

Muhammad Latif Anjum

Assistant Professor
School of Electrical Engineering and Computer Science

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About

Dr. Muhammad Latif Anjum is working as Assistant Professor in the School of Electrical Engineering and Computer Science. Dr. Muhammad Latif Anjum has a PhD in Robotics And Computer Vision. Dr. Muhammad Latif Anjum has published 20 research articles & conference papers having a citation count of 73, carried out 8 projects and filed 0 intellectual property.

Qualifications

PhD in Robotics And Computer Vision Politecnico di Milano , Italy	2012 - 2015
MS in Robotics Seoul National University , Korea	2008 - 2010
BSc in EE UET Lahore , Pakistan	2003 - 2007

Experience

Assistant Professor School of Electrical Engineering and Computer Science	2025- Present
Assistant Professor School of Electrical Engineering and Computer Science	2016 - 2015
Assistant Professor School of Electrical Engineering and Computer Science	2015 - 2016
Lecturer School of Electrical Engineering and Computer Science	2010 - 2016

Research Projects

National Projects

Evaluating the Higher Education in Pakistan: An Appraisal of Research Publication Landscape	2025
Funding Agency: PIDE	
Amount: PKR 3,206,808.00	
Status: Approved_inprocess	
An Efficient Model for Autonomous Vehicles to Detect Anomalous Scenes Based on Intention Estimation	2023
Funding Agency: NFRP	
Amount: PKR 1,000,000.00	
Status: Completed	
An Efficient Model for Autonomous Vehicles to Detect Anomalous Scenes Based on Intention Estimation	2023
Funding Agency: NUST	
Amount: PKR 1,000,000.00	
Status: Completed	
Validation of Model-Free Intelligent Controllers for Robotic Arms and Renewable Systems	2022
Funding Agency: DAAD and SEED Grant (NUST)	
Amount: PKR 10,094,391.00	
Status: Approved_inprocess	
Tax Estimation using Remote Sensing Data	2022
Funding Agency: NUST	
Amount: PKR 1,000,000.00	
Status: Completed	
Development of a Small Scale Fully Autonomous Vehicle Capable of Path Planning in Unknown Environment	2019
Funding Agency: HEC	
Amount: PKR 5,890,000.00	
Status: Completed	
Developing an Efficient and Robust SLAM Algorithm for Indoor and Outdoor Mobile Robots	2017
Funding Agency: HEC	
Amount: PKR 4,700,000.00	
Status: Completed	

International Projects

Industry Projects

National Projects

Coding, Robotics and AI learning for primary grade students	2024
Client: Ministry of Federal Education and Professional Training	
Amount: PKR 163,920,000.00	
Status: Approved_inprocess	

International Projects

Research Articles

Help Me Through: Imitation Learning Based Active View Planning to Avoid SLAM Tracking Failures	2025
Kanwal Naveed Muhammad Wajahat Hussain Irfan Hussain Donghwan Lee Muhammad Latif Anjum	
IEEE Transactions on Robotics , Volume: 41, Page(s):4236-4252	
Impact Factor: 10.500 Quartile: 1	
DOI: 10.1109/TRO.2025.3582817	
Whispers in the air: Designing acoustic classifiers to detect fruit flies from afar	2025
Muhammad Latif Anjum Salman Naveed Muhammad Wajahat Hussain Alia Khalid	
Smart Agricultural Technology , Volume 10, Article Number 100738	
Impact Factor: 6.300 Quartile: 1	
DOI: https://doi.org/10.1016/j.atech.2024.100738	

Out of dataset, out of algorithm, out of mind: a critical evaluation of AI bias against disabled people <i>Mirza Rohan Manzoor Muhammad Wajahat Hussain Muhammad Latif Anjum</i> <i>AI & Society</i> , Pages 1-11 Impact Factor: 2.900 Quartile: 2 DOI: https://doi.org/10.1007/s00146-024-02168-8	2024
Targeted adversarial attack on classic vision pipelines <i>Kainat Riaz Muhammad Latif Anjum Muhammad Wajahat Hussain Rohan Manzoor</i> <i>Computer Vision and Image Understanding</i> , Volume 249, Article Number 104140 Impact Factor: 4.300 Quartile: 1 DOI: https://doi.org/10.1016/j.cviu.2024.104140	2024
One step back, two steps forward: learning moves to recover from SLAM tracking failures <i>Ans Hussain Qureshi Muhammad Latif Anjum Muhammad Wajahat Hussain Usama Mudassar Sohail Abbasi</i> <i>Advanced Robotics</i> , Volume: 38, Issue: 05, Pages 307-322 Impact Factor: 2.000 Quartile: 4 Citations: 1 DOI: 10.1080/01691864.2024.2319144	2024
Why ORB-SLAM is missing commonly occurring loop closures? <i>Muhammad Latif Anjum Muhammad Wajahat Hussain Saran Khaliq Muhammad Uzair Khattak Momen Rasool</i> <i>Autonomous Robots</i> , Volume 47, Issue 8, Pages 1519-1535 Impact Factor: 3.5 Quartile: 2 Citations: 5 DOI: https://doi.org/10.1007/s10514-023-10149-x	2023
Deep introspective SLAM: deep reinforcement learning based approach to avoid tracking failure in visual SLAM <i>Kanwal Naveed Muhammad Latif Anjum Wajahat Hussain Donghwan Lee</i> <i>Autonomous Robots</i> , Pages 1-20 Impact Factor: 3.255 Quartile: 3 Citations: 24 DOI: https://doi.org/10.1007/s10514-022-10046-9	2022
Perceptual Aliasing++: Adversarial Attack for Visual SLAM Front-end and Back-end <i>Muhammad Haris Ikram Saran Khaliq Muhammad Latif Anjum Muhammad Wajahat Hussain</i> <i>IEEE Robotics and Automation Letters</i> , Volume 7, Issue 2, Pages 4670-4677 Impact Factor: 3.741 Quartile: 2 Citations: 13 DOI: 10.1109/LRA.2022.3150031	2022
A First Look at Private Communications in Video Games using Visual Features <i>Abdul Wajid Nasir Kamal Muhammad Sharjeel Raaez Muhammad Sheikh Huzaifa Bin Wasim Muhammad Hashir Ali Wajahat Hussain Syed Taha Ali Muhammad Latif Anjum</i> <i>Proceedings on Privacy Enhancing Technologies</i> , Volume 2021 (3), Pages 433–452 Impact Factor: N/A DOI: 10.2478/popets-2021-0055	2021
A sketch is worth a thousand navigational instructions <i>Haseeb Ahmad Sardar Muhammad Usama Wajahat Hussain Muhammad Latif Anjum</i> <i>Autonomous Robots</i> , Volume 45, Pages 313–333 Impact Factor: 3.255 Quartile: 3 Citations: 6 DOI: https://doi.org/10.1007/s10514-020-09965-2	2021
LTA*: Local tangent based A* for optimal path planning <i>Muhammad Mateen Zafar Muhammad Latif Anjum Wajahat Hussain</i> <i>Autonomous Robots</i> , Pages 1-19 Impact Factor: 3.255 Quartile: 3 Citations: 18 DOI: https://doi.org/10.1007/s10514-020-09956-3	2021
Tracking a Subset of Skeleton Joints: An Effective Approach towards Complex Human Activity Recognition <i>Dr Latif Anjum Stefano Rosa Basilio Bona</i> <i>Journal of Robotics</i> , Article Number: 7610417, Published: 17 January 2017, 8 pages Impact Factor: 0 Citations: 6 DOI: 10.1155/2017/7610417	2017

Conference Proceedings

Deeper Introspective SLAM: How to Avoid Tracking Failures Over Longer Routes? <i>Kanwal Naveed Muhammad Latif Anjum Muhammad Wajahat Hussain Dong won Lee</i> <i>IEEE/RSJ International Conference on Intelligent Robots and Systems., res.country(2,)</i> Citations: N/A DOI: Nil	2024
Adversarial Examples for Handcrafted Features <i>Zohaib Ali Muhammad Latif Anjum Wajahat Hussain</i> <i>30th British Machine Vision Conference, res.country(231,)</i> Citations: N/A DOI: https://bmvc2019.org/wp-content/uploads/papers/0629-paper.pdf	2019
Skeleton tracking based complex human activity recognition using kinect camera <i>Muhammad Latif Anjum Omar Ahmad Stefano Rosa Jingchun Yin Basilio Bona</i> <i>International Conference on Social Robotics ICSR 2014, res.country(13,)</i> Citations: N/A DOI: 10.1007/978-3-319-11973-1_3	2014
Sensor Data Fusion Using Unscented Kalman Filter for VOR-Based Vision Tracking System for Mobile Robots <i>M.Latif Anjum Omar Ahmad Basilio Bona Dong-il “Dan” Cho</i> <i>Conference Towards Autonomous Robotic Systems TAROS 2013, res.country(231,)</i> Citations: N/A DOI: 10.1007/978-3-662-43645-5_12	2013
Vision tracking system for mobile robots using two Kalman filters and a slip detector <i>Wonsang Hwang Jaehong Park Hyun-il Kwon Muhammad Latif Anjum Jong-hyeon Kim Changhun Lee Kwang-soo Kim Dong-il “Dan” Cho</i> <i>ICCAS 2010 - International Conference on Control, Automation and Systems, res.country(121,)</i> Citations: N/A DOI: 10.1109/ICCAS.2010.5670110	2010
Sensor data fusion using fuzzy control for VOR-based vision tracking system <i>Hyun-il Kwon Jaehong Park Wonsang Hwang Jong-hyeon Kim Chang-hun Lee M. Latif Anjum Kwang-soo Kim Dong-il ‘Dan’ Cho</i> <i>2010 IEEE/RSJ International Conference on Intelligent Robots and Systems, res.country(227,)</i> Citations: N/A DOI: 10.1109/IROS.2010.5649916	2010
High performance vision tracking system for mobile robot using sensor data fusion with kalman filter <i>Jaehong Park Wonsang Hwang Hyun-il Kwon Jong-hyeon Kim Chang-hun Lee M. Latif Anjum Kwangsoo Kim Dong-il “Dan” Cho</i> <i>2010 IEEE/RSJ International Conference on Intelligent Robots and Systems, res.country(227,)</i> Citations: N/A DOI: 10.1109/IROS.2010.5650367	2010
Stable vision system for indoor moving robot using encoder information <i>Eun Sub Shim Wonsang Hwang Muhammad Latif Anjum Hyun Seok Kim Kwang Suk Park Kwangsoo Kim Dong-il “Dan” Cho</i> <i>IFAC Proceedings Volumes , res.country(113,)</i> Citations: N/A DOI: 10.3182/20090909-4-JP-2010.00011Get	2009

Editorial Activities

IEEE Robotics and Automation Letters Reviewed Papers for Journals Impact Factor: 3.741	2022
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