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Name : Dr.B.Deepa Lakshmi

Designation : Associate Professor

Department : Electrical and Electronics Engineering

Address for Communication : Ramco Institute of Technology,
Rajapalayam

Email : deepalakshmi@ritrjpm.ac.in

Mobile Number 04563 233413

Google Scholar : <https://scholar.google.com/citations?hl=en&user=KBhIXOAAAAAJ>

1. Educational Qualification

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Degree	Branch / Specialization	Institute/University	Year of Passing
B.E.	Electrical and Electronics Engineering	Manonmaniam Sundaranar University, Tirunelveli	2001
M.E.	Applied Electronics	Anna University, Chennai	2009
Ph.D.	Electrical and Electronics Engineering	Dr.M.G.R. Educational and Research Institute	2017

2. Professional/ Industry Experience

: (in chronological order)

S. No.	Designation	Institution/ Organization	Period	
			From	To
1.	Associate Professor	Ramco Institute of Technology	June 2018	Till date
2.	Assistant Professor (Senior Grade)	Ramco Institute of Technology	June 2014	May 2018
3.	Assistant Professor	Sri Sairam Engineering College	July 2010	May 2014
4.	Lecturer	New Prince Shri Bhavani College of Engineering and Technology	July 2009	June 2010
5.	Lecturer	Saveetha Engineering College	September 2006	August 2007
6.	Lecturer	Prince Shri Venkateshwara Padmavathy Engineering	October 2005	August 2006
7.	Lecturer	P.B. College of Engineering	July 2002	September 2005

3. Research Interest : Renewable Energy, Image Processing, Soft Computing

4 Publications

4.1 JOURNAL PUBLICATIONS

1. **Deepa Lakshmi.B**, Rajendran.R.S., Jackrit Suthakorn & Branesh M.Pillai, Impact of CIGS, CdS and i – ZnO film thickness, temperature on efficiency enhancement of CIGS solar cells, Journal of Ceramic Processing Research, vol. 23, pp. 878-883, Dec 2022(Web of Science)
2. K Sujatha, RS Ponmagal, **B Deepa Lakshmi**, N Jayachitra, Precision manufacturing technology and measurements in steel rolling industry using multi threshold fast fourier transform and back propagation algorithm for analysis of X-ray, Materials Today Proceedings, vol. 38, pp. 2624-2628, Jan 2021(Web of Science)
3. S.Amosedinakaran, **B.Deepa Lakshmi**, A.Bhuvanesh, S.Kannan, Generation expansion planning under partially deregulated environment using firefly algorithm for sustaining competitive electricity market, Journal of Green Engineering, vol. 10, Issue 8, pp. 4391-4404, August 2020 (Scopus)
4. R.S.Ponmagal, K.Sujatha, Bikarant Kumar Nayak, **B.Deepa Lakshmi**, K.Yasoda, IOT based Speed Control with Hybrid Neural Fuzzy Logic Scheme, International Journal of Advanced Science and Technology, Vol. 29, 2020, pp 1742 – 1752, May 2020.[Scopus]
5. K.Sujatha, **B.Deepa Lakshmi**, J.Veerendrakumar, G.Gomathy, V.Srividhya, N.P.G.Bhavani, Eye Movement Tracking using Radial Basis Function Networks, Test Engineering and Management, Volume 83, pp. no. 11637 – 11641, The Mattingley Publishing Co.Inc (April-2020) [Scopus]
6. **Deepa Lakshmi B**, Sujatha T and Godhavari T, 2015, ‘Wind Turbine Modeling and Control Using Fuzzy Logic’, International Journal of Applied Engineering Research, Vol. 10, No.11, pp. 29231-29257.
7. **Deepa Lakshmi B** and Sujatha K, 2016, ‘Image Processing for Monitoring Wind Mills’, International Journal of Control Theory and Applications, Vol. 9, No.4, pp. 167-178.
8. **Deepa Lakshmi B** and Sujatha K, 2016, ‘Artificial Neural Networks for Wind Speed Prediction’, International Journal of Control Theory and Applications, Vol. 9, No.4, pp. 179-185.
9. **Deepa Lakshmi B**, Sujatha K and Su-Qun Cao, 2018, ‘Optimal Condition Monitoring of Wind Turbines using Intelligent Image Processing and Internet of Things’, International Journal of Renewable Energy Technology, Vol. 9, No.1, pp. 158-180.

4.2 CONFERENCE PUBLICATIONS

1. Deepa Lakshmi B, Selvapriya B, “A complete Review on preprocessing of Tamil Handwritten Character Recognition”, International Conference on Applied Science, Engineering, Technology and Management, Alpha College of Engineering, 2022
2. Deepa Lakshmi B, Hemanth, Rajkumar, “AI Based Face Mask Detector with Announcement System”, National Conference on Recent Trends in Engineering, Science and Management, Kurinji College of Engineering and Technology, 2022
3. Deepa Lakshmi B, LHS based Alarm Point Locator in Coal Belt Conveyor, International Conference on Science and Innovative Engineering, Jawahar Engineering College, 2021.
4. Deepa Lakshmi B, Pulse Diagnosis System, International Conference on Emerging Trends in Signals Systems and Information, Nehru College of Engineering and Research Centre, 2021.
5. Deepa Lakshmi B, (2020) “Energy Consumption Monitoring System using LabVIEW”, National Conference on Signal Processing, Communication and Networking, Bannari Amman Institute of Technology, Sathyamangalam, March 2020
6. Deepa Lakshmi B, (2019), ‘Tire Pressure Monitoring System’, in National Conference on Intelligence in Electronics and Communication Engineering at RVS College of Engineering and Technology, Coimbatore.
7. Deepa Lakshmi B, (2019), ‘Hands-off Toll Collection based on distance travelled and overspeed tracking using Onboard Unit’, in National Conference on Challenges and Innovations in Information Technology at Kongu Engineering College.
8. Deepa Lakshmi B, (2019), ‘Sleep Disorder Detector using EEG Signals’, in National Conference on Intelligence in Electronics and Communication Engineering at RVS College of Engineering and Technology.
9. Deepa Lakshmi B, (2018), ‘Design and Implementation of Low Power Square Root Carry Select Adder using Zero Finding Logic’, in International Conference on Recent Trends in Engineering, Computers, Information Technology and Applications at PSNA College of Engineering and Technology, Dindigul.
10. Deepa Lakshmi B, (2018), ‘Implementation of Arithmetic Computation using Vedic Algorithm’, in International Conference on Engineering and Advancement in Technology at Sri Krishna College of Technology, Coimbatore.
11. Deepa Lakshmi B, (2018), ‘An Assessment of Potential Windmills using Image Processing and Artificial Intelligence based Wind Speed Estimation’, in IEEE International Conference on Energy, Communication, Data analytics and Soft computing at SKR Engineering College, Chennai.

12. Deepa Lakshmi B, (2018), ‘An Area Efficient Square Root Carry Select Adder using Cascaded Half Adder’, in ISRO sponsored National Conference on Signal Processing, Communication and VLSI Design at Anna University Regional Campus, Coimbatore.
13. Deepa Lakshmi B, (2018), ‘A Smart Conference Hall Surveillance System using Internet of Things’, in National Conference on Modern Developments with Keen and Renovation Techniques at Hindusthan Institute of Technology, Coimbatore.
14. Deepa Lakshmi B, (2018), ‘Implementation of Cubic Computation using Vedic Formulae’, in National Conference on Innovations in Communication Technology for Social Development at Ramco Institute of Technology, Rajapalayam.
15. Deepa Lakshmi B, (2017), ‘Biometric and RFID based Polling System’, in National Conference on Innovations in Engineering, Science and Technology at Ramco Institute of Technology, Rajapalayam.
16. Deepa Lakshmi B, (2017), ‘Enhancement of Photovoltaic Cell Efficiency using Peltier Tiles, in National Conference on Optimization Techniques in Engineering Science and Technologies at Bannari Amman Institute of Technology, Erode.

4.3 Book/Book chapter publications:

- N.P.G.Bhavani, B.Deepa Lakshmi, K.Sujatha, C.Tamilselvi, “Smart Monitoring and Quality Control in Leather Processing Industry”, Springer, 2023
- Sujatha K., Krishnakumar R, Ponmagal R. S, Jayachitra N, Bhavani N. P. G, **Deepa Lakshmi B**, Raja A, Sankari B. R, Karthikeyan V,(2021), Impact of Green House Gases from Thermal Power Plants. Advanced Aspects of Engineering Research Vol. 3, pp. 92–103. <https://doi.org/10.9734/bpi/aaer/v3/7659D>
- Sujatha K, Godhavari T, Senthil Kumar K, **Deepa Lakshmi B**, (2021), Prediction of Indian River Water Temperature Using Convolutional Neural Network and Reliable Data Transmission Using IoT. Machine Intelligence and Smart Systems. Algorithms for Intelligent Systems. Springer, Singapore. https://doi.org/10.1007/978-981-33-4893-6_10.
- K. Sujatha, R. Krishnakumar, **B. Deepa Lakshmi**, N.P.G. Bhavani, V. Srividhya, Soft sensors for screening and detection of pancreatic tumor using nano imaging and deep learning neural networks, Handbook of Nanomaterials for Sensing Applications, Elsevier 2021,pp. 449-463,ISBN 9780128207833, <https://doi.org/10.1016/B978-0-12-820783-3.00002-6>.
- Sujatha K, **Deepa Lakshmi B**, Rajeswary Hari B, Sangeetha D, Selvapriya B, (2021) Image Processing Technique for Effective Analysis of the Cytotoxic Activity in Human Breast Cancer Cell Lines – MCF-7, Image Processing and Capsule Networks,

Advances in Intelligent Systems and Computing, vol 1200. Springer, https://doi.org/10.1007/978-3-030-51859-2_5.

- Priyadarshini G.I., Sujatha K., Deepa Lakshmi B, Kamatchi C, (2021), Detection of Cardiac Stenosis Using Radial Basis Function Network, Congress on Intelligent Systems, Advances in Intelligent Systems and Computing, vol. 1334, Springer, https://doi.org/10.1007/978-981-33-6981-8_39.
- K Sujatha, B Deepa Lakshmi, Rajeswari Hari, A Ganesan, R Shobarani,(2021), Content-Based Image Retrieval for Detection of Endometrial Cancer Using Radial Basis Function Network, Springer.
- K.Sujatha, K.SenthilKumar, M.Anand, V.Balaji, A.Ganesan and **B.Deepa Lakshmi**,(2020), Brain Tumor Detection and Diagnosis Using Biomedical Sensors and Secure Hybrid Cloud Architecture, Nova Science Publishers.

5. Short term Courses / Seminars /FDP/Workshop/ConferenceAttended:

Sl. No.	Title of the event	Organized by	Date	
			From	To
1.	FDP on Electric & Hybrid Vehicle - Design, Integration and Challenges	ATAL, AICTE	27.12.2021	31.12.2021
2.	FDP on Data Analytics and Machine Learning using Python	ATAL, AICTE	12.07.2021	16.07.2021
3.	FDP on Control Systems and Sensor Technology	ATAL, AICTE	17.10.2020	21.10.2020
4.	Webinar on How to formulate a research problem?	RIT	13.05.2020	-
5.	Webinar on Awareness on Pandemic Covid'19	RIT	12.05.2020	-
6.	FDP Incorporating Universal Human Values in Technical Education	AICTE	11.05.2020	15.05.2020
7.	Webinar on Effective use of Learning Management System	RIT	09.05.2020	-
8.	Webinar on NAAC Accreditation and Assessment Process	NAAC	8.05.2020	-
9.	Webinar on The Power of a Teacher	ICTACT	04.05.2020	-
10.	Webinar on Virtual Labs – Viable Alternative For Physical Labs	IITM PALS	03.05.2020	-
11.	Webinar on Teaching in Digital Era	RIT	25.04.2020	-

12.	Webinar on Best practices in Pedagogy- Corona and beyond	RIT	24.04.2020	-
13.	Webinar on Optimize your Hostel and Mess Operations	OYO	23.04.2020	-
14.	FDP on Internet of Things	NITTR	10.04.2020	14.04.2020
15.	FDP on Team Building	RIT	18.11.2019	20.11.2019
16.	Educational Summit	IIT, Madras	16.11.2019	-
17.	Industry Academia Conclave	IIT, Madras	06.07.2019	-
18.	Workshop on Data Analytics using Statistical Learning with Hands-on in R	Amrita University	6.06.2019	8.06.2019
19.	IITM PALS Entrepreneurial Summit & Valedictory Function	IIT, Madras	16.03.2019	-
20.	Workshop on Artificial Intelligence and Deep Learning	Bennett University with RIT	14.09.2018	16.09.2018
21.	National Level Workshop on Process Automation using Distributed Control System	PSG College of Technology, Coimbatore	10.08.2018	11.08.2018
22.	Faculty Development Training Programme on Signals and Systems	RIT	13.06.2018	18.06.2018
23.	Launch and Dedication of D4E club	Anna University, Chennai	8.05.2018	-
24.	International Workshop on Advanced Control System Design	Amrita University, Coimbatore	4.12.2017	5.12.2017
25.	Orientation and Awareness Programme on SAR Preparation for NBA Accreditation	RIT	02.12.2017	-
26.	AICTE sponsored FDP on Human Values and Professional Ethics	RIT	30.10.2017	12.11.2017
27.	FDTP on RF and Microwave Engineering	RIT	12.06.2017	16.06.2017
28.	ISO Orientation Programme	RIT	05.06.2017	06.06.2017
29.	Value Added Course on Project Based Learning using Arduino	RIT	09.12.2016	13.12.2016
30.	FDP on Introduction to Research	RIT	18.11.2016	19.11.2016
31.	Awareness Programme RIT ISO 9001:2015 – QMS Procedures	RIT	01.11.2016	-
32.	FDTP on Control Systems	RIT	04.06.2016	10.06.2016
33.	National Seminar on Engineering Education and Research	National Instruments, Bangalore	29.03.2016	-
34.	Workshop on Embedded Systems and its Applications	RIT	21.12.2015	22.12.2015

35.	Value added course on VLSI Design & Simulation	RIT	14.12.2015	18.12.2015
36.	FDP on Training the Trainers	RIT	22.06.2015	23.06.2015
37.	NI LabVIEW Software Core 1 & Core 2	RIT	15.06.2015	19.06.2015
38.	FDTP on Principles of Digital Signal Processing	RIT	03.06.2015	10.06.2015
39.	FDP on “Introspection in Teaching Learning Process”	RIT	23.12.2014, 30.12.2014	-
40.	IIT-ISTE Workshop on Control Systems	RIT	02.12.2014	12.12.2014
41.	Art of Counselling	RIT	03.08.2014	-

7. Short term Courses / Seminars /FDP/Workshop/Conference organized:

Sl. No.	Title of the event	Organized by	Date	
			From	To
1.	Acupuncture Treatment Camp	RIT	10.01.2022	-
2.	Guest Lecture on Role of Defence in Self-Reliance Defence Technologies	RIT & DRDO	21.12.2021	-
3.	Seminar on Stress Management during COVID ‘19	RIT	16.07.2021	-
4.	SpringTech Fun	RIT	28.06.2021	30.06.2021
5.	Workshop on Machine Learning	RIT	11.01.2021	12.01.2021
6.	Webinar on The best Tactics and tips to achieve it	RIT	21.08.2020	-
7.	Workshop on Sensors for Future Intelligence - Techyuga’19 Symposium	RIT	31.08.2019	-
8.	Workshop on LoRa for Smart Cities - Techyuga’18 Symposium	RIT	31.08.2018	-
9.	Faculty Development Training Programme on Signals and Systems	RIT	13.06.2018	18.06.2018
10.	Value added Course on Internet of Things using RaspberryPi	RIT	30.11.2017	04.12.2017
11.	National Level Technical Symposium - TechYuga’17	RIT	12.08.2017	13.08.2017
12.	Inaugural Function of Centre for Women Welfare, Safety and Progress Club	RIT	24.02.2017	-
13.	Workshop on Internet of Things – Techyuga’16 Symposium	RIT	20.08.2016	
14.	Guest Lecture on “Bio Medical Image Processing” through IETE ISF.	RIT	13.02.2016	-

15.	Workshop on Embedded Systems and its Applications	RIT	21.12.2015	22.12.2015
16.	Inauguration of Technical Association	RIT	23.07.2014	-

7. Expert Lectures delivered :

Sl. No.	Topic	Date	Organization
1.	Faculty Development Program on Applications of Artificial Intelligence in Power System	16.12.2021	Dr.M.G.R. Educational and Research Institute, Chennai
2.	Guest Lecture on Real Women in You	26.10.2021	J P College of Engineering, Tenkasi
3.	Universal Human Values – Competition, Co-operation, Anger	October 2021	Ramco Institute of Technology
4.	Value Added Course on Virtual Instrumentation	30.11.2020	Ramco Institute of Technology
5.	Universal Human Values – Aspirants and Family Expectations, Peer Pressure, Competition and Co-operation	09.11.2020	Ramco Institute of Technology
6.	Lecture on Biot-Savart Law, Magnetic Circuits permeability	11.12.2018	Ramco Institute of Technology
7.	Lecture on Laplace Transforms in Analysis of CT Systems, Systems connected in series/parallel	15.06.2018	Ramco Institute of Technology
8.	Lecture on Self Confidence and Over Confidence	02.11.2017	Ramco Institute of Technology

8. Online Courses

S. No.	Course title	University	Date
1.	Differential Equations for Engineers	The Hong Kong university of science and Technology	24.03.2023
2.	NBA Accreditation and Teaching Learning in Engineering (NATE)	NPTEL	15.05.2022
3.	IUCEE - The Basics of PBL	IUCEE	24.04.2022
4.	Self Awareness and Effective Leader	RICE University	03.11.2021
5.	Control Systems: From mathematical modelling to PID control	Udemy	18.09.2021
6.	MATLAB Onramp	Mathworks	23.08.2021
7.	Probability – The Science of Uncertainty and Data	Massachusetts Institute of Technology, USA	25.12.2020
8.	Transfer Functions and Laplace Transforms	Massachusetts Institute of Technology, USA	01.09.2020

9.	Matrix Algebra for Engineers	The Hong Kong University of Science and Technology	11.08.2020
10.	Vector Calculus for Engineers	The Hong Kong University of Science and Technology	06.08.2020
11.	MIT : 18.031x Introduction to Differential Equations	Massachusetts Institute of Technology, USA	26.12.2019
12.	MIT : 6.002.3x Circuits and Electronics 3: Applications	Massachusetts Institute of Technology, USA	04.06.2019
13.	MITx – 18.01.3x Calculus 1C: Coordinate Systems and Infinite Series	Massachusetts Institute of Technology, USA	12.05.2019
14.	MIT : 18.03Fx Differential Equations: Fourier Series and Partial Differential Equations	Massachusetts Institute of Technology, USA	21.12.2018
15.	MITx – 18.01.2x Calculus 1B: Integration	Massachusetts Institute of Technology, USA	09.03.2018
16.	MITx – 18.01.1x Calculus 1A: Differentiation	Massachusetts Institute of Technology, USA	15.09.2017
17.	MITx: 6.002.2x Circuits and Electronics 2: Amplification, Speed and Delay	Massachusetts Institute of Technology, USA	24.05.2017
18.	MITx: 3.15.1x Electronic Materials and devices	Massachusetts Institute of Technology, USA	01.07.2016
19.	MITx: 6.002.1x Circuits and Electronics 1: Basic Circuit Analysis	Massachusetts Institute of Technology, USA	14.05.2016

9. Patents filed/awarded :

S. No.	Application Number	Title	Inventors	Status
1.	202141046208	Drowsiness Detection of a Driver	1.Mrs.R.Ramalakshmi 2.Dr.S.Periyanyagi 3.Dr.B.Deepa Lakshmi 4.Mr.P.Venkatesh 5.Ms.S.Pradeepa 6.Ms.V.Priya 7.Ms.K.Sangavi	FER Filed
2.	202141000506	Adaptive Headlight Beam Automation in Vehicles	1. Dr.B.Deepa Lakshmi 2. Dr.S.Periyanyagi 3. Mrs.R.Ramalakshmi 4. Mrs.R.Divya 5. Mr.A.Alisodaipandian 6. Mr.M.Ananth 7. Mr.K.Aravint Kumar	FER Filed
3.	2020102896	Smart Uniform For Girl Children With Artificial Intelligence	1. Dr.S. Periyanyagi 2. Dr.S.Kannan 3. Dr.B. Deepa Lakshmi 4. Dr.K.Karthikeyan 5. Mr.Moorthi Kanagaraj	Awarded

4.	201841026151	A Smart Conference Hall Surveillance System using IOT	1. Dr.B.Deepa Lakshmi 2. Ms.M.Padma Sri Swedha 3. Ms.B.Syndia Priyadarshini 4. Ms.K.Vela Iswarya	Granted
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10. Membership in Professional societies :

The Indian Society for Technical Education (ISTE) - Life Member (LM 101170)

The Institution of Engineers India (IE(I)) – Associate Member (AM3050966)

11. Awards, Recognition & Achievements

- Received Certificate of Appreciation for producing 100% result during May 2017
- Received Certificate of Appreciation for Best Class Advisor during the year 2017-18, 2019-2020

Any others (Board of studies/Governing Council/Staff Selection/ Reviewer/other duties)

Other Duties

1. Class Advisor
2. Project Co-ordinator
3. Class Committee Chair Person
4. Project Review Member
5. NBA co-ordinator of the department
6. College co-ordinator for IITM PALS
7. Department Advisory Committee member
8. ISO Internal Auditor
9. Internal Squad Member
10. Discipline Committee Member
11. Deputy Warden - Girls Hostel