


Dr.P.VIJAYAKU MARI					
Designation:	Associate Professor				
Qualification:	Ph.D				
Area of specialization:	UNDERWATER OPTICAL COMMUNICATION SYSTEMS				
Experience : (As On DEC 2021)	Industrial Experience		Teaching Experience		
	7 Months		22 Years		
Number of workshop / FDP attended:	Number of Workshops		Number of FDPs		
	10		19		
Publications:	Conference		Journal		
	National	International	SCI	Scopus	Others
	3	17	4	21	
Patents:	National		International		
			4		
Professional Body Membership:	IAENG Society of Computer Science. - MEMBERSHIP ID: 239490 IAENG Society of Imaging Engineering- MEMBERSHIP ID: 239490 CSTA-Computer science Teachers Association-198358002769 IMRTC-International Management Research and Technology Consortium ITEEA- International Technology and Engineering Educators Association IFERP- Institute for engineering research and publication - PM48713590 Member – IEEE -98262057.				

Staff Achievements:	<p>1.Received “ACADEMIC EXCELLENCE AWARD” from Royal Science Forum Award 2023 Ceremony held virtually on 28-02-2023.</p> <p>2.Received “FACULTY EXCELLENCE AWARD” from,ICETSEM-2023 Award 2023 Ceremony held at International journal of MC square Scientific Research,Chennai,Tamilnadu,on JAN-21-23,2023.</p> <p>3.Received from National faculty award 2020-2021, Novel Research Academy-Puducherry for the award of “AWARD OF EXCELLENCE IN RESEARCH” “on November 24th.”</p> <p>4.Received from International Award Ceremony on Star Performers in Engineering, Arts and Management - SPEAM 2022, Research Academy-Coimbatore, for the award of “BEST FACULTY AWARD” “on APRIL 24th.”</p>			
Workshop Details:	Sl. No.	Title	Venue	Month/Year
	1.	Underwater optical communication & modeling of photonic & photovoltaic devices	SRM University	JULY 2018
	2.	Recent developments in photonics &optical communication using optsim software	IFET Engineering College	NOVEMBER 2018
	3.	Energy audit-case studies and best practices	MNM Jain College	APRIL 2017

	4.	Design of smart antennas using HFSS & ADS	Jeppiaar Maamallan Engineering College	MARCH 2017
	5.	Effective way of writing research papers for journals, conferences & Submission of project proposals for funding agencies	Pallavan college of Engineering	JANUARY 2017
	6.	Photonics & photovoltaic devices	SRM university	August 2014
	7.	Emerging Trends in Optical Network Technologies	MIT Chennai	January 2012
	8.	Micro system packaging	Saveetha University	July 2009

	9.	Embedded systems & Application	TPGIT, Vellore	November 2006
FDP Details:	Sl. No.	Title	Venue	Month/Year
	1.	Recent trends in 5G communication, Design & Technologies	Rajalakshmi Engineering College, Chennai	JULY/2022
	2.	Emerging Application in Image Processing	Rajalakshmi Engineering College, Chennai	MARCH /2022
	3.	Mathematical modelling and controller design for nonlinear process	SVNC, Tirupathi	DECEMBER/2021
	4.	Training for social connectedness and inspiration	SVCE, Chennai	DECEMBER/2020
	5.	5G Theory to practice and its applications	Sri Sairam Institute of Technology, Chennai	JUNE/2019
	6.	Wireless Networks	Easwari Engineering College, Chennai	DECEMBER/2018
	7.	RF&Microwave Engineering	Adhi college of Engineering & Technology, Kanchipuram.	JUNE/2018
	8.	Electro Magnetic Fields	Adhi college of Engineering & Technology, Kanchipuram.	NOVEMBER /2017

9.	Optical communication & Networks	Rajalakshmi Engineering College, Chennai	MAY/2017
10.	Modern teaching and learning methodologies for competency development	Jeppiaar Maamallan Engineering College, Chennai	MAY/2017
11.	Data Acquisition for real time applications using ARDUINO Microcontroller	Satyabhama university, Chennai.	AUGUST/2016
12.	Discrete Time System & Signal processing	Jeppiaar Maamallan Engineering College	NOVEMBER/2016
13.	Optical Networks	SKR Engineering college, Chennai	DECEMBER /2011
14.	Neural Computing	MIT, Anna University, and Chennai	NOVEMBER/2003
15.	Professional Ethics	Anna University, Chennai.	JULY/2003
16.	Medical Electronics	Anna University, Chennai.	JUNE/2003
17.	Professional Ethics	Anna University, Chennai.	JUNE/2003
18.	Re Engineering Communication Skills	Anna University, Chennai.	JUNE/2003

Publication Details:

1. **Vijayakumari.,**”The Bright ,dark and w-shaped dark solitons for coupled Radha Krishnan {kundu {Lakshmanan(cRKL) equation in birefringent optical fibers” Opt Quant Electron (COMMUNICATED)“, Impact factor 3 (SCI)

2. **P.Vijayakumari.**, Trabelsi, Y., A., S. et al. Modulation instability induced supercontinuum generation in Barium Zinc Borate glass doped with Praseodymium based photonic crystal fiber. Opt Quant Electron 55, 1087 (2023). <https://doi.org/10.1007/s11082-023-05272-z> “, **Impact factor 3 (SCI)**
3. Md. Nazmul Hossen , **Vijayakumari Panneerselvam** , Deepika Koundal , Kawsar Ahmed, Francis M. Bui, and Sobhy M. Ibrahim , "Federated Machine Learning for Detection of Skin Diseases and Enhancement of Internet of Medical Things (IoMT) Security” (2022)IEEE Journal of Biomedical and Health Informatics (J-BHI). **VOL 27,FEB 2023,IEEE TRANSACTION,Q1 JOURNAL, Impact factor7.7(SCI)**
4. **Vijayakumari P**, and Sumathi (2019) “Physical Implementation of underwater optical wireless system using spatial mode laser sources with optimization of spatial matching components”, Results in Physics, ISSN: 2211-3797 (Print), July 2019 Elsevier, **Impact Factor 5.3**, vol 14. (Science Citation Index). **(SCI)**
5. Udaiyakumar.R, **Vijayakumari P**, Manirajan.M. S, Mani.B(2018), “Combined influence of third order dispersion (TOD) and intra-pulse Raman scattering (IRS) on initially phase imparted solitons”, Optik, International Journal for Light and Electron Optics, Elsevier, **ISSN: 0030-4026**, Feb 2018. **Impact Factor 3.1**, Vol.164 **(SCI)**.

International Journals (SCOPUS)

1. **P Vijayakumari**, Ribu Mathew, Dhinakaran Vijayalakshmi, R. Sivakmar,” Dual elliptical core based photonic crystal sensor for detection of ultralow level bioethanol concentration” Journal of Optics. Published: 04 February 2022,Impact factor 2.077(**Scopus**).
2. **Vijayakumari P**, and Sumathi (2019) “Design and Parameter Analysis of Underwater Wireless Optical Communication with Different Water Samples”, 2019, Journal of Optical Communications. **ISSN: 2191-6322. (Scopus)**.
3. Rashed, A.N.Z., Tabbour, M.S.F., **Vijayakumari P**. “Numerical Analysis of Optical Properties Using Octagonal Shaped Photonic Crystal Fiber”, 2019, Journal of Optical Communications. **ISSN: 2191-6322. (Scopus)**.
4. **Vijayakumari P**, and Sumathi (2018), “Free space optical communication using SIM technique”, Journal of Advanced Research in Dynamical & Control Systems, **ISSN:1943-023X**, Vol. 10, 13- Special Issue, page.no:1174-1183, 2018. **(Scopus)**

International Conference(INDEXED IN SCOPUS)

1. Eethamakula Kosalendra; K. Krishnamoorthi; S. Diwakaran; **P. Vijayakumari**; P.G. Kuppusamy, ",Experimental Design of a Robotic Ventilator to Support Covid-19 and Related Pandemic Situations" Proceedings of the International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering, ICECONF 2023 , pp. 1-5, Doi: 10.1109/ICONSTEM56934.2023.10142510. **(Scopus Indexed)**.
2. P. G. Kuppusamy; Eethamakula Kosalendra; K. Krishnamoorthi; S. Diwakaran; **P. Vijayakumari**, "Detection of Lung Nodule using Novel Deep Learning Algorithm based on Computed Tomographic Images," Proceedings of the International

- Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering, ICECONF 2023 , pp. 1-5, Doi: 10.1109/ICONSTEM56934.2023.10142876. **(Scopus Indexed)**.
3. [Diwakaran, S.](#), [Vijayakumari, P.](#), [Kuppusamy, P.G.](#), [Kosalendra, E.](#), [Krishnamoorthi, K.](#), " A Safe and Reliable Digital Fingerprint Recognition Method for Internet of Things (IoT) Devices," Proceedings of the International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering, ICECONF 2023 , pp. 1-5, Doi: 10.1109/ICECONF57129.2023.10083840 **(Scopus Indexed)**.
 4. [Vijayakumari, P.](#), [Kuppusamy, P.G.](#), [Kosalendra, E.](#), [Krishnamoorthi, K.](#), [Diwakaran, S.](#), "Real-time scanning and tracking of health records through a centralized ecosystem based on Internet of Things and fog computing," Proceedings of the International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering, ICECONF 2023 , pp. 1-5, Doi:10.1109/ICECONF57129.2023.10083790 **(Scopus Indexed)**.
 5. [Krishnamoorthi, K.](#), [Diwakaran, S.](#), [Vijayakumari, P.](#), [Kuppusamy, P.G.](#), [Kosalendra, E.](#), "A Robust and Improved sparrow search algorithm for optimization in wireless sensor network," Proceedings of the International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering, ICECONF 2023 , pp. 1-5, Doi: 10.1109/ICECONF57129.2023.10083538 **(Scopus Indexed)**.
 6. P. Vijayakumari, , "Digital filter design on high speed communication with low power criteria "on , 2022 *IEEE International Conference* -(**Scopus Indexed**)
 7. P. Vijayakumari, , "[Sewage pipe inspection robot for block detection and clearance](#) on 2022 IEEE International Conference - AIP Conference Proceedings 2519,050050 (2022),<https://doi.org/10.1063/5.0109718>. **(Scopus Indexed)**.
 8. P. Vijayakumari, K. Chandrasekaran, J. K, N. P and R. Thandaiah Prabu, "BIT Error Rate Analysis of Various Water Samples in Underwater Wireless Optical Communication System," 2022 *International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI)*, 2022, pp. 1-5, doi: 10.1109/ACCAI53970.2022.9752642. **(Scopus Indexed)**.
 9. R. ThandaiahPrabu, P. Vijayakumari, K. Chanthirasekaran, K. Jayamani and P. Nirmala, "An Efficient and Secured Multiple Keyword Cloud Data Searching Scheme with Dynamic Encryption Procedure," 2022 *International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI)*, 2022, pp. 1-6, doi: 10.1109/ACCAI53970.2022.9752586. **(Scopus Indexed)**.
 - 10 N. P, R. ThandaiahPrabu, P. Vijayakumari, K. Chanthirasekaran and J. K, "Internet of Things based Smart and Secured Health Record Preservation Scheme using Smart Sensors," 2022 *International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI)*, 2022, pp. 1-7, doi: 10.1109/ACCAI53970.2022.9752507. **(Scopus Indexed)**.
 - 11 J. K, N. P, R. T. Prabu, P. Vijayakumari and K. Chanthirasekaran, "A Compact Coupled Band-Pass Frequency Selective Surface for Examination of Human Body Part Using Ultrasonography," 2022 *International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI)*, 2022, pp. 1-4, doi: 10.1109/ACCAI53970.2022.9752563.. **(Scopus Indexed)**.
 - 12 K. Chanthirasekaran, J. K, N. P, R. ThandaiahPrabu and P. Vijayakumari,

"Threshold based Adaptive Scheduling for Multi-User MIMO Networks," *2022 International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI)*, 2022, pp. 1-6, doi: 10.1109/ACCAI53970.2022.9752523. **(Scopus Indexed)**.

- 13 **Vijayakumari P**, Ramakrishna Guttula, Sirisha, Josephine Selvi Balamourougane, Addis Engidayehu, Sakthisudhan," Wearable transceiver with composite test-beds for breast cancer diagnosis" *Materials Today, Proceedings, Elsevier* Doi.org/10.1016/j.matpr.2020.12.206, Volume 45, Part2,2021, Pages 3120-3123. **(Scopus)**.
- 14 Amirthalakshmi, T.M., Ramkumar., **Vijayakumari, P.**, Samuthirapandi, V. "Effective control of nonlinear parameters using artificial intelligence" 2016 IEEE International Conference on Computational Intelligence and Computing Research, ICCIC 2016. **(Scopus Indexed)**.
- 15 Amirthalakshmi, T.M., **Vijayakumari, P.**, Shakthimurugan, K.H, Ayyadurai, M., "Design of SDCA using RSSI for mid-Air collisions", 2016 IEEE International Conference on Computational Intelligence and Computing Research, ICCIC 2016. **(Scopus indexed)**.
- 16 **Vijayakumari, P.**, Sumathi, M. "Study of performance factors of underwater Wi-Fi optical communication link" 2015 International Conference on Control Instrumentation Communication and Computational Technologies, ICCICCT 2015. **(Scopus Indexed)**.
- 17 Premalatha, J., **Vijayakumari, P.** (2016) "Catching target mobile node using time-of- arrival measurement in Wireless Sensor Networks", Proceedings 2015 - IEEE International Conference on Innovation, Information in Computing Technologies, ICICT 2015. **(Scopus Indexed)**.

International Conference

- 18 **Vijayakumari, P.** "Survey on Analysis of BER in the design of underwater optical communication" 14& 15 March 2019, Fifth International Conference on Science Technology Engineering & Mathematics (ICONSTEM'19), at Jeppiaar Engineering College.
- 19 **Vijayakumari, P.** "Implementation & Evaluation of visible light communication-based audio transformation using LI-FI technology" 14&15 March 2019, Fifth International Conference on Science Technology Engineering & Mathematics (ICONSTEM'19), at Jeppiaar Engineering College.
- 20 **Vijayakumari, P.** "Survey on performance analysis of full duplex free space optical communications over NOMA based single and double gamma fading channels" 14& 15 March 2019, Fifth International Conference on Science Technology Engineering & Mathematics (ICONSTEM'19), at Jeppiaar Engineering College.
- 21 **Vijayakumari, P.** "Survey on Underwater Optical Communication with Different types of Water" 9 th March 2018, Third International Conference on Innovative and Emerging Trends in Engineering and Technology (ICIETET'18), at Priyadarshini Engineering College, Vaniyambadi.
- 22 **Vijayakumari, P.** "Wireless Power Transfer for Medical Microsystems

using IOT” 28 & 29th January 2018, International Conference on Electrical, Electronics, Computers, Communication, Mechanical and computing (EECCMC), at Priyadarshini Engineering College, Vaniyambadi.

- 23 **Vijayakumari, P.** “An Intramural Startup circuit with thermal yielding source for pacemaker using the boost converter” 6th May 2017, second International Conference on Recent Trends in Engineering & Technology, at St. Joseph Institute of Technology, Chennai.

National Conference

1. National level conference on “**Design of an automated dam safety and deformation monitors system**” in AAVISHKAAR’18 held at Veltech high tech Dr. Rangarajan Dr. Shakuntala Engineering College on 2nd April 2018.
2. National level conference on “**Design of low complexity adjustable filter bank for personalized hearing aid solution**” in held at Jeppiaar Maamallan Engineering College on 31th March 2017.
3. National conference on “**Design of Monitoring system for Grain Storage**” in NCMESP’16, held at Velammal Engineering College, Chennai, India (24th March 2016).

Online Courses details

Sl. No	Title	Certification Authority	Month/Year
1	Teaching & Learning in Engineering	NPTEL	Jan-April 2019
2	Effective Engineering Teaching in Practice	NPTEL	Feb-Mar 2018.
3.	Biomedical nano Technology	NPTEL	Aug-Sep 2018
4.	“ Satellite Communication ”	NPTEL (MENTOR)	July-Dec 2017.