

# PROFILE

**Dr. SANGEETA DAINGADE**

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## PROFESSIONAL QUALIFICATION

Sr. No.	Degree	Program/Specialisation	University	Year of Passing
1.	B.E./B.Tech.	Electrical	VJTI, Mumbai	1998
2.	M.E./M.Tech.	Power and Control	IIT Kanpur	2004
3.	Ph.D.	Systems and Control	IIT Mumbai	2016

## EXPERIENCE

Sr. No.	Organisation	Duration
1.	A.C. Patil College of Engineering	Three Months
2.	Sardar Patel College of Engineering	Sept 1999 to till date

## PROFESSIONAL MEMBERSHIP

Sr. No.	Name of professional society	Membership ID
1 .	ISTE	LM32954
2.	IET	1100552571

## **PAPERS PUBLISHED**

### **International Journal**

<b>Sr. No.</b>	<b>Authors</b>	<b>Title of paper</b>	<b>Publisher</b>	<b>Year</b>
1.	Sangeeta Yamgar (Daingade), G. Nanda, S.C.Srivastava, S.N.Singh, P.Gupta, Dharam Paul and Ram.M. Shrestha	Implications of Carbon Tax on Generation Expansion Plan & GHG Emission: A Case Study on Indian Power Sector	International Journal of Emerging Electric Power Systems, Berkeley Electronic Press	2005
2.	S. Daingade A. Sinha, A. Borkar and H. Arya	A Variant of Cyclic Pursuit for Target Tracking Applications: Theory and Implementation	Autonomous Robots	2015
3.	G. R. Mallik, S. Daingade and A. Sinha	Scalable Multi-agent Formation using Consensus based Deviated Cyclic Pursuit with Bearing only Measurement	European Journal of Control	2016
4.	S. Daingade and A. Sinha	Fail-safe Encircling Strategy for Multiple UAVs with Bearing only Measurement	International Journal of Micro Aerial Vehicles	2016

### **International Conference**

<b>Sr. No.</b>	<b>Authors</b>	<b>Title of paper</b>	<b>Publisher</b>	<b>Year</b>
1.	Sangeeta Yamgar (Daingade), G. Nanda, S.C.Srivastava, S.N.Singh, P.Gupta, Dharam Paul	Implications of Carbon Tax on Generation Expansion Plan & GHG Emission: A Case Study on Indian Power Sector	Proc. of International Conference on Power System (ICPS 2004)	2004

	<b>and Ram.M. Shrestha</b>			
<b>2.</b>	<b>Sangeeta Yamgar (Daingade), G. Nanda, S.C.Srivastava, S.N.Singh, P.Gupta, Dharam Paul and Ram.M. Shrestha</b>	<b>Implications of Energy Tax on Generation Expansion Plan &amp; GHG Emission: A Case Study on Indian Power Sector</b>	<b>Proc. of International Conference on Power System Technology (Powercon 2004)</b>	<b>2004</b>
<b>3.</b>	<b>Nandkishor Kinhekar, Sangeeta Daingade, Ajayshree Watkar</b>	<b>Current differential protection of Alternator stator winding</b>	<b>International Conference on Power Systems Transients (IPST2009)</b>	<b>2009</b>
<b>4.</b>	<b>Sangeeta Daingade and Arpita Sinha</b>	<b>Cooperative Target Capturing with Multiple Heterogeneous Vehicles</b>	<b>International conference on Advances in Control and Optimization of Dynamic Systems (ACODS-2012)</b>	<b>2012</b>
<b>5.</b>	<b>Sangeeta Daingade and Arpita Sinha</b>	<b>Nonlinear Cyclic Pursuit based Cooperative Target Monitoring</b>	<b>International Symposium on Distributed Autonomous Robotic Systems (DARS - 2012)</b>	<b>2012</b>
<b>6.</b>	<b>S. Daingade , A. V. Borkar , A. Sinha and H. Arya</b>	<b>Implementation of Collective Target Enclosing Strategy with Multiple UAVs using Hardware In- Loop Simulator</b>	<b>International Conference on Intelligent Unmanned Systems (ICIUS 2013)</b>	<b>2013</b>
<b>7.</b>	<b>S. Daingade , A. V. Borkar ,</b>	<b>Study of Target Centric Cyclic Pursuit for MAVs using Hardware In</b>	<b>AIAA Science and Technology</b>	<b>2014</b>

	<b>A. Sinha and H. Arya</b>	<b>Loop Simulator</b>	<b>Forum and Exposition 2014 (AIAA SciTech 2014)</b>	
<b>8.</b>	<b>Sangeeta Daingade and Arpita Sinha</b>	<b>Target Centric Cyclic Pursuit using Bearing Angle Measurements Only</b>	<b>International Conference on Advances in Control and Optimization of Dynamical System ACODS-2014</b>	<b>2014</b>
<b>9.</b>	<b>S. Daingade , A. V. Borkar , A. Sinha and H. Arya</b>	<b>Multi UAV Formation Control for Target Monitoring</b>	<b>Indian Control Conference (ICC 2015)</b>	<b>2015</b>
<b>10.</b>	<b>Galib R. Mallik, Sangeeta Daingade and Arpita Sinha</b>	<b>Consensus based Deviated Cyclic Pursuit for Target Tracking Applications</b>	<b>European control Conference (ECC 2015)</b>	<b>2015</b>
<b>11.</b>	<b>G. Hemke and S. Daingade</b>	<b>Fast terminal sliding mode based DC-DC buck converter</b>	<b>INTERNATION AL CONFERENCE on Power Electronics, Intelligent Control and Energy Systems (ICPEICES 2016)</b>	<b>2016</b>
<b>12.</b>	<b>R. I. Kurhade, S. Daingade, A. Sharma and P. C. Saroj</b>	<b>Implementation of fast trigger generator for high coulomb spark gap switching</b>	<b>International Conference on Advances in Electrical, Electronics, Information, Communication and Bio-Informatics (AEEICB)</b>	<b>2017</b>
<b>13</b>	<b>Manav M. Mepani,</b>	<b>Design of robot arm for domestic culinary assistance</b>	<b>Materials Today: Proceedings,</b>	<b>2022</b>

	<b>Kshitika B. Gala, Tanish A. Mishra, Kiran Suresh Bhole, Jayram Gholave, Sangeeta Daingade</b>		<b>Volume 68, Part 6, Pages 1930-1945, ISSN 2214-7853, <a href="https://doi.org/10.1016/j.matpr.2022.08.140">https://doi.org/10.1016/j.matpr.2022.08.140</a></b>	
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#### Book Chapter

<b>Sr. No.</b>	<b>Authors</b>	<b>Title of paper</b>	<b>Publisher</b>	<b>Year</b>
<b>1.</b>	<b>S. Daingade and A. Sinha</b>	<b>Nonlinear cyclic pursuit based cooperative target monitoring</b>	<b>Distributed Autonomous Robotic Systems, Springer Tracts in Advanced Robotics, Vol. 104, 2014, pp 17-30</b>	<b>2014</b>

#### National Conference

<b>Sr. No.</b>	<b>Authors</b>	<b>Title of paper</b>	<b>Publisher</b>	<b>Year</b>
<b>1.</b>	<b>P. V. Kasambe, Sangeeta Daingade, S. S. Rathod, U. D. Kolekar</b>	<b>Optimizing the performance of control system using genetic algorithms</b>	<b>NCTCI-2007 (National conference on Emerging technologies in control &amp; instrumentation )</b>	<b>2007</b>
<b>2.</b>	<b>AjayshreeWatk ar, A. K. Mahaley, N. W. Kinhekar, Sangeeta Daingade</b>	<b>Digital Differential protection of Synchronous Generator Stator winding</b>	<b>National conference on Emerging Trends in Electrical, Electronics and</b>	<b>2008</b>

			<b>Computer Technologies held at AKGEC</b>	
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### **WORKSHOP / COURSES ATTENDED**

<b>Sr. No.</b>	<b>Organizer</b>	<b>Title</b>	<b>Year</b>
1.	IIT Bombay	Winter School on Optimization & Control	2014
2.	IIT Bombay	Optimization and Game Theory	2015
3.	IIT Bombay	Digital Signal Processing	2015
4.	IIT Gandhinagar	Geometry, Robotics & Control	2016
5.	RAIT Nerul	Control System Design with MATLAB	2017
6.	SPIT, Andheri	Innovative Teaching Learning Practices to Achieve Outcome Based Education and Accreditation	2018
7.	FCRIT vashi	Teaching Pedagogies for Engineering Education	2019
8.	IIT Bombay	Scientific Computing with Python for Electrical Engineers	2019
9.	IIT Bombay	Linear Algebra and its Applications to Data Analysis and Control	2019
10	NPTEL	Principles of Signals and Systems	2019
11	Delta Industry	Industrial Automation Training in Drive, Motion, Control & Robotics	13th to 17th Feb 2020
12	SPCE	Efficacy of Digital Pedagogy for Effective Online Teaching Learning	8th to 15th Oct 2020
13	University of Mumbai	ALAP Academic Leadership Alignment Program Anandshala	Jan 2023

14	SPCE	ATAL FDP on Green Energy: Challenges & Mitigation at Sardar Patel College of Engineering	Dec 2023
15	MYCA	Youth Leadership for Climate Action: Energy Management and Climate Action	March 2024
16	MYCA	Living with Climate Change and Water Management	March 2024

### WORKSHOP / COURSES CONDUCTED

Sr. No.	Organizer	Title	Year
1.	EED SPCE	Basics of Matlab programming	2015
2.	EED SPCE	Basics of Matlab and Simulink	2017
3.	EED SPCE	Introduction to LATEX	2017
4.	EED SPCE	Industrial Automation	2019

### ONLINE COURSES

Sr. No.	Organizer (AICTE/ Swayam / NPTEL / Coursera)	Title	Year
1.	NPTEL	Principles of Signals and Systems	2019
2.	NPTEL	Industrial Automation And Control	2020

### CONFERENCE ATTENDED

Sr. No.	Organizer	Title	Year
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1.	<b>Thadomal Shahani engineering college, Mumbai</b>	<b>National conference on Emerging technologies in control &amp; instrumentation</b>	<b>2007</b>
2.	<b>IISC Bangalore</b>	<b>second International conference on Advances in Control and Optimization of Dynamic Systems (ACODS-2012),</b>	<b>2012</b>
3.	<b>IIT Kanpur</b>	<b>International Conference on Intelligent Unmanned Systems (ICIUS 2013)</b>	<b>2013</b>
4.	<b>AIAA</b>	<b>AIAA Science and Technology Forum and Exposition</b>	<b>2014</b>
5.	<b>IIT Kanpur</b>	<b>Advances in Control and Optimization of Dynamical System ACODS-2014</b>	<b>2014</b>
6.	<b>BARC Mumbai</b>	<b>Third national symposium on advances in control and instrumentation</b>	<b>2014</b>
7.	<b>SPCE</b>	<b>SPICON</b>	<b>2022</b>
8.	<b>SPIT</b>	<b>IEE IES Day Research Conclave 2024 on Industrial Electronics, Automation and Power Electronics</b>	<b>2024</b>

### CONFERENCE ORGANIZED

<b>Sr. No.</b>	<b>Organizer</b>	<b>Title</b>	<b>Year</b>
1.	SPCE	SPICON	2022

### EVENTS ORGANIZED

<b>Sr. No.</b>	<b>Organizer</b>	<b>Title</b>	<b>Year</b>
1.	<b>EED and MED SPCE in collaboration with Absolute Motion Pvt Ltd.</b>	<b>Workshop on Industrial Automation</b>	<b>2019</b>
2.	SPCE	SPICON	2022



## PROJECTS GUIDED

### PG Level

Sr. No.	Title of project	Year	Status (Completed/ Ongoing)
1.	Fast terminal sliding mode based DC-DC buck converter	2016	Completed
2.	Design, Mathematical Modelling, Characterization and Parametric Evaluation of Lithium-Ion Based Stationary Energy Storage System	2017	Completed
3.	Fast Trigger Generator for High Coulomb Spark Gap Switching	2017	Completed
4.	ENERGY AUDIT & DESIGN OF ROOFTOP SOLAR SYSTEM :(A CASE STUDY OF SPCE BUILDING)	2018	Completed
5.	A Simple Active and Reactive Power Control Using Electric Spring	2019	Completed
6.	Design, simulation & development Of high frequency induction heating system Powering simulated nuclear fuel cluster.	2020	Completed
7.	Ac-Dc-Ac Single-Phase Multilevel Six-Leg Converter with Reduced Number of Controlled Switches	2021	Completed
8.	Battery Charging System and Monitoring	2021	Completed
9.	Simulation and Analysis of Three Phase Grid Connected PV System Via Interleaved Boost Converter	2022	Completed
10.	SENSITIVITY ANALYSIS USING PERFORMANCE INDEX	2022	Completed

11.	<b>SOLAR ASSISTED BATTERY MANAGEMENT SYSTEM WITH FUZZY CONTROL</b>	<b>2022</b>	<b>Completed</b>
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#### Ph.D. Level

Sr. No.	Title of thesis	Year	Status (Completed/ Ongoing)
1.			

#### SUBJECTS TAUGHT

Sr. No.	Name of subject	UG/ PG
1.	Basic Electrical Engineering	UG
2.	Electrical Networks	UG
3.	Signals and Systems	UG
4.	Numerical Techniques	UG
5.	Computer Programming	UG
6.	Electrical Machines-I	UG
7.	Power System I and II	UG
8.	Control System I and II	UG
9.	Industrial Automation	UG
10.	Modern Control Theory	UG
11.	Dynamics of Linear Systems	PG

#### ACHIEVEMENT

Sr. No.	Type of achievement	Year
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1.		
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### DEPARTMENTAL AND INSTITUTIONAL RESPONSIBILITIES

Sr. No.	Type of responsibility	Department / Institute	Year
1.	Exam committee member - electrical department coordinator	Exam Section	2013-2015
2.	UG and PG Admission	Institute	2014-2017
3.	Invitee for subject board	EED	2017, 2020
4.	Teqip-III Procurement coordinator	Institute	2017
5.	IA Lab procurement	EED	2019-20
6.	R&D Committee member	Institute	2017-2022
7.	HoD Electrical	EED	April 2022-till date
8.	SPICON- Track Chair, Session Chair	Institute	Dec 2022

### INDUSTRIAL TRAINING ATTENDED

Sr. No.	Organizer	Title	Year
1.	Delta	Industrial Automation Training in Drive, Motion, Control & Robotics	2020

### INDUSTRIAL TRAINING ORGANIZED

Sr. No.	Organizer	Title	Year
1.			

**EXPERT LECTURE CONDUCTED / ORGANIZED**

<b>Sr. No.</b>	<b>Organizer</b>	<b>Title</b>	<b>Year</b>
<b>1.</b>	<b>EED SPCE</b>	<b>MIMO Systems and State Feedback Control</b>	<b>2014</b>
<b>2.</b>	<b>EED SPCE</b>	<b>State feedback: Pole Placement Method</b>	<b>2016</b>
<b>3.</b>	<b>EED SPCE</b>	<b>Industrial Automation</b>	<b>2017</b>
<b>4.</b>	<b>EED SPCE</b>	<b>MATLAB &amp; Simulink</b>	<b>2017</b>
<b>5.</b>	<b>University of Mumbai</b>	<b>Admission Procedures for various Academic Programs in the affiliated colleges in University of Mumbai.</b>	<b>2017</b>
<b>6.</b>	<b>EED SPCE</b>	<b>PLC and HMI</b>	<b>2020</b>
<b>7.</b>	<b>EED SPCE</b>	<b>Sequel-App for BEE and Power Electronics</b>	<b>2020</b>
<b>8.</b>	<b>EED SPCE</b>	<b>Distributed Control System</b>	<b>2021</b>
<b>9.</b>	<b>EED SPCE</b>	<b>Process &amp; Instrumentation Diagram and Design stages in Automation Industry</b>	<b>2021</b>
<b>10.</b>	<b>EED, SPCE</b>	<b>Be the Ampions by Mr. Mukharji from Ploycab</b>	<b>Dec 2022</b>
<b>11.</b>	<b>EED, SPCE</b>	<b>Non-Linear Control Systems by Mr. Veejay Kartik from IITB</b>	<b>Dec 2023</b>
<b>12.</b>	<b>EED, SPCE</b>	<b>Discrete time Buck Converter Model in Closed Loop by Dr. R. Sawant from SPIT</b>	<b>March 2023</b>
<b>13</b>	<b>EED, SPCE</b>	<b>Semiconductor Manufacturing and Design by Dr. P. V. Kasambe from SPIT</b>	<b>March 2024</b>

**FUNDED RESEARCH PROJECT**

<b>Sr. No.</b>	<b>Funding agency</b>	<b>Title</b>	<b>Sanctioned amount</b>	<b>Duration with dates</b>	<b>Status (Completed / ongoing)</b>
<b>1.</b>					

**REVIEWER**

<b>Sr. No.</b>	<b>Title of journal / conference</b>	<b>Year</b>
<b>1.</b>	<b>International Symposium on Distributed Autonomous Robotic Systems (DARS - 2012)</b>	<b>2012</b>
<b>2.</b>	<b>Third International Conference on Advances in Control and Optimization of Dynamical Systems</b>	<b>2014</b>
<b>3.</b>	<b>Fifth Indian Control Conference (ICC)</b>	<b>2019</b>
<b>4.</b>	<b>Seventh Indian Control Conference (ICC)</b>	<b>2021</b>
<b>5.</b>	<b>SPICON</b>	<b>2022</b>
<b>6.</b>	<b>Automatica</b>	<b>2024</b>

**CONSULTANCY / TESTING / THIRD PARTY AUDIT**

<b>Sr. No.</b>	<b>Organizer</b>	<b>Type of consultancy</b>	<b>Year</b>
<b>1.</b>			