

Raja Amer Azim

Assistant Professor

College of Electrical & Mechanical Engineering

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About

Dr. Raja Amer Azim is working as Assistant Professor in the College of Electrical & Mechanical Engineering. Dr. Raja Amer Azim has a PhD in Vehicle Dynamics And Control. Dr. Raja Amer Azim has published 26 research articles & conference papers having a citation count of 46, carried out 8 projects and filed 0 intellectual property.

Qualifications

PhD in Vehicle Dynamics And Control NUST, Islamabad , Pakistan	2007 - 2015
MS in Mechanical Design University of New South Wales , Australia	1999 - 2001
BSc in Mechanical UET Lahore , Pakistan	1988 - 1993

Experience

Assistant Professor College of Electrical & Mechanical Engineering	2006- Present
Assistant Professor College of Electrical & Mechanical Engineering	2004 - 2005
Lecturer College of Electrical & Mechanical Engineering	2002 - 2004
Lecturer College of Electrical & Mechanical Engineering	2001 - 2002
Senior Engineer Dr A.Q Khan Research Labs , Dr A.Q Khan Research Labs Kahota	2000 - 2001
Assistant Engineer Dr A.Q Khan Research Labs , Dr A.Q Khan Research Labs kahota	1994 - 1999

Research Projects

National Projects

Induction Motor Controller for Traction Application	2022
Funding Agency: NUST	
Amount: PKR 1,000,000.00	
Status: Completed	
Smart Mechanism Design & Analysis of Foldable Diamond Wing Configuration Phase-1 (Design)	2020
Funding Agency: NESCOM	
Amount: PKR 200,000.00	
Status: Completed	
Altitude Heading and Reference System Black Box for Vehicles	2019
Funding Agency: IGNITE	
Amount: PKR 18,500.00	
Status: Completed	
Design, Fabrication and Analysis of Prototype of Positive Displacement Motor	2008
Funding Agency: NUST	
Amount: PKR 300,000.00	
Status: Completed	
Design, Simulation & Fabrication of An Unmanned High Mobility Vehicle (UHMV)	2008
Funding Agency: NUST	
Amount: PKR 367,500.00	
Status: Completed	
Design and Development of Pneumatic Plunger Pump for Chemical Injection	2008
Funding Agency: NUST	
Amount: PKR 210,000.00	
Status: Completed	
Design, Development and Prototyping of Go-Karts	2007
Funding Agency: NUST	
Amount: PKR 990,000.00	
Status: Completed	
Development of Light Weight Three Wheeler 4-Stroke Slim Car/Rickshaw (Prototype) Utilizing Composite Material.	2005
Funding Agency: HEC	
Amount: PKR 6,090,000.00	
Status: Completed	

International Projects

Research Articles

Robust Decentralized Formation Tracking Control of Complex Multi-Agent Systems

Naveed Mazhar Rameez Khan Abid Raza Fahad Mumtaz Malik Raja Amer Azim Hameed Ullah
Complexity , Volume: 2024, Article ID: 5088698

Impact Factor: 2.3 | **Quartile:** 2
DOI: 10.1155/1970/5088698

2024

Fixed Settling Time Control for Self-Driving Car: Two-Timescales Approach

Rameez Khan Raja Amer Azim Fahad Mumtaz Malik Naveed Mazhar Abid Raza Hameed Ullah
IEEE Access , Volume 10

Impact Factor: 3.367 | **Quartile:** 2 | **Citations:** 3
DOI: 10.1109/ACCESS.2022.3163299

2022

Full-state modeling and nonlinear control of balloon supported unmanned aerial vehicle

Naveed Mazhar Fahad Mumtaz Malik Raja Amer Azim Abid Raza Rameez Khan Qasim Umar Khan
Assembly Automation , Pages 1-17

Impact Factor: 1.256 | **Quartile:** 4 | **Citations:** 1
DOI: 10.1108/AA-03-2021-0031

2021

Robust Control Framework for Lateral Dynamics of Autonomous Vehicle Using Barrier Lyapunov Function

Rameez Khan Fahad Mumtaz Malik Naveed Mazhar Abid Raza Raja Amer Azim Hameed Ullah
IEEE Access , Volume 9, Pages 50513-50522

Impact Factor: 3.476 | **Quartile:** 2 | **Citations:** 17
DOI: 10.1109/ACCESS.2021.3068949

2021

Design and Analysis of a Flapping Wing Mechanism with Asymmetric Frequencies for a Micro Air Vehicle

Raja Amer Azim S. Iqbal H.N. Gilani A.A. Malik S.M. Zafar
Iranian Journal of Science and Technology Transactions A: Science, Volume 40, Issue 2, Pages 75-89

Impact Factor: 0.217 | **Quartile:** 4 | **Citations:** 1
DOI: <https://doi.org/10.1007/s40995-016-0012-0>

2016

Rollover Mitigation Controller Development for Three-Wheeled Vehicle Using Active Front Steering

Raja Amir Azim Fahad Mumtaz Malik Waheed ul Haq Syed
Mathematical Problems in Engineering , Article Number: 918429

Impact Factor: 0.644 | **Quartile:** 3 | **Citations:** 14
DOI: 10.1155/2015/918429

2015

Design, Simulation and Optimization of electrothermal Micro Actuator

Raja Amer Azim Abid Ali Umar Shahbaz Khan A.A. Syed Umer Izhar
Applied Mechanics and Materials , Volumes 229-231, Pages 1939-1943

Impact Factor: 0 | **Citations:** 3
DOI: <https://doi.org/10.4028/www.scientific.net/AMM.229-231.1939>

2012

Analysis of circumferentially welded thin-walled cylinders to study the effects of tack weld orientations and joint root opening on residual stress fields

Raja Amer Azim Ejaz M. Qureshi Afzaal M. Malik N.U. Dar M.M.I Hammouda
Proceedings of the Institution of Mechanical Engineers Part C-Journal of Mechanical Engineering Science, Volume:223, Issue: 5, Pages: 1037-1049

Impact Factor: 0.416 | **Quartile:** 3 | **Citations:** 7
DOI: 10.1243/09544062JMES1191

2009

Conference Proceedings

Fixed Settling Time Longitudinal Control of Self-Driving Car

Rameez Khan Naveed Mazhar Abid Raza Anjum Saeed Fahad Mumtaz Malik Raja Amer Azim
2022 4th International Conference on Applied Automation and Industrial Diagnostics (ICAAID), res.country(192,)

Citations: N/A
DOI: 10.1109/ICAAID51067.2022.9799514

2022

Kinematic Analysis of Pitch Angle for the Platform of a Shrimp Rover in an Unstructured Terrain

Uzair Khaleeq uz Zaman Usman Asad Uzair Khaleeq uz Zaman Usman Asad Sehrish Shahnawaz Raja Amer Azim Uzair Khaleeq uz Zaman Usman Asad
6th International Conference on Control, Automation and Robotics (ICCAR), res.country(197,)

2020

Citations: N/A DOI: 10.1109/ICC49639.2020.9108060	
Extended order high gain observer based stabilization of 2 DOF pan tilt platform for aerial imaging system <i>Raja Amer Azim O Altaf Fahad Mumtaz Malik Syed Hussain Shah Nauman Ahmed</i> <i>7th International Conference on Mechatronics and Control Engineering (ICMCE 2018)</i> , res.country(165,)	2018
Citations: N/A DOI: 10.1088/1757-899X/575/1/012009	
Steering Strategy for a Multi-Axle Wheeled Vehicles <i>Raja Amer Azim Waqar Ahmed Sana Fatima</i> <i>ASME 2018 International Mechanical Engineering Congress and Exposition</i> , res.country(233,)	2018
Citations: N/A DOI: 10.1115/IMECE2018-86323	
Longitudinal Velocity Control of Robotic Vehicle with Articulated Suspension <i>Raja Amer Azim Fahad Mumtaz Malik Shafaq Gul</i> <i>2018 IEEE 4th International Conference on Control Science and Systems Engineering (ICCSSE)</i> , res.country(48,)	2018
Citations: N/A DOI: 10.1109/CCSSE.2018.8724767	
MODELING SHEAR HEATING IN THE HYDRODYNAMIC LUBRICATION OF CRANKSHAFT JOURNAL BEARING OF A HIGH-TORQUE DIESEL ENGINE OPERATING AT A LOW SPEED <i>Saqib Naseer Syed Adnan Qasim Raja Amer Azim</i> <i>ASME 2017 Fluids Engineering Division Summer Meeting FEDSM2017</i> , res.country(233,)	2017
Citations: N/A DOI: 10.1115/FEDSM2017-69307	
Modeling the Viscoelastic Effects in the Hydrodynamic Lubrication of Journal Bearing in a High-Torque Low-Speed Diesel Engine <i>Raja Amer Azim Talha Zia Syed Adnan Qasim</i> <i>ASME Fluids Engineering Division Summer Meeting 2017</i> , res.country(233,)	2017
Citations: N/A DOI: 10.1115/FEDSM2017-69306	
Modeling Shear Heating in the Hydrodynamic Lubrication of Crankshaft Journal Bearing of High-Torque Diesel Engine Operating at a Low Speed <i>Raja Amer Azim Saqib Naseer Syed Adnan Qasim</i> <i>ASME Fluids Engineering Division Summer Meeting</i> , res.country(233,)	2017
Citations: N/A DOI: 10.1115/FEDSM2017-69307	
Vehicle Modeling and Performance Evaluation Using Active Torque Distribution <i>Rizwan Latif Raja Amer Azim Aamer Ahmed Baqai Imran Shafi</i> <i>SAE 2014 World Congress and Exhibition</i> , res.country(233,)	2014
Citations: N/A DOI: 10.4271/2014-01-0103	
Multi-Bond Graph Modeling of Pan-Tilt Platform using Object Oriented Modeling Approach <i>Muhammad Haider Raja Amer Azim Waheed Ul Haq Syed</i> <i>Modelling, Identification and Control / 801: Advances in Computer Science, 2013</i> , res.country(217,)	2013
Citations: N/A DOI: 10.2316/P.2013.799-099	
Design, Simulation and Optimization of Electrothermal Micro Actuator <i>Abid Ali Raja Amer Azim Umar Shahbaz Khan Aqeel Abbas Syed Umer Izhar</i> <i>4th International Conference on Mechanical and Electronics Engineering</i> , res.country(48,)	2012
Citations: N/A DOI: https://doi.org/10.4028/www.scientific.net/AMM.229-231.1939	
A Bond Graph Approach To Hydraulic Hybrid Vehicle <i>Raja Amer Azim Muhammad Sajjad Sabir Malik Dr. Aamer Baqai</i> <i>IASTED International Conference Modelling, Simulation, and Identification (MSI 2011)</i> , res.country(233,)	2011
Citations: N/A	

DOI: 10.2316/P.2011.755-073

- Inverted Pendulum with Moving Reference for Benchmarking Control System Performance** 2009
Jehandad Khan Khalid Munawar Raja Amer Azeem Muhammad Salman
2009 American Control Conference , res.country(233,)
Citations: N/A
DOI: 10.1109/ACC.2009.5160094
- Inverted Pendulum with Moving Reference for Benchmarking Control Systems Performance** 2009
Jehandad Khan Khalid Munawar Raja Amer Azeem Muhammad Salman
Third International Conference on Informatics in Control, Automation and Robotics,2006, res.country(233,)
Citations: N/A
DOI: 10.1109/ACC.2009.5160094
- Inverted Pendulum with Moving Reference for Benchmarking Control System Performance** 2009
Jehandad Khan Khalid Munawar Raja Amer Azeem Muhammad Salman
2009 American Control Conference , res.country(233,)
Citations: N/A
DOI: 10.1109/ACC.2009.5160094
- Transient Non-Linear Thermal Analysis of Arc Welding Process To Study The Effects Of Heat Source And Process Parameters** 2007
Ejaz M. Qureshi Afzaal M. Malik Raja Amer Azeem Naeem Ullah Dar
Proceedings of The Fifth International Conference on Physical and Numerical Simulation of Materials Processing, 2007, res.country(48,)
Citations: N/A
DOI: N/A
- Developement of High Performance Servo Drive/Anti Drive Mechanism for Backlash Removal** 2006
I. Askari S. A Hassan M. Altaf M. B. Malik K. Munawar Raja Amer Azim
ICINCO 2006, Proceedings of the Third International Conference on Informatics in Control, Automation and Robotics, Robotics and Automation, res.country(183,)
Citations: N/A
DOI: 10.5220/0001199304530456
- Modeling and simulation of Hydrodynamic Lubrication Process of Rotary Diesel Fuel Injection Pump** 2003
M. Afzaal Malik Badar Rashid Shahab Khushnood Raja Amer Azim
2003 STLE/ASME Joint International Tribology Conference, res.country(233,)
Citations: N/A
DOI: <http://connection.ebscohost.com/c/articles/12445169/modeling-simulation-hydrodynamic-lubrication-rotary-diesel-fuel-injection-pump>