FACULTY PROFILE

Name of the Staff : M.SIVAPALANIRAJAN

Official Address with E-mail Id : Assistant Professor,

EEE Department,

National Engineering College

sivapalanirajan@nec.edu.in

Mobile Number : 7667743759, 9578175275

1. Personal Details

Age : 35

Date of Birth : 01/01/1988

Sex & Marital Status : Male / Married

Citizenship : Indian
Qualification : M.E

Degree	Programme and Specialization	Class /CGPA	Month &Year of Passing	Institute/University
Ph.D	Electrical Engineering	-	Pursuing from Jan 2019	Anna University (PT)
M.E	Control and Instrumentation Engineering	I Class/8.27	May 2014	College of Engineering Guindy/Anna University
B.E	Electronics and Instrumentation Engineering	I Class with distinction/79%	April 2009	Kamaraj College of Engineering and Technology/Anna University

Date of joining : 02/06/2014

Present status : Assistant Professor

Professional Experience :11 Years

Designation	Institution/ Organization	Period	Nature of Duties
Assistant Professor	National Engineering College, Kovilpatti.	02/06/2014 to present	Teaching&Research
Design and Development Engineer	Magnum Opus Products, Chennai.	09/09/2009 to 01/12/2011	Product Development.

Courses taught:

Course Title	U.G. or P.G.
Robotics and Automation, Logic and distributed control system, Control	
Systems, Measurements and instrumentation, Linear Integrated Circuits, MEMS and NEMS, Biomedical instrumentation, Basic Electrical and	116 =



2. Academic Achievements

2.1 Short term Courses / Seminars / Conference/ Workshops organized:

S.No	Title	Period	No.of Participants	Venue
1.	Hands on training in the design of mobile robot using LEGO mindstorm EV3 brick	21.01.2023 to 11.03.2023 (All Saturdays)	10	C&I laboratory, EEE,NEC, Kovilpatti
2.	Responsibilities of Engineers to have safe and ecofriendly industrial process erection and commissioning with HSE	25.01.2022	54	Online webinar
3.	Role of Electrical, instrumentation and control engineer in tunnels and shipyards	29-08-2020	68	Online webinar
4.	Real time interfacing of benchmark models with control perspective in LABVIEWand MATLAB	7 th Feb to 10 th Mar 2020	12	C&I laboratory, EEE,NEC, Kovilpatti
5.	Performance analysis of linear control system in LabVIEW using ELVIS II+	15 th Dec 2018 to 8 th Mar 2019 (Odd Saturdays)	15	C&I laboratory, EEE,NEC, Kovilpatti
6.	EEE association organized course on "Applications of control system using LabVIEW"	20 th -21 st Feb 2019	11	C&I laboratory, EEE,NEC, Kovilpatti
7.	Time Response Analysis Of Linear Time Invariant System In LabVIEW Using ELVIS II+	29 th July 2017 to 20 th Jan 2018 (Odd Saturdays)	12	C&I laboratory, EEE,NEC, Kovilpatti
8.	IEEE Sponsored "Implementation of soft computing techniques using MATLAB"	4 th - 6 th Aug 2016	40	NEC (EEE dept), Kovilpatti
9.	Implementation of control engineering using LabVIEW	6 th Aug to 14 th Sep 2016 (Odd Saturdays)	17	C&I laboratory, EEE,NEC, Kovilpatti
10.	Hands on training in PLC programming & SCADA	3 rd -5 th Sep, 2015	40	NEC (EEE dept), Kovilpatti
11	Application of digital circuits and interfacing measuring instruments using LABVIEW	5 th Sep - 16 th Nov 2015 (Odd Saturdays)	34	C&I laboratory, EEE,NEC, Kovilpatti
12	Short term LABVIEW training programme on basic circuit applications	20 th Sep to 10 th Nov 2014 (Odd Saturdays)	16	C&I laboratory, EEE,NEC, Kovilpatti

2.2 Short term Courses / Workshops Attended:

S.No	Title	Period	Venue
1.	Trainer's Training Program on Entrepreneurial activities	26 th – 30 th Sep 2023	EDII Ahmedabad (Online)
	ATAL FDP -Multidisciplinary design optimization in Engineering: Advanced	21 st - 25 th Feb 2022	IIT Kharagpur & IIT Bombay (online)
3.	FDP - Fundamentals of AI and ML	10 th - 14 th May 2021	ICT academy (online)
4.	Image processing using MATLAB	12 th -16 th Apr 2021	Pantech solutions (online)
5.	PALS-VLABS 2020-21 INITIATIVE	10 th -14 th Aug2020	NITK Surathkal (online)
6.	Robotics & Control (RoboCon)-2020	15 th - 19 th July, 2020	NIT Silchar (online)
7.	LaTeX – IIT Bombay spoken tutorial	17 th to 30 th April 2020	Online FDP
8.	Fuzzy logic and Neural network approaches for Engineering Solutions	29 th and 30 th April 2020	Journal of advanced engineering research &hexacubeindia (Online)
9.	Robotics and Control (QIP course)	1 st to 5 th July 2019	IIT Roorkee
10.	AI and deep learning	2 days 28 th to 30 th Dec 2018	Leading India - AIResearch initiative by Bennett
11.	Applied optimal control and state estimation	. 1 41	Indian institute of science (IISc), Bengaluru.
12.	Recent Trends in SCADA, Smart Grid and Industrial Automation	Two week $2^{nd}-15^{th}$ June 2017	Coimbatore Institute of Technology (CIT), Coimbatore.
13.	Technology enabled teaching learning process	2 days 27 th – 29 th May 2017	National institute of technical teachers training & Research (NITTTR)
14.	Instructional design and delivery systems	One week 22 nd – 27 th May 2017	National institute of technical teachers training & Research (NITTTR)
15.	Hardware in the loop simulation for power electronics and control	2 days 16 th - 17 th Dec 2016	Mepcoschlenk Engineering college, Sivakasi.
16.	PIC microcontroller and its applications	2 Days 4 th – 5 th Dec 2015	PSNA college of engineering and technology, Dindigul.
17.	Advanced Control System (IC6601)	One week May 2015	Madras Institute of Technology (MIT), Chennai.

18.	MEMS and Sensors by centre for NEMS &Nano Photonics.	1 Day December 2014	Indian Institute of Technology (IITM), Chennai.
19.	Emerging Technologies with hands on and live demo	One week November 2014	National Engineering College, Kovilpatti
20.	Empowering Indian Engineering education for global expectation	2 Days November 2014	National Engineering College, Kovilpatti
21.	Diplomacourse "Certificate in PLC programming"	6 Months (April-Sep 2009)	J-Tech institute, Madurai.
22.	Workshop on "Industrial Automation".	1 Day February 2008	Kamaraj College of Engineering and Technology, Virudhunagar.
23.	National level technical symposium on the topic "Bio Chips"	1 Day September 2007	K.L.N. college of information technology, Madurai.
24.	Workshop on "Programming with PLC".	1 Day July 2007	Kamaraj College of Engineering and Technology, Virudhunagar

2.3 Online Certification Completed:

S.No	Certification	Period	Organizers	Remarks
1.	Completed NPTEL course on	Jul – Oct	NPTEL – IIT	Secured 82% Elite with
	"Control Systems"	2022	Madras	Silver medal
2.	Coursera certification in Data	May - June		Completed the course
	Processing and Feature	2022	MATHWORKS	with
	Engineeringusing MATLAB	5 Weeks		85.39%
3.	Completed NPTEL course on	Jul – Aug		Secured Silver medal
	"Foundations of Cognitive	2021	NPTEL – IIT	and
	Robotics"	4 weeks	Kanpur	5% Topper
4.	Coursera certification	Jun-Jul		Completed the course
	"Exploratory data analysis	2021	MATHWORKS	with
	using MATLAB"	5 Weeks		92.75%
5.	Completed NPTEL Online	Jan-Mar		Secured Silver medal
	Certification on "Automatic	2020	NPTEL – IIT	with 87% in 2021
	control" in Dec 2020	8 weeks	Roorkee	
6.	Coursera certification	May-June	Deeplearning.ai	Completed the course
	"Neural Networks and deep	2020		with 92.8%
	learning"			
7.	Coursera certification	Apr– June	University of	Completed the course
	"Computer vision basics"	2020	Buffalo	with 100%
8.	Journal citation reports (JCR)	12 th and 15 th	Web of Science	Completed on 3 rd June
	certification	May 2020	group-Clarivate	2020
9.	Steps into Robotics Process	Self paced	GUVI	Completed on 2 nd June
	Automation	course		2020
10.	MATLAB onramp	Self paced	MATLAB	Completed on 4 th April

		course		2020
11.	Simulink onramp	Self paced	MATLAB	Completed on 23 rd Dec
		course		2019
12.	COURSERA online	Feb - Mar	Georgia institute	Completed the course
	certification on "Control of	2019	of technology,	with 94.2%
	Mobile Robots"	(7 weeks)	Georgia	
13.	COURSERA online	Oct - Nov	Northwestern	Completed the course
	certification on "Modern	2018	University.	with 95.4%
	Robotics – Foundations of	(4 weeks)		
	robot motion"			
14.	NPTEL Online Certification	Jan – March	Indian Institute	Scored 80% with Elite
	on "Modeling and simulation	2017	of Technology	Certificate.
	of dynamic system"	(8 Weeks)	(IIT), Madras	
15.	NPTEL Online Certification	January-	Indian Institute	5% Topper with 82%
	on "Introduction to Research"	February	of Technology	Elite
		2016 (10	(IIT), Madras	
		Hours)		

2.4 Industrial training Undergone:

S.No	Title	Period	Venue
1.	L&T Edutech - Advanced Industry Powered Faculty Immersion Program	1 Week 29 th May – 3 rd June 2023	L&T Head quarters, Chennai.
2.	PLC panel manufacturing – Industrial Knowhow	1 Week 17 th to 22 th Feb 2023	Kasa Anlagen Pvt. Ltd, Chennai.
3.	Matlab Master Class – 30 days challenge	1 Month 1 st – 30 th Sep 2020	Pantech solutions Pvt. Ltd, Chennai.
4.	SPIC – Industrial Knowhow	1 Week 20 th to 24 th Jan 2020	Greenstar Fertilizer Limited, Tuticorin
5.	Ramco Cements Limited - Industrial Knowhow	1 week 5 th – 9 th March 2018	Ramco Cements Limited, R.R.Nagar.
6.	National Institute of Wind Energy (NIWE) – Industrial Knowhow	1 week 22 nd – 27 th May 2017	Wind Turbine Research Station, Kaythar
7.	Advanced learning platform & solutions (Industrial knowhow)	1 week May 2016	iWave systems technologies Pvt.Ltd. Bangalore.
8.	Training in cement manufacturing industry	1 week June 2007	Madras Cements Ltd., Sattur.
9.	Training in power generating station	1 Week December 2007	Tuticorin thermal power station

3. Research Achievements

3.1International Journal Publications

S.No	Title of the Paper	Journal title	Volume &Year	Index & Impact factor
	Trajectory Tracking Of Wheeled Mobile	International Journal	Vol. 9	Scopus
1.	Robot: Model-Based Test And	of Scientific	issue 5,	
	Validation Using QBOT	Technology and	Apr 2020	
	-	Research	_	
2	Evaluation of various benchmark		Vol. 14	SCI
2.	processes with appropriate controller	Journal of	issue 5	1.263
	design in LabVIEW platform	Instrumentation	May 2019	

3.2 International Conference Publications

S.No	Title of the Paper	Name of the Conference	Organizer	Month &Year	Publication
1.	Performance Analysis of LEGO Mindstorm EV3 robot with PID controller for trajectory tracking application	International Conference on Intelligent Computing and Control Systems [ICICCS 2023]	Vaigai College of Engineering , Madurai	May 2023	Presented in IEEE conference and yet to be published.
2.	Accelerometer Based Hand Gesture Recognition and Control of Motor Powered Trolley	International Conference on Emerging Trends in Engineering and Technology - Signal and Information Processing (ICETET-SIP- 22)	Raisoni college of engineering, Nagpur.	Jun 2022	Published in IEEE Xplore Digital Library. ICETET-SIP-22 pp. 1-5 doi: 10.1109/ICETET- SIP- 2254415.2022.9791 565
3.	Dynamic target tracking of wheeled mobile robots and analysis of controller with various orientation	International Conference on Artificial Intelligence and Smart Systems (ICAIS 2022)	JCT institute of technology, Coimbatore	Feb 2022	Published in IEEE Xplore Digital Library. ICAIS 2022 pp. 1525-1530. DOI: 10.1109/ICAIS533 14.2022.9743103
4.	Design of Smart Cane with integrated camera module for visually impaired people	International Conference on Artificial Intelligence and Smart Systems (ICAIS 2021)	JCT institute of technology, Coimbatore	Mar 2021	Published in IEEE Xplore Digital Library. ICAIS 2021 pp. 999-1004.
5.	Microcontroller Based Low Cost Robotic Arm ForRehabilitation Of Patients with Set	2 nd Springer International conference on computer	R.V.S technical campus, Coimbatore	May 2019	Springer book series LNDECT Vol 44, pp: 651- 659. Jan 2020

	Back İn ArmMovement	networks and inventive communication technologies			
6.	Performance Comparison of MPC and PID Controller for Single Input Single Output Process	IEEE International conference on Recent Advances in Energy- efficient Computing and Communication	St. Xavier's Catholic College of Engineering , Nagercoil	March 2019	Published in IEEE Xplore Digital Library. Conference Proceeding of ICRAECC 2019 pp.1-6, 2019.
7.	Mathematical Modeling and Control of QNET Rotary Inverted Pendulum in MATLAB and Real Time Implementation in Lab View Using ELVIS	2 nd IEEE International Conference on Inventive Communication and Computational Technologies	Ranganatha n Engineering College, Coimbatore	April 2018	Published in IEEE Xplore Digital Library. Conference Proceeding of ICICCT 2018 pp.1452-1457, 2018.
8.	Time response analysis of SISO system with a choice of controller configuration in LABVIEW platform	2 nd IEEE International Conference on Inventive Systems and Control	JCT institute of technology, Coimbatore	January 2018	Published in IEEE Xplore Digital Library. Conference Proceeding of ICISC 2018 pp. 374-377, 2018.
9.	Power system design and parameter monitoring of 2U CUBESAT	IEEE sponsored International conference on Science, Engineering &Management Research (ICSEMR – 2014)	VeltechMul titech, Chennai.	Novemb er 2014	Published in IEEE Xplore Digital Library. Conference Proceeding of ICSEMR 2014 pp. 1-7, 2014.

3.3 National Conference Publications

S.No	Title of the Paper	Organizer	Year
1	Design and monitoring of 2U CUBESAT power system	Turbo machinery institute of technology and science, Hyderabad.	2014

3. Additional Responsibilities held

- New Gen IEDC Coordinator
- ED Cell Co Coordinator
- Institution Innovation Council IIC (department coordinator)
- Internship/Inplant training coordinator (Incharge-EEE)
- Control and Instrumentation Lab (Incharge)
- Industrial Automation Lab (Incharge)
- Student advisory board (EEE)
- II year EEE Class Incharge