

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		
	8 Months		24 Years		
Number of workshop / FDP attended:	Number of Workshops		Number of FDPs		
	10		24		
Publications:	Conference		Journal		
	National	International	SCI	Scopus	Others
	3	17	5	29	
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 Optical	Adhi college of Engineering & Technology, Kanchipuram.	NOVEMBER /2017 MAY/2017

9.	communication & Networks	Rajalakshmi Engineering College, Chennai	
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”2016IEEEInternational 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-FItechnology”14&15March2019, 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 usingIOT”28&29thJanuary2018, 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”6 th 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 March2017.
3. National conference on “ Design of Monitoring system for Grain Storage “in NCMESP’16, held at Velammal Engineering College, Chennai, India(24thMarch2016).

Online Courses details

Sl. No	Title	Certification Authority	Month/Year
1	Teaching& Learning in Engineering	NPTEL	Jan-April2019
2	Effective Engineering Teaching in Practice	NPTEL	Feb-Mar2018.
3.	Biomedical nano Technology	NPTEL	Aug-Sep2018
4.	“Satellite Communication	NPTEL (MENTOR)	July-Dec 2017.