



SIDDHARTHA

ACADEMY OF HIGHER EDUCATION

(Deemed to be University u/s 3 of UGC Act, 1956)

Dr.Sumalatha Akunuri



Designation : Assistant Professor
E-Mail ID : sumaakunuri@vrsiddhartha.ac.in
Contact at : Department of Electronics and Instrumentation
Engineering, Velagapudi Ramakrishna Siddhartha School of
Engineering, SAHE deemed to be University, Vijayawada,
Andhra Pradesh 520007.

Education

Ph. D (Dept. of Instrument Technology- Application of System Identification Techniques To Boiler Drum Modeling For The Design And Analysis Of Drum Level Control Schemes)

December 2020, Andhra University, Visakhapatnam

M.Tech (Industrial Process Instrumentation)

2006, Dept. of Instrument Technology, College of Engineering, Andhra University, Visakhapatnam

B.Tech (Electronics and Instrumentation Engineering)

2003, GITAM College of Engineering, Andhra University, Visakhapatnam.

Experience

Period	Designation	Institution / Organization	Key Responsibilities
2008-Till Date	Assistant Professor	Velagapudi Ramakrishna Siddhartha Engineering College	Institution Level: 02 1. Member of Women Well fare Committee (WWC) 2. Member of Internal Complaints Committee (IIC) Department Level: 09 1. In charge of Industrial Automation Lab

			<ol style="list-style-type: none"> 2. In charge of -Siemens CoE-Automation Lab 3. In charge of Industry Internships 4. NBA Co-ordinator for Criteria-IV 5. NAAC Co-ordinator for Criteria 6. In charge of Anti-ragging Women Grievance & Student welfare Cell 7. Coordinator of Control and Automation Module 8. Member of BoS 9. Class In charge of IV/IV, B.Tech, EIE Sec-A
2006-2008	Assistant Professor	LBRCE, Mylavaram	<ol style="list-style-type: none"> 1. NBA Co-ordinator for Criteria-IV 2. NAAC Co-ordinator for Criteria

Research Interests

Broad Area of Research:

Data-Driven System Identification and Control for Dynamic Processes:

System identification and control are essential for understanding and regulating complex dynamic systems, but traditional physics-based modeling often struggles with nonlinearities, uncertainties, and high-dimensional behaviours. **Data-driven approaches** provide an alternative by relying on measured input–output data rather than detailed mathematical models. Using techniques such as machine learning, neural networks, and predictive algorithms, these methods allow accurate modeling, adaptive control, and improved robustness in real-world scenarios. Applications range from **Renewable Energy Systems** and **Industrial Processes** to **Robotics and Autonomous Vehicles**, where adaptability and efficiency are critical. By combining modern data analytics with control theory, data-driven methods are paving the way for intelligent, scalable, and real-time control solutions.

Honors and Awards

🏆 Received Best Paper Award in 2020-21 for the paper presented in International conference on “Recent Developments on Materials, Reliability, Safety, and Environmental issues” held at NIT Jalandhar during June 25-27, 2021. Paper ID: IMRSE_2021_203. <https://www.imrse2021.com/index.php/awards/>

🏆 Won Tennikoit Doubles Tournament in Siddhartha Academy Institutions Staff Tournament held on 20th & 21st January 2017 organized by Siddhartha Institute of Hotel Management & Catering Technology, Vijayawada.

Courses Taught

S.No	Course Name	Level (UG/PG)
1.	Industrial Automation	UG
2.	Process control	UG
3.	Industrial communication networks	UG
4.	Analytical Instrumentation	UG
5.	Power Plant Instrumentation	UG
6.	Electronic Measurements & Instruments	UG
7.	Linear IC Applications	UG
8.	Bio medical Instrumentation	UG
9.	Transducers	UG
10.	Linear Control systems	UG
11.	Computer control of processes	UG
12.	PC Based instrumentation	UG

Research Profile

Publications

The recent publications and research contributions can be viewed from the following URLs

Google Scholar	https://scholar.google.com/citations?user=KyMU2lwAAAAJ&hl=en&authuser=1
Scopus	https://www.scopus.com/authid/detail.uri?authorId=57192544493
ORCID	https://orcid.org/my-orcid?orcid=0000-0002-0135-1801
dblp	https://dblp.uni-trier.de/pers/hd/u/U:Prabu
Publons	https://www.webofscience.com/wos/author/record/AAD-5641-2022
Research Gate	https://www.researchgate.net/profile/Sumalatha-Akunuri
LinkedIn	https://www.linkedin.com/in/dr-sumalatha-akunuri-b959643b

Recognized Research Supervisor

S.No.	Department	University
01.	-	

Funded Research Projects

S.No	Type	Title	Status	Funding Agency	Amount (INR)	Duration
01.	Govt. Funded	IoT-Based Remote Monitoring and Control System for Poultry Farms for Enhanced Productivity and Disease Control	Applied	DST	24,97,050.00/-	3 Years
02.	Govt. Funded	IoT-based Smart Poultry Management System	Applied	STPI, CHUNAUTI 9.0	25 Lakhs	3 Years
03.	Govt. Funded	B-SMAAT: Bike - Smart Monitoring And Alerting Technology for improved safety and Eco-Friendliness	Applied	MSME Idea Hackthon 3.0	08 Lakhs	2Years
04.	Govt. Funded	Railway Track inspection technologies for accurate inspection	Applied	Indian Railway-Innovation Portal	26 Lakhs	2 Years
05.	Govt. Funded	Design and development of wearable, non-invasive, wireless intelligent cardio-tocography (iCTG) device using IoT and ML techniques	Applied	SERB – Special call for Wearable Electronics for Biomedical Applications	42 Lakhs	2 Years

Administrative Roles

S.No.	Role	Institution	Duration	Responsibilities
1.	Member of Women Welfare Committee (WWC)	VR Siddhartha School of Engineering, SAHE deemed to be University	21-01-2025 onwards	<ul style="list-style-type: none"> -Organize programs related to women empowerment and health - Address issues related to women's welfare on campus - Promote gender equity and safety awareness - Serve as a point of contact for women's support initiatives
2.	Member – Internal Complaints Committee (ICC)	VR Siddhartha School of Engineering, SAHE deemed to be University	28.10.2024 onwards	<ul style="list-style-type: none"> - Investigate complaints of sexual harassment as per legal guidelines - Ensure a fair, confidential, and prompt redressal process - Conduct gender-sensitization programs - Uphold safety and rights of students and staff
3.	Incharge – Siemens Automation Lab (Siemens Centre of Excellence)	VRSEC	23-12-2016 onwards	<ul style="list-style-type: none"> - Manage and maintain lab infrastructure and equipment - Plan and conduct training programs/workshops - Communicate with Siemens for support and collaboration - Promote lab utilization by students and faculty - Maintain records and submit periodic reports
4.	In charge – Industrial Automation Lab		2012 onwards	<ul style="list-style-type: none"> - Supervise lab usage and equipment functionality - Guide students in practical and project work - Update lab manuals and ensure safety compliance - Coordinate periodic maintenance and upgrades
5.	In charge – Student Internships		23-12-2016 onwards	

6.	Coordinator – NBA Criterion IV (Teaching– Learning & Curriculum) – Coordinator Responsibilities		2012 onwards	<ul style="list-style-type: none"> -Monitor student admission quality and provide remedial support. -Track academic performance (results, CGPA, pass %, distinctions). - Support placements, internships, and higher studies. - Encourage competitive exams (GATE, GRE, UPSC, etc.). -Promote entrepreneurship, innovation, and skill development. - Maintain proper documentation and records of student progression. - Faculty mentors to guide students in academics, careers, and personal growth.
7.	Coordinator – NAAC Criteria V (Student Support and Progression)		2012 onwards	<ul style="list-style-type: none"> -Provide scholarships, mentoring, and skill development. -Support for placements, higher studies, and entrepreneurship. - Prepare students for competitive exams. - Encourage participation in cultural, sports, and extension activities. - Ensure student representation in committees/councils.
8.	Coordinator – Control and Automation Module		2012 onwards	<ul style="list-style-type: none"> - Design and update course content with modern tools - Monitor academic delivery and assessment - Coordinate theory and lab sessions effectively - Collect feedback and support continuous improvement -Initiation and maintenance of E-Content
9.	Member – Board of Studies (BoS)		2012 onwards	<ul style="list-style-type: none"> - Participate in curriculum design and periodic review - Evaluate course structure and learning outcomes - Suggest new technologies or interdisciplinary subjects

				- Engage with alumni and industry experts for input
10.	Coordinator – Antiragging, Women Grievance & Student Welfare Cell		2012 onwards	- Conduct awareness and sensitization programs - Receive and address grievances confidentially - Promote a safe and inclusive campus environment - Maintain reports and ensure policy compliance
11.	Class Incharge – IV/IV B.Tech EIE Sec-A		2012 onwards	- Track and manage student attendance and academic performance - Communicate with parents when required - Provide academic and emotional support to students - Act as contact between students and faculty/administration

Certifications/MOOC Courses Completed

S.No.	Title	Platform	Duration	Year
1.	Joy of Computing Using Python	NPTEL	12 Weeks	Ongoing 2025
2.	Remote Sensing and GIS for Rural Development	NPTEL	12 Weeks	2025
3.	Air pollution monitoring and control	NPTEL	12 weeks	2024
4.	Design Technology and Innovation offered	NPTEL	8 Weeks	2023
5.	Sustainability Through Green Manufacturing Systems: An Applied Approach	NPTEL	12 weeks	2021
6.	Ecology and Environment	NPTEL	8 Weeks	2019
7.	Industrial Instrumentation	NPTEL	12 weeks	2018

8.	An Introduction to Peer Review	Web of Science Academy Course	Self-paced	2021
9.	Web of Science Academy Course	Coursera	Self-paced	2020
10.	Intelligent Machining	Coursera	Self-paced	2020
11.	Programming for Everybody -Getting started with Python	Coursera	Self-paced	2020

Consultancy / Industry Projects

Completed	02
On-going	-
Applied	-

Patents

S.No	Title	Status	Application No.	Year
1.	Machine Learning And Image Processing For Plant And Disease Detection To Improve Agricultural Yield	Published	202541018130	2025
2.	Method For Providing A Multi Directional Theft Monitoring System For Tracking Vehicles And Alerting Owners In Real-Time	Published	202241004999	2022
3.	Smart Home Appliances for Wi-Fi Device using IoT for old age and disabled persons	Published	202041044233	2020

Ph.D

Awarded	-
Guiding	-

Invited Talks

No. of Invited Talks	03
----------------------	----

Professional Service / Reviewer

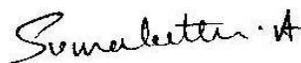
- Reviewer in IEEE ACCESS Journal
- Reviewer in SRINGER NATURE Journal
- Springer Indexed Conference: (ICAIES 2025)
- IEEE Conference: (AMATHE 2025)
- IEEE Conference: (ICCIGST)

Professional Development Activities - Participations

Faculty Development and Training Programmes (at least 5 Days)	43
International / National Level Seminars	10 / 02
International / National Level Conferences	12 / 01
Workshops	10
Instructor Led / Self-Paced Courses	11
Webinars	6

Professional Bodies Membership Details

S.No.	Membership No.	Society Name
1.	AMI/25/01470	Life member of AI-ML Innovative Entrepreneurs and Engineers Association (AMIEE)

 09/09/2025

(Dr.Sumalatha Akunuri)
