Dr. Sreekanth P K
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Mechatronics
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**BIOSKETCH**

**Dr. Sreekanth P. K** is a distinguished academician and a passionate researcher with expertise in both experimental and theoretical domains. His work bridges the gap between fundamental concepts and practical applications, contributing significantly to advancements in his field. Since November 2023, he has been working as an Assistant Professor in the Department of Mechatronics, PSG Institute of Advanced Studies, Coimbatore. His research area includes MEMS based sensors, Robotic Vision, Embedded Systems, Path planning, Triboelectric nanogenerators etc. He completed his post-graduate degree from the National Institute of Electronics and Information Technology (NIELIT) Calicut, India followed by the Doctor of Philosophy (Ph.D.) from VIT Vellore.

## Educational Profile

- **Doctor of Philosophy (Ph.D.) in Physics**
  Year of Passing: 2024
  ***Thesis title:*** Study of Improved Designs of MEMS Touch Mode Capacitive Pressure Sensor for Enhancement of Linearity and Sensitivity of the Device for Altimeter applications

  Thesis Supervisor: Dr. Sumit Kumar Jindal, School of Electronics Engineering, Vellore Institute of Technology (VIT), Vellore

- **Master of Technology (M. Tech) in Electronics Design Technology**
  National Institute of Electronics and Information Technology, Calicut

- **Bachelor of Technology (B. Tech) in Electronics and Communication Engineering**
  CUSAT

## Positions Held

| | |
|---|---|
| Nov 2023 – Present | Assistant Professor<br>Department of Mechatronics<br>PSG Institute of Advanced Studies<br>Peelamedu, Coimbatore |

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|---|---|
| Mar 2021 – Oct 2023 | Assistant Professor Junior<br>School of Electronics Engineering (SENSE)<br>VIT Vellore |
| Oct 2016 – Feb 2021 | Assistant Professor<br>Department of Mechatronics<br>MGM College of Engineering and Pharmaceutical Sciences,<br>Valanchery, Kerala |

**Research Areas:**

- MEMS
- Robotics
- Vision System

**Journal Publications**

1. P. K. Sreekanth and Sumit Kumar Jindal, "Formulation Analysis and Follow-Up Study of Differential MEMS Touch-Mode Sensor Utilizing Capacitive Vacuum Gauge Framework for Low-Pressure Measurements," in IEEE Sensors Journal (IEEE) vol. 23, no. 8, pp. 8224-8231, 2023.
2. Sreekanth P K, Sumit Kumar Jindal, "Characteristic Analysis of a Square Diaphragm Capacitive Pressure Sensor with Linkage Film" Journal of Circuits, Systems and Computers*(World Scientific)*, 2022, Vol.32, No.8, PP.2350130-1-17, 2023
3. Sreekanth P K, Sumit Kumar Jindal. "Design and Analysis of a Novel MEMS Touch Mode Convex Capacitive Pressure Sensor for Altimeter Applications" – NANO. (World Scientific) 2022, Vol.17, No.14,PP.2250111-1-9,2022.
4. Guru Aathavan Alagu Uthaya Kumar, Sumit Kumar Jindal, Sreekanth PK "Capacitance Response of Concave Well Substrate MEMS Double Touch Mode Capacitive Pressure Sensor: Robust Design, Theoretical Modeling, Numerical Simulation and Performance Comparison" Silicon(Springer), 2022, https://doi.org/10.1007/s12633-022-01693-9
5. Sumit Kumar Jindal, Ishan Patel, Krish Sethi, Simrit Kaul, P. K. Sreekanth, Ajay Kumar "Efficient in-depth analysis and optimum design parameter estimation of MEMS capacitive pressure sensor utilizing analytical approach for square diaphragm" Journal of Computational Electronics(Springer), 2022, Vol.21, No.4, PP.992-1004, 2022
6. Guru Aathavan Alagu Uthaya Kumar, Sumit Kumar Jindal, Sreekanth P K, "Understanding influence of substrate floor concavity on sensitivity and linearity through a parabolic model: Theoretical modelling and Analysis of performance" IEEE Sensors Journal (IEEE), 2022, doi: 10.1109/JSEN.2022.3197455

**Total Number of Conference Papers/Proceedings:** 1