

# Ibraheem Haneef

Professor

School of Mechanical & Manufacturing Engineering

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## About

Dr. Ibraheem Haneef is working as Professor in the School of Mechanical & Manufacturing Engineering. Dr. Ibraheem Haneef has a PhD in Engineering. Dr. Ibraheem Haneef has published 25 research articles & conference papers having a citation count of 547, carried out 2 projects and filed 0 intellectual property.

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## Qualifications

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| <b>PhD in Engineering</b><br>University of Cambridge , United Kingdom | 2004 - 2009 |
| <b>MS in Aerospace Engineering</b><br>NUST, Islamabad , Pakistan      | 2002 - 2004 |
| <b>BE in Aerospace Engineering</b><br>NED UET Karachi , Pakistan      | 1987 - 1991 |

Experience

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| <b>Professor</b><br>School of Mechanical & Manufacturing Engineering                                                                                                                                                                        | 2023- Present |
| <b>Professor, Dean/ Director General Institute of Avionics &amp; Aeronautics (DG IAA) &amp; HoD Mechanical &amp; Aerospace Engineering Department</b><br>Air University , E-9, Islamabad                                                    | 2020 - 2023   |
| <b>Professor, Director International Cooperation Office, HoD Mechanical &amp; Aerospace Engineering Department &amp; Actg Dean /Director General Institute of AVionics &amp; Aronautics</b><br>Air University , E-9, Islamabad              | 2019 - 2020   |
| <b>Professor &amp; Director International Cooperation</b><br>Air University , E-9, Islamabad                                                                                                                                                | 2019 - 2019   |
| <b>Associate Professor &amp; Director International Cooperation</b><br>Air University , E-9, Islamabad                                                                                                                                      | 2017 - 2019   |
| <b>Associate Professor &amp; Dean</b><br>College of Aeronautical Engineering (CAE), NUST , CAE-NUST, PAF Academy, Risalpur                                                                                                                  | 2016 - 2017   |
| <b>Associate Professor &amp; HoD Aerospace Engineering Department</b><br>College of Aeronautical Engineering (CAE), NUST , CAE-NUST, PAF Academy, Risalpur                                                                                  | 2015 - 2016   |
| <b>Associate Professor &amp; HoD Research, CAE</b><br>College of Aeronautical Engineering (CAE), NUST , CAE-NUST, PAF Academy, Risalpur                                                                                                     | 2014 - 2015   |
| <b>Assistant Professor, PI-MEMS Lab &amp; Deputy Director International Cooperation Office</b><br>Air University , E-9, Islamabad                                                                                                           | 2009 - 2014   |
| <b>Graduate Research Assitant (PhD Student)</b><br>University of Cambridge, Cambridge , HVMS Lab, Centre for Advanced Photonics & Electronics (CAPE), University of Cambnridge, 9-JJ Thomson Avenue, Cambridge CB3 0FA, United Kingdom (UK) | 2004 - 2009   |
| <b>Graduate Research Assistant (MS Student)</b><br>College of Aeronautical Engineering (CAE) , CAE, PAF Academy, Risalpur, Distt Nowshehra, KPK                                                                                             | 2002 - 2004   |
| <b>Officer In-Charge Aircraft Engineering Squadron</b><br>Engineering Wing , PAF Base Minhas, Kamra, Attock                                                                                                                                 | 2001 - 2002   |
| <b>Production Control Officer, F-100 Engine (F-16 Aircraft)</b><br>F-100 Engine Project, Engine Overhaul Group, Mirage Rebuild Factory , Mirage Rebuild Factory, Pakistan Aeronautical Complex, Kamra, Attock                               | 1995 - 2001   |
| <b>Engineering Officer</b><br>No 9 Multi Role Squadron, , No 38 Wing, PAF Base, Mushaf, Sargodha                                                                                                                                            | 1993 - 1995   |
| <b>Officer In-Charge, F-16 Aircraft Phase Inspection Flight</b><br>Aircraft Engineering Squadron, , Engineering Wing, PAF Base Mushaf, Sargodha                                                                                             | 1991 - 1993   |
| <b>Trainee Engineering Officer</b><br>Professional Continuing Education (PCE) Department , College of Aeronautical Engineering (CAE), PAF Academy, Risalpur                                                                                 | 1991 - 1991   |

Research Projects

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| <b>National Projects</b>                                                                                                                                                                          |      |
| <b>Going Global PAK-UK Education Gateway Students' Research Partnership Grant</b><br><b>Funding Agency:</b> British Council<br><b>Amount:</b> PKR 7,053,750.00<br><b>Status:</b> Completed        | 2023 |
| <b>Going Global PAK-UK EducationGateway Faculty Research Partnership Grant</b><br><b>Funding Agency:</b> British Council<br><b>Amount:</b> PKR 11,400,000.00<br><b>Status:</b> Approved_inprocess | 2023 |

International Projects

Research Articles

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |
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| <b>A Map-Based Recommendation System and House Price Prediction Model for Real Estate</b><br><i>Maryam Mubarak Ali Tahir Fizza Waqar Ibraheem Haneef Gavin McArdle Michel Bertolotto Muhammad Tariq Saeed</i><br><i>ISPRS International Journal of Geo-Information</i> , Volume 11, Issue 3, Article Number 178<br><b>Impact Factor:</b> 2.899   <b>Quartile:</b> 2   <b>Citations:</b> 8<br><b>DOI:</b> <a href="https://doi.org/10.3390/ijgi11030178">https://doi.org/10.3390/ijgi11030178</a> | 2022 |
| <b>Material selection for optimum design of MEMS pressure sensors</b><br><i>Zahid Mehmood Ibraheem Haneef Florin Udrea</i><br><i>Microsystem Technologies</i> , Volume 26, Pages 2751–2766<br><b>Impact Factor:</b> 2.276   <b>Quartile:</b> 3   <b>Citations:</b> 37<br><b>DOI:</b> <a href="https://doi.org/10.1007/s00542-019-04601-1">https://doi.org/10.1007/s00542-019-04601-1</a>                                                                                                         | 2020 |
| <b>Sensitivity enhancement of silicon-on-insulator CMOS MEMS thermal hot-film flow sensors by minimizing membrane conductive heat losses</b><br><i>Zahid Mehmood Ibraheem Haneef Syed Zeeshan Ali Florin Udrea</i><br><i>Sensors</i> , Volume 19(8), Article Number 1860<br><b>Impact Factor:</b> 3.275   <b>Quartile:</b> 1   <b>Citations:</b> 13<br><b>DOI:</b> <a href="https://doi.org/10.3390/s19081860">https://doi.org/10.3390/s19081860</a>                                             | 2019 |
| <b>Material selection for Micro-Electro-Mechanical-Systems (MEMS) using Ashby's approach</b><br><i>Zahid Mehmood Florin Udrea Ibraheem Haneef</i><br><i>Materials &amp; Design</i> , Volume 157, Pages 412-430<br><b>Impact Factor:</b> 5.770   <b>Quartile:</b> 1   <b>Citations:</b> 42<br><b>DOI:</b> <a href="https://doi.org/10.1016/j.matdes.2018.07.058">10.1016/j.matdes.2018.07.058</a>                                                                                                 | 2018 |
| <b>Evaluation of thin film p-type single crystal silicon for use as a CMOS Resistance Temperature Detector (RTD)</b><br><i>Zahid Mehmood Mohtashim Mansoor S. Zeeshan Ali Florin Udrea Ibraheem Haneef</i><br><i>Sensors and Actuators A: Physical</i> , Volume 283, Pages 159-168<br><b>Impact Factor:</b> 2.739   <b>Quartile:</b> 2   <b>Citations:</b> 17<br><b>DOI:</b> <a href="https://doi.org/10.1016/j.sna.2018.09.062">doi.org/10.1016/j.sna.2018.09.062</a>                           | 2018 |
| <b>A maskless etching technique for fabrication of 3D MEMS structures in SOI CMOS devices</b><br><i>Mohtashim Mansoor Ibraheem Haneef Andrea DeLuca John Coull Florin Udrea</i><br><i>Journal of Micromechanics and Microengineering</i> , Volume 28, Number 8, Article Number 085013<br><b>Impact Factor:</b> 2.141   <b>Quartile:</b> 2   <b>Citations:</b> 7<br><b>DOI:</b> <a href="https://doi.org/10.1088/1361-6439/aabe0d">10.1088/1361-6439/aabe0d</a>                                   | 2018 |
| <b>An SOI CMOS-based multi-sensor MEMS chip for fluidic applications</b><br><i>Mohtashim Mansoor Ibraheem Haneef Suhail Akhtar Muhammad Aftab Rafiq Andrea De Luca Syed Zeeshan Ali Florin Udrea</i><br><i>Sensors</i> , Volume 16, Issue 11, Article Number 1608<br><b>Impact Factor:</b> 2.677   <b>Quartile:</b> 1   <b>Citations:</b> 26<br><b>DOI:</b> <a href="https://doi.org/10.3390/s16111608">doi:10.3390/s16111608</a>                                                                | 2016 |
| <b>High-Sensitivity Single Thermopile SOI CMOS MEMS Thermal Wall Shear Stress Sensor</b><br><i>Andrea De Luca John Coull Syed Zeeshan Ali Claudio Falco Florin Udrea Ibraheem Haneef</i><br><i>IEEE Sensors Journal</i> , Volume 15, Issue 10, Pages 5561-5568<br><b>Impact Factor:</b> 1.889   <b>Quartile:</b> 2   <b>Citations:</b> 19<br><b>DOI:</b> <a href="https://doi.org/10.1109/JSEN.2015.2444798">10.1109/JSEN.2015.2444798</a>                                                       | 2015 |
| <b>Minimizing the loss produced by a turbulent separation using vortex generator jets</b><br><i>Simon Evans John Coull Howard Hodson Ibraheem Haneef</i><br><i>AIAA Journal</i> , Volume 50, Issue 4, Pages 778-787<br><b>Impact Factor:</b> 1.080   <b>Quartile:</b> 1   <b>Citations:</b> 30<br><b>DOI:</b> <a href="https://doi.org/10.2514/1.J050790">https://doi.org/10.2514/1.J050790</a>                                                                                                  | 2012 |
| <b>Ultra-high temperature (&gt;300 °c) suspended thermodiode in SOI CMOS technology</b><br><i>S. Santra Florian Udrea P.K. Guha S.Z. Ali Ibraheem Haneef</i><br><i>Micromachines</i> , Volume 41, Issue 9, Pages 540-546<br><b>Impact Factor:</b> 0.789   <b>Quartile:</b> 3   <b>Citations:</b> 23<br><b>DOI:</b> <a href="https://doi.org/10.1016/j.mejo.2009.12.005">10.1016/j.mejo.2009.12.005</a>                                                                                           | 2010 |
| <b>Silicon on insulator diode temperature Sensor - A detailed analysis for ultra-high temperature operation</b><br><i>Sumita Santra Prasanta Kumar Guha Syed Zeeshan Ali Florin Udrea Ibraheem Haneef</i><br><i>IEEE Sensors Journal</i> , Volume 10, Issue 5, Pages 997-1003                                                                                                                                                                                                                    | 2010 |

**Impact Factor:** 1.473 | **Quartile:** 2 | **Citations:** 45  
**DOI:** 10.1109/JSEN.2009.2037822

**Use of carbon micro-particles for improved infrared temperature measurement of CMOS MEMS devices**

2010

*Richard H Hopper Syed Zeeshan Ali Florin Udrea Christopher H Oxley Ibraheem Haneef*  
*Measurement Science and Technology*, Volume 21, Issue 4, Article Number 045107

**Impact Factor:** 1.353 | **Quartile:** 1 | **Citations:** 12  
**DOI:** 10.1088/0957-0233/21/4/045107

**Arrays of parallel connected coaxial multiwall-carbonnanotube-amorphous- silicon solar cells**

2009

*Hang Zhou Alan Colli Arman Ahnood Yang Yang Nalin Rupesinghe Tim Butler Pritesh Hiralal Arokia Nathan Gehan A. J. Amaratunga Ibraheem Haneef*  
*Advanced Materials*, Volume 21, Issue 38-39, Pages 3919-3923

**Impact Factor:** 8.379 | **Quartile:** 1 | **Citations:** 45  
**DOI:** <https://doi.org/10.1002/adma.200901094>

**Force measurements on U-shaped electrothermal microactuators: Applications to packaging**

2008

*M Boutchich T J Mamtara G J McShane D F Moore J A Williams Ibraheem Haneef*  
*Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, Volume 222, Issue 1, Pages 87-96

**Impact Factor:** 0.317 | **Quartile:** 4 | **Citations:** 5  
**DOI:** <https://doi.org/10.1243/09544062JMES664>

**On-chip deposition of carbon nanotubes using CMOS microhotplates**

2007

*MS Haque KBK Teo NL Rupensinghe SZ Ali Sunglyul Maeng J Park F Udrea W I Milne Ibraheem Haneef*  
*Nanotechnology*, Volume 19, Issue 2, Article Number 025607

**Impact Factor:** 3.310 | **Quartile:** 1 | **Citations:** 55  
**DOI:** 10.1088/0957-4484/19/02/025607

**Use of nanocomposites to increase electrical "gain" in chemical sensors**

2007

*Sara M. C. Vieira Paul Beecher Florin Udrea William I. Milne Manoj A. G. Namboothiry David L. Carroll Jonghyurk Park Sunglyul Maeng Ibraheem Haneef*  
*Applied Physics Letters*, Volume 91, Issue 20, Article Number 203111

**Impact Factor:** 3.596 | **Quartile:** 1 | **Citations:** 23  
**DOI:** <https://doi.org/10.1063/1.2811716>

- Towards Real Estate Analytics using Map Personalisation** 2020  
*Mariam Mubarak Kamran Khalid Fizza Waqar Muhammad Ali Tahir Gavin McArdle Ibraheem Haneef Michela Bertolotto*  
*6th International Conference on Geographical Information Systems Theory, Applications and Management*, res.country(183,)  
**Citations:** N/A  
**DOI:** 10.5220/0009368301840190
- Heritage preservation using aerial imagery from light weight low cost Unmanned Aerial Vehicle (UAV)** 2017  
*Muhammad Abdullah Tariq Butt S. M. Osama A. Gillani Hassaan Khaliq Qureshi Ibraheem Haneef*  
*2017 International Conference on Communication Technologies (ComTech)*, res.country(177,)  
**Citations:** N/A  
**DOI:** 10.1109/COMTECH.2017.8065774
- A tungsten based SOI CMOS MEMS wall shear stress sensor** 2014  
*Ibraheem Haneef Muhammad Umer Mohtashim Mansoor Suhail Akhtar Muhammad Rafiq Syed Zeeshan Ali Florin Udrea*  
*Proceedings of IEEE Sensors*, res.country(68,)  
**Citations:** N/A  
**DOI:** 10.1109/ICSENS.2014.6985293
- SOI CMOS multi-sensors MEMS chip for aerospace applications** 2014  
*M. Mansoor Ibraheem Haneef Suhail Akhtar Muhammad Rafiq M. A. Rafiq Florin Udrea S. Z. Ali*  
*Proceedings of IEEE Sensors*, res.country(68,)  
**Citations:** N/A  
**DOI:** 10.1109/ICSENS.2014.6985225
- 3D modelling of a thermopile-based SOI CMOS thermal wall shear stress sensor** 2014  
*Claudio Falco Andrea De Luca Sohab Sarfraz Ibraheem Haneef John Coull Syed Zeeshan Ali Florin Udrea*  
*Proceedings of the International Semiconductor Conference, CAS*, res.country(188,)  
**Citations:** N/A  
**DOI:** 10.1109/SMICND.2014.6966459
- 3D multiphysics modelling of an SOI CMOS MEMS thermal wall shear stress sensor** 2014  
*C. Falco A. De Luca S. Sarfraz I. Haneef John Coull S.Z. Ali Udrea, Florian*  
*Procedia Engineering*, res.country(109,)  
**Citations:** N/A  
**DOI:** doi.org/10.1016/j.proeng.2014.11.567
- A thermopile based SOI CMOS MEMS wall shear stress sensor** 2013  
*Andrea De Luca Ibraheem Haneef John Coull Syed Zeeshan Ali Claudio Falco Florin Udrea*  
*Proceedings of the International Semiconductor Conference, CAS*, res.country(188,)  
**Citations:** 8  
**DOI:** 10.1109/SMICND.2013.6688088
- Improved infrared thermal imaging of a CMOS MEMS device** 2010  
*Richard Hopper Ibraheem Haneef Syed Zeeshan Ali Florin Udrea Chris Oxley*  
*2010 16th International Workshop on Thermal Investigations of ICs and Systems (THERMINIC)*, res.country(68,)  
**Citations:** N/A  
**DOI:** https://ieeexplore.ieee.org/abstract/document/5636311