbas. Transformation of seismic discontinuous waves by hyperboloid interfaces in anisotropic elastic media. International Journal of Scientific & Engineering Research, Volume 5, Issue 12, December 2014.
- Nabil W. Musa, V.I. Gulyayev, L.V. Shevchuk, Hasan Al-Dabbas. Whirl interaction of a drill bit with the borehole bottom. Modern mechanical engineering, Vol. 5, August 2015.

- Hasan Al-Dabbas, Nabil. W. Musa, Mohammad Gogazeh. Mechanical Characteristics of Concentric and Eccentric Drilling Cutting Tool. International Journal of Applied Engineering Research, Volume 10, Number 15 (2015) pp 36099-36105.
- Mohammad Gogazeh, Hasan Al-Dabbas, Monzer.M. Krishan, Nabil Musa. Characteristics and analysis for mechanical instrumentation used to measure fluid viscosity. International Journal of Innovative Science and Modern Engineering (IJISME), Volume-4 Issue-3, March 2016.
- Nabil Musa, Valery Gulyayev, Nataliya Shlyun and Hasan Al-Dabbas. Critical Buckling of Drill Strings in Cylindrical Cavities of Inclined Boreholes. Journal of Mechanics Engineering and Automation. Vol:6, Issue,1 (2016) pp 25-38.
- Nabil Musa, The use of genetic approach to the kinematics of cutting, World Journal of Mechanics, 2016, 6, 396-405.
- Nabil Wanas Musa, Elastic bending deformation of the drill strings in channels of curve wells. Modern Mechanical Engineering, 2017,7,7 (1-7).
- Sayel M. Fayyad, Nabil Musa, Hassan Dabbas, and Muhammad Gogazeh, Static and Dynamic Analysis of Bevel Gear Set. Vol. 14, Issue, 5, Oct. 2017.
- Transformation of discontinues wave front in elastic layered media with variable density. (IJMET), Vol. 9, Issue 7, July – 2018.
- Nabil Wanas Musa, Investigation on torsional vibration of drill string in cylindrical cavities of vertical borehole with liquid medium. Vol. 8, Issue 3, June - 2018.
- Mohammad Gogazeh, Hasan Al-Dabbas, Nabil Musa, Mathematical Model and Theoretical Investigation of the Performance of Journal Bearing using a Discretized Reynolds Lubrication Equation with Finite Width. WSEAS Transactions on APPLIED and Theoretical Mechanics, DOI: 10.37394/232011, 31/ 12 / 2023
- Finite Element Analysis of Thermal Loads of Mechanical Structures. Journal of Harbin Engineering University (JHEU), May 2025, vol:46, No:5.
- Comparing Strength of natural of natural fibers. International conference on technical application of artificial intelligence (ICTAAI-2025), Amman – Jordan –10 July – 2025. Nabil Musa , Hassan Al-Dabbas' Mohammad Gogazeh and Sayel M. Fayyad

## **Training Courses**

- Blackboard academic suite – learning system, King Khaled University, Abha – KSA, May 2009.
- Skills for preparing, evaluating, and developing achievement exams, King Khaled University, Abha – KSA, May 2009.
- Moodle academic suite – learning system, Philadelphia University Jordan, many training courses from 2020 to 2025.
- 2D AutoCAD (R2008), Jordanian Engineers Association, 2008.
- Structural Design, Jordanian Engineers Association, 2011.