



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(inBlockLetters)	Dr. YASHASWINI P. R
2.	Qualification	Ph.D
3.	Date of joining the service at MCE	02.11.2023
4.	Department	Electronics and Communication Engineering
5.	Current Designation & Experience in MCE	Assistant Professor & 10 Days
6.	Teaching Experience: P.G. (in Years) : U.G. (in Years) :	NIL 3 Years
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	a) 5 Years b) 4 Years c) NIL d) 10 I. International Journals-10 II. National Journals-NIL III. Conference Proceedings-8 e) 26 I. International-25 II. National-1 III. State Level-NIL
8.	Awards /Prizes/ Honor's / Recognitions	1. Best paper award for the paper titled "Pressure Sensing using a Two-Dimensional Photonic crystal Sensor" at International Conference Recent Developments in Electronics and Communication Systems held on 22nd and 23rd July 2022 Organized by Department of Electronics and Communication Engineering, Aditya Engineering College , Surampalem

		<p>East-Godavari District, Andhra Pradesh, INDIA</p> <ol style="list-style-type: none"> 2. Got first prize in the “Students/Lecture competition” on the Theme: "Career Opportunities in Optoelectronics and Photonics" conducted by IEEE Photonics Society Kolkata Chapter. 3. Qualified UGC-NET June 2019 for Assistant Professorship. 4. Recipient of the prestigious DST-Ph.D Fellowship award of 20,000 per month.
9.	Fields of Specialization under the Subject / Discipline	VLSI Design and Embedded Systems, Optics and Photonics.
10.	Orientation/Refresher Course/Summer School / Winter School/Workshops attended:	<ol style="list-style-type: none"> 1. Attended three days workshop on “Hands-on Training on Photonic Sensor Simulation Tools”, from 3rd to 5th October, 2019 at Department of ECE, MCE, Hassan. 2. Attended Basic training program in “Nano Science and Technology”, from 14th October to 16th October 2019 at CENSE, IISc, Bangalore. 3. 10 days workshop on “RESEARCH METHODOLOGY” from 03rd January to 12th January 2020 organized by VTU-HRDC, Visvesvaraya Technological University, Centre for Post Graduate Studies, Bangalore Region, Muddenahalli, Chikkaballapur-562101. 4. Attended a workshop on “Art and Challenges of writing papers for IEEE transactions” as a part of IEEE Bangalore webinar-learning series organized by IEEE Bangalore section on June 8th 2020. 5. Attended five days workshop on “Sensors and Their Applications” held from 13/07/2020 to 17/07/2020 under IEEE sensors council, Bangalore section. 6. Attended advanced training program on “INUP –i2i Hands – On Training Program” from 18th April to 27th April 2021 at CENSE, IISc, Bangalore. 7. One day Symposium on “Photonics and Quantum Concepts”. Technically cosponsored by Prakash Bharathi IEEE Photonics Society

		<p>(USA), India, Organised by E&C Department, Malnad college of Engineering in association with IEEE MCE Student Branch held on 28th May 2022 at E&C Department, Malnad college of engineering Hassan.</p> <p>8. One day Symposium on “Photonics and Quantum Concepts”. Technically cosponsored by Prakash Bharathi IEEE Photonics Society (USA), India ,Organised by E&C Department ,Malnad college of Engineering in association with IEEE MCE Student Branch held on 20th December 2022 at E&C Department , Malnad college of engineering Hassan.</p>
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PART-B

1. List of Publications:

Sl. No.	Title	Name of the Journal, Vol. No., Year	ISSN/ISBN/Number
1.	Design and Implementation of Strip based Modified SPIHT algorithm for Compression and Decompression using Verilog	IRJET Journal Volume 3, Issue 7, July 2016	e-ISSN: 2395-0056, p-ISSN:2395-0072
2.	Circular Diaphragm-Based MOEMS Pressure Sensor Using Ring Resonator	International Journal of Information Technology (BJIT), Vol 13, Issue 03, 213-220 21-October-2020	https://doi.org/10.1007/s41870-020-00534-5
3.	Design and Implementation of MOEMS based Optical Diaphragm using Photonic Crystal for the prevention of Barotrauma	Results in optics Elsevier journal, November - 2021	https://doi.org/10.1016/j.rio.2021.100191
4.	Comparative Performance Analysis of 2D Photonics MOEMS Pressure Sensors	International Journal of Information Technology (BJIT), 2022	https://doi.org/10.1007/s41870-022-00986-x
5.	Micro mechanical deformation sensor based on ultra-sensitive photonic crystal membrane	IEEE Chapter, WRAP 2019, SP: 032, Page-37	

6.	Design of Ring Resonator for Biomedical Applications	International Journal of Research and Analytical Reviews (IJRAR), Vol.9 , Issue 3,pp 770-773, July-2022	E-ISSN 2348-1269 ,P-ISSN 2349-5138
7.	Design and Analysis of Two-Dimensional Photonic Crystal Based Biosensor to detect Blood components using Elliptical Ring Resonator	International Journal of Research and Analytical Reviews (IJRAR), Vol.9, Issue 3, pp 302-307, July-2022	E-ISSN 2348-1269 ,P-ISSN 2349-5138
8.	Pressure Sensing using a Two-Dimensional Photonic crystal Sensor	International Journal of Electrical and Electronics research (IJEER), Volume 10, Issue 4, Pages 784-787, October 2022	e-ISSN: 2347-470X https://doi.org/10.37391/ijeer.100402 .
9.	Design and simulation of a highly sensitive one-dimensional photonic crystal for different chemical sensing applications	Results in Optics Vol.11, May- 2023.	https://doi.org/10.1016/j.rio.2023.100376
10.	Photonic Crystal-based Biosensor to Detect Multiple Myeloma from Blood Serum	Journal of Optics, March 2023.	https://doi.org/10.1007/s12596-023-01145-6
11.	Circular Diaphragm-Based MOEMS Pressure Sensor Using Ring Resonator	INDIACom-2019, BVICAM, 13th – 15th March 2019, India, pp 279-283, 2019.	IEEE Conference ID 46181
12.	Comparative Performance Analysis of 2D Photonics MOEMS Pressure Sensors	INDIACom-2021; IEEE, BVICAM, 17th - 19th March, 2021.	Conference ID: 51348
13.	Micro mechanical deformation sensor based on ultrasensitive photonic crystal membrane	IEEE Workshop on Recent Advances on Photonics (WRAP-2019),held during 13th -14th December 2019 at IIT Guwahati, Assam, India.	pp 37
14.	Performance analysis of photonic crystal based biosensor for the detection of bio-molecules in urine and blood	Elsevier proceedings of Materials today – 2020, June - 2021	https://doi.org/10.1016/j.matpr.2021.06.192 .
15.	Pressure Sensing using a Two-Dimensional Photonic crystal Sensor	RDECS, held on 22 nd and 23 rd July 2022	-

16.	Photonic crystal-based biosensor for various applications	National Conference on Emerging Technologies in Engineering, held on 12th May 2023	-
17.	Photonic crystal-based Pressure sensor for various applications	National Conference on Emerging Technologies in Engineering, held on 12th May 2023	-
18.	Novel Analysis of Photonic Crystal Based Biosensors – An Interesting Future	National Conference on Emerging Technologies in Engineering, held on 12th May 2023	-

- 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.	Faculty Advisor for 1st Sem Students

3. Details of Teaching Related Activities

Sl. No.	Academic Year	(B. E/M.Tech)	Course Title
1	2023-24	7 th Sem EC	Artificial Intelligence (20EC742)
2	2023-24	1 st Sem (A Sec)	Introduction to Electronics Engineering (23ESC14X)
3	2023-24	5 th Sem (EC2)	Social Connect and Responsibility (21SCR)
4	2023-24	5 th Sem (EC2)	Environmental Studies (21EVS)
5	2023-24	5 th Sem (EC1)	Social Connect and Responsibility (21SCR)
6	2023-24	3 rd Sem (EC1)	Digital Electronics Laboratory (22EC306)

Professional Development Activities	
<p>Membership in profession related committees at state and national level</p> <p>a) At International: 3 b) At national level: 1 c) At state :</p>	<p>a) Active Member of IEEE Bangalore Section. b) Active Member of IEEE Mysore Section. c) Active Member of IEEE Photonics society d) Coordinator in the workshop and industry involvement team in “Prakash Bharati”</p>
<p>Participation in subject associations, conferences, seminars without paper presentation</p>	<p>Organized “National Conference on Emerging Technologies in Engineering”, at Navkis College of Engineering Hassan, held on 12th May 2023.</p>
<p>Participation in short term training courses less than one week duration in educational technology, curriculum development, professional development, Examination reforms, Institutional governance</p>	<p>Coordinated Microsoft Azure Program at Navkis College of Engineering Hassan, held from 17th – 21st November 2022.</p>
<p>Membership/participation in State/Central Bodies/Committees on Education, Research and National Development</p>	<p>NIL</p>
<p>Publication of articles in newspapers, magazines, or other publications (not covered in category 3); radio talks; television programmes</p>	<p>–</p>
<p>Invited Expert Talks</p>	<ol style="list-style-type: none"> 1. Presented a Scholar’s talk on “ Design and Analysis of Photonic crystal based Biosensor” organized by Prakash Bharati, in association with IEEE Photonics Society on 13th August 2021. 2. Conducted a Hands-on Workshop on “Photonics and Quantum mechanics”, organised by Department of ECE,

		<p>Malnad college of Engineering in association with IEEE MCE Student Branch held on 19th June 2023 at E&C Department, Malnad college of engineering Hassan.</p> <p>3. Conducted a workshop on “OptiPress: Innovating the Future of Pressure Sensing with Light” on 9th November 2023 in association with IIC at Department of Mechanical Engineering, The Oxford College of Engineering Bengaluru, India.</p>
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PART-C

RESEARCH, PUBLICATIONS AND ACADEMIC CONTRIBUTIONS

1. Published Papers in Journals

Sl. No.	Title	Journal with Vol. Year & Page No.	ISSN / ISBN No.	Whether peer reviewed. Impact factor, if any	No. of Co-authors	Whether you are the main author or Guide / mentor
1	Design and Implementation of Strip based Modified SPIHT algorithm for Compression and Decompression using Verilog	IRJET Journal Volume 3, Issue 7, July 2016	e-ISSN: 2395-0056, p-ISSN:2395-0072	No	1	Main Author
2	Circular Diaphragm-Based MOEMS Pressure Sensor Using Ring Resonator	International Journal of Information Technology (BJIT), Vol 13, Issue 03, 213-220 21-October-2020	https://doi.org/10.1007/s41870-020-00534-5	Yes	3	Main Author
3	Design and Implementation of MOEMS based Optical Diaphragm using Photonic Crystal for the prevention of Barotrauma	Results in optics Elsevier journal, November - 2021	https://doi.org/10.1016/j.rio.2021.100191	Yes	2	Main Author

4	Comparative Performance Analysis of 2D Photonic MOEMS Pressure Sensors	International Journal of Information Technology (BJIT), 2022	https://doi.org/10.1007/s41870-022-00986-x	Yes	2	Main Author
5	Micro mechanical deformation sensor based on ultra-sensitive photonic crystal membrane	IEEE Chapter, WRAP 2019, SP: 032, Page-37		Yes	3	Co-Author
6	Design of Ring Resonator for Biomedical Applications	International Journal of Research and Analytical Reviews (IJRAR), Vol.9, Issue 3, pp 770-773, July- 2022	E-ISSN 2348-1269 ,P-ISSN 2349-5138	Yes	3	Co-Author
7	Design and Analysis of Two-Dimensional Photonic Crystal Based Biosensor to detect Blood components using Elliptical Ring Resonator	International Journal of Research and Analytical Reviews (IJRAR), Vol.9, Issue 3, pp 302-307, July- 2022	E-ISSN 2348-1269 ,P-ISSN 2349-5138	Yes	3	Co-Author
8	Pressure Sensing using a Two-Dimensional	International Journal of Electrical and Electronics	e-ISSN: 2347-470X https://doi.org/10.37391/ijeer.100402 .	Yes	2	Main Author

	Photonic crystal Sensor	research (IJEER), Volume 10, Issue 4, Pages 784-787, October 2022				
9	Design and simulation of a highly sensitive one-dimensional photonic crystal for different chemical sensing applications	Results in Optics Vol.11, May- 2023.	https://doi.org/10.1016/j.rio.2023.100376	Yes	2	Main Author
10	Photonic Crystal-based Biosensor to Detect Multiple Myeloma from Blood Serum	Journal of Optics, March 2023.	https://doi.org/10.1007/s12596-023-01145-6	Yes	3	Co-Author

2. Training Courses, Teaching-Learning-Evaluation Technology Programs, Faculty development Programmes IS IT CONDUCTED OR ATTENDED

Sl. No.	Name of Course/Summer/Winter School	Duration	Organized By
1.	Attended Basic training program in “ Nano Science and Technology ”.	14 th October to 16 th October 2019	CENSE, IISc, Bangalore.
2.	Attended a webinar on “ Graphene based Nanocomposites for Energy Storage ”.	On 01.06.2020	V.O. Chidambaram College.
3.	International Webinar on “ Photonics for India: Opportunities and Challenges ”.	On 16 th May 2020	MCE, Hassan

4.	International Webinar on “ Artificial Intelligence in Healthcare ”.	On 30 th May 2020	MCE, Hassan
5.	FDP “ Recent Advances in Photonics , Technology ”.	7 th – 11 th September 2020	VVCE, Mysore
6.	IEEE Webinar on “ Introduction to Photonics ”.	28 th May 2021	IISc, Bangalore
7.	Attended advanced training program on “ INUP –i2i Hands – On Training Program ”.	18 th April to 27 th April 2021	CENSE, IISc, Bangalore.
8.	Attended a webinar on “ Support for students pursuing Entrepreneurship ”.	On 30 th Jan 2021	The Oxford College of Engineering, Bangalore.
9.	Participated and completed five days AICTE Training and Learning (ATAL) Academy Online FDP on “ Photonics ”.	2021-2-1 to 2021-2-5	National Institute of Technology Karnataka.
10.	Participated and completed five days AICTE Training and Learning (ATAL) Academy online FDP on “ Photonics ”.	2021-2-8 to 2021-2-12	KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES.
11.	Attended FDP program on “ FDP on recent trends in Photonics ”.	14 th – 19 th June 2021	The Oxford College of Engineering, Bangalore.
12.	Attended IEEE Webinar on “ Possible Carrier Pathways for Engineering Graduates ”.	On 19th June 2021	MCE, Hassan
13.	Attended One day Symposium on “ Photonics and Quantum Concepts ”.	On 28th May 2022	MCE, Hassan
14.	Participated and completed AICTE Training and Learning (ATAL) Academy Online Elementary FDP on “ Quantum and Photonics ”.	29/11/2021 to 03/12/2021	MCE, Hassan

15.	Attended One day Symposium on “ Photonics and Quantum Concepts ”.	On 20th December 2022	MCE, Hassan
16.	Attended a Webinar on “ Optical Nonlinearity of semiconductor amplifier and their applications ”.	On 19 th June 2023	MCE, Hassan
17.	Conducted a Hands-on Workshop on “ Photonics and Quantum mechanics ”.	On 19 th June 2023	MCE, Hassan
18.	Conducted and a session chair in “ National Conference on Emerging Technologies in Engineering ”.	On 12th May 2023	Navkis College of Engineering, Hassan
19.	Conducted a workshop on “ OptiPress: Innovating the Future of Pressure Sensing with Light ”.	On 9 th November 2023	The Oxford College of Engineering Bengaluru, India.

3. Papers presented in Conferences, Seminars, Workshops, Symposia

Sl. No.	Title	Title of Conference/Seminar etc.	Dates of the Event	Organized by	Whether International/National/State/Regional /University/College Level
1	Circular Diaphragm-Based MOEMS Pressure Sensor Using Ring Resonator	INDIACom-2019.	13th – 15th March 2019,	BVICAM	International
2	Comparative Performance Analysis of 2D Photonics MOEMS Pressure Sensors	INDIACom-2021.	17th - 19th March, 2021.	BVICAM	International
3	Micro mechanical deformation sensor based on ultrasensitive photonic crystal membrane	Recent Advances on Photonics (WRAP-2019),	13th -14th December 2019	IIT Guwahati, Assam, India	International
4	Performance analysis of photonic crystal based biosensor for the detection of bio-molecules in urine and blood	Elsevier proceedings of Materials today – 2020,	June - 2021	Elsevier	International
5	Pressure Sensing using a Two-Dimensional Photonic crystal Sensor	RDECS, held on	22 nd and 23 rd July 2022	Aditya Engineering College, Surampalem East-Godavari	International

				District, Andhra Pradesh	
6	Photonic crystal-based biosensor for various applications	National Conference on Emerging Technologies in Engineering	12th May 2023	Navkis College of Engineering Hassan	National
7	Photonic crystal-based Pressure sensor for various applications	National Conference on Emerging Technologies in Engineering	12th May 2023	Navkis College of Engineering Hassan	National
8	Novel Analysis of Photonic Crystal Based Biosensors – An Interesting Future	National Conference on Emerging Technologies in Engineering	12th May 2023	Navkis College of Engineering Hassan	National

Note: Do not leave any blank rows and columns. Add/Delete rows/columns appropriately.