

(a) Research/ Publications/ Books/ Chapters/ National Journals/ International Journals/ National Conferences/ International Conferences/ Patents by faculty

Sr. No.	Type of Publication	Reference No. (ISBN/ Publication No.)	Publisher Name	Title	Authors	Publication Date
01.	IEEE Explorer	978-1-6654-5500-8	IEEE	Object Detection and Tracking for Autonomous Vehicles using Deep Learning Technique- YOLO	<u>Nilesh Parmanand Motwani</u> ; Soumya S ; <u>Upasna Singh</u>	
02.	ITM Web Conf. Volume56, 2023	2271-2097		Human Activities Detection using Deep Learning Technique- YOLOv8	<u>Nilesh Parmanand Motwani</u> ; Soumya S	09/08/23
3	IFAC		IFAC	Disturbance Estimation based Robust Center of Mass Tracking Control of Humanoid Robot	Jaywant P. Kolhe Soumya S. S. E. Talole	
4	Conference ICFAMMT-24			Geometrical Aspects of Snow Sinkage for Robotic Application	Mr. Vibhusharma Dr. Soumya S Dr.A K Swamy	
5	Conference (RCAAI 2023)			Design and control of a 3DOF Manipulator for full body scanning Application	Mr. Vibhusharma Mr. Praveen M Dr. Soumya S	
6	(RCAAI 2023)			Rehabilitation-Focused Exoskeleton Engineering: A Comprehensive Study on Material Selection and Performance Optimization	Durgeshwar Majhi, Vibhu Sharma, Dr. Soumya S	
7				Design and Analysis of a Hand Exoskeleton	Arpeet Dhal, Durgeshwar Majhi, Ashish Kumar Rout,	

					Dr. Soumya S	
8	International Conference		2nd International Conference on sustainable technologies and advances in automation, Aerospace and Robotics(STAAAR-2023)	Review on grasping and slip detection technologies in adaptive gripper using tactile sensors.	Prajakta Koratkar, Pooja Agrawal	15, 16 Dec 2023
9	International Conference		2nd International conference on Innovation in Mechanical and Civil Engineering, PCCOE, Pune 2023	Development of tandon driven continuum robot for medical applications	Yashwanth S, Prajakta Koratkar	18, 19 Aug 2023
10	International Conference		2 nd International conference on Innovation in Mechanical and Civil Engineering, PCCOE, Pune 2023	Comprehensive review of Autonomous Vehicles as Cyber physical system in Transportation space: Challenges, Advancements and Current Developments	Praveen M, Prajakta Koratkar	18, 19 Aug 2023
11	International Journal	ISSN: 0002-2667	Aircraft Engineering and Aerospace Technology	Adaptive sliding mode controller based consensus protocol for swarm of UAVs	A. Dixit, Pooja Agrawal and A. Misra	2023
12	International Journal	ISSN: 0893-1321	Journal of Aerospace Engineering	Alpha Uncertainty and Disturbance Based Robust Controller for Trajectory Tracking of Octocopter UAV	A. Dixit, Pooja Agrawal and A. Misra	2023
13	International Journal	ISSN: 2631-8695	Engineering Research Express	Robust trajectory tracking controller for an octocopter UAV	A. Dixit, Pooja Agrawal and A. Misra	2023
14	International Conferences		2nd International Conference on Sustainable Technologies and Advances in	Terminal SMC Controller for Lorenz Chaos Control	B Sharma, Pooja Agrawal and A Misra	December 15-16, 2023

			Automation, Aerospace and Robotics (STAAAR-2023)			
15	International Conferences		2nd International Conference on Sustainable Technologies and Advances in Automation, Aerospace and Robotics (STAAAR-2023)	Object Detection for Self-Driving Car in Complex Traffic Scenarios	Biplab Das and Pooja Agrawal	December 15-16, 2023
16	International Conferences		2nd International Conference on Sustainable Technologies and Advances in Automation, Aerospace and Robotics (STAAAR-2023)	Terminal SMC Controller for Lorenz Chaos Control	B Sharma, Pooja Agrawal and A Misra	December 15-16, 2023
17	International Conferences		2nd International Conference on Sustainable Technologies and Advances in Automation, Aerospace and Robotics (STAAAR-2023)	RISE Based Output Feedback Controller for Active Flutter Suppression of 2D Aerofoil	Prajakta Koratkar and Pooja Agrawal	December 15-16, 2023
18	International Conferences		2nd International Conference on Sustainable Technologies and Advances in Automation, Aerospace and Robotics (STAAAR-2023)	Adaptive PI-D Controller for Autopilot Design of Small Fixed Wing UAVs	Tanzil Lohani, Abhishek Dixit and Pooja Agrawal	December 15-16, 2023
19	International Conferences		14th ICCCNT 2023	Gimbal Stabilization on a Missile Seeker with a Fractional Order PID Controller	Ashutosh A. Thorat, Abhishek Dixit and Pooja Agrawal	July6-7, 2023
20	International		11 th International	Vision based Micro-UAV	Jayakant Kumar,	1 – 3 Nov.

	Conferences		<i>Conference on Control, Mechatronics and Automation ICCMA</i>	Navigation through Narrow Passages	Himanshu, Harikumar Kandath and Pooja Agrawal	2023.
21	International Conferences		3rd International Conference on Range Technology (ICORT),	Fractional Order Based RISE Controller for Autonomous Aerial Vehicle	Abhishek Dixit and Pooja Agrawal , Ajay Misra	23 -25 February, 2023
22	International Conferences		1 st International Conference on Artificial Intelligence, Advanced Materials, and Mechatronics Systems (AIAMMS-2023),	Machine Learning Based Genome Cancer Dataset Approaches: Review”, JECRC Jaipur, India,	Sonam Singh and Pooja Agrawal	3-4 Nov. 2023

(b) Invited Lectures/ Talks

Dr. Soumya S:

- MILIT, DSTC (AF)-06, Delivered 10 lectures on Robotics and Mechatronics, 02/02/24-16/02/24.
- MILIT, DSTC (AF)-06, Delivered lectures on Robotics and Mechatronics, 30/10/23-4/11/23.
- An Introduction to Robotics, AI for Robotics and Control, ATAL FDP, DIAT (DU) 08/01/2024-13/01/2024.

Mrs. Prajakta Koratkar :

- Organized talk on “Advancements in Artificial Intelligence & Machine Learning for Robotics applications”, by Dr. P Murali Krishna, Sc ‘F’, Centre for Artificial Intelligence & Robotics (CAIR), Bangalore, India for all M.Tech Students of DIAT on 7th March 2024

(c) Contributed Talks and Poster Presentations

Mrs. Prajakta Koratkar:

- Invited guest lecture on Electric Actuators in “Fundamentals of Electronics” for Student Officers of MILIT Naval Wing, NTSC-41 in month of May 2023

(d) Academic Event Organized [Workshop/ Seminar/ Symposium/ Conference]

Dr. Soumya S:

- One day workshop on “ROS for Real time control” during 31/10/2023.
- One-week ATAL FDP on AI for Robotics and control, ATAL FDP, DIAT (DU) 08/01/2024 to 13/01/2024 (AICTE funded programme) organized.
- Presented paper at 8th IFAC International Conference on “Advances Control and Optimization of Dynamic Systems (ACODS 2024)” on 12th -15th March 2024.
- Worked as Volunteer during the GMRT Science Day Exhibition held on 28th and 29th Feb 2024, at the GMRT Observatory, Khodad.
- Paper Presented in the 02nd International Conference on Robotics, Control, Automation and Artificial Intelligence (RCAAI 2023) organized by Department of Mechatronics, Manipal Institute of Technology, Manipal Academy of Higher Education (MAHE), Manipal, India and Department of Electronics and Communication Engineering, National Institute of Technology, Karnataka, Surathkal, India held on 12th -14th October 2023.

Mrs. Prajakta Koratkar:

- Organized workshop on IPR and IP management Guidance for startup by Adv. Anand Mahurkar, founder of AM Legal Associates, Pune on 28th Aug 2023
- Organized an Industrial training in association with SOLIZE INDIA Technologies private limited, Bangalore on “Discovering software capabilities through case studies-Overview: Adams, Odeyssey, and MSC-one” on 19th May 2023.
- Organized Essay writing competition for Anti Ragging week as member AR Committee on 14th Aug 2023
- Organized Logo Design competition for Anti Ragging week as member AR Committee on 17th Aug 2023