

Umar Shahbaz Khan

Professor

College of Electrical & Mechanical Engineering

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About

Dr. Umar Shahbaz Khan is working as Professor in the College of Electrical & Mechanical Engineering. Dr. Umar Shahbaz Khan has a PhD in Electrical And Electronics Engineering (Image Processing, Embedded Systems). Dr. Umar Shahbaz Khan has published 106 research articles & conference papers having a citation count of 801, carried out 9 projects and filed 19 intellectual property.

Qualifications

PhD in Electrical And Electronics Engineering (Image Processing, Embedded Systems) University of Liverpool , United Kingdom	2007 - 2010
MPhil in Ground Penetrating Radar Data Processing University of Liverpool , United Kingdom	2006 - 2007
BE in Mechatronics Engineering NUST, Islamabad , Pakistan	2001 - 2005

Experience

Professor College of Electrical & Mechanical Engineering	2023- Present
Associate Professor College of Electrical & Mechanical Engineering	2021 - 2023
Assistant Professor College of Electrical & Mechanical Engineering	2016 - 2021
Assistant Professor College of Electrical & Mechanical Engineering	2012 - 2016
Assistant Professor College of Electrical & Mechanical Engineering	2011 - 2012
Project Director National Centre of Robotics and Automation , NUST College of E&ME, Peshawar Road, Rawalpindi	2018 - 2022

Professional Memberships

PEC

Research Projects

National Projects

SceneScribe - AI Enabled Intelligent Glasses for Assistance of Visually Impaired' Funding Agency: IGNITE Amount: PKR 89,429.00 Status: Completed	2025
Multi-DOF Upper Limb Prosthetic Hand Funding Agency: MINISTRY OF PLANNING, DEVELOPMENT & SPECIAL INITIATIVES Amount: PKR 19,628,300.00 Status: Approved_inprocess	2023
Development and Production of an AGILE Quadruped Robot Funding Agency: HEC Amount: PKR 14,680,000.00 Status: Approved_inprocess	
Dynamic Obstacle Avoidance Using Mobile Robots Funding Agency: IGNITE Amount: PKR N/A Status: Completed	2021
Greenhouse Automation System Funding Agency: IGNITE Amount: PKR 60,000.00 Status: Completed	2020
Electromygram (EMG) Powered Active Ankle Lower Limb Prosthetic Foot Funding Agency: PSF Amount: PKR 2,610,996.00 Status: Approved_inprocess	2016
Myo Prosthetic Upper Limb Funding Agency: IGNITE Amount: PKR 14,139,000.00 Status: Completed	2016
Design and Development of a Multipurpose Agrirobot for Smart Farming Funding Agency: PSF Amount: PKR 4,501,300.00 Status: Completed	2019
Establishment of National Center of Robotics and Automation Funding Agency: HEC Amount: PKR 220,672,000.00 Status: Approved_inprocess	2018

International Projects

Research Articles

An optimized Impulse Factor-based VMD-EMD approach to improve SSVEP accuracy for BCI Systems <i>Umar Shahbaz Khan Tahir Habib Nawaz Ayesha Zeb Adeel Wahab Syed Tayyab Hussain Shah U. Izhar</i> <i>Results in Engineering</i> , Volume:25, Article Number:104203, Pages:14 Impact Factor: 6 Quartile: 1 Citations: 4 DOI: https://doi.org/10.1016/j.rineng.2025.104203	2025
Using SegFormer for Effective Semantic Cell Segmentation for Fault Detection in Photovoltaic Arrays <i>Zaid Mahboob M. Adil Khan Ehtisham Lodhi Tahir Habib Nawaz Umar Shahbaz Khan</i> <i>IEEE Journal of Photovoltaics</i> , Volume: 15, Issue: 2, Pages: 320-331 Impact Factor: 2.500 Quartile: 2 Citations: 3 DOI: https://doi.org/10.1109/JPHOTOV.2024.3450009	2025
Mental Fatigue Classification Aided by Machine Learning-Driven Model under the Influence of Foot and Auditory Binaural Beats Brain Massage Via fNIRS <i>Umar Shahbaz Khan Nazo Haroon Taikyeong Ted. Jeong Noman Naseer Hamid Jabbar</i>	2024

IEEE Access , Volume 12, Pages 187160-187191

Impact Factor: 3.400 | **Quartile:** 2

DOI: 10.1109/ACCESS.2024.3508875

Precision Segmentation and Binary Masking of Skin Lesions in Automated Dermatological Diagnostics using Detectron2

2024

Hassan Elahi Umar Shahbaz Khan 00000386764-Haseeb Amjad 00000376140-Nija Asif Hassan Akbar Ali R. Ansari Raheel Nawaz

IEEE Access , Volume: 12, Page(s): 87696-187708

Impact Factor: 3.4 | **Quartile:** 2 | **Citations:** 1

DOI: <https://doi.org/10.1109/ACCESS.2024.3514865>

Tracking Control and Backlash Compensation in an Inverted Pendulum with Switched-Mode PID Controllers

2024

Aisha Akbar Awan Umar Shahbaz Khan Asad Ullah Awan Amir Hamza

Applied Sciences-Basel , Volume:14, Issue: 22, Article Number: 10265, Pages:15

Impact Factor: 2.500 | **Quartile:** 1 | **Citations:** 2

DOI: <https://doi.org/10.3390/app142210265>

Compensation of Backlash for High Precision Tracking Control of Inverted Pendulum by Drive-Anti Drive Mechanisms

2024

Umar Shahbaz Khan Aisha Akbar Awan

Engineering Proceedings , Volume 75(1), Article Number 32

Impact Factor: N/A

DOI: <https://doi.org/10.3390/engproc2024075032>

Improved Accuracy for Subject-Dependent and Subject-Independent Deep Learning-based SSVEP BCI Classification: A User-Friendly Approach

2024

Adeel Wahab Umar Shahbaz Khan Tahir Habib Nawaz Hassan Akbar Syed Tayyab Hussain Shah Azfar Khalid Ali. R. Ansari Raheel Nawaz

IEEE Access , Volume 12, Pages 115935-115950

Impact Factor: 3.400 | **Quartile:** 2 | **Citations:** 3

DOI: 10.1109/ACCESS.2024.3442235

Enhancing Classification Accuracy of fNIRS-BCI for Gait Rehabilitation

2024

Hamza Shabbir Minhas Hammad Nazeer Noman Naseer Umar Shahbaz Khan Ali R. Ansari Raheel Nawaz

IEEE Access , Volume 12, Pages 117944-117954

Impact Factor: 3.400 | **Quartile:** 2 | **Citations:** 5

DOI: 10.1109/ACCESS.2024.3443066

Emotion Fusion-Sense (Emo Fu-Sense) – A novel multimodal emotion classification technique

2024

Muhammad Umair Nasir Rashid Umar Shahbaz Khan Amir Hamza Javaid Iqbal

Biomedical Signal Processing and Control, Volume 94, Article Number: 106224

Impact Factor: 4.9 | **Quartile:** 1

DOI: 10.1016/j.bspc.2024.1062

Aerial imagery-based tobacco plant counting framework for efficient crop emergence estimation

2024

Ramsha Shahid Waqar Shahid Qureshi Umar Shahbaz Khan Arslan Munir Ayesha Zeb Syed Imran Moazzam

Computers and electronics in agriculture, Volume 217, Article Number: 108557

Impact Factor: 7.7 | **Quartile:** 1 | **Citations:** 17

DOI: 10.1016/j.compag.2023.108557

Z-Number-Based Fuzzy Logic Approach for Mobile Robot Navigation

2023

Osama Ali Khan Kunwar Faraz Ahmed Khan Umar Shahbaz Khan Hamid Jabbar

IEEE Access , Volume 11, Pages 131979-131997

Impact Factor: 3.9 | **Quartile:** 2 | **Citations:** 1

DOI: 10.1109/ACCESS.2023.3336014

A novel framework for classification of two-class motor imagery EEG signals using logistic regression classification algorithm

2023

Rabia Avais Khan Nasir Rashid Muhammad Shahzaib Umar Farooq Malik Arshia Arif Javaid Iqbal M Mubasher Saleem Umar Shahbaz Khan Mohsin Islam Tiwana

PLOS ONE , Volume 18(9), Article Number e0276133

Impact Factor: 3.7 | **Quartile:** 2 | **Citations:** 7

DOI: <https://doi.org/10.1371/journal.pone.0276133>

- Body-Pose-Guided Action Recognition with Convolutional Long Short-Term Memory (LSTM) in Aerial Videos** 2023
Sohaib Mustafa Saeed Hassan Akbar Tahir Habib Nawaz Hassan Elahi Umar Shahbaz Khan
Applied Sciences, Volume 13, Issue 16, Article Number 9384
Impact Factor: 2.7 | **Quartile:** 2 | **Citations:** 7
DOI: <https://doi.org/10.3390/app13169384>
- Towards automated weed detection through two-stage semantic segmentation of tobacco and weed pixels in aerial Imagery** 2023
Syed Imran Moazzam Umar Shahbaz Khan Waqar Shahid Qureshi Tahir Habib Nawaz Kunwar Faraz Ahmed Khan
Smart Agricultural Technology, Volume 4, Article Number 100142
Impact Factor: N/A | **Citations:** 32
DOI: <https://doi.org/10.1016/j.atech.2022.100142>
- A W-shaped convolutional network for robust crop and weed classification in agriculture** 2023
Syed Imran Moazzam Tahir Habib Nawaz Waqar Shahid Qureshi Umar Shahbaz Khan Mohsin Islam Tiwana
Precision Agriculture, Pages 1-17
Impact Factor: 5.767 | **Quartile:** 1 | **Citations:** 13
DOI: <https://doi.org/10.1007/s11119-023-10027-7>
- Deep Learning Based Multiresponse Optimization Methodology for Dual-Axis MEMS Accelerometer** 2023
Fahad ul Hassan Asif Mattoo Tahir Habib Nawaz Muhammad Mubasher Saleem Umar Shahbaz Khan Amir Hamza
Micromachines, Volume 14, Issue 4, Article Number 817
Impact Factor: 3.523 | **Quartile:** 2 | **Citations:** 2
DOI: <https://doi.org/10.3390/mi14040817>
- Multi-criteria Handoff Decision making Algorithm for Seamless Mobility in Heterogenous Wireless Networks** 2023
Muhammad Wajid Khan Umar Shahbaz Khan Muhammad Mubasher Saleem Nasir Rashid
Journal of Communications, Volume 18, Issue 3, Pages 164-171
Impact Factor: N/A | **Citations:** 4
DOI: [10.12720/jcm.18.3.164-171](https://doi.org/10.12720/jcm.18.3.164-171)
- IoT-Based Non-Intrusive Automated Driver Drowsiness Monitoring Framework for Logistics and Public Transport Applications to Enhance Road Safety** 2023
Muhammad Adil Khan Tahir Habib Nawaz Umar Shahbaz Khan Amir Hamza Nasir Rashid
IEEE Access, Volume 11, Pages 14385-14397
Impact Factor: 3.476 | **Quartile:** 2 | **Citations:** 44
DOI: <https://doi.org/10.1109/ACCESS.2023.3244008>
- Patch-wise weed coarse segmentation mask from aerial imagery of sesame crop** 2022
Syed Imran Moazzam Umar Shahbaz Khan Waqar Shahid Qureshi Mohsin Islam Tiwana Nasir Rashid Ameer Hamza Kunwar Faraz Ahmed Tahir Habib Nawaz
Computers and electronics in agriculture, Volume 203, Article Number 107458
Impact Factor: 6.757 | **Quartile:** 1 | **Citations:** 12
DOI: <https://doi.org/10.1016/j.compag.2022.107458>
- Analysis of Human Gait Cycle With Body Equilibrium Based on Leg Orientation** 2022
Muhammad Asif Muhammad A. Tayyab Muhammad H. Shahid Usama Arif Mohsin Islam Tiwana Umar Shahbaz Khan Waqar Shahid Qureshi
IEEE Access, Volume: 10, Page(s): 123177-123189
Impact Factor: 3.367 | **Quartile:** 2 | **Citations:** 5
DOI: [10.1109/ACCESS.2022.3222859](https://doi.org/10.1109/ACCESS.2022.3222859)
- Human gait recognition subject to different covariate factors in a multi-view environment** 2022
Muhammad Asif Mohsin Islam Tiwana Umar Shahbaz Khan Muhammad W Ahmed Waqar Shahid Qureshi Javaid Iqbal
Results in Engineering, Volume 15, Article Number 100556
Impact Factor: N/A | **Citations:** 37
DOI: <https://doi.org/10.1016/j.rineng.2022.100556>
- LASSO Homotopy-Based Sparse Representation Classification for fNIRS-BCI** 2022
Asma Gulraiz Noman Naseer Hammad Nazeer Muhammad Jawad Khan Rayyan Azam Khan Umar Shahbaz Khan
Sensors, Volume 22(7), Article Number 2575
Impact Factor: 3.576 | **Quartile:** 1 | **Citations:** 12
DOI: <https://doi.org/10.3390/s22072575>

- Analyzing Classification Performance of fNIRS-BCI for Gait Rehabilitation Using Deep Neural Networks** 2022
Huma Hamid Noman Naseer Hammad Nazeer Muhammad Jawad Khan Rayyan Azam Khan Umar Shahbaz Khan
Sensors, Volume 22(5), Article Number 1932
Impact Factor: 3.576 | **Quartile:** 2 | **Citations:** 41
DOI: <https://doi.org/10.3390/s22051932>
- A new method for pixel classification for rice variety identification using spectral and time series data from Sentinel-2 satellite imagery** 2022
Usman Rauf Waqar Shahid Qureshi Hamid Jabbar Ayesha Zeb Alina Mirza Eisa Alanazi Umar Shahbaz Khan Nasir Rashid
Computers and electronics in agriculture, Volume 193, Article Number 106731
Impact Factor: 5.565 | **Quartile:** 1 | **Citations:** 16
DOI: <https://doi.org/10.1016/j.compag.2022.106731>
- A death, infection, and recovery (DIR) model to forecast the COVID-19 spread** 2022
Fazila Shams Assad Abbas Wasiaq Khan Umar Shahbaz Khan Raheel Nawaz
Computer Methods and Programs in Biomedicine Update, Volume 2, Article Number 100047
Impact Factor: N/A | **Citations:** 2
DOI: <https://doi.org/10.1016/j.cmpbup.2021.100047>
- A Patch-Image Based Classification Approach for Detection of Weeds in Sugar Beet Crop** 2021
Syed Imran Muazzam Umar Shahbaz Khan Waqar Shahid Qureshi Mohsin Islam Tiwana Nasir Rashid Waleed S. Alasmary Javaid Iqbal Ameer Hamza
IEEE Access, Volume 9, Pages 121698-121715
Impact Factor: 3.476 | **Quartile:** 2 | **Citations:** 39
DOI: [10.1109/ACCESS.2021.3109015](https://doi.org/10.1109/ACCESS.2021.3109015)
- Enhancing Classification Accuracy of Transhumeral Prosthesis: A Hybrid sEMG and fNIRS approach** 2021
Neelum Yousaf Sattar Zareena Kausar Syed Ali Usama Noman Naseer Umer Farooq Ahmed Abdullah Syed Zahid Hussain Umar Shahbaz Khan Haroon Khan Peyman Mirtaheri
IEEE Access, Volume 9, Pages 113246-113257
Impact Factor: 3.476 | **Quartile:** 2 | **Citations:** 15
DOI: [10.1109/ACCESS.2021.3099973](https://doi.org/10.1109/ACCESS.2021.3099973)
- Analysis of visual features and classifiers for Fruit classification problem** 2021
Sumaira Gahzal Waqar Shahid Qureshi Umar Shahbaz Khan Javaid Iqbal Nasir Rashid Mohsin Islam Tiwana
Computers and Electronics in Agriculture, Volume 187, Article Number 106267
Impact Factor: 6.757 | **Quartile:** 1 | **Citations:** 64
DOI: <https://doi.org/10.1016/j.compag.2021.106267>
- EMG Based Control of Transhumeral Prosthesis Using Machine Learning Algorithms** 2021
Neelum Yousaf Sattar Zareena Kausar Syed Ali Usama Umer Farooq Umar Shahbaz Khan
International Journal of Control Automation and Systems, Pages 1-11
Impact Factor: 2.964 | **Quartile:** 2 | **Citations:** 26
DOI: <https://doi.org/10.1007/s12555-019-1058-5>
- Advancements, Trends and Future Prospects of Lower Limb Prosthesis** 2021
Muhammad Asif Mohsin Islam Tiwana Umar Shahbaz Khan Waqar Shahid Qureshi Javaid Iqbal Nasir Rashid Noman Naseer
IEEE Access, Volume 9, Pages 85956-85977
Impact Factor: 3.476 | **Quartile:** 2 | **Citations:** 56
DOI: [10.1109/ACCESS.2021.3086807](https://doi.org/10.1109/ACCESS.2021.3086807)
- Energy Storage for Energy Security and Reliability through Renewable Energy Technologies: A New Paradigm for Energy Policies in Turkey and Pakistan** 2021
Umar Shahbaz Khan Riaz Uddin Hashim Raza Khan Asad Arfeen Muhammad Ayaz Shirazi Athar Rashid
Sustainability, Volume 13(5), Article Number 2823
Impact Factor: 3.889 | **Quartile:** 2 | **Citations:** 12
DOI: <https://doi.org/10.3390/su13052823>
- Improving Classification Performance of Four Class FNIRS-BCI Using Mel Frequency Cepstral Coefficients (MFCC)** 2021
Umar Shahbaz Khan Ameer Hamza Umer Izhar Javaid Iqbal Nasir Rashid Waqar Shahid Qureshi Mohsin Islam Tiwana Muhammad Saad Bin Abdul Ghaffar
Infrared Physics and Technology, Volume 112, Article Number 103589
Impact Factor: 2.638 | **Quartile:** 2 | **Citations:** 32
DOI: <https://doi.org/10.1016/j.infrared.2020.103589>

- Enhancing Classification Performance of fNIRS-BCI by Identifying Cortically Active Channels Using the z-Score Method** 2020
Umar Shahbaz Khan Hammad Nazeer Noman Naseer Aakif Mehboob Muhammad Jawad Khan Rayyan Azam Khan Yasar Ayaz Sensors, Volume 20(23), Article Number 6995
Impact Factor: 3.576 | **Quartile:** 1 | **Citations:** 26
DOI: <https://doi.org/10.3390/s20236995>
- Enhancing classification accuracy of fNIRS-BCI using features acquired from vector-based phase analysis** 2020
Umar Shahbaz Khan Hammad Nazeer Noman Naseer Rayyan Azam Khan Farzan Majeed Noori Nauman Khalid Qureshi Muhammad Jawad Khan Journal of Neural Engineering, Volume 17, Article Number 056025
Impact Factor: 5.379 | **Quartile:** 1 | **Citations:** 49
DOI: <https://doi.org/10.1088/1741-2552/abb417>
- Microfabrication Process-Driven Design, FEM Analysis and System Modeling of 3-DoF Drive Mode and 2-DoF Sense Mode Thermally Stable Non-Resonant MEMS Gyroscope** 2020
Umar Shahbaz Khan Ameer Hamza Javaid Iqbal Syed Ali Raza Bukhari Muhammad Mubasher Saleem Rana Iqtidar Shakoor Micromachines, Volume 11, Issue 09, Article Number 862
Impact Factor: 2.891 | **Quartile:** 2 | **Citations:** 18
DOI: <https://doi.org/10.3390/mi11090862>
- EEG Based Four Class Human Limb Movement Detection by Mel Frequency Cepstral Coefficients and Quadratic Multi-Class Support Vector Machine** 2020
Nasir Rashid Javaid Iqbal Umar Shahbaz Khan Mohsin Islam Tiwana Amir Hamza Journal of Engineering and Applied Sciences, Volume 39, Issue 1, Pages 116-126
Impact Factor: -
DOI: <http://dx.doi.org/10.17582/journal.jeas/39.1.116.126>
- Human Activity Recognition using 2D Skeleton Data and Supervised Machine Learning** 2019
Umar Shahbaz Khan Javaid Iqbal Nasir Rashid Muhammad Mubasher Saleem Sumaira Ghazal IET Image Processing, Volume: 13, Issue: 13, Pages: 2572-2578
Impact Factor: 1.995 | **Quartile:** 3 | **Citations:** 40
DOI: [10.1049/iet-ipr.2019.0030](https://doi.org/10.1049/iet-ipr.2019.0030)
- Design, closed-form modeling and analysis of SU-8 based electrothermal microgripper for biomedical applications** 2019
Muhammad Mubasher Saleem Umar Shahbaz Khan Amir Hamza Muhammad Umar Masood Microsystem Technologies, Volume 25, pages 1171–1184
Impact Factor: 1.737 | **Quartile:** 3 | **Citations:** 18
DOI: [10.1007/s00542-018-4059-z](https://doi.org/10.1007/s00542-018-4059-z)
- Artificial Immune System - Negative Selection Classification Algorithm (NSCA) for Four Class Electroencephalogram (EEG) Signals** 2018
Nasir Rashid Javaid Iqbal Fahad Mahmood Anam Abid Umar Shahbaz Khan Mohsin I. Tiwana Frontiers in Human Neuroscience, Volume: 12 Article Number: 439
Impact Factor: 2.870 | **Quartile:** 2 | **Citations:** 22
DOI: [10.3389/fnhum.2018.00439](https://doi.org/10.3389/fnhum.2018.00439)
- Design and Analysis of a High-Gain and Robust Multi-DOF Electro-thermally Actuated MEMS Gyroscope** 2018
Muhammad Saqib Muhammad Mubasher Saleem Naveed Mazhar Saif Ullah Awan Umar Shahbaz Khan Micromachines, Volume 9, Issue 11, Article Number 577
Impact Factor: 2.426 | **Quartile:** 2 | **Citations:** 22
DOI: [10.3390/mi9110577](https://doi.org/10.3390/mi9110577)
- Design of Embedded System for Multivariate Classification of Finger and Thumb Movements Using EEG Signals for Control of Upper Limb Prosthesis** 2018
Amna Javed Mohsin Islam Tiwana Umar Shahbaz Khan Javaid Iqbal Nasir Rashid BioMed Research International, Volume 2018, Article ID 2695106, 11 pages
Impact Factor: 2.197 | **Quartile:** 3 | **Citations:** 16
DOI: [10.1155/2018/2695106](https://doi.org/10.1155/2018/2695106)
- Efficient FIR Filter Implementations for Multichannel BCIs Using Xilinx System Generator** 2018
Usman Ghani Muhammad Wasim Umar Shahbaz Khan Muhammad Mubasher Saleem Ali Hassan Nasir Rashid Mohsin Islam Tiwana Amir Hamza Amir Kashif

Recognition of finger movements using EEG signals for control of upper limb prosthesis using logistic regression 2017

Amna Javed Mohsin Tiwana Moazzam Islam Tiwana Nasir Rashid Javaid Iqbal Umar Shahbaz Khan

Biomedical Research-India, Volume 28, Issue 17, Pages 7361-7369

Impact Factor: -

DOI: <http://www.biomedres.info/biomedical-research/recognition-of-finger-movements-using-ee-g-signals-for-control-of-upper-limb-prosthesis-using-logistic-regression-8334.html>

Multi-Response Optimization of Electrothermal Micromirror Using Desirability Function-Based Response Surface Methodology 2017

Muhammad Mubasher Saleem Umar Farooq Umer Izhar Umar Shahbaz Khan

Micromachines, Volume: 8 Issue: 4 Article Number: 107

Impact Factor: 3.523 | Quartile: 2 | Citations: 8

DOI: [10.3390/mi8040107](https://doi.org/10.3390/mi8040107)

A Multipurpose Vehicle Tracking System Based on ARM CORTEX-M3 STM32, HMC5883L, MPU-6050, GSM and GPS 2016

Javaid Iqbal Umar Shahbaz Khan Muhammad Husnain Ul Abdeen

Journal of Traffic and Logistics Engineering, Volume 4, Issue 1, Pages 7-12

Impact Factor: 0

DOI: [10.18178/jtle.4.1.7-12](https://doi.org/10.18178/jtle.4.1.7-12)

Design, Simulation and Optimization of electrothermal Micro Actuator 2012

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>

Detection of Landmines and Underground Utilities From Acoustic and GPR Images With A Cepstral Approach 2010

Umar Shahbaz Khan Waleed Al-Nuaimy Fathi E. Abd El-Samie

JOURNAL OF VISUAL COMMUNICATION AND IMAGE REPRESENTATION, Volume: 21, Issue: 7, Pages: 731-740

Impact Factor: 1.101 | Quartile: 2 | Citations: 36

DOI: <https://doi.org/10.1016/j.jvcir.2010.05.007>

Conference Proceedings

Robust State of Charge Estimation of Lithium-Ion Batteries Using a Nonlinearity-Aware PID Observer 2024

Hafiz Muhammad Jawaad Muhammad Saeed Hamid Jabbar Anjum Naeem Malik Hassan Elahi Umar Shahbaz Khan

2024 International Conference on Robotics and Automation in Industry (ICRAI), res.country(177,)

Citations: N/A

DOI: [10.1109/ICRAI62391.2024.10894055](https://doi.org/10.1109/ICRAI62391.2024.10894055)

Enhanced Military Aircraft Detection Using YOLOv5s with Hyperparameter Evolution in Remote Sensing Images 2024

Wajih Ahmed Khan Fahad Ul Hassan Asif Mattoo Ali Sarosh Amir Hamza Umar Shahbaz Khan Muhammad Umar Anjum

6th International Conference on Robotics and Automation in Industry, ICRAI 2024, res.country(177,)

Citations: N/A

DOI: [10.1109/ICRAI62391.2024.10894385](https://doi.org/10.1109/ICRAI62391.2024.10894385)

Physics-Informed Machine Learning for State of Charge Estimation of Lithium-Ion Batteries 2024

Hafiz Muhammad Jawaad Muhammad Saeed Anjum Naeem Malik Arash Khalatbarisoltani Hassan Elahi Umar Shahbaz Khan

2024 International Conference on Robotics and Automation in Industry (ICRAI), res.country(177,)

Citations: N/A

DOI: [10.1109/ICRAI62391.2024.10894277](https://doi.org/10.1109/ICRAI62391.2024.10894277)

Internet of Robots: An Open-source Framework for Cloud-Based Global Remote Control and Monitoring of Robots 2024

Fabeha Raheel Laibah Raheel Hassan Mehmood Hassan Mehmood Umar Shahbaz Khan

2024 International Conference on Robotics and Automation in Industry (ICRAI), res.country(177,)

Citations: N/A

DOI: 10.1109/ICRAI62391.2024.10894149	
Autonomous Detection and Geolocalization of Targets Using Unmanned Aerial Vehicles for Search and Rescue (SAR) Operations	2024
<i>Hassan Mehmood Fabeha Raheel Muhammad Bilal Kadri Umar Shahbaz Khan</i>	
<i>6th International Conference on Robotics and Automation in Industry, ICRAI 2024, res.country(177,)</i>	
Citations: N/A	
DOI: 10.1109/ICRAI62391.2024.10894267	
Dynamic Temporal Modeling Using Cascaded Deep Networks and Encoder Transformers for Human Action Recognition	2024
<i>Haseeb Amjad Nija Asif Umar Shahbaz Khan Hassan Elahi</i>	
<i>2024 International Conference on Robotics and Automation in Industry (ICRAI), res.country(177,)</i>	
Citations: N/A	
DOI: 10.1109/ICRAI62391.2024.10894302	
Bare Printed Circuit Board Defects Localization and Detection Using YOLOv5 Models	2024
<i>Wajih Ahmed Khan Amir Hamza Muhammad Usman Akram Umar Shahbaz Khan Tahir Habib Nawaz</i>	
<i>2024 International Conference on Robotics and Automation in Industry (ICRAI), res.country(177,)</i>	
Citations: N/A	
DOI: 10.1109/ICRAI62391.2024.10894537	
An Improved Method for Identifying SSVEP Single-Channel Target Frequency for BCI Systems	2024
<i>Umar Shahbaz Khan Tahir Habib Nawaz Syed Tayyab Hussain Shah Adeel Wahab Hassan Akbar Zulfiqar Hasan Khan</i>	
<i>2024 3rd International Conference on Emerging Trends in Electrical, Control, and Telecommunication Engineering, ETECTE 2024 - Proceedings res.country(177,)</i>	
Citations: N/A	
DOI: 10.1109/ETECTE63967.2024.10823885	
Enhancing the Accuracy of SSVEP Target Frequency Detection: A User-Friendly Approach	2024
<i>Adeel Wahab Umar Shahbaz Khan Tahir Habib Nawaz Syed Tayyab Hussain Shah Naveed Anjum</i>	
<i>First International Conference on Advances in Mechanical, Materials, Mechatronics, and Energy Engineering (ICAME-24), res.country(177,)</i>	
Citations: N/A	
DOI: 638817996017460160	
MASA: Multi Agent Situational Awareness for Visually Impaired	2024
<i>Zaid Mahboob Salman Sadiq Umar Shahbaz Khan Ayesha Zeb Mohsin Islam Tiwana</i>	
<i>Proceedings of 2024 21st International Bhurban Conference on Applied Sciences and Technology, IBCAST 2024, res.country(177,)</i>	
Citations: N/A	
DOI: 10.1109/IBCAST61650.2024.10877205	
Indigenous Robotics and Automation Solutions for Industry 4.0	2023
<i>Dr Umar Shahbaz Khan</i>	
<i>One day symposium on economy of tomorrow: Industry 4.0 and its impact on Engineering Education and Manufacturing res.country(177,)</i>	
Citations: N/A	
DOI: https://nwl.uet.edu.pk/invited-talk/	
YOLO v5, v7 and v8: A Performance Comparison for Tobacco Detection in Field	2023
<i>Zaid Mahboob Ayesha Zeb Umar Shahbaz Khan</i>	
<i>2023 International Conference on Digital Futures and Transformative Technologies, ICoDT2 2023, res.country(177,)</i>	
Citations: N/A	
DOI: 10.1109/ICoDT259378.2023.10325705	
Keynote: Indigeneous R&D for Robotics and Automation in Pakistan	2023
<i>Dr. Umar Shahbaz Khan</i>	
<i>20th IBCAST 2023, res.country(177,)</i>	
Citations: N/A	
DOI: Nil	
Deep Learning-based Feature Fusion for Action Recognition Using Skeleton Information	2023
<i>Fahad Ul Hassan Asif Mattoo Umar Shahbaz Khan Tahir Habib Nawaz Nasir Rashid</i>	
<i>2023 International Conference on Robotics and Automation in Industry, ICRAI 2023, res.country(177,)</i>	
Citations: N/A	
DOI: 10.1109/ICRAI57502.2023.10089577	

<p>Vision-Based Hybrid Detection for Pick and Place Application in Robotic Manipulators</p> <p><i>Muhammad Umar Anjum Umar Shahbaz Khan Amir Hamza Waqar Shahid Qureshi Wajih Ahmed Khan</i> 2023 International Conference on Robotics and Automation in Industry, ICRAI 2023, res.country(177,)</p> <p>Citations: N/A DOI: 10.1109/ICRAI57502.2023.10089602</p>	2023
<p>Crop and Weeds Classification in Aerial Imagery of Sesame Crop Fields Using a Patch-Based Deep Learning Model-Ensembling Method</p> <p><i>Syed Imran Moazzam Umar Shahbaz Khan Tahir Habib Nawaz Waqar Shahid Qureshi</i> IEEE International Conference on Digital Futures and Transformative Technologies (ICoDT2), res.country(177,)</p> <p>Citations: 1 DOI: 10.1109/ICoDT255437.2022.9787455</p>	2022
<p>Multi-Sensor SLAM for efficient Navigation of a Mobile Robot</p> <p><i>Muhammad Shahzad Alam Khan Danish Hussain Yasir Ali Faisal UI Rehman Anas Bin Aqeel Umar Shahbaz Khan</i> 2021 4th International Conference on Computing & Information Sciences (ICIS), res.country(177,)</p> <p>Citations: 2 DOI: 10.1109/ICIS54243.2021.9676374</p>	2021
<p>Implementation of SLAM by using a Mobile Agribot in a Simulated Indoor Environment in Gazebo</p> <p><i>Muhammad Shahzad Alam Khan Danish Hussain Salman Khan Faisal UI Rehman Anas Bin Aqeel Umar Shahbaz Khan</i> IEEE, 2021 International Conference on Robotics and Automation in Industry (ICRAI), res.country(177,)</p> <p>Citations: 2 DOI: 10.1109/ICRAI54018.2021.9651448</p>	2021
<p>Lower Limb Prosthesis Gait Cycle Prediction Analysis Using Gyroscope and Load Cell</p> <p><i>Syed Sohaib Ali Shah Syed Irfan Shah Muhammad Adnan Khalil Umar Shahbaz Khan Mohsin Islam Tiwana</i> 2021 International Conference on Robotics and Automation in Industry (ICRAI), res.country(177,)</p> <p>Citations: N/A DOI: 10.1109/ICRAI54018.2021.9651371</p>	2021
<p>Design of Olive Pitting Machine</p> <p><i>Ahmed Faizan Tariq Eisha Gul Manahil Shahid Amir Hamza Hamid Jabbar Umar Shahbaz Khan</i> IEEE, 2021 International Conference on Robotics and Automation in Industry (ICRAI), res.country(177,)</p> <p>Citations: N/A DOI: 10.1109/ICRAI54018.2021.9651337</p>	2021
<p>Efficient Edge Server Computing on a Scaled IoT Based Sensory Network</p> <p><i>Syed Asad Amin Mujtaba Rafique Ghotu Umar Shahbaz Khan Hamid Jabbar</i> IEEE, 2021 International Conference on Robotics and Automation in Industry (ICRAI), res.country(275,)</p> <p>Citations: N/A DOI: 10.1109/ICRAI54018.2021.9651429</p>	2021
<p>Design and Development of Motor Controller and Electronic Differential System for Electric Vehicle Conversion</p> <p><i>Uzair Khaleeq uz Zaman Umar Shahbaz Khan Anas Bin Aqeel Ayesha Zeb Syed Hassan Ali Usama Athar Elizay Jehangir Muhammad Mubasher Saif</i> 2021 International Conference on Robotics and Automation in Industry (ICRAI), res.country(177,)</p> <p>Citations: N/A DOI: 10.1109/ICRAI54018.2021.9651444</p>	2021
<p>Improved Classification Accuracy of Four Class FNIRS-BCI</p> <p><i>Muhammad Saad Bin Abdul Ghaffar Noman Naseer Umar Shahbaz Khan Nasir Rashid Mohsin Islam Tiwana</i> 12th International Conference on Electronics, Computers and Artificial Intelligence (ECAI), res.country(188,)</p> <p>Citations: N/A DOI: 10.1109/ECAI50035.2020.9223258</p>	2020
<p>Design Space Exploration Scheme for Mapping Convolutional Neural Network on Zynq Zedboard</p> <p><i>M. Sohaib UI Hassan Umar Shahbaz Khan Sajid Gul Khawaja</i> 12th International Conference on Electronics, Computers and Artificial Intelligence (ECAI), res.country(188,)</p> <p>Citations: N/A DOI: 10.1109/ECAI50035.2020.9223137</p>	2020
<p>A Review of Application of Deep Learning for Weeds and Crops Classification in Agriculture</p> <p><i>Umar Shahbaz Khan Mohsin Islam Tiwana Javaid Iqbal Waqar Shahid Qureshi Syed I. Moazzam Syed Irfan Shah</i> 3rd IEEE International Conference on Robotics and Automation in Industry, res.country(177,)</p>	2019

- Citations:** N/A
DOI: 10.1109/ICRAI47710.2019.8967350
- Formal Verification and Development of an Autonomous Firefighting Robotic Model** 2019
Umar Shahbaz Khan Usman Asad Anum Tahir Kashif Saghar Harris Bin Khalid Umar Shadab Butt
3rd IEEE International Conference on Robotics and Automation in Industry, res.country(177,)
- Citations:** N/A
DOI: 10.1109/ICRAI47710.2019.8967388
- Control of Ankle Angles During Gait Cycle for Lower Limb Prosthesis** 2019
Umar Shahbaz Khan Muneeb Masood Raja Mohsin Islam Tiwana Amir Hamza Muhammad Adnan Khalil Abdul Hanan
3rd IEEE International Conference on Robotics and Automation in Industry, res.country(177,)
- Citations:** N/A
DOI: 10.1109/ICRAI47710.2019.8967363
- Fast, Optimal Algorithm for Real Time Image Enhancement** 2019
Umar Shahbaz Khan Javaid Iqbal Yousaf Mehmood
3rd IEEE International Conference on Robotics and Automation in Industry, res.country(177,)
- Citations:** N/A
DOI: 10.1109/ICRAI47710.2019.8967364
- Design of an Automated Greenhouse Temperature Controller; A Renewable, Robust and Cost Effective Scheme** 2019
Tooba Nazir Muhammad Arslan Umar Shahbaz Khan
2019 5th International Conference on Control, Automation and Robotics (ICCAR), res.country(48,)
- Citations:** N/A
DOI: 10.1109/ICCAR.2019.8813324
- Automated greenhouse system** 2019
Umar Shahbaz Khan Ayesha Zeb Muhammad Raees Armughati Azhar Muhammad Hamid Muhammad Hamza Irfan Muhammad Awais
2nd International Conference on Communication, Computing and Digital systems (C-CODE), res.country(177,)
- Citations:** N/A
DOI: 10.1109/C-CODE.2019.8681013
- Ball Detection and Tracking through Image Processing using Embedded Systems** 2018
Syed Sohaib Ali Shah Syed Irfan Shah Muhammad Adnan Khalil Umar S. Khan
2018 IEEE 21st International Multi-Topic Conference (INMIC), res.country(177,)
- Citations:** N/A
DOI: 10.1109/INMIC.2018.8595582
- Ball Detection and Tracking through Image Processing using Embedded Systems** 2018
Syed Sohaib Ali Shah Syed Irfan Shah Muhammad Adnan Khalil Umar S. Khan
21st IEEE International Multi-Topic Conference (INMIC), res.country(177,)
- Citations:** N/A
DOI: 10.1109/INMIC.2018.8595582
- Human posture classification using skeleton information** 2018
Umar Shahbaz Khan Sumaira Ghazal
2018 International Conference on Computing, Mathematics and Engineering Technologies (iCoMET), res.country(177,)
- Citations:** N/A
DOI: 10.1109/ICOMET.2018.8346407
- The Voice Enabled Stick** 2017
Hafiz M. U. Munir Fahad Mahmood Ayesha Zeb Umar S. Khan Javaid Iqbal
2017 20th International Conference of Computer and Information Technology (ICCIT), res.country(19,)
- Citations:** N/A
DOI: 10.1109/ICCITECHN.2017.8281844
- The Voice Enabled Stick, an Embedded Device for Active Guidance of Visually Impaired Pedestrians** 2017
Hafiz M. U. Munir Fahad Mahmood Ayesha Zeb Fahad Mehmood Umar S. Khan Javaid Iqbal
20th International Conference on Computer & Information Technology (ICCIT), res.country(19,)
- Citations:** N/A
DOI: <https://ieeexplore.ieee.org/abstract/document/8281844>
- Using Pattern Recognition with HOG to Automatically Detect Reflection Hyperbolas in Ground penetrating Radar Data** 2017

- Tallat Noreen Dr. Umar Shahbaz Khan
2017 International Conference on Electrical and Computing Technologies and Applications (ICECTA), res.country(2,)
Citations: N/A
DOI: 10.1109/ICECTA.2017.8252064
- Using pattern recognition with HOG to automatically detect reflection hyperbolas in ground penetrating radar data** 2017
T. Noreen Umar Shahbaz Khan
International Conference on Electrical and Computing Technologies and Applications (ICECTA), res.country(2,)
Citations: N/A
DOI: <https://ieeexplore.ieee.org/abstract/document/8252064>
- 3-D Shape Recovery from Image Focus using Rank Transform** 2016
Fahad Mahmood Jawad Mahmood Waqar Shahid Qureshi Umar Shahbaz Khan
ISVC 2016: Advances in Visual Computing, res.country(233,)
Citations: N/A
DOI: 10.1007/978-3-319-50832-0_50
- MEMs Based Braille System** 2015
Hira Arshad Umar S.Khan Umer Izhar
2015 IEEE 15th International Conference on Nanotechnology (IEEE-NANO), res.country(109,)
Citations: N/A
DOI: 10.1109/NANO.2015.7388815
- Depth estimation from a single camera image using power fit** 2014
Muhammad Umair Akhlaq Umer Izhar Umar Shahbaz
2014 International Conference on Robotics and Emerging Allied Technologies in Engineering (iCREATE), res.country(177,)
Citations: N/A
DOI: 10.1109/iCREATE.2014.6828369
- Design of a Low Cost Multi Degree of Freedom Hand Exoskeleton** 2014
Talha Shahid Umar Shahbaz Khan
2014 International Conference on Robotics and Emerging Allied Technologies in Engineering (iCREATE), res.country(177,)
Citations: N/A
DOI: 10.1109/iCREATE.2014.6828386
- Evolution of Myo-electric Circuitry Development for Upper Limb Prosthesis in Pakistan** 2014
Umar Shahbaz Khan Umer Izhar Javaid Iqbal
2nd International Conference on Latest Trends on Electronics and Electrical Engineering, res.country(217,)
Citations: N/A
DOI: https://www.researchgate.net/publication/283713858_Evolution_of_Myo-electric_Circuitry_Development_for_Upper_Limb_Prosthesis_in_Pakistan
- Design and Fabrication of an Actuated Hand Exoskeleton for Stroke and Post Traumatic Rehabilitation** 2013
Ubaid A. Shafi Anum Pervez Fahad A. Kamal Rabia Ejaz Umar shahbaz khan Javaid Iqbal
International Conference on Innovations in Engineering and Technology (ICIET'2013), res.country(217,)
Citations: N/A
DOI: <https://pdfs.semanticscholar.org/6068/fb433f1c6d5e3d6db219982382a17672af20.pdf>
- Design of Low Cost And Portable EMG Circuitry For Use in Active Prosthesis Applications** 2012
Javaid Iqbal Nasir Rashid M.Hamza Khan Ali Wajdan Muhammad Khan Haider Ali UMAR SHAHBAZ KHAN
2012 International Conference of Robotics and Artificial Intelligence, res.country(177,)
Citations: N/A
DOI: 10.1109/ICRAI.2012.6413389
- Autonomous fire extinguishing system** 2012
A. Rehman N. Masood S. Arif Umar Shahbaz F. Sarwar K. Maqsood M. Imran M. Pasha
2012 International Conference of Robotics and Artificial Intelligence, res.country(177,)
Citations: N/A
DOI: 10.1109/ICRAI.2012.6413387
- Design of Non-Conventional Chain Drive Mechanism for a Mini-Robot** 2012
Umar Shahbaz Khan Javaid Iqbal Nasir Rashid M.A.Khan Sohail Anjum Nabeel Kamal Umar Izhar
2012 International Conference on Robotics and Artificial Intelligence, ICRAI 2012, res.country(177,)
Citations: N/A
DOI: 10.1109/ICRAI.2012.6413403

- Prefabrication design of an actuated exoskeleton for traumatized and paralytic hands** 2012
Umar Shahbaz Khan Javaid Iqbal Halim Ibrahim Baqapuri Hamza Asif Nizami Sami Siddiqui
 2012 International Conference on Robotics and Artificial Intelligence, ICRAI 2012, res.country(177,)
Citations: N/A
DOI: 10.1109/ICRAI.2012.6413404
- Mechanical design of a tendon activated prosthetic hand** 2012
Umar Shahbaz Khan Javaid Iqbal Umar Farooq M.Zulqarnain Khalid Talha Wahab Hassan Jafri
 2012 International Conference on Robotics and Artificial Intelligence, ICRAI 2012, res.country(177,)
Citations: N/A
DOI: 10.1109/ICRAI.2012.6413405
- Optimized circuit for EMG signal processing** 2012
Umar Shahbaz Khan Javaid Iqbal Nasir Rashid Ali Salman Umer Izhar
 2012 International Conference of Robotics and Artificial Intelligence, res.country(177,)
Citations: N/A
DOI: 10.1109/ICRAI.2012.6413390
- Kinematic and Dynamic Analysis of a Lower Limb Exoskeleton** 2012
Tawakal Hasnain Baluch Adnan Masood Javaid Iqbal Umer Izhar Umar Shahbaz Khan
 International Conference on Mechatronics and Robotics (ICMR 2012), res.country(109,)
Citations: N/A
DOI: <https://doi.org/10.5281/zenodo.1072880>
- Design, Simulation and Optimization of Electrothermal Micro Actuator** 2012
Abid Ali Raja Amer Azim Umar Shahbaz Khan Aqeel Abbas Syed Umer Izhar
 4th International Conference on Mechanical and Electronics Engineering, res.country(48,)
Citations: N/A
DOI: <https://doi.org/10.4028/www.scientific.net/AMM.229-231.1939>
- Motor Drive Surface Electromyography for Flexion and Extension of Finger and Hand Muscle** 2011
Zahak Jamal Asim Waris Shaheryar Nazir Shahryar Khan Javaid Iqbal Adnan Masood Umar Shahbaz
 2011 4th International Conference on Biomedical Engineering and Informatics (BMEI), res.country(48,)
Citations: N/A
DOI: 10.1109/BMEI.2011.6098616
- Motor drive using surface electromyography for flexion and extension of finger and hand muscles** 2011
Zahak Jamal Dr Muhammad Asim Waris Shaheryar Nazir Shahryar Khan Dr Javaid Iqbal Adnan Masood Dr Umar Shahbaz Khan
 2011 4th International Conference on Biomedical Engineering and Informatics (BMEI), res.country(48,)
Citations: 11
DOI: 10.1109/BMEI.2011.6098616
- Design of High Torque Elbow Joint for Above Elbow Prosthesis** 2011
Irfan Hussain Adnan Masood Dr Javaid Iqbal Dr Umar Shahbaz Khan
 International Conference on Mechanical Engineering (ICME 2011), res.country(75,)
Citations: N/A
DOI: Nil
- Background removal from GPR data using Eigen values** 2010
Umar Shahbaz Khan Waleed Al-Nuaimy
 XIII International Conference on Ground Penetrating Radar, res.country(109,)
Citations: N/A
DOI: 10.1109/ICGPR.2010.5550079
- 3D line detection using adaptive non-accumulative Hough transform and its application for radius correction of underground utilities in GPR data** 2009
Umar Shahbaz Khan Waleed Al-Nuaimy Huihai Lu
 International Workshop on Advanced Ground Penetrating Radar IWAGPR 09, res.country(68,)
Citations: N/A
DOI: https://books.google.com.pk/books/about/IWAGPR_2009.html?id=9Q9PYAAACAAJ&redir_esc=y
- Angle-based 3D line detection and its application for radius correction of underground utilities in GPR data** 2009
UMAR SHAHBAZ KHAN Waleed Al-Nuaimy
 International Workshop on Advanced Ground Penetrating Radar IWAGPR 09, res.country(68,)

Citations: N/A

DOI: https://books.google.com.pk/books/about/IWAGPR_2009.html?id=9Q9PYAAACAAJ&redir_esc=y

Automatic Inspection System using Machine Vision

2005

Mahmood Khan Umar Shahbaz Khan Javaid Iqbal

34th Applied Imagery and Pattern Recognition Workshop (AIPR'05), res.country(233,)

Citations: N/A

DOI: 10.1109/AIPR.2005.20

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Patents

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Industrial Designs

Precision Forming Robotic Soil Drilling System 2024
Status: Filed

High maneuverability agricultural robot with individual wheel steering 2024
Status: Filed

Printed Circuit Board of Multi Degree of Freedom Prosthesis 2024
Status: Filed

Multi-DOF upper limb prosthetic 2024
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Multi-Camera Digital Hand-Held Otoscope 2023
Status: Filed

Hand Held Digital Otoscope (Class-03) 2023
Status: Licensed Filed

Hand Held Digital Otoscope 2023
Status: Filed

Circuit Board for Myobionic Prosthetic Gripper (Class-01) 2022
Status: Filed

Hybrid Walk and Roll Quadruped Robot (Class-01) 2022
Status: Granted Filed

Tri-Blade Impact-based motorized Deminer (class-01) 2022
Status: Filed

Flexible Mobile Automated Guided Vehicle Platform 2021
Status: Filed

Defender Diagnostic Scanner Pakistan 2021
Status: Filed

Flexible and multipurpose mobile agribot platform (Class-01) 2020
Status: Filed

Inclined concentric quadrupole magnetic actuators for targeted drug delivery 2019
Status: Granted Filed

1 DoF (Degree of Freedom) upper limb Prosthetic gripper 2019
Status: Filed

1 DoF (Degree of Freedom) upper limb prosthetic gripper 2019
Status: Filed

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