

DR. ENG. SAEED ASIRI

ASSOCIATE PROFESSOR OF PRODUCTION ENGINEERING

PROFESSIONAL PROFILE

Dr. Saeed Asiri is an associate professor in production and mechanical engineering with more than 27 years of expertise in teaching engineering sciences and management skills. He is one of the outstanding professors who have earned US Patents, KACST patents and innovation prizes. Expertise in offering educational aid and training to students of all levels, as well as exceptional engineering knowledge and the capacity to help students comprehend various aspects of the profession. extensive knowledge of mechanical engineering, materials science, and engineering design; skilled at working with students to foster and increase grasp of complex engineering ideas and concepts. Aim to continually create a challenging and exciting learning environment in which students may become life-long scholars and learners. Dr. Asiri has been awarded patents on his inventions from US Patents entitled: Smart Boat for Swimming Pool Maintenance and Water Safety and from KACST titled: Differential Agitator and a patent. He currently teaches vibrations and control courses in addition to project management professional, PMP course for undergraduate and graduate students. Dr. Asiri's research activities are on the vibration control of mechanical systems. He and his advisor, Prof. A. Baz, have innovated a new class of support struts called periodic struts as an isolator of mechanical vibrations. He presented the innovative use of unique characteristics of periodic struts in many critical applications where the control of the wave propagation and the force transmission both in the spectral and spatial domains is essential to stopping/confining the propagation of undesirable disturbances. In addition, he published lately many papers on vibration analysis of advanced materials and Functionally Graded Materials using FEM in addition to using smart solutions to solve innovatively the current environmental issues. Moreover, Dr. Asiri is a certified project manager PMP® from the project management institute in the USA and a professional trainer in strategic management, strategic planning, strategic thinking, innovative thinking, project management professional, lean 6 Sigma, theory of inventive problem solving (TRIZ), and human resource management.

EDUCATION

- Bachelor's Degree in Production and Mechanical System Design King Abdulaziz University **1988 - 1994**
- Demonstrator in Production and Mechanical System Design King Abdulaziz University **1995 - 1997**
- Master in Vibration Control - Mechanical Engineering University of Maryland at College Park, USA **1997 - 2002**
- Ph.D. in Active Vibration Control - Mechanical Engineering University of Maryland at College Park, USA **2002 - 2004**

STRENGTHS & CAPABILITIES

- Extensive experience in strategic planning, implementation, and evaluation of educational and training programs.
- Mastering educational assessment and evaluation strategies, establishing curricula, and developing programs.
- Abundant leadership experience and professional practice in managing complex collaborative activities. Active participation in program and student evaluation methods, program review and accreditation
- Professionalism in a diverse work and learning environment with creative enhancement.
- Provide skillful counseling, problem solving and conflict resolution strategies to ensure smooth and agile work.
- Proficiency in strong written and verbal communication skills for documentation and communication.
- Superior organizational and interpersonal capabilities, as well as the ability to prioritize and multitask.
- Strategic management of tasks and scheduling of activities with high quality in implementation and high accuracy in delivery.



CONTACT

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SKILLS

- Creative thinking Strategies
- Student Centered Learning
- Strategic Leadership
- Lean 6 Sigma Approach
- Project Management Professional
- Instructional Best Practices
- Resourceful Academic Advisor
- Academic Administration
- Curriculum Development
- Integrated Smart Solution
- Inventive Problem Solving
- Active Teaching Strategies
- Equitable Teaching Practices
- Technological Integrations
- Administrative Oversight
- Mentoring & Coaching
- Research & Analysis

CERTIFICATIONS

- PMI Certified Project Manager Professional, PMP-PMI
- Certified Inventor from US Patents and KACST
- Certified Professional Trainer from TVTC
- Certified Trainer from the National Center for Teaching Thinking, USA
- Certified TRIZ Trainer from ICG in Netherlands and France

PATENTS

Patents granted by the US and KACST for the development of innovative devices.

- Dr. Asiri has been awarded a KACST patent on invention of a new device known as **the Differential Agitator**, which provides a novel means of agitating fluids.
- US Patents granted him patents for a savvy device called **Smart Boat** for Swimming Pool Maintenance and Water Safety.

AWARDS

- **A Patent Award** from the President of King Abdulaziz University, Prof. Osama Al-Tayeb, for obtaining a patent from King Abdulaziz City for Science and Technology.
- **Honoring** from His Excellency the Minister of Commerce Dr. Majid Al-Qasabi, the Governor of the Saudi Standards and Metrology Organization and the Chairman of the National Committee for the Saudi Building Code Dr. Saad Al-Qasabi, certificates of appreciation in appreciation of his outstanding contributions to the National Committee for the Saudi Building Code.
- Received a **Medal of Appreciation** from the Ministry of Education in the Sultanate of Oman for his great contributions to the development and delivery of training programs on strategic planning and strategic management.
- **Honoring** from the President of King Abdulaziz University, Abdul Rahman Al-Youbi, for his outstanding contribution to patents for the year 2020 at the Inventors Awards Ceremony 2020
- **A Shield of Appreciation** from the Minister of Commerce for the effective contribution to the development of the Saudi Building Code.
- **An appreciation Award** from the Saudi Cultural Attaché in the United States of America for excellence in early graduation during the doctoral program, as well as from the Embassy of the Kingdom of Saudi Arabia in Washington for achieving a full average (4 out of 4) in the master's and doctoral stages.
- Prince Bandar bin Sultan Academic **Award** for obtaining master's and doctoral degrees with distinction from the University of Maryland in America, which is one of the best American universities.
- **An honorary Shield** from the Technical College in Makkah Al-Mukarramah for his great contribution to the development and delivery of training programs on creative thinking and strategic planning.
- **The Appreciative Medal** from the Commander of Abu Dhabi Police for his outstanding contribution to the training program for the strategic management of Abu Dhabi Police.
- **A shield of Appreciation** from Al Baha University for his great contribution to the development of a training program on creativity and innovation.
- **Appreciation Shield** from the Commander of the Command and Staff College for his outstanding contribution to the strategic planning training program.
- **An Appreciation Award** from Prince Faisal bin Bandar for getting first place in the Secondary School in the Southern Region.
- **Certificates of Academic Excellence** from the Department of Education in the Asir region as a result of high academic performance and obtaining the first rank at the level of the Asir region.
- **A shield of Appreciation** from the Arab Training Club ATC for the main contributions in a series of training courses
- **Award** for the best website for the training course by the University Education Development Center at King Abdulaziz University in the competition for the best website for the training course.
- **A memorial Plaque Award** from the Ministry of Education for the development of the strategic planning program for the Qurayyat Governorate.
- **A Shield of Appreciation** from the Teaching and Learning Development Center at King Abdulaziz University for his contributions to the development of the center.
- **Certificate of Appreciation** from Prince Khaled Al-Faisal Center, Ministry of Islamic Affairs, and Minister of Education, Girls' Education Department in Makkah.
- **A Shield of Appreciation** from the Ministry of Education in the Sultanate of Oman for providing a series of training courses in strategic management and education development.
- **Certificate of Accreditation**, strategic partnership, copyright and translation from ICG in the Netherlands and France by Dr. Valery Suchkoff. Valeri Souchkov.
- **Appreciation Award** from Sultan Qaboos University for the best scientific research for the research paper entitled: "A tunable mechanical filter for the propagation of longitudinal vibration waves."
- **Accreditation Certificate and Honor Medal** from the Director of the National Center for Teaching Thinking in the United States of America, Professor Robert Swartz

PROFESSIONAL CONTRIBUTIONS

- Helped students to develop and demonstrate broad, integrative and specialized knowledge, essential habits of mind, communicative fluency and effective problem-solving skills.
- Updated curricula and lesson plans for primary instructors, researching developments in relevant fields and updating materials to reflect most recent data and statistics.
- Built and used diverse techniques to assist students with grasp materials and understanding concepts.
- Contribute to teaching and learning in the Mechanical Engineering discipline, modelling teamwork and flexibility to ensure the pedagogical and commercial success of the Faculty and University
- Lead the development and clarification of academic standards and quality for the subject area
- Contribute to curriculum, resource, program and subject design, development, management and review as required to ensure that learning and teaching reflects best practice and a command of the field
- Develop a comprehensive teaching portfolio, and contributing to the continuous development and improvement of learning and teaching across the university
- Participate in scholarly activities that influence and enhance learning and teaching in the University
- Prepare high quality subject delivery and learning support materials using web-based platforms, electronic library information systems and other teaching and learning systems developed for use in the University
- Selected and developed instructional material and planned instruction to enhance student learning.
- Used variety of learning modalities and support materials to facilitate learning process and accentuate presentations.
- Helped students to develop and demonstrate broad, integrative and specialized knowledge, essential habits of mind, communicative fluency and effective problem-solving skills.
- Managed interpersonal conflict situations requiring tact, diplomacy and discretion, supporting culture of diversity, equity and inclusion with students, employees, alumni and other stakeholders.
- Kept abreast of advances in pedagogy and work to continuously improve teaching methods and introduce new approaches to instruction.
- Identified research opportunities for students, assisting with gathering data and drawing conclusions for projects.
- Coordinate, facilitate, and/or conduct specified development activities.
- Evaluate effectiveness of training and development programs and utilize relevant evaluation data to revise or recommend changes in instructional objectives and methods.
- Provide day-to-day guidance and leadership to faculty and training professionals.
- Coordinate workflow and administrative activities necessary to deliver and document unit programs and activities.
- Provide input and assist in the planning, assessment, and implementation of institute's goals and objectives.
- Taught courses in the discipline area of mechanical engineering.
- Developed and designed curriculum plans to foster student learning, stimulate class discussions, and ensured student engagement.
- Provided tutoring and academic counseling to students, maintained classes related records, and assessed student coursework.
- Collaborates and supported colleagues regarding research interests and co-curricular activities.

ADDITIONAL EXPERIENCE

- **Consultant** - The Expertise House Skills Center 2017 – Now
- **Member** - The National Committee of the Saudi Building Code 2018 – Now
- **Member** -The Engineering and Industrial Sciences Working Group Committee at King Abdul-Aziz City for Science and Technology in Riyadh 2013 – 2018
- **Chairman** -The Information Technology Committee, Department of Mechanical Engineering, King Abdul-Aziz University 2004 – 2014
- **Deputy Director** - The Center of Teaching and Learning Development at King Abdul-Aziz University 2007 – 2009
- **Director** – The Diplomas Unit at the Deanship of Community Service and Continuing Education at King Abdul-Aziz University 2006 – 2007
- **Director** – The IT Unit at the Deanship of Community Service and Continuing Education at King Abdul-Aziz University 2005 – 2006

SOME OF TRAINING COURSES (Click the title for more details)

[STRATEGIC MANAGEMENT](#)

[PROJECT MANAGEMENT PROFESSIONAL](#)

[STRATEGIC PLANNING](#)

[THINKING BASED LEARNING](#)

[TRAINING OF THE TRAINERS, TOT](#)

[THEORY OF INVENTIVE PROBLEM SOLVING, TRIZ](#)

[OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION \(OSHA\)](#)

[OPERATIONAL PLANNING](#)

[MANAGEMENT SKILLS](#)

JOURNAL AND CONFERENCE ARTICLES

- **S. Asiri**, A. Baz and D. Pines, "Periodic Struts for Gearbox Support System," INTER-NOISE 2002, Dearborn, Michigan, USA, 19-21, (2002).
- **S. Asiri**, A. Baz and D. Pines, "Active Periodic Struts for Gearbox Support System", Smart Structures Conference, San Diego, USA, March 14-18, (2004).
- **S. Asiri**, A. Baz and D. Pines, "Active Periodic Struts for Gearbox Support System", Proceedings of SPIE, V5386, 347-358, July (2004).
- Aljawi, M. Abd-Rabou, and **S. Asiri**, "Finite Element and Experimental analysis of square tubes under Dynamic Axial Crushing", European Congress on Computational Methods in Applied Sciences and Engineering ECCOMAS 2004, Jyväskylä, Finlandm. 24-28, (2004).
- **S. Asiri**, "Vibration Isolation of Automotive Vehicle Engine Using Periodic Mounting Systems," SPIE 2005, San Diego, California, USA, March 4-9, (2005).
- **S. Asiri**, A. Baz and D. Pines, "Periodic Struts for Gearbox Support System", Journal of Vibration and Control, V11(6), 709-721, (2005).
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- **S. Asiri**, A. Aljawi, "Periodic Mounts to Isolate Vibrations of Automotive Vehicle Engine", *Smart Structures and Materials, JKAU, Engineering Sciences*, 17, No. 1, (2006).
- **S. Asiri**, "Course website as an example of the potential positive impact of new technologies on the high education system", *JKAU, Engineering Sciences*, 12, No. 2, pp3-17, (2006).
- **S. Asiri**, "Tunable Mechanical Filter for wave propagation of Longitudinal Vibrations", *Shock & Vibration Journal*, Vol. 14 Issue 5, p377-399, (2007).
- **S. Asiri**, "Vibration Attenuation of Automotive Vehicle Engine using Periodic Mounts", *International Journal of Vehicle Noise and Vibration* V3 (3), (2007).
- **S. Asiri**, M. Abdulsalam, A. Alghamdi, "Dynamic Response of an Experimental Model for Offshore Platforms with Periodic Legs", *JKAU, Engineering Science*, V20(1), pp93-105, (2009)
- **S. Asiri**, "Broadband Vibration Attenuation using Hybrid Periodic Rods", *The Journal of Engineering Research*, V5(1), (2010)
- **S. Asiri**, "Differential Agitator", KACST patent, No. 06270232, (2010).
- **S. Asiri**, "Design and Implementation of Differential Agitators to Maximize Agitating Performance", *International Journal of Mechanics and Applications*, V2 (6), (2012)
- **S. Asiri**, H. S. Hedia, W. Essa, " Vibration Attenuation Using Functionally Graded Material", *World Academy of Science, Engineering and Technology*, V78(1), pp693-702, (2013)

- **S. Asiri**, Y. Alzahrani, "Theoretical Analysis of Mechanical Vibration for Offshore Platform Structures", *World Journal of Mechanics*, V4(1), pp1-11, (2014)
- Liu, J. Moore, S. Aldousari, H. Hedia, **S. Asiri**, W. Liu, "A Statistical Descriptor Bases Micromechanics Model of Heterogeneous Material", *Computational Mechanics* (IF: 2.43), (2014).
- **S. Asiri** and H. Diken, "Dynamic Modeling and Vibration Analysis of a Ball-Screw Drive System", *International Journal of Advance Research in Science and Engineering, IJARSE*, Vol. 4, No.5, (2015).
- Li, Y. Lian, L. Zhang, S. Aldousar, **S. Asiri**, "Cell and nanoparticle transport in tumour microvasculature: the role of size, shape and surface functionality of nanoparticles." *Interface focus*, 6.1, (2016).
- **S. Asiri**, H. Hedia, N. Fouda. "Improving the performance of cementless knee prosthesis coating through functionally graded material." *Materials Testing*, 58, pp939-945. (2016).
- **S. Asiri**, " Modal and Vibration Analysis of Functionally Graded Dental Implant", *Yanbu Journal of Engineering and Science (YJES)*, Volume 12, (2016).
- Li, Z. Liu, J. Zheng, J. Zhi, W. Lui, S. Aldousar, **S. Asiri**, "Modular-based multiscale modeling on viscoelasticity of polymer nanocomposites." *Computational Mechanics*, pp1-15, (2016).
- **S. Asiri**, Saeed, "Smart Boat for Swimming Pool maintenance", US patents Office, No. 10,713,918, (2020).
- **S. Asiri**, "Vibration Attenuation Using Functionally Graded Materia ", *World Academy of Science, Engineering and Technology*, Toronto, Canada, 19-23, (2013).
- **S. Asiri**, Seref D Akbas, and Mohamed A. Eltaher, "Dynamic Analysis of Layered Functionally Graded Viscoelastic Deep Beams with Different Boundary Conditions Due to a Pulse Load", *International Journal of Applied Mechanics*, Vol. 12, No. 5, (2020).
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- **S. Asiri**. " Finite element analysis of single dry clutch with functional graded aluminum matrix composite and silicon carbide reinforced", *Science International*, 33(9), 305-314, (2021).
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- **S. Asiri**. " Mechanical Behavior of Composite and FGM Transmission-Back Hub Automotive Drive Shaft", *Science International*, Vol. 33, No. 3, 207-21, (2021).
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- **S. Asiri**. " Elastic Behavior of Lay-Ups Angles of Laminated Composite Beam with Material Property Grading", *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 10(9) (2021): 44-51.
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- **S. Asiri**. " Modeling and Analysis of Novel Spring made of Functionally Graded Material" *Science International*, 33(5) (2021): 371-378.
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- **Asiri, Saeed A.**, Elias M. Salilih, Khaled M. Alfawaz, Ageel F. Alogla, S. Mohammad Sajadi, and Osama K. Nusier. "Transient heat transfer analysis of serially connected array of phase change material in the thermal battery units with Al₂O₃ working Nano fluids." *Journal of Energy Storage* 53 (2022): 105184.
- **S. Asiri**. Elias M. Salilih, Khaled M. Alfawaz, Ageel F. Alogla, Nidal H. AbuHamdeh, and Osama K. Nusier. "Improve the performance of renewable energy conversion and storage via ANN in a system of solar water heater with variable speed photovoltaic circulating pump." *International Journal of Energy Research*.