



Malnad College of Engineering, Hassan

(An Autonomous Institute, Affiliated to V.T.U, Belagavi)

Faculty Biodata

GENERAL INFORMATION AND ACADEMIC BACKGROUND

PART-A

1.	Name	Dr. Prakruthi H. L
2.	Qualification	BE, MTech, PhD
3.	Date of joining the service at MCE	1/3/2016
4.	Department	Electronics & Communication
5.	Current Designation & Experience in MCE	Assistant Professor & 8Years
6.	Teaching Experience: P.G. (in Years) : U.G. (in Years) :	1 8
Research Experience (in Years)		
7.	a) Total Number of years b) Years spent in M. Phil. / Ph.D. c) Years of Guiding Ph.D. / M. Phil. d) Total No. of papers Published in i. International Journals ii. National Journals iii. Conference Proceedings e) Total No. of Conferences/Seminar/Workshop Attended i. International ii. National iii. State Level	5 5 - 7 - 1 1 3
8.	Awards /Prizes/ Honor's / Recognitions	Gold Medal in MTech from VTU
9.	Fields of Specialization under the Subject / Discipline	Digital Electronics in MTech, MEMS in PhD
10.	Orientation/Refresher Course/Summer School / Winter School/Workshops attended:	20

PART-B

1. List of Publications:

Sl. No.	Title	Name of the Journal, Vol. No., Year	ISSN/ISBN/Number
1	Design and development of MEMS sensor for industrial health monitoring	Application No.: 202341008529 A	24 th February, 2023
2	Analytical modeling, fabrication and characterization of a 3-DOF MEMS gyroscope based on UV-LIGA process	Journal of Optics, Scopus, Q2, (unpaid) IF: 2.077, SPRINGER	https://doi.org/10.1007/s12596-023-01258-y
3	Piezoresistive spring-suspension driven Micro-Electro-Mechanical-sensor based electric field sensor for Industrial healthcare monitoring	Indian Journal of Science and Technology, Web of Science (unpaid), 2023	Accepted, 17 th July 2023
4	Silicon and gallium nitride electrostatic comb-drive actuators are analyzed for capacitance, displacement, and electric potential distribution	Neuro Quantology, Scopus, Q3 (unpaid), 2022	Volume 20, Issue 9, Page 2827-2832, doi: 10.14704/nq.2022.20.9.NQ44329
5	IOT and GSM Applications for industrial Health Monitoring	3rd International Conference on Pervasive	979-8-3503-2285-9 https://ieeexplore.ieee.org/abstract/document/10266197

		Computing and social networking, in IEEE Xplore	
6	A MEM Electric field sensor of characterization of charges in resonant electrostatic-capacitive MEMS device: A Systematic survey	Journal of Fundamental & Comparative Research. UGC approved, (unpaid) 2021	Vol. 7, no. 3, 2021
7	Modelling, Simulation and Analysis of Electrostatically Actuated MEMS Cantilever beam Displacement	Journal of Fundamental & Comparative Research. UGC approved, (unpaid) 2021	Vol. 7, no. 3, 2021

2. **Responsibilities in the Department and Institute / University:** (DAC,DPC, BOS, BOE etc., Institutional Governance responsibilities like, Dean, Chief warden, Warden, HOD's, School/Centre Chairperson, IQAC Coordinator etc.)

Sl. No	Responsibilities
1.	Department Co-ordinator for ME-RIISE
2.	Department Co-ordinator for website
3.	Antiragging committee
4.	Proactor Co-ordinator
5.	Mentor for 1 st year BE
6.	Faculty advisor for 1 st year BE

3. **Details of Teaching Related Activities**

Sl. No.	Academic Year	(B. E/M.Tech)	Course Title
1	2006-2010	BE	Electronics & Communication
2	2012-2014	Mtech	Digital Electronics
3	2019-2023	PhD	MEMS

Professional Development Activities		
Membership in profession related committees at state and national level a) At International b) At national level: c) At state :		IEI
Participation in subject associations, conferences, seminars without paper presentation		
Participation in short term training courses less than one week duration in educational technology, curriculum development, professional development, Examination reforms, Institutional governance		
Membership/participation in State/Central Bodies/Committees on Education, Research and National Development		
Publication of articles in newspapers, magazines, or other publications (not covered in category 3); radio talks; television programmes		
Invited Expert Talks		

PART-C

RESEARCH, PUBLICATIONS AND ACADEMIC CONTRIBUTIONS

Research/Publication Details

- **Prakruthi HL**, Saara K, “Analytical modelling, Fabrication and characterization of a 3-DOF MEMS Gyroscope based on UV-LIGA process,” *Journal of Optics, Springer 2023*, <https://doi.org/10.1007/s12596-023-01258-y>.
- **Prakruthi HL**, Saara K, “Silicon and gallium nitride electrostatic comb-drive actuators are analyzed for capacitance, displacement, and electric potential distribution,” *Neuro Quantology, Scopus Vol. 20, no. 9, pp. 2827-2832, 2022, DOI: <https://www.proquest.com/docview/2900701398/3CDF1C660AE74ADFPQ/1?accountid=177760&sourcetype=Scholarly%20Journals>*
- **Prakruthi HL**, Saara K. “A MEM Electric field sensor of characterization of charges in resonant electrostatic -capacitive MEMS device: A systematic survey,” *Journal of Fundamental & Comparative Research. UGC approved, Vol .7, no .3 2021, ISSN-2277-7067*.

- **Prakruthi HL**, Saara K, “Modelling, Simulation and Analysis of Electrostatically Actuated MEMS Cantilever Beam Displacement,” *Journal of Fundamental & Comparative Research. UGC approved*, Vol .7, no .3 2021, ISSN-2277-7067.

Papers presented in Conference (SCOPUS/WoS/ IEEE Indexed):

1. **Prakruthi HL**, Saara K, “IOT and GSM Applications for industrial health monitoring.” In 2023 3rd International Conference on pervasive Computing and social networking, **IEEE Xplore**. DOI: <https://ieeexplore.ieee.org/abstract/document/10266197>
2. **Prakruthi HL**, Saara K, “A MEM Electric field sensor of characterization of charges in resonant electrostatic -capacitive MEMS device: A systematic survey, ” NCRTE-2021, Vol VII, no. 3, 2021.
3. **Prakruthi HL**, Saara K, “Modelling, Simulation and Analysis of Electrostatically Actuated MEMS Cantilever Beam Displacement, ” NCRTE-2021, Vol VII, no. 3, 2021.

Patent Published:

Prakruthi HL, Saara K, “Design and Development of MEMS sensor for industrial Health Monitoring,” Application No. 202341008529 A, Feb 2023.

Book Chapter Published:

Modern VLSI Design: System On Chip, Book Chapter, SIPH publications, 2024

ACADEMIC CONTRIBUTIONS

- Jury member at the “Young Entrepreneurs programme AURA 2.0 State Level Project Expo” organized by ME-RIISE FOUNDATION on 19th June 2023
- Jury member at the “Project Expo” organized by ME-RIISE FOUNDATION on account of WORLD ENTREPRENUERSHIP DAY on 19th June 2023
- Attended one week FDP on “Empowering the moral Values, Ethics and Behavioral Attitude in Teaching Skills among Teachers” from Jan 18th to 23rd, 2021
- Attended AICTE Training And Learning (ATAL) Academy Online FDP " Emerging Technologies in Wearable Devices" from 18th January 2021 to 22nd January 2021" from Jan 25th to 30th ,2021 at UVCE, Bangalore
- Attended AICTE Training And Learning (ATAL) Academy Online FDP "Control Systems & Sensors Technology " from Jan 4th to 8th ,2021 at Government Engineering College Thrissur
- Completed IUCEE International Engineering Educator Certification program Spring 2020
- Attended one week FDP on “Machine Learning” from 28th June to 2nd July,2018 under TEQIP III at Dept of E&C, Malnad college of Engineering, Hassan
- Attended one week FDP on “Mems & Moems” on 4th May,2018 under TEQIP III at Dept of E&C, Malnad college of Engineering, Hassan
- Attended workshop on “Virtual Laboratory” on 16th Feb,2017 at Dept of E&C, Malnad college of Engineering, Hassan
- Attended & Co-ordinated one day workshop on “Logic programming” on 22nd March,2017 at Dept of E&C, Malnad college of Engineering, Hassan

- Attended One week **Pedagogical Training programs** in July 2016 organized at Malnad College of Engineering, Hassan
- TEQIP-II sponsored one week FDP on “**Feel Teacher**”, held from 06th June to 11th June 2016, organized at Malnad College of Engineering, Hassan
- Conducted 2 days FDP programme in collaboration with AIC-JIT on 19th -20th July,2021, malnad college of Engineering, Hassan
- Conducted and Co-ordinated 1 day program on “Protech Expo” on 29th sep,2020 under TEQIP III at Dept of E&C, Malnad college of Engineering, Hassan
- Co-ordinated 1 day program on “My story-An Entrepreneur’s Life and crossroads” in Aug,2020 under TEQIP III at Dept of E&C, Malnad college of Engineering, Hassan
- Conducted and Co-ordinated one week FDP on “Machine Learning” from 28th June to 2nd July,2019 under TEQIP III at Dept of E&C, Malnad college of Engineering, Hassan
- Presented paper in National Conference on Recent Trends in engineering on “Modelling, simulation and Analysis of Electrostatically Actuated MEMS cantilever beam Displacement” 3rd and 4th May 2021
- Presented paper in International Conference on Recent Trends in science & Technology on “A MEM Electric field sensor for characterization of charges in resonant electrostatic-capacitive MEMS Device: A systematic survey” June 2020
- Have published a paper named “Performance Analysis Evaluation and Up gradation of Push to Talk over Cellular” ISSN: 2278-0181 Vol. 3 Issue 5, May - 2014 in the International Journal IJERT
- Have published a paper named “Secure Erasure Code for Manets” ISSN 2319 – 2518 Vol. 3, No. 4, October 2014 in the International Journal IJEETC