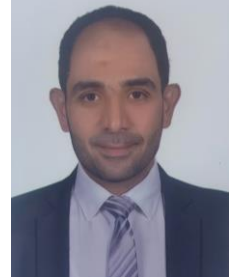


Mechanical Engineer

Ahmed Abdelsalam Taha

14 Medhat Seif Elyazel Kalefa (Bobastear)
Street, Portsaid Street, Alexandria, Egypt.

ahmedabdel salam@aast.edu Home: + 203-5436215 Cell: +2 01001831051



EDUCATION

- **PhD of Mechanical Engineering Department**
Alexandria University Faculty of Engineering: Excellent (2017)
Thesis: *Modeling and Simulation of a Conventional Quarter Car Suspension System*
- **Master of Mechanical Engineering Department**
Arab Academy for Science and Technology and Maritime Transport (2010)
Accumulative Grade: Excellent (3.71/4.0)
Thesis: *Modeling and Simulation of a Conventional Hydraulic Power steering System*
- **Bachelor of Mechanical Engineering** (*Mechatronics & Power department*)
Arab Academy for Science and Technology and Maritime Transport (May 2004).
Graduation Project: *The use of Simulation techniques to reduce the vibration levels in power steering gear system*
Project Grade: Excellent
Accumulative Grade: Excellent with Honor (3.61/4.0) (The Second)

SCIENTIFIC CONTESTS

- Ministry of Communications and Information Technology Institute (ITI) Cairo 2006**
An internship for nine months to learn the principles of mechatronics projects using many programs and facilities
Accomplishment
- Design methodology of mechatronics projects
 - Learn the design principles and Implementation of (cad / cam) programs

SCOPE OF WORK

Associate Professor, Arab Academy for Science and Technology (AAST) Egypt
Aboker, Alexanderia, Egypt

TRAINING & EXPERIENCE

- **Professor, (AAST) University, 2026- full time**
Mechanics of material, Material Science, Engineering drawing, AUTO CAD 2D-3D, Computer Aided Design (CAD) Matlab, Machine Design (1), Machine Design (2), Machine Design, Engineering drawing, Mechanical engineering drawing, Mechanical vibration, Automotive Technology, Maintenance Planning, Advanced Dynamics, Advanced Automotive Technology

- **Associate Professor**, (AASU) University, 2022- full time
Mechanics of material, Material Science, Engineering drawing, AUTO CAD 2D-3D, Computer Aided Design (CAD) Matlab, Machine Design (1), Machine Design (2), Machine Design, Engineering drawing, Mechanical engineering drawing, Mechanical vibration, Automotive Technology, Maintenance Planning, Advanced Dynamics, Advanced Automotive Technology
- **Lecturer**, (AASU) University, 2017- full time
Mechanics of material, Material Science, Engineering drawing, AUTO CAD 2D-3D, Computer Aided Design (CAD) Matlab, Machine Design (1), Machine Design (2), Machine Design, Mechanical vibration, Automotive Technology, Maintenance Planning, Advanced Dynamics, Advanced Automotive Technology
- **Assistant Lecturer**, (AASU) University, 2012- full time
Mechanics of material, Material Science, Thermodynamic, Heat transfer, Engineering drawing, AUTO CAD 2D-3D, Computer Aided Design (CAD), Matlab, IT-Computer, Machine Design (1), Machine Design (2)
- **Assistant Lecturer**, (CMRDI) institute, 2007-2011 full time
AUTO CAD 2D-3D, mold design, PLC (Programmable logic controller)
- **Training on**, Industrial Electronics, Devices and Equipment on the (TCC) Germany Center on Cairo.
- **Maintenance of Petroleum Tanks and Pipe Line**, Gained Through Training in "ALEXANDRIA PETROLEUM MAINTENANCE CO." (PETROMAINT)
- **Maintenance of Diesel Engine and the Transmutation of the Trucks**, Gained Through Training in "BEHARA SHARING CO."
- **Experience on the Refrigerating System**, Training in Fargalah Company and similar Companies for food processing.
- **Experience on Vehicle and Truck**, Specially on (Diesel Fuel injection system), Part time work, Private work

INTERNATIONAL TRAINING

- **International Training**, Program on Enhancing Competitiveness Through CAD/CAM Application, Malaysia, CIRIM, August 12-25, 2007
- **International Training**, on 3D printer (Invision_si2), France, July 10-17, 2007
- **International Training**, on 3D printer (CLS), England, Loughborough university, March 12-23, 2012
- **International Training**, on CNC, Germany, University of applied science (Karlsruhe), August 20-24, 2018
- **International Training**, Side visit for industrial about energy management, Lisbon, Instituto Superior Técnico, February 12-15, 2019
- **International Training**, on Renewable Energy, Sweden, University of KTH VETENSKAP OCH KONST, March 8-13, 2020

INTERNATIONAL CONFERENCE

- **International Technology & Quality Conference**, Malaysia, (SIRIM) August 25-27, 2007
- **Advanced Tools and Techniques for Plastic Design and Production Workshop**, Egypt, (CMRDI), April 7-10, 2008
- **Optimization Using of CAM Software and CNC Machine Tools for Accurate and Rapid Manufacturing of Molds and Dies**, Egypt, (CMRDI), 20 March – 1 April 2009
- **International Conference Computer Theory & Applications**, (AAST), Egypt, 23-25 October, 2010
- **IEEE 2nd Maghreb International Conference on Sciences and Techniques of Automatic Control and Computer Engineering**, (MI-STA) Sabratha, Libya 23-25 May, 2022

RESEARCH AND PUBLICATIONS

- Ahmed Saber, A.M. Amer, A. Abd_Elsalam, A.I. Shehata and H.A. El-Gamal "**Design and optimization of a bio-inspired crash box based on seashell structure for enhanced crashworthiness**" Paper accepted in (Results in Engineering) Volume 32, Issue 1, June 2026, <https://doi.org/10.1016/j.rineng.2026.111724>
- Ahmed Abofarag, Ahmed Abdelsalam Taha, Ali I. Shehata, Nour A. Moharram and Mohamed A. Alnakeeb "**Synergistic thermal-hydraulic enhancement in a double-pipe heat exchanger via inner tube rotation and inclined annular inlet flow**" Paper accepted in (Scientific African) Volume 32, Issue 1, May 2026, <https://doi.org/10.1016/j.sciaf.2026.e03386>
- Ahmed Saber, A.M. Amer, A. Abd_Elsalam, A.I. Shehata and H.A. El-Gamal "**Additively manufactured bio-inspired energy absorbers based on avian bone structure for enhanced crashworthiness**" Paper accepted in (Results in Engineering) Volume 29, Issue 1, Feb 2026, <https://doi.org/10.1016/j.rineng.2026.109757>
- Monaem Elmnifi, Duyun Tatyana Aleksandrovna, Ali F. Ali Fadiel, Ali I. Shehata, Nour A. Moharram and Ahmed Abdelsalam Taha "**Unlocking hybrid solar efficiency: Experimental integration of aluminum foam fins and nanofluids in PVT collectors**" Paper accepted in (Results in Engineering) Volume 29, Issue 1, Dec 2025, <https://doi.org/10.1016/j.rineng.2025.108751>
- Ahmed Saber, A. M. Amer, A. I. Shehata, H. A. El-Gamal and A. Abd_Elsalam "**Crashworthiness of Additively Manufactured Crash Boxes: A Comparative Analysis of Fused Deposition Modeling (FDM) Materials and Structural Configurations**" Paper accepted in (Applied Mechanics) Volume 6, Issue 3, July 2025, <https://doi.org/10.3390/applmech6030052>

- Ahmed Saber, A. M. Amer, A. I. Shehata, H. A. El-Gamal and A. Abd_Elsalam "**Recent Developments in Additively Manufactured Crash Boxes: Geometric Design Innovations, Material Behavior, and Manufacturing Techniques**" Paper accepted in (Applied Sciences) Volume 15, Issue 3, June 2025, <https://doi.org/10.3390/app15137080>
- Mostafa Aboelsaoud, Ahmed Abdelsalam Taha, Mohamed Abo Elazm, Hassan Anwar Elgamal "**A Dynamic Hydroplaning Study: A Fluid-Structure Interaction Model for Road Vehicle Tire Analysis**" Paper accepted in (SAE International Journal of Passenger Vehicle Systems) Volume 18, Issue 3, June 2025, doi:10.4271/15-18-03-0015
- Mohamed E.A.Taha, Ali I. Shehata, Ahmed A. Taha and Mohamed M. Khairat Dawood "**IMPROVING THE EFFICIENCY OF CONCENTRIC HEAT EXCHANGER USING NANO PARTICLES IN THE FLUID AND TRANSITIONING**" Paper accepted in (The International Maritime and Logistics Conference "Marlog 13"), to be held in AAST, Alexandria, Egypt during March 3 – 5 , 2024.
- Nader Nasr, Ahmed Abdelsalam, Amman Ali, Nour Marey "**Experimental and Theoretical Investigation for Shaft Journal Bearing Lubrication Performance**" Paper accepted in (Port Said Engineering Research Journal) Volume 28, Issue 1, March 2024, doi:10.21608/PSERJ.2023.242585.1269
- E. Saber, A. Abd_Elsalam, "**A Theoretical Model for Investigating the Thermo-Mechanical Performance of Functionally Graded Rotating Discs With Varying Grading Index Values**" Paper accepted in (Forces in Mechanics) Volume 8, Issue 1, 6 June 2022, <https://doi.org/10.1016/j.finmec.2022.100103>
- Mostafa Aboelsaoud, Ahmed A Taha, Mohamed Abo Elazm, Hassan Elgamal, "**Comparative analysis of Hydroplaning in Electric and ICE Vehicles**" Paper accepted in (IEEE 2nd Maghreb International Conference on Sciences and Techniques of Automatic Control and Computer Engineering MI-STA) to be held in Sabratha, Libya during May 23-25, 2022.
- Mostafa Aboelsaoud, Ahmed Abdelsalam Taha, Mohamed Yasser Mabrouk, Mohamed Aboelazm, and Hassan Elgamal, "**Parameters Optimization of a Double Gyroscope Concept for a Two-Wheel Vehicle**" Paper accepted in (SAE International Journal of Passenger Vehicle Systems) Volume 15, Issue 2, 20 April 2022, <https://doi.org/10.4271/15-15-02-0009>
- Mohamed M. Khairat Dawood, Abubakr Helmy Omar, Ali Ismail Shehata, Ahmed Samir Shehata, Ahmed Abd-Elsalam Taha, Mohamed Nabil El-Shaib, Madeha Kamel Mohamed, "**3E enhancement of freshwater productivity of solar still with heater,vibration, and cover cooling**" Paper accepted in (Environmental Science and Pollution Research), <https://doi.org/10.1007/s11356-022-20340-9> , 14 April 2022
- Mohamed M. Khairat Dawood, Ali I. Shehata, Abd elnaby Kabeel, Aly M. Elharidi, Ahmed Abdelsalam Taha, Seif Bayoumi, Abdalla M. Abdalla, "**Increasing the freshwater productivity of a solar still loaded with CuO nanofluids using vibration motion and cover cooling techniques**" Paper accepted in (International Journal of Energy Research) DOI: 10.1002/er.6440, 26 December 2020
- Ali I. Shehata, A.E. Kabeel, Mohamed M. Khairat Dawood, Ali M. Elharidi, Ahmed A. Taha, Khaled Ramzy, Ahmed Mehanna, "**Enhancement of the productivity for single solar still with ultrasonic humidifier combined with evacuated solar collector: An experimental study**" Paper accepted in (Energy Conversion and Management) Volume 208, 15 March 2020, Article 112592

- Ahmed A. Taha, Mahmoud H. Salem, Xianghong Ma, "**Optimization of a Non-Linear Suspension Quarter Car Using Genetic Algorithm**" Paper accepted in (International Journal of Current Advanced Research (Ijcar)) Volume 5, Issue 9, Sep-Oct 2019, Pages 67-82.
- Ahmed A. Taha, M.A. Gohary, H.A. El-Gamal "**Modal analysis on tire with respect to different parameters**" Paper accepted in (Alexandria Engineering Journal 'science Direct') Volume 56, Issue 4, December 2017, pages 345-357.
- Ahmed A. Taha, M.A. Gohary, H.A. El-Gamal "**Simulation of Nonlinear Quarter Car Suspension System with and without Tire Damping**" Paper accepted in (International Journal of Science and Research IJSR), Volume 5 Issue 10, October 2016.
- Khalid M. Saqr, Ali I. Shehata, Ahmed A. Taha, Mohamed M. Abo ElAzm "**CFD modelling of entropy generation in turbulent pipe flow: Effects of temperature difference and swirl intensity**" Paper accepted in (Applied Thermal Engineering journal) Volume 100, 5 May 2016, Pages 999–1006.
- Ahmed A. Taha, Hassan A. EL-Gamal and El-Sayed Saber "**Modeling and Simulation of a Conventional Hydraulic Power Steering System**" Paper accepted in (International Conference Computer Theory & Applications) 23-25 October, 2010 Alexandria, Egypt.
- Ahmed A. Taha, "**Modeling and Simulation of Conventional Hydraulic Power Steering System**" MSc. Thesis, Arab Academy of Science and Technology and Marine Transportation (2009)
- Ahmed A. Taha, Mahmoud Elgamal, Karem Mahmoud and Rofaida Harb "**Automatic Diesel Pump Test Machine**" Diploma Project, information technology institute (2006)
- Ahmed A. Taha, Fahd Hadad and Amro Nayfa "**Measuring the performance of real power steering system**" B.S. Thesis, Arab Academy of Science and Technology and Marine Transportation (2004)

COMPUTER SKILLS

- **SOFTWARE:** AutoCAD, Inventor 11, Matlab Programming, Solid Edge, ICATS MODENT, MS Office 2007, Fluent Software (core), Primavera P3 (core), Solid Works (core)
- **Computer Languages:** C++ Programming (core), C Programming (core), Java Programming (core), assembly programming (core)
- **Operating Systems:** MS Windows 10, Red Hat Linux Operating System (core)

LANGUAGES

- **Arabic:** Mother Tongue
- **English:** very good
- **Dutch:** Fair level (3)

MEMBERSHIPS

- Student membership of The Society of Automotive Engineers (SAE International)

REFERENCES

Prof. Dr. EL-Sayed Saber, Professor of Simulation and Mechanics of Vibration, (AAST) Aboker, Alexandria, Egypt +20101610623

Dr. Amro Aly, Professor of Thermodynamics and Heat Transfer, (AAST) Aboker, Alexandria, Egypt +20127434326

Dr. Ahmed El-safty, Professor of Air Conditioning, (AAST) Aboker, Alexandria, Egypt +20106009749

PERSONAL DATA

- **Date of birth:** 20 / 5 / 1982
- **Nationality:** Egyptian
- **Military Service:** Exempted permanently (sole son)
- **Hobbies:** Reading, Tennis and Swimming