

PROFESSIONAL SUMMARY

Mechanical engineer, researcher, and academic leader with 25+ years spanning university teaching, engineering deanship, defense R&D, automotive NVH, and advanced manufacturing. 60+ peer-reviewed publications, \$1M+ in competitive research funding, and a proven record of building engineering programs, laboratories, and ABET-accredited curricula from the ground up.

CORE EXPERTISE

Vibration Analysis & Control · Structural & Fatigue Analysis (FEA/ANSYS) · Control Systems (PID, LQG, Optimal) · MEMS · NDT/NDE · Data Acquisition & Instrumentation · ABET Accreditation Leadership | Software: MATLAB, Simulink, ANSYS, SolidWorks, LabVIEW, dSPACE

EDUCATION

- Ph.D., Mechanical Engineering — University of Dayton
- M.Sc., Mechanical Engineering — University of Dayton,
- B.Sc., Mechanical Engineering — Al-Mustansiriyah University

KEY EXPERIENCE

Visiting Assistant Professor, Mechanical Engineering | *University of St. Thomas, Houston, TX* — Aug 2026–Present

- Teach undergraduate ME courses across CAD, machine design, dynamics, and controls; support department ABET (EAC) accreditation and site-visit preparation.

Founder & CEO | *Sinares LLC, Dayton, OH* — Jan 2025–Present

- Founded a multidisciplinary engineering firm spanning additive manufacturing, sensor fabrication, UAV design, and automation consulting.

Engineering Project Manager (R&D) | *Air Force Research Laboratory (AFRL) / Chenega Corp.* — May 2024–Jan 2025

- Led a team of seven engineers across 35+ projects (\$20K–\$1M) in structural, vibration, and facilities engineering for AFRL at Wright-Patterson AFB.

Associate Professor & Dean of Engineering | *American University of Iraq-Sulaimani (AUIS)* — Aug 2019–May 2024

- Led the engineering college (400+ students, faculty, staff); built five laboratories from scratch and launched two new ABET-aligned engineering majors.

Associate Professor, Mechanical Engineering | *Khalifa University, Abu Dhabi, UAE* — Jan 2014–Aug 2019

- Generated ~1,000,000 AED in research funding from Siemens, ADWEA, and Emirates Foundation; published 15+ peer-reviewed papers on MEMS and pipeline monitoring.

Associate Professor, Mechanical Engineering | *American University of Sharjah (AUS)* — Aug 2007–Jan 2014

- Designed and built the UAE's first autonomous UAV (national media coverage); filed a patent for a Near-Field Microwave vibration transducer.

Assistant Professor, Mechanical Engineering | *King Fahd University of Petroleum & Minerals (KFUPM)* — Aug 2000–Aug 2005

- Achieved a 9.0/10 average student evaluation across all courses; conducted R&D in rotor dynamics, NVH, and active vibration control.

R&D Engineer, NVH | *International (Navistar) Truck & Engine Corporation* — Jun 1999–Aug 2000

- Initiated and managed a \$1M anechoic chamber project from concept through commissioning at Navistar's Chicago facility.

SELECTED PUBLICATIONS

60+ total peer-reviewed publications (32 journal articles, 24+ conference proceedings); full list available upon request.

- El-Sinawi, A.H. & Hamdan, M.N. (2003). Optimal vibration estimation of a non-linear flexible beam. *Journal of Sound and Vibration*, 259(4), 857–872.
- El-Sinawi, A.H. et al. (2015). Feedback control of membrane displacement in RF-MEMS switches. *Sensors and Actuators A: Physical*, 221, 123–130.
- El-Sinawi, A. et al. (2019). ANOVA-Based Pipeline Scale Formation Detection Using Vibration Estimates. *Measurement*, 141, 302–312.
- El-Sinawi, A.H. et al. (2013). Optimal Control of Magnetorheological Fluid Dampers for Seismic Isolation. *Mathematical Problems in Engineering*.

RESEARCH FUNDING

- Total competitive funding generated: over \$1,000,000 USD equivalent (Siemens, ADWEA, Emirates Foundation, KFUPM, AUS).