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 2012 - 2015
Politecnico di Milano , Italy

MS in Robotics 2008 - 2010
Seoul National University , Korea

BSc in EE 2003 - 2007
UET Lahore , Pakistan

Experience

Assistant Professor 2025- Present
School of Electrical Engineering and Computer Science

Assistant Professor 2016 - 2015
School of Electrical Engineering and Computer Science

Assistant Professor 2015 - 2016
School of Electrical Engineering and Computer Science

Lecturer 2010 - 2016
School of Electrical Engineering and Computer Science

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 2024

Mirza Rohan Manzoor Muhammad Wajahat Hussain Muhammad Latif Anjum

AI & Society, Pages 1-11

Impact Factor: 2.900 | **Quartile:** 2

DOI: https://doi.org/10.1007/s00146-024-02168-8

Targeted adversarial attack on classic vision pipelines 2024

Kainat Riaz Muhammad Latif Anjum Muhammad Wajahat Hussain Rohan Manzoor

Computer Vision and Image Understanding, Volume 249, Article Number 104140

Impact Factor: 4.300 | **Quartile:** 1

DOI: https://doi.org/10.1016/j.cviu.2024.104140

One step back, two steps forward: learning moves to recover from SLAM tracking failures 2024

Ans Hussain Qureshi Muhammad Latif Anjum Muhammad Wajahat Hussain Usama Mudassar Sohail Abbasi

Advanced Robotics, Volume: 38, Issue: 05, Pages 307-322

Impact Factor: 2.000 | **Quartile:** 4 | **Citations:** 1

DOI: 10.1080/01691864.2024.2319144

Why ORB-SLAM is missing commonly occurring loop closures? 2023

Muhammad Latif Anjum Muhammad Wajahat Hussain Saran Khaliq Muhammad Uzair Khattak Momen Rasool

Autonomous Robots, 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

Deep introspective SLAM: deep reinforcement learning based approach to avoid tracking failure in visual SLAM 2022

Kanwal Naveed Muhammad Latif Anjum Wajahat Hussain Donghwan Lee

Autonomous Robots, Pages 1-20

Impact Factor: 3.255 | **Quartile:** 3 | **Citations:** 24

DOI: https://doi.org/10.1007/s10514-022-10046-9

Perceptual Aliasing++: Adversarial Attack for Visual SLAM Front-end and Back-end 2022

Muhammad Haris Ikram Saran Khaliq Muhammad Latif Anjum Muhammad Wajahat Hussain

IEEE Robotics and Automation Letters, Volume 7, Issue 2, Pages 4670-4677

Impact Factor: 3.741 | **Quartile:** 2 | **Citations:** 13

DOI: 10.1109/LRA.2022.3150031

A First Look at Private Communications in Video Games using Visual Features 2021

Abdul Wajid Nasir Kamal Muhammad Sharjeel Raaez Muhammad Sheikh Huzaifa Bin Wasim Muhammad Hashir Ali Wajahat Hussain Syed Taha Ali Muhammad Latif Anjum

Proceedings on Privacy Enhancing Technologies, Volume 2021 (3), Pages 433–452

Impact Factor: N/A

DOI: 10.2478/popets-2021-0055

A sketch is worth a thousand navigational instructions 2021

Haseeb Ahmad Sardar Muhammad Usama Wajahat Hussain Muhammad Latif Anjum

Autonomous Robots, Volume 45, Pages 313–333

Impact Factor: 3.255 | **Quartile:** 3 | **Citations:** 6

DOI: https://doi.org/10.1007/s10514-020-09965-2

LTA*: Local tangent based A* for optimal path planning 2021

Muhammad Mateen Zafar Muhammad Latif Anjum Wajahat Hussain

Autonomous Robots, Pages 1-19

Impact Factor: 3.255 | **Quartile:** 3 | **Citations:** 18

DOI: https://doi.org/10.1007/s10514-020-09956-3

Tracking a Subset of Skeleton Joints: An Effective Approach towards Complex Human Activity Recognition 2017

Dr Latif Anjum Stefano Rosa Basilio Bona

Journal of Robotics, Article Number: 7610417, Published: 17 January 2017, 8 pages

Impact Factor: 0 | **Citations:** 6

DOI: 10.1155/2017/7610417

Conference Proceedings

Deeper Introspective SLAM: How to Avoid Tracking Failures Over Longer Routes? 2024

Kanwal Naveed Muhammad Latif Anjum Muhammad Wajahat Hussain Dong won Lee

IEEE/RSJ International Conference on Intelligent Robots and Systems., res.country(2,)

Citations: N/A

DOI: Nil

Adversarial Examples for Handcrafted Features 2019

Zohaib Ali Muhammad Latif Anjum Wajahat Hussain

30th British Machine Vision Conference, res.country(231,)

Citations: N/A

DOI: https://bmvc2019.org/wp-content/uploads/papers/0629-paper.pdf

Skeleton tracking based complex human activity recognition using kinect camera 2014

Muhammad Latif Anjum Omar Ahmad Stefano Rosa Jingchun Yin Basilio Bona

International Conference on Social Robotics ICSR 2014 , res.country(13,)

Citations: N/A

DOI: 10.1007/978-3-319-11973-1_3

Sensor Data Fusion Using Unscented Kalman Filter for VOR-Based Vision Tracking System for Mobile Robots 2013

M.Latif Anjum Omar Ahmad Basilio Bona Dong-il "Dan" Cho

Conference Towards Autonomous Robotic Systems TAROS 2013, res.country(231,)

Citations: N/A

DOI: 10.1007/978-3-662-43645-5_12

Vision tracking system for mobile robots using two Kalman filters and a slip detector 2010

Wonsang Hwang Jaehong Park Hyun-il Kwon Muhammad Latif Anjum Jong-hyeon Kim Changhun Lee Kwang-soo Kim Dong-il "Dan" Cho

ICCAS 2010 - International Conference on Control, Automation and Systems, res.country(121,)

Citations: N/A

DOI: 10.1109/ICCAS.2010.5670110

Sensor data fusion using fuzzy control for VOR-based vision tracking system 2010

Hyun-il Kwon Jaehong Park Wonsang Hwang Jong-hyeon Kim Chang-hun Lee M. Latif Anjum Kwang-soo Kim Dong-il 'Dan' Cho

2010 IEEE/RSJ International Conference on Intelligent Robots and Systems, res.country(227,)

Citations: N/A

DOI: 10.1109/IROS.2010.5649916

High performance vision tracking system for mobile robot using sensor data fusion with kalman filter 2010

Jaehong Park Wonsang Hwang Hyun-il Kwon Jong-hyeon Kim Chang-hun Lee M. Latif Anjum Kwangsoo Kim Dong-il "Dan" Cho

2010 IEEE/RSJ International Conference on Intelligent Robots and Systems, res.country(227,)

Citations: N/A

DOI: 10.1109/IROS.2010.5650367

Stable vision system for indoor moving robot using encoder information 2009

Eun Sub Shim Wonsang Hwang Muhammad Latif Anjum Hyun Seok Kim Kwang Suk Park Kwangsoo Kim Dong-il "Dan" Cho

IFAC Proceedings Volumes , res.country(113,)

Citations: N/A

DOI: 10.3182/20090909-4-JP-2010.00011Get

Editorial Activities

IEEE Robotics and Automation Letters 2022

Reviewed Papers for Journals

Impact Factor: 3.741