

# Muhammad Osama Ali

Assistant Professor

College of Electrical & Mechanical Engineering

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## About

Dr. Muhammad Osama Ali is working as Assistant Professor in the College of Electrical & Mechanical Engineering. Dr. Muhammad Osama Ali has a PhD in MEMS Microfabrication. Dr. Muhammad Osama Ali has published 5 research articles & conference papers having a citation count of 32, carried out 1 projects and filed 0 intellectual property.

## Qualifications

<b>PhD in MEMS Microfabrication</b> Carleton University , Canada	2013 - 2019
<b>MS in MEMS Microfabrication</b> University of Texas at Arlington , United States	2009 - 2011
<b>BE in Mechatronics</b> College of Electrical and Mechanical Engineering , Pakistan	2003 - 2007

## Experience

<b>Assistant Professor</b> College of Electrical & Mechanical Engineering	2022- Present
<b>Assistant Professor</b> College of Electrical & Mechanical Engineering	2022 - 2022
<b>Assistant Professor</b> PAF-IAST , Mung Haripur	2021 - 2022
<b>Technology Innovation Lead</b> Gem Learning , F-8	2020 - 2020
<b>Associate RF Engineer</b> Global Wireless Solutions , Virginia USA	2011 - 2012
<b>Associate RF Engineer</b> 3S Network , Dallas Texas USA	2010 - 2010

## Research Projects

<b>National Projects</b>	
<b>Development of Nano-Materials Based Tactile Sensors for Tele-Manipulation in Robotic Surgery</b> <b>Funding Agency:</b> HEC and British Council <b>Amount:</b> PKR 43,055,271.00 <b>Status:</b> Completed	2021

## International Projects

**InterACT: A Generic Keypoints-Based Lightweight Transformer Model for Recognition of Human Solo Actions and Interactions in Aerial Videos**  
*Mubashir Shah Tahir Habib Nawaz Nasir Rashid Muhammad Osama Ali Rab Nawaz*  
*PLOS ONE*, Volume 20(5), Article Number e0323314  
**Impact Factor:** 2.900 | **Quartile:** 1  
**DOI:** <https://doi.org/10.1371/journal.pone.0323314>

2025

**Enhancing Ocular Precision: A Tactile Force Feedback-Enabled Handheld Cyclodialysis Spatula for Eye Surgery**  
*Adeel Arshad Muhammad M. Saleem Hamid Jabbar Muhammad Osama Ali Mohsin Islam Tiwana Rebecca Cheung*  
*IEEE Sensors Journal*, Volume 25, No. 2, Article Number 3220-3229  
**Impact Factor:** 4.300 | **Quartile:** 1  
**DOI:** <https://doi.org/10.1109/JSEN.2024.3494875>

2025

**Direct thermal emission testing of aperiodic dielectric stack for narrowband thermal emission at mid-IR**  
*Joseph Botros Muhammad Osama Ali R. Niall Tait Rony E. Amaya Shulabh Gupta*  
*Journal of Applied Physics*, Volume 127, Issue 11, Article Number 114502  
**Impact Factor:** 2.546 | **Quartile:** 2 | **Citations:** 9  
**DOI:** 10.1063/1.5140010

2020

**Conductor-backed dielectric metasurface thermal emitters for mid-infrared spectroscopy**  
*Muhammad Osama Ali R. Niall Tait Shulabh Gupta*  
*Journal of Applied Physics*, Volume 127, Issue 3, Article Number 033105  
**Impact Factor:** 2.546 | **Quartile:** 2 | **Citations:** 2  
**DOI:** 10.1063/1.5125652

2020

**High-Q all-dielectric thermal emitters for mid-infrared gas-sensing applications**  
*Muhammad Osama Ali Niall Tait Shulabh Gupta*  
*Journal of the Optical Society of America A: Optics and Image Science, and Vision*, Volume:35, Issue:1, Page:119-124  
**Impact Factor:** 1.566 | **Quartile:** 3 | **Citations:** 21  
**DOI:** 10.1364/JOSAA.35.000119

2017