



**Name** : Dr. Hussain Alsadiq  
**Department** : Engineering  
**Job Title** : Assistant professor of mechanical engineering  
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Dr. Hussain Alsadiq is an assistant professor at the University of Prince Mugrin, specializing in Acoustofluidics. His teaching portfolio includes lectures on pseudoscience, solid mechanics and fluid mechanics. Dr. Alsadiq's research interests lie in the field of acoustofluidic manipulation, particularly focusing on the use of micro-bubbles for drug delivery applications and the stability of liposome-based delivery agents. His work aims to innovate and improve methods in drug delivery systems, combining his expertise in mechanics with cutting-edge research in acoustofluidics.

**Qualification :**

- \*PhD Mechanical Engineering University of Queensland 2022
- \*MS Mechanical Engineering University of Queensland 2016
- \*BS Mechanical Engineering King Fahad University of Petroleum & Minerals 2015

**Research Interest :**

- \*Ultrasonic nondestructive testing
- \*Acoustofluidic manipulation of microparticles
- \*Biomedical physics of microparticles “

**Publications :**

- \*Alsadiq, H., Almekhlafi, G., Alabdullah, A., Alfatih, S., Abas, H. (2024). Enhancing thermal properties in concrete blocks using styrofoam- wax mixture.
- Rad, I., Chapman, L., Tupally, K., Veidt, M., Alsadiq, H., Sullivan, R., Parekh, H. S. (2023). A systematic review of ultrasound-mediated drug delivery to the eye and critical insights to facilitate a timely path to the clinic. Theranostics,.
- Alsadiq, H., Walters, J., Alshayeb, A., Parekh, H. S., & Veidt, M. (2022, October). Tissue mimicking phantom of acoustical and geometrical properties of the human eye. In New Zealand Society Annual Conference, Acoustics 2022 ( The nature of acoustics).
- Al-Sadiq, H. (2022). Acoustofluidic manipulation of microbubbles for targeted drug delivery applications. (Thesis “”under embargo””)

Alsadiq, H., Tupally, K., Vogel, R., Parekh, H. S., & Veidt, M. (2022). Multi-physics study of acoustofluidic delivery agents' clustering behavior. *Physics in Medicine & Biology*, 67(1), 015002.

Alsadiq, H., Tupally, K., Vogel, R., Kokil, G., Parekh, H. S., & Veidt, M. (2021). Shell properties and concentration stability of acoustofluidic delivery agents. *Physical and Engineering Sciences in Medicine*, 44(1), 79-91.

Alsadiq, H., Reddy, K., Parekh, H., & Veidt, M. (2018, January). Influence of acoustofluidic parameters on velocity streaming of sonicated medical microbubbles. In *Australian Acoustical Society Annual Conference, AAS 2018* (pp. 22-29). Australian Acoustical Society.

Alsadiq, H. (2018). *Science what is it? . وه ام مل عل ا ؟*. Almutanabi Book shop. ISBN:978-603-8236-00-0."

#### **Other Accreditation:**

\*Associate followership of the higher education academy  
Member of Saudi Council of Engineers"