Milind Pandit, Ph.D.



R&D Engineer with 10+ years of experience in advancing novel resonant MEMS-based transducer technologies in medical, space/aerospace, and geological surveying applications. Proven expertise in MEMS design and simulation, process development, technology transfer, and product development. Contributed to 50+ peer-reviewed papers and 2 patents.

EDUCATION

University of Cambridge — Oct 2015 - Oct 2019
Doctor of Philosophy (Ph.D.) in Microsystems Engineering — Cambridge, UK

University of British Columbia — Sep 2011 - May 2015
BASc (with Distinction) in Electrical and Computer Engineering — Vancouver, Canada

WORK EXPERIENCE

IMEC — Leuven, Belgium

R&D Engineer — Oct 2025 - Present
- Led the development of pMUTs for neurostimulation by characterizing and benchmarking PZT and AlScN technologies resulting in project intakes of feasibility studies for technology companies and startups.
- Integrated pMUTs in a cuff for gesture recognition applications by performing electrical characterizations, system analysis, and CAD design.

R&D Project Leader — Apr 2025 - Oct 2025
- Investigated viability of cMUT as a fit for cardiac health monitoring for a new startup by interacting with technology experts, foundries, performing FEM simulations, and measurements (electrical and acoustic).

Pulsify Medical — Leuven, Belgium

Senior MEMS Development Engineer — Oct 2023 - Apr 2025
- Led interactions with IMEC, foundries, and consultants for MEMS simulation & design, process development, and characterization of flexible piezoelectric ultrasound-based cardiac monitoring patches.
- Coordinated technology transfer from a R&D line to commercial foundry to qualify and validate a first-of-a-kind large area piezo-on-glass process.

MEMS Design Engineer — Aug 2021 - Sep 2023
- Initiated the design and test procedures for the electrical, optical and acoustic characterization of MEMS-based ultrasound transducers leading to FMEA and QRM for product integration.
- Led EU projects to advance flexible and high-frequency pMUTs for medical applications by optimizing pMUT designs through finite element modeling to achieve maximum efficiency, bandwidth, and frequency response.

Silicon Microgravity — Cambridge, UK

MEMS Design and Analytics Engineer — Oct 2019 - Jul 2021
- Developed a field application ready demonstrator through system design optimization, experimental testing, and machine learning-based calibration that reduced environmental noise pickup and temperature-induced drift.

PhD Researcher – Inertial Sensing and Resonator Dynamics — Oct 2015 - Oct 2019
- Optimized coupled resonator dynamics through finite element modeling and validated results using custom experimental setups with temperature control and low-noise electronics.

TECHNICAL AND LANGUAGE SKILLS

Hardware and characterization	Precision acoustics UMS system, Verasonics, RF Analyzer, BOSE ElectroForce system, Spin coater, Wedge bonder, Vibrometer, Zurich Instruments MFLI.
Simulation and programming	MATLAB and Simulink, Python, COMSOL, Lumerical mode, Altium, SPICE, Labview, K-wave, K-layout, Tanner tools, Arduino, C++, Autodesk suite.
Work management	Wrike, Atlassian Suite (Jira and Confluence), Clarity.
Languages	English (First language), Kannada (Fluent), Hindi (Fluent), Dutch (A2 level).