

## PRATEEK KULKARNI



Prateek Kulkarni joined VACC in 2017, bringing academic experience in vibrations and elastic wave propagation in nonlinear systems. With solid experimental research background, he is proficient with CAD, FEA and testing procedures. Owing to programming and signal processing experience, he is skilled at signal analysis as applicable to system dynamics and acoustics.

He is involved with pedestal vibration analysis projects using FEA and is out in the field performing various types of vibro-acoustic testing such as ambient vibration surveys for research buildings, hospitals and so on. He applies his previous CAD, Design, Manufacturing and programming experience to overcome technical difficulties. Recent activities include developing lumped-parameter based methods for modeling elastic wave propagation through periodic resonant metamaterials and characterizing the behavior of Nonlinear and Inertant acoustic metamaterials, resulting in potential novel applications such as Directional propagation of elastic waves and Ultra-low frequency filtering.

<b>Work Experience:</b>	2017-Present	<i>Junior Associate, Vibro-Acoustic Consultants</i>
	2014-2017	<i>Graduate Research Assistant, Oklahoma State University</i>
	2013-2014	<i>CAD Engineer, iLensys Technologies Pvt Ltd</i>
	2012-2013	<i>Design Engineer, Plazma Technologies Pvt Ltd</i>

**Education:** M.S, Mechanical and Aerospace Engineering, Oklahoma State University, Stillwater, OK, 2016

**Honors/Societies:** Member, American Society of Mechanical Engineers

**Notable Projects:**

- 94<sup>th</sup> International Residential Housing:** Sound Insulation measurement (STC)
- University of Washington Research Center:** Ambient Vibration and Noise Measurements
- VA Medical Center:** Continuous Construction Noise Monitoring
- Ochsner Medical Center:** Site Vibration Survey for MRI installation
- Society of Experimental Mechanics:** Nonlinear and Inertant Acoustic Metamaterials and Their device implications
- Journal of Applied Physics:** Longitudinal elastic wave propagation through Inertant Acoustic Metamaterials
- 35<sup>th</sup> AIAA/ASME Conference:** Direction-Biased Acoustic Metamaterial Waveguide