

Name: N. Akshay
Designation: Assistant Professor
Department: Electronics & Instrumentation Engineering
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Experience (in years): Teaching: 20 Research: 2 Others (If any, Specify):-

1. Educational / Technical qualifications:

S.No	Level (UG / PG / Ph.D.)	Year of passing	Specialization
1	Ph.D.	Pursuing	Instrumentation & Control
2	M. Tech.	2007	VLSI SD
3	B.E.	2003	Instrumentation

2. Teaching and Learning:

- 2.1. Teaching Interests: Process Control Instrumentation, Automation, LabVIEW, P.L.C.
- 2.2. Novel Teaching & Learning Techniques adopted: Activity-based learning (POGIL), Moodle L.M.S., I.C.T.
- 2.3. Involvement in curriculum updating / Design:- Yes

3. Co-curricular and Extra-Curricular Activities

- 3.1. Interests and Hobbies: Cricket
- 3.2. CCA/ECA Organized: 5
- 3.3. CCA/ECA participated: 20
- 3.4. Counseling and Mentoring Activity: B. Tech. Students
- 3.5. Committees involved in:
Department level: 2
Institute Level: 2

4. Conference / Workshop / Seminar / Guest Lectures:

- 4.1. Conducted: 5
- 4.2. Attended: 44

5. Academic Contribution and Research & Consultancy:

- 5.1. **Invited Lectures:-** 1 at V.I.T. University
- 5.2. **Articles/Chapters published in Books:-** 2
- 5.3. Books published as a single author or as editor:-
- 5.4. Projects Guided:
a) U.G.: 46 b) P.G.: 6
- 5.5. Research Interests: Automation & Control
- 5.6. Ph.D. students: Nil
a) Enrolled: b) Submitted: c) Awarded:

5.7. Papers published in reviewed Journals:

S. No	Title of the Paper	Journal Name Vol. No. PP	ISBN/ISSN No.	Impact Factor/ Citation Index	National/ International
1	Least Square Support Vector Machines Laguerre Hammerstein Model Identification and Nonlinear Model Predictive Controller Design for pH Neutralization Process	Gazi University Journal of Science,2023, Vol 36(1)	e-ISSN: 2147-1762	ESCI (WoS), Scopus Indexed	International
2	IoT Enabled Industrial Process Monitoring System	NeuroQuantology , December 2022	1303-5150	Scopus Indexed	International
3	A novel LSSVM-L Hammerstein model structure for system identification and nonlinear model predictive control of CSTR servo and regulatory control	Chemical Product and Process Modeling, July 2021, 17 (6).	ISSN: 1934-2659	ESCI (WoS), Scopus Indexed	International
4	Optimization based internal model control design	I.O.P. Conference Series: Materials Science and Engineering , Vol:1022, 012088 ,pp.1-14	ISSN: 1757-899X	Scopus Indexed	International
5	Fault Detection of Under Ground Cable using IoT.	Journal of Information and Computational Science ,Volume 10 Issue 11, pp. 99-103	ISSN: 1548-7741	Google Scholar Indexed	International
6	Development of Multi-Model P.I.D. Controller on FPGA for Furnace Temperature Control Problem	AutAut Research Journal Volume XI, Issue V, pp.140-146	ISSN NO: 0005-0601	Scopus Indexed	International

7	Intelligent Voice Controlled Home Automation	Advanced Science Letters Volume 26 ,Issue-5 ,pp. 283-289	E- ISSN:193 6-7317	Google Scholar Indexed	International
8	Design of Optimal Scheduling Of Electrical Load For Smart Power Utilization	Alochana Chakra Journal Volume IX, Issue V, pp.5702-5708	ISSN NO:2231-3990	Google Scholar Indexed	International
9	Data Driven Design of IMC-fractional Filter PI Controller for Sewage Waste Water Process	Jour of Adv Research in Dynamical & Control Systems, Vol. 11 No. 3 2019(Scopus Indexed)	ISSN: 1943-023X	Scopus Indexed	International
10	Multi loop Controller Design for Multivariable Processes Employing SISO PI Tuning Rules	International Journal of Innovative Technology and Exploring Engineering (IJITEE) , Volume-8, Issue-6S4, April 2019(Scopus Indexed)	ISSN: 2278-3075	Scopus Indexed	International
11	MC-Based Topology for Bi-Directional Power Flow between E.V. Charger and Grid	International Journal of Research and Analytical Reviews, May 2019, Volume 6, Issue 2(U.G.C. Indexed Journal)	ISSN 2348-1269	Google Scholar Indexed	International
12	Design And Implementation Of Neonate Health Condition Monitoring Device	i-manager's Journal on Digital Signal Processing, Vol. 6 , No. 4 , October - December 2018	ISSN Print: 232 1-7480	Google Scholar Indexed	International
13	P.I. Controller Design for Multivariable processes based on Ziegler-Nichols Tuning Method	Journal of Advanced Research in Dynamical & Control Systems, Sept., 2018(Scopus Indexed)	ISSN: 1943-023X	Scopus Indexed	International
14	Online Auto Selection of Tuning Methods and Auto Tuning PI Controller in	Elsevier Energy Procedia Vol. 117, June 2017,	ISSN: 18 76-6102	Scopus Indexed	International

	FOPDT Real Time Process-pH Neutralization	pp. 1109-1116 (Scopus Indexed)			
15	Process Identification with Autoregressive Linear Regression Method using Experimental Data: Review	Indian Journal of Science and Technology , Vol .9, Issue 39, October 2016,pp. 1	ISSN 0974 - 5645	Scopus Indexed	International
16	Self Adaptive Design Implementation of Auto Tuning Algorithm for P.I. Controller in Real Time pH Neutralization Plant Operation	International Research Journal of Engineering and Technology (IRJET) Vol: 03 Issue: Oct - 2016,pp 1267-70.	e-ISSN: 2395 - 0056	Google Scholar Indexed	International
17	Design And Implementation of Algorithm for Real- Time Patient Monitoring in Ambulance While Transit	Journal on Instrumentation and Control Engineering, Vol.4 ,Issue 1 , Nov-Jan 2016, , pp. 17-23.	ISSN 2321- 113X	Google Scholar Indexed	International
18	Multichannel Data Acquisition And Control System Using Labview	International Journal Of Embedded & VLSI System ,Vol. 3, Issue 12 Dec 2014	ISSN: 2349 - 8129	Google Scholar Indexed	International
19	A Robust And Secure Approach To Transfer A Secret Image Using Reversible Color Transformations For Confidentiality	International Journal Of Professional Engineering Studies Vol. V /Issue 5 /Oct 2015	-	-	International
20	Real Time Monitoring And Control Of Neonatal Incubator Using LabVIEW	International Journal of Application or Innovation in Engineering & Management, Volume 2, Issue 4, April 2013	ISSN: 2319- 4847.	Google Scholar Indexed	International
21	Integration And Automation Of Systems For Product Identification And Segregation.	International Journal of Application or Innovation in Engineering & Management, Volume 2, Issue 4, April 2013	ISSN: 2319- 4847	Google Scholar Indexed	International

22	Real Time Automated Control of Industrial Processes with P.L.C. – LABVIEW Communication	International Journal for Research in Science & Advanced Technologies (IJRSAT) , Issue-1, Vol-1, August 2012, pp: 035-038	ISSN: 2319-2690	Google Scholar Indexed	International
23	Implementation Of 3D DWT With 5/3 LeGall Filter For Image Processing	International Journal on Computer Science and Engineering IJCSE – May 2012, Vol. 4, No. 5	ISSN: 0975–3397	ICI Indexed	International
24	Multi-Vendor Remote Monitoring and Control System for Hydraulic Drive Systems	CVR Journal of Science and Technology Vol 3, Dec 2012	ISSN: 2277-3916	Peer Reviewed	National
25	Multiplierless Design for Multilevel Forward and Inverse 2D Discrete Wavelet Transform	International Journal for Computer Applications-IJCA , March 2011 (Indexed in Scopus Database)	ISSN 0975 – 8887	DOAJ, ProQuest	International
26	High Speed Power Efficient Asynchronous Adders	International Journal for Computer Applications-IJCA ,March2011(Indexed in Scopus Database)	ISSN 0975 – 8887	DOAJ, ProQuest	International

5.8. Papers presented at National / International Conference:

S. No	Title of the Paper	Names of the Conference/ Seminars	National/ International	Period
1	Respiratory Analysis – Detection of Various Lung diseases using Audio Signals	2022 8th International Conference on Advanced Computing and Communication Systems (ICACCS)	International	March 2022
2	Applications Of Information and Communication Technology In Health Monitoring Systems	1 st International Conference on Emerging Trends in Information and Communication Technology (ICETICT 2021)	International	June 2021
3	IOTBased Street Light Monitoring & Controlling System For Smart Cities	Virtual International Conference on “A.I. and ML Applications in Smart Buildings”(AMSB2020)	International	July 2020

4	NARX-EMFO Based Controller Optimization for pH Neutralization in Waste Water Treatment	Second International Conference on Power Engineering Computing and CONTROL (PECCON – 2019)	International	Dec 2019
5	Multi-loop Controller Design For Multivariable Processes Employing SISO PI Tuning Rules	International Conference on Advances in Signal Processing, Power, Embedded, Soft Computing, Communication, and Control Systems (ICSPECS-2019)	International (Indexed in Scopus Database)	Jan 2019
6	Bio-Signal System Design For Real-Time Ambulatory Patient Monitoring and Abnormalities Detection System	6 th International Conference On Innovations In Electronics & Communication Engineering (ICIECE - 2017) , Hyderabad	International (Indexed in Scopus Database)	July 2017
7	Auto Tuning of P.I. Controller in FOPDT Real-Time Process-pH Neutralization	First international conference on - Power Engineering Computing and CONTROL (PECCON 2017) V.I.T. University, Chennai	International (Indexed in Scopus Database)	March 2017
8	Design & Implementation of a Real-Time Bio-Signal Acquisition System for Quality Health Care Services for the Population of Rural India	IEEE International Conference On Recent Trends In Electronics Information Communication Technology, Bangalore	International (Indexed in Scopus Database)	May 2016
9	Design and Implementation of Fuzzy Based Robust Controller for Process Control Instrumentation	IEEE's International Conferences For Convergence of Technology (I2CT 2014), Pune, India	International (Indexed in Scopus Database)	April 2014
10	E.C.G. Noise Removal and Q.R.S. Complex Detection Using U.W.T.	Electronics and Information Engineering (ICEIE), 2010 International Conference On - ICEIE, Kyoto, Japan.	International (Indexed in Scopus Database)	August 2010
11	An Efficient Approach for Sensor Deployments in Wireless Sensor Network	INTERACT – 2010Sathyabama University, Chennai, India.	International (Indexed in Scopus Database)	Dec' 2010
12	FPGA Implementation of Multiplierless 5/3 Legall DWT Using Lifting Approach	International Conference & Workshop on Emerging Trends in Technology, ICWET- 2011, Mumbai	International (Indexed in Scopus Database)	Feb' 2011
13	Novel Asynchronous Adders	ICWET- 2011, Mumbai	International	Feb' 2011

14	E.C.G. Signal Denoising With Undecimated Wavelet Transform by Using LabVIEW	1st International Conference on Emerging Trends in Signal Processing and VLSI design, GNEC, Hyderabad, India.	International	June 2010
15	Implementation of 24-bit Delta- Sigma Analog-to-Digital Converter	International Conference on Biomedical Engineering & Assistive Technologies (BEATs-2010), N.I.T. Jalandhar, India.	International	Dec' 2010
16	Low Power Asynchronous Dynamic Adders	International conference on mobile internet devices (ICMID-2010), GRIET, Hyderabad, India	International	Dec' 2010
17	Thermistor Linearization with Dual Slope Resistance to Digital Converter Using LabVIEW",	National conference on automation, communication & computing (NCACC-2010), GITAM University, Visakhapatnam	National	Dec' 2010
18	FPGA implementation of multiplier-less lifting-based 2d DWT for 5/3 legal wavelet filter	NCACC-2010, GITAM University, Visakhapatnam, India.	National	Dec' 2010

5.9. Sponsored research Projects:

S. No	Title	Agency	Period	Grant amount	Ongoing / Completed
1	Design and Implementation of Algorithm for Real-Time Patient Monitoring In Ambulance While Transit Role: Principal Investigator	U.G.C., India	Two Years	Rs. 4.45 Lakh	Completed

5.10: Consultancy Projects: Nil

6. Awards / Honors received:-

NPTEL STAR Performer

Teaching Excellence Award in Aurora's Engineering College, Bhongir.

7. Motto: "DO ENGINEERING"