

Dr. Supriya M.H.

M.Tech, MBA, Ph.D.



PROFESSOR & HEAD
Department of Electronics
Cochin University of Science and Technology

Curriculum Vitae

Experience

University UG College Level	2	years
University PG Level	23	years
Industrial	4	years

Teaching

Industrial

Administration

Head of the Department	5	years
PI/Co-PI: Funded Projects	21	years

Administration

Organiser

International Level Chairperson	1	Symposium
International Level Organising Committee Member	8	Symposia
National Level Co-ordinator	2	Workshops

Organiser

Funded Projects

Externally Funded Projects/ Consultancy	15
Total Outlay	8.85 Crores

Projects

Participation

Training Programs/Workshop/ Summer/Winter-Schools (by Govt. agencies/UGC/AICTE, ICTP or similar Organisations)	21
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Participation

Research

Research Guidance	7	Students
Ph.D. Awarded	6	
Publications	170	

Research

Patents

Patents/Technology Transfer	1
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Patents

Recognitions

Awards/Medals	9
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Awards

Books

Chapters Contributed	2
Proceedings of National Symposium on OCEAN ELECTRONICS (SYMPOL)	2
Proceedings of International Symposium on OCEAN TECHNOLOGY (SYMPOL)	8

Books

Curriculum Vitae of Dr. Supriya M.H.

1. **Name** : Dr. Supriya M.H.

2. **Address** : Professor & Head,
Department of Electronics,
Cochin University of Science & Technology
Kochi-682 022, Kerala, INDIA.

3. **Date of Birth**: 23.5.1967

4. Academic Qualifications:

Degree	University	Year of passing	Subjects/ Specialisation	Class
B. Tech.	Calicut University (R.E.C)	1988	Electrical	I(Dist)
M. Tech.	CUSAT	1992	Electronics	I(Dist)
Diploma	Bangalore University	1993	In Unix & C	I
Ph. D.	CUSAT	2008	Electronics; Underwater Target Classifier	
M. B. A	Sikkim – Manipal University	2014	Information Technology	A Grade

5. Organizational Positions Held

- **Elected as Member to Senate**, Cochin University of Science & Technology
- **Member, Academic Council**, Cochin University of Science & Technology from Nov 2011 till Nov 2013.
- **Member, Academic Committee**, Cochin University of Science & Technology
- **Member, Board of Studies, Electronics (PG)**, Bharathiar University
- **Member- Board of Studies-** Rajagiri College of Social Science (Autonomous), Kochi
- **Technical Expert** in various project reviews of NPOL, Kochi-22
- **Registered Ph. D Guide** of Bharathiar University
- **Member, Governing Council**, STIC till August 2018
- **Member, Board of Studies in Technology and Management**, Cochin University of Science & Technology
- **Member, Faculty of Technology**, Cochin University of Science & Technology
- **Member, CAT monitoring Committee**, Cochin University of Science & Technology
- **Member, Internal Quality Assurance Cell**, Cochin University of Science & Technology
- **Member, Board of Studies in Strategic Studies**, Cochin University of Science & Technology

- **Member, RUSA Governing Council**, Cochin University of Science and Technology
- **Member, Academic Council**, Cochin University of Science & Technology from May 2015 till date.
- **Member, Project “FRACTION”**, co-funded by the Erasmus+ Programme of the European Union.

6. Professional Experience:

Designation	Institution	Period
Lecturer	People's Education Society Institute of Technology, Bangalore.	October 1992- August 1993
Lecturer	School of Technology and Applied Sciences, Edappally, MG University	March 1994 - July 1995
Software Manager	Integrated Computing Environments, Cochin Export Processing Zone, Kakkanad.	July 1995 - January 1999
Lecturer	Department of Electronics, Cochin University of Science & Technology, Cochin-22.	January 1999- November 2001
Sr. Lecturer	Department of Electronics, Cochin University of Science & Technology, Cochin-22.	November 2001- November 2006
Reader	Department of Electronics, Cochin University of Science & Technology, Cochin-22.	November 2006- November 2009
Associate Professor	Department of Electronics, Cochin University of Science & Technology, Cochin-22.	November 2009 - November 2012
Professor	Department of Electronics, Cochin University of Science & Technology, Cochin-22.	November 2012 – 31.05.2020
Professor & Head	Department of Electronics, Cochin University of Science & Technology, Cochin-22.	May 2015 - May 2018
Professor & Head	Department of Electronics, Cochin University of Science & Technology, Cochin-22.	1.06.2020 - Till date

7. Scholarships

- **University Merit Scholarship** for a period of Two Years (1982-1984) during Pre-Degree
- **REC Merit Scholarship** for a period of Four Years (1984-1988) during B.Tech
- **GATE Scholarship** for a period of One and Half Years (1990-1992) during M.Tech

8. Fields of Research and Teaching:

- Underwater Acoustics Target Identification

- Underwater Communication
- Signal Processing
- Computer Technology
- Machine Learning

9. (a) Projects Undertaken:

<i>Sl No.</i>	<i>Title</i>	<i>Funding Agency</i>	<i>Amount</i>	<i>Duration</i>
1	Development of algorithms for spread spectrum underwater communication systems (Co- PI)	NPOL, Kochi -21	4.991 Lakhs	1 Year
2	Design and Implementation of Multiple CDMA Communication System (Co- PI)	NPOL, Kochi -21	4.996 Lakhs	1 Year
3	Online Education Programme	UGC Minor Project	Rs 25000/-	1 Year
4	Development of algorithms for Fish and DSL biomass estimation (Co- PI)	Department of Ocean Development	74.11 Lakhs	3 Years
5	Implementation of an Intelligent Identifier for Identification of Ambient Noise Sources (PI)	NRB, New Delhi	12.995 Lakhs	3 Years
6	Development of an Autonomous Buoy System for Radio- Acoustic Positioning and Tracking (Co-investigator)	DIT, New Delhi	211.89 Lakhs	3 Years
7.	Tuna Resources of the Indian EEZ-An Assessment of Growth and Migratory Patterns (Co-investigator)	Department of Ocean Development	24.25 Lakhs	3 Years
8	Development of Miniaturised Archival Tags (Co-investigator)	Ministry of Earth Sciences	99.56 Lakhs	3 Years
9.	Development of Techniques for Blind Source Separation (PI)	NPOL, Kochi -21	8.5 Lakhs	1 Year
10.	HMM based target classifier with improved success rates (PI)	NRB, New Delhi	43.55 Lakhs	3 Years
11	Sonic Characterisation of Marine Species (PI)	MoES, New Delhi	285 Lakhs	5 Years

12	Algorithms for Underwater Image enhancement, Object detection and Cable tracking	NRB, New Delhi	30.05 Lakhs	2 Years
13	Machine Learning Models for Underwater Image Enhancement and Content Analysis	NRB, New Delhi	48.04560 Lakhs	2 Years
TOTAL OUTLAY GENERATED			848.1876 Lakhs	

(b) Consultancy Undertaken

1	Development of Bio-mimetic Approaches for Sonar Systems	NPOL, Kochi	19.99888 Lakhs	1.5 Years
2	In Situ Intelligent Passive Acoustic Sensor Network for Monitoring Marine Habitats	Sony SSUP, India	17.061 Lakhs	1 Year
TOTAL OUTLAY GENERATED			37.05988 Lakhs	

(c) Consultancy awaiting finalisation

1	Development of a Realtime, Fully Learnable Passive Sonar System	NSTL, Visakhapatnam	46.023 Lakhs	1.5 Years
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10. Professional Training Experience:

Undergone the following Refresher courses:

<i>Sl No</i>	<i>Title</i>	<i>Institution</i>	<i>Duration</i>
1	AICTE – ISTE Sponsored Winter School on Internet and E-Commerce	College of Engineering Chengannur	18 th to 30 th December 2000
2	AICTE – ISTE Sponsored Short Term Programme on Digital Signal Processing and Emerging Applications	Model Engineering College Cochin – 682 021	16 th to 29 th August 2001
3	AICTE – ISTE Sponsored Short Term Programme on High Performance Cluster Computing using Open Source Soft Ware	Model Engineering College Cochin – 682 021	17 th – 30 th December 2001
4	UGC sponsored Short Term training programme on	Department of Computer Applications,	12 th April 2002 – 4 th May 2002

	Advances in Computer Applications	CUSAT, Cochin – 682 022	
5	AICTE – ISTE Sponsored Short Term Programme on Artificial Neural Networks and its applications	Model Engineering College Cochin – 682 021	28 th – 9 th May 2008
6	AICTE – ISTE Sponsored Short Term Programme on VLSI and Embedded Systems	National Institute of Technology, Calicut	15 th – 28 th June 2008
7	User Awareness programme on Access to e Resources	INFLIBNET & CUSAT	21 th April 2009
8	AICTE – ISTE Sponsored Short Term Programme on Softcomputing-Methodologies & Applications	College of Engineering, Poonjar	21 st – 28 th April 2010
9	AICTE Sponsored Short Term Programme on Nanoelectronics	National Institute of Technology, Calicut	10 th – 21 st May 2010
10	AICTE Sponsored Short Term Programme on Labview& its Applications	National Institute of Technology, Calicut	13 th – 19 th Jun 2010
11	AICTE Sponsored Short Term Programme on Advanced Microprocessors and Microcontrollers	National Institute of Technology, Calicut	12 th – 17 th July 2010
12	DTE Sponsored Short Term Programme on Recent Trends in VLSI and Nanotechnology	Govt. Engineering College, Trichur	4 th – 9 th October 2010
13	ISTE Sponsored Short Term Programme on Modelling and Optimization Techniques in Engineering	Cochin University of Science & Technology	18 th – 30 th October 2010
14	AICTE Sponsored Staff Development Programme on System Level Modeling, Design and Analysis: A Practical Approach	Cochin University of Science & Technology	6 th – 17 th June 2011
15	DTE Sponsored Short Term Programme on Embedded System Design using Microcontroller & FPGA	Govt. Engineering College, Trichur	6 th – 11 th August 2012
16	TEQUIP STTP on Energy Conservation & Management	Cochin University of Science & Technology	5 th – 9 th November 2012
17	Mentor Graphics	NGP Coimbatore	15 th -16 th March 2013

18	VLSI Workshop	Department of Electronics, CUSAT	7 th – 11 th September 2013
19	Electronic Design Tools and its Applications, CURVE	Cochin University of Science & Technology	27 th -31 st October 2013
20	Lab View Tools and its Applications	Cochin University of Science & Technology	27 th -31 st October 2014
21	CMI Level 3 Award in First Line Management	CMI, Wales, UK	2017 July to 2018 Jan

11. Conferences & Workshops Attended:

National Conferences

- **National Conference on Technology Convergence for Information Communications & Environment (NICE 2001)** conducted by IETE, Cochin – Feb 2001
- **Hydroacoustics Training Program and associated cruise** organized by Department of Ocean Development – December 2001.
- **National Symposium on OCEAN ELECTRONICS 2001**(SYMPOL 2001), Department of Electronics, Cochin University of Science and Technology), December 2001
- **National Symposium on OCEAN ELECTRONICS 2003**(SYMPOL 2003), Department of Electronics, Cochin University of Science and Technology – December 2003
- **National Symposium on OCEAN ELECTRONICS 2005** (SYMPOL 2005), Department of Electronics, Cochin University of Science and Technology – December 2005
- **National Workshop on Acoustics** organized by National Institute of Ocean Technology, Chennai – August 2006.
- **National Conference on Software Engineering- 2008**(NCSOFT 08), Department of Computer Science, Cochin University of Science and Technology – December 2008
- **National Symposium on ACOUSTICS, ASI & RCI** (NSA 2009), Hyderabad – November 2009)
- **Marinefish Bioacoustics and Marine Bioluminescence**, Annamalai University, May 2010
- **National seminar on Current Advances in RF and VLSI Engineering, CURVE 2013**, 1- 2 March 2013
- **Workshop on VLSI in VHDL** conducted by Focuzinfotech. during 7-11th September 2013.
- **INDO – US Workshop on SHALLOW WATER ACOUSTICS**, NIOT, Chennai, Feb 2011

International Conferences

- **International Conference on Sonar Sensors and Systems 2002**(ICONS 2002), December 2002
- **International Symposium on OCEAN ELECTRONICS 2007** (SYMPOL 2007), Department of Electronics, Cochin University of

- Science and Technology – December 2007
- **International Symposium on OCEAN ELECTRONICS 2009**(SYMPOL 2009), IEEE OES, ASA and Department of Electronics, Cochin University of Science and Technology – November 2009
 - **European Conference on Underwater Acoustics** (ECUA 2010), Istanbul, Turkey, July 2010
 - **International Marine Electromagnetics Conference** (MARELEC 2011) hosted by Scripps Institute of Oceanography, La Jolla, California during June 20–23, 2011, at San Diego, USA
 - **International Symposium on OCEAN ELECTRONICS 2011**(SYMPOL 2011), IEEE OES, ASA and Department of Electronics, Cochin University of Science and Technology – November 2011
 - **Acoustics 2012**, hosted by SFA at Nantes, France during 23- 28 April 2012
 - **International Symposium on OCEAN ELECTRONICS 2013**(SYMPOL 2013), IEEE OES, ASA and Department of Electronics, Cochin University of Science and Technology – October 2013
 - **International Symposium on OCEAN ELECTRONICS 2015**(SYMPOL 2015), IEEE OES, ASA and Department of Electronics, Cochin University of Science and Technology – November 2015
 - **OCEANS'16 MTS/IEEE** Monterey on September 19, 2016.
 - **International Symposium on OCEAN TECHNOLOGY 2017**(SYMPOL 2017), IEEE OES-India Chapter, ASA and Department of Electronics, Cochin University of Science and Technology – December 2017.
 - **International Symposium on OCEAN TECHNOLOGY 2019**(SYMPOL 2019), IEEE OES-India Chapter, and Department of Electronics, Cochin University of Science and Technology – December 2019.
 - **International Symposium on OCEAN TECHNOLOGY 2021**(SYMPOL 2021), IEEE OES and Department of Electronics, Cochin University of Science and Technology – December 2019.

12. Books Edited:

- Proceedings of National Symposium on OCEAN ELECTRONICS (SYMPOL 2003), Department of Electronics, Cochin University of Science and Technology – December 2003
- Proceedings of National Symposium on OCEAN ELECTRONICS (SYMPOL 2005), Department of Electronics, Cochin University of Science and Technology – December 2005
- Proceedings of International Symposium on OCEAN ELECTRONICS (SYMPOL 2007), Department of Electronics, Cochin University of Science and Technology – December 2007
- Proceedings of International Symposium on OCEAN ELECTRONICS (SYMPOL 2009), IEEE OES, ASA and Department of Electronics, Cochin University of Science and Technology – November 2009
- Proceedings of International Symposium on OCEAN ELECTRONICS (SYMPOL 2011), IEEE OES, ASA and Department of Electronics, Cochin University of Science and Technology – November 2011
- Proceedings of International Symposium on OCEAN ELECTRONICS (SYMPOL 2013), IEEE OES, ASA and Department of Electronics,

- Cochin University of Science and Technology – October 2013
- Proceedings of International Symposium on OCEAN ELECTRONICS (SYMPOL 2015), IEEE OES, ASA and Department of Electronics, Cochin University of Science and Technology – November 2015
 - Proceedings of International Symposium on OCEAN TECHNOLOGY (SYMPOL 2017), IEEE OES-India Chapter, ASA and Department of Electronics, Cochin University of Science and Technology – December 2017
 - Proceedings of International Symposium on OCEAN TECHNOLOGY (SYMPOL 2019), IEEE OES-India Chapter, ASA and Department of Electronics, Cochin University of Science and Technology – December 2019.
 - Proceedings of International Symposium on OCEAN TECHNOLOGY (SYMPOL 2021), IEEE OES and Department of Electronics, Cochin University of Science and Technology – December 2019.

13. Chapters Contributed:

1. A. R. Remya, M. H. Supriya, A. Sreekumar, *A Novel Non-repudiate Scheme with Voice FeatureMarking*, Computational Intelligence, Cyber Security and Computational Models Volume 246 of the series Advances in Intelligent Systems and Computing pp 183-194, 27 November 2013, Springer.
2. A. R. Remya, A. Sreekumar, M. H. Supriya, *Comprehensive Non-repudiate Speech Communication Involving Geo-tagged Featuremark*, Transactions on Engineering Technologies, World Congress on Engineering and Computer Science 2014, pp 177-191, Springer.

14. Technical Reports Brought Out:

Development of algorithms for Fish and DSL biomass estimation	:8
Implementation of an Intelligent Identifier for Identification of Ambient Noise Sources	:3
Development of an Autonomous Buoy System for Radio-Acoustic Positioning and Tracking	:12
Tuna Resources of the Indian EEZ-An Assessment of Growth and Migratory Patterns	:1
Development of Techniques for Blind Source Separation	:4
HMM Modeling	:1
HMM based Target Classifier with Improved Success Rates	:2
Algorithms for Underwater Image enhancement, Object detection and Cable tracking	:1

Machine Learning Models for Underwater Image Enhancement and Content Analysis :1

Development of Biomimetic Approaches for Sonar Systems :2

In situ Intelligent Passive Acoustic Sensor Network for Monitoring Marine Habitats :1

15. Symposiums Organised:

- **Member**, Organizing Committee, National Symposium on OCEAN ELECTRONICS (SYMPOL- 2001, SYMPOL- 2003 & SYMPOL- 2005).
- **Secretary**, Organizing Committee, International Symposium on OCEAN ELECTRONICS, SYMPOL 2007.
- **Coordinator**, SYMPOL 2009, 2011, 2013, 2015 2017 (International Symposium on OCEAN ELECTRONICS) SYMPOL 2019, 2021 (International Symposium on OCEAN TECHNOLOGY) jointly organized by IEEE OES, ASA and Department of Electronics, CUSAT.
- Conducted a **National Workshop on Underwater Target Identification** for dissemination of knowledge as part of NRB Project implementation at NPOL, Kochi on Nov 5th 2007.
- Conducted a **National Workshop on Transducer Design** at CUSAT, 15th Nov 2011 as part of NPOL-CARS Project implementation.
- **RUSA – SASTHRAYAAN**, a government of Kerala initiative organized by CUSAT

16. Number of Students registered for Ph.D (Guide) : 5
(Supervisor with Co-supervisor) : 2

17. Leadership Program

- Has been selected for the **UK India Education Research Initiative leadership program (UKIERI)** of the AICTE and awarded level 3 certification of CMI.

18. Ph.Ds

Produced : 6

- Binsu C Koor – Improved Biometric Authentication System using Multimodal Cue Integration
- Rithu James - Blind Estimation of Sonar Images from Diverse Speckle-Scene Models
- Alex Raj S.M. – Reconfigurable Platform Based Design in FPGA for Underwater Image Enhancement, Object detection and Pipeline Tracking
- Sherin B.M.–Underwater Target Classifier with Improved Success Rate using Meta-Optimal Support Vector Machines
- Shameer K Mohammed - HMM based Underwater Target Classifiers with Rayleigh Fading Compensation
- Satheesh Chandran C. - Passive Acoustic Classification of Underwater Targets using Unsupervised Representation Learning Schemes

Submitted (Awaiting Viva)

- Vijeesh P - Development of a Crystallizer-Image Analyzer System and Its Application in Optical Bandgap Modification of Tri Glycine Sulphate

- Suraj Kamal - Passive Sonar Automated Target Classification using Deep Hierarchical Feature Learning Approaches

19. Projects Guided:

M.Tech/ M.Sc : 100

20. Post-Doctoral Fellow Guided: : 3

21. Invited Talks Delivered

1. **What's Beneath? - Underwater Target Identification** – Nov 2007, NPOL, Kochi
2. **The paradigms of Signal Analysis** – NSTL in March 2008
3. **Signal Processing Boot Camp** – Rajagiri College, Ernakulam, 2009
4. **An Inspirational Speech for the upcoming engineers**– ToCH, Arakunnam
5. **The Frontiers and Challenges in Morphological Image Processing** – Model Engineering College, Thrikkakara, Jun 2010
6. **Biometrics and Security Vulnerabilities in 21st Century** – Poonjar Engineering College, Poonjar, April 2010
7. **Biometrics; Past, Present and the Future**– St. Thomas College of Engineering, Pala, Sep 2010
8. **Revisiting the Fundamentals of Digital Signal Processing** – VSSC, Thiruvananthapuram, Oct 3, 2010
9. **An incremental approach to Digital Filter Design** - VSSC, Thiruvananthapuram, Oct 3, 2010
10. **Contemporary landscape of commercial Digital Signal Processors** - VSSC, Thiruvananthapuram, Oct 3, 2010
11. **A guided tour to MATLAB – A Tutorial** - VSSC, Thiruvananthapuram, Oct 4, 2010
12. **A bird's eye view on Wavelets** - VSSC, Thiruvananthapuram, Oct 4, 2010
13. **A boot camp for Digital Image Processing** - VSSC, Thiruvananthapuram, Oct 4, 2010
14. **A pragmatic approach to Digital Image Processing** - VSSC, Thiruvananthapuram, Oct 4, 2010
15. **Blind Source Separation of Ocean Acoustic Signals** – Indo-US workshop at NIOT, Chennai, 2010
16. **Diffusion Tensor Imaging**, AISAT, Cochin- 22, 2013
17. **Diffusion Tensor Imaging**, Model Engineering College Cochin, 2013
18. Key note Address: **Consciousness and the aspects of Image processing**- College of Engineering, Kidangoor, 1st April 2013
19. **DSP- Fundamentals of Radars for Atmospheric Research-** FORFOR II
20. **Man Machine, towards a Cognitive Coherence, “Open the pod bay doors”** – College of Engineering, Kidangoor, 14th December 2015
21. Keynote Address: **Man Machine, towards a Cognitive Coherence** - Muslim Association College of Engineering, Thiruvananthapuram, 7th April 2017
22. **Man Machine, towards a Cognitive Coherence** – Knowledge Forum, CUSAT, Feb 14, 2018
23. **Deep Learning Models for Image Enhancement** – LBS April 2022

22. Patents Filed

“SYSTEM AND METHOD FOR ACOUSTIC TRACKING AND IDENTIFICATION OF NOISE SOURCES IN A WATER BODY” IN THE NAME OF SUPRIYA M.H. AND P R S PILLAI - 3649/CHE/2011

23. Awards & Honours Won

- **Best student paper award** for the paper *Deep Learning Architectures for Underwater Target Recognition*, in International Symposium on OCEAN ELECTRONICS, SYMPOL 2011.
- Won **Dr. S. Parthasarathy Award** for the paper “Implementation of a Bicepstral Target Classifier with Support Vector Machines for Noise Sources in the Ocean” published in the Journal of Pure and Applied Ultrasonics, 2014, vol.36, pp. 3-7.
- Shared the **third prize for the student posters** *Novel Class Detection of Underwater Targets using Self-Organizing Neural Networks and Bispectral Gammatone Cepstral Coefficient Based Neural Network Classifier* in Underwater Technology 2015 (UT-15) held at NIOT, Chennai from 23-25 February, 2015.
- Acceptance as **Instructor for the tutorial** on “Underwater Target Classification” conducted as part of OCEANS’16 MTS/IEEE Monterey on September 19, 2016.
- **Best student paper award** for the paper *An SVM based Underwater Target Classifier utilizing Unsupervised Neural Networks for Performance Enhancement and Novelty Detection* in National Symposium on Antennas, Signal Processing & Inter-Disciplinary Research in Electronics (ASPIRE 2017) held at Muslim Association College of Engineering, Thiruvananthapuram, during 7-8 April 2017.
- **Best paper award** for the paper Sign Language Recognition System Using Deep Neural Network presented in 2019 5th International Conference on Advanced Computing & Communication Systems (ICACCS) by **Surejya Suresh, Mithun Haridas T.P & Supriya M.H**
- **Best paper award** for the paper Face Recognition based Surveillance System Using FaceNet and MTCNN on Jetson TX2 presented in 2019 5th International Conference on Advanced Computing & Communication Systems (ICACCS) by **Edwin Jose, Greeshma, Mithun Haridas T.P & Supriya M.H**
- **Distinguished Woman in Engineering (Electronics) award** conferred to Supriya M H in AWM 2019 at Chennai by Venus International Foundation
- **Dewang Mehta National Education Awards - Regional Round- Kerala Region** conferred Supriya M H as **Best Professor in Electronics on 15th March, 2019.**

24. Papers Published

- International Journals : 40

● National Journals	: 5
● International Conferences	: 101
● National Conferences	: 24

List of Publications

National Conferences

1. James Kurian, Supriya M.H. and P.R. Saseendran Pillai.: *Design and Implementation of a Computer Controlled Transducer Positioning System for an Acoustic Tank*: Proc. NICE 2001 (National Conference on Technology Convergence for Information Communications & Environment), 2001, pp 221-224.
2. James Kurian, Supriya M.H. and P.R. Saseendran Pillai: *Development of an Automated Transducer Positioning System for an Underwater Test Facility*: Proc. SYMPOL-2001(National Symposium on Ocean Electronics), 2001, pp.84-88.
3. Anil Kumar C.P., SajithN.Pai, SonirajN., James Kurian, Supriya M.H., Madhavan.C., and P.R. Saseendran Pillai.: *Studies of Target Strengths of Fishes Under Captive Condition*: Proc.SYMPOL-2001(National Symposium on Ocean Electronics), 2001, pp.124-129.
4. Binu George, Anand Raj, Supriya M.H., James Kurian and P.R Saseendran Pillai: *Development of a Spread Spectrum Communication System for Underwater Telemetry Applications*: Proc. SYMPOL-2003 (National Symposium on Ocean Electronics), Allied Publishers Pvt. Limited, New Delhi, 2003, pp.55-61
5. Sajith.N.Pai, Anilkumar C.P., Soniraj N., Balu.N., Supriya M.H., James Kurian, Madhavan.C. and P.R Saseendran Pillai.: *Backscattering Models of Sardines*, Proc. SYMPOL-2003 (National Symposium on Ocean Electronics), Allied Publishers, Pvt. Limited, New Delhi, 2003, pp.146-149.
6. Anil Kumar C.P., Sajith.N.Pai, Soniraj N., Balu.N., Supriya M.H., James Kurian, Madhavan.C. and P.R Saseendran Pillai.: *Numerical Analysis for Geometrical Backscattering of Selected Marine Specie*, Proc. SYMPOL-2003 (National Symposium on Ocean Electronics), Allied Publishers, Pvt. Limited, New Delhi, 2003, pp. 157-161.
7. Anil Kumar C.P., Sajith.N.Pai, Soniraj N., Balu.N., Supriya M.H., James Kurian, Madhavan.C., and P.R Saseendran Pillai.: *Development of an Algorithm for Biomass Estimations*, Proc. SYMPOL-2003 (National Symposium on Ocean Electronics), Allied Publishers Pvt. Ltd., New Delhi, 2003, pp.150-156
8. Supriya M.H. and P.R. Saseendran Pillai: *Implementation of an Estimation Processor for the Extraction of Spectral Components*: Proc. SYMPOL-2003 (National Symposium on Ocean Electronics), Allied Publishers Pvt. Ltd., New Delhi, 2003, pp.117-123.
9. Shery Joseph Gregory, Jinto George, Prajas John, Supriya.M.H. and P.R. Saseendran Pillai: *Development of an Electronic Tag for Monitoring Ocean Temperature*, Proc. SYMPOL-2005 (National Symposium on Ocean Electronics), Allied Publishers Pvt. Ltd., New Delhi, 2005, pp.251 – 256.
10. Mohan Kumar K., Supriya M.H. and P.R. Saseendran Pillai: *Detection of Nonlinear Noise Sources in the Ocean Using Bicoherence*: Proc. SYMPOL-

- 2005 (National Symposium on Ocean Electronics), Allied Publishers Pvt. Ltd., New Delhi, 2005, pp.207 – 213.
11. Binsu C. Koor, Supriya M.H and K. Poulose Jacob “Speaker Identification Biometric Security System using Formant Analysis” National Conference on Software Engineering- 2008 (NCSOFT08).
 12. Supriya M.H and P R Saseendran Pillai “Implementation of a Remotely Operated Sensor Network Based Target Classifier” National Conference on Software Engineering- 2008 (NCSOFT08).
 13. Binsu C. Koor, Supriya M.H and K. Poulose Jacob “Streaming Audio in on-line biometric security system” National Seminar on “Innovations in Electronics Technology for Futuristic Communications”, May 2009
 14. Prajas John, Supriya M.H., and P.R. Saseendran Pillai “Position Estimation of Marine Specie Using a Light Tag” J. Acoust. Soc. In ((Presented in NSA 2009)
 15. Binsu C. Koor, Supriya M.H and K. Poulose Jacob “Implementation of a Multimodal Biometric Security System Based on Audio and Video Streaming”, J. Acoust. Soc. In ((Presented in NSA 2009)
 16. Anil Kumar K R., Supriya M H and R. D.Sudhaker Samuel *Web Cam Based Virtual Keyboard*, National Conference on Human Computer Interaction and Image Processing, 18- 19th March 2010.
 17. Unnikrishnan.P., Prajas John, Supriya M.H., and P.R. Saseendran Pillai, *Binaural Synthesis of 3D Sound*, National Conference on Software Engineering, NCSOFT-10, pp 274-284
 18. Prajas John, Adrine Antony Correya, Jaison Peter, Supriya M. H. and P. R. Saseendran Pillai, *Daylight Emulation System for Validating Light-Based Geolocation Estimation Devices*, Symposium on Indian Ocean Marine Living Resources, 2nd – 3rd Dec 2010.
 19. Prajas John, Adrine Antony Correya, Jaison Peter, Supriya M. H. and P. R. Saseendran Pillai, *Development of Power Efficient Archival Tags*, Symposium on Indian Ocean Marine Living Resources, 2nd – 3rd Dec 2010.
 20. Prajas John, Adrine Antony Correya, Jaison Peter, Supriya M. H. and P. R. Saseendran Pillai, *Performance Evaluation of a Prototype Archival Tag*, Symposium on Indian Ocean Marine Living Resources, 2nd – 3rd Dec 2010.
 21. Suraj Kamal, Shameer K. Mohammad, P.R. Saseendran Pillai and Supriya M.H., *ICA Preprocessing for Underwater Target Classifiers*, National Symposium on Ultrasonics, Delhi, India, 30- 31 October 2012.
 22. Mohan Kumar K., Supriya M.H. and P.R. Saseendran Pillai, *Implementation of a Bicepstral Target Classifier with Support Vector Machines for Noise Sources in the Ocean*, National Symposium on Ultrasonics, Delhi, India, 30- 31 October 2012.
 23. Suraj Kamal, Shameer K. Mohammad, P.R. Saseendran Pillai and SupriyaM.H.,*Performance Improvement of Proactive Condition Monitoring Systems for Marine Machinery*, National Symposium on Acoustics, NSA – 2012, Tiruchengode, Tamil Nadu, India, 05-07 December 2012.
 24. Satheesh Chandran C., Suraj Kamal, A. Mujeeb and Supriya M.H., *An SVM based Underwater Target Classifier utilizing Unsupervised Neural Networks for Performance Enhancement and Novelty Detection*, National Symposium on Antennas, Signal Processing & Inter-Disciplinary Research in Electronics (ASPIRE 2017), Muslim Association College of Engineering, Thiruvananthapuram, 7-8 April 2017.

International Conferences

1. Supriya M.H. and P.R. Saseendran Pillai: Development of an underwater target classifier using target specific features J. Acoust. Soc. Am. Vol.113, No.4, Pt.2, 2261, 2003
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Curriculum Vitae

Dr. Supriya M.H.

M.Tech, MBA, Ph.D.