

## Eun Sok Kim

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- William M. Hogue Professor in Electrical and Computer Engineering
- Ph.D., M.S. & B.S. in EECS from UC Berkeley (1990, 1987 & 1982, respectively)
- “Fundamentals of MEMS,” Textbook Published April 2021, Pages: 416 ➡
- Fellow of the National Academy of Inventors (NAI), 2023
- IEEE Fellow (2011), IOP Fellow (1996)
- ≈270 refereed papers and 19 issued US patents

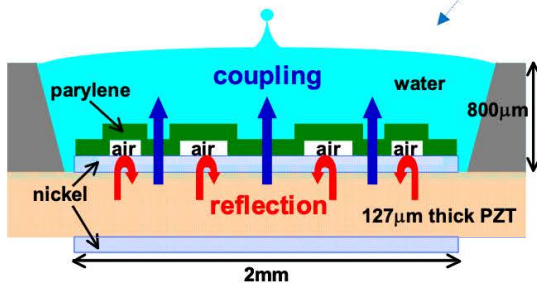
### Research interests:

- Acoustic MEMS: underwater and air propellers, droplet ejector, **acoustic tweezers**, micromixer, active noise cancellation for hearing aids, **wearable stethoscope**
- Biomedical Applications of **Focused Ultrasound**: neural stimulation, cancer therapeutics
- Wireless and/or Battery-less Sensing Systems: **vibrational energy harvesters**

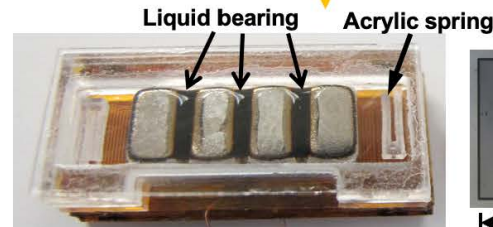
Fundamentals of  
**Microelectromechanical  
Systems (MEMS)**



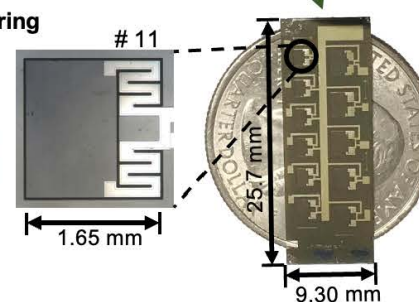
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Self-focusing Acoustic Transducer (SFAT) with  
Air Cavity Lens



Non-resonant Electromagnetic Energy  
Harvester (1.1 cc, 2.5 g) with Liquid  
Bearing and 675-turn Coil Array



Array of 11 Piezocantilever-based  
Microphones with S-shape Support Beams



Trapping of Zebrafish Egg (1 mm in diameter, 1.4  
mg in weight) with Acoustic Tweezers