

## Publications

1. Ahmed, Imran, Zaheer Ahmad, Muhammad Islam, and Awais Adnan, “*A Real-Time Specific Weed Recognition System By Measuring Weeds Density Through Mask Operation*” , In Innovations and Advanced Techniques in Systems, Computing Sciences and Software Engineering, pp. 221-225. Springer Netherlands,.., **2008**.
2. Muhammad Ali, Awais Adnan, Michael Welzl, “*Design of A Fast, Low-Level Fault-Tolerant Protocol For Network On Chips*” , Innovations and Advanced Techniques in Computer and Information Sciences and Engineering. Springer Netherlands, 2007. 345-348., **2007**.
3. Imran Ahmed, Muhammad Islam, Syed Inayat Ali Shah, and Awais Adnan, “*A Real-Time Specific Weed Recognition System Using Statistical Methods*” , International Journal of Computer, Electrical, Automation, Control and Information Engineering Vol:1, No:10, 2007, **2007**.
4. Muhammad Atif Butt, Asad Masood Khattak, Sarmad Shafique, Bashir Hayat, Saima Abid, Ki-Il Kim, Muhammad Waqas Ayub, Ahthasham Sajid, Awais Adnan, *Convolutional Neural Network Based Vehicle Classification in Adverse Illuminous Conditions for Intelligent Transportation Systems*, Complexity, 2021
5. Haji Gul, Adnan Amin, Awais Adnan, Kaizhu Huang, “*A Systematic Analysis of Link Prediction in Complex Network*” , IEEE Access, Vol (9) Pg 20531-20541
6. Sadia Basar, Mushtaq Ali, Gilberto Ochoa-Ruiz, Mahdi Zareei, Abdul Waheed, Awais Adnan ,”*Unsupervised color image segmentation: A case of RGB histogram based K-means clustering initialization*”, Plos one, 15(10), 2020
7. Fakhri Alam Khan, Ateeq Ur Rehman Butt, Muhammad Asif, Hanan Aljuaid, Awais Adnan, Sadaf Shaheen, “*Burnt Human Skin Segmentation and Depth Classification Using Deep Convolutional Neural Network (DCNN)*” Journal of Medical Imaging and Health Informatics, 10 (10) , Pg 2421-2429, 2020
8. Naila Habib Khan, Awais Adnan, Abdul Waheed, Mahdi Zareei, Abdallah Aldosary, Ehab Mahmoud Mohamed, “*Urdu Ligature Recognition System: An Evolutionary Approach*”, Computers, Materials and Continua, 66 (2) Pg 1347-1367, 2020
9. Ullah, Kaleem, Imran Ahmed, Misbah Ahmad, Arif Ur Rahman, Muhammad Nawaz, and **Awais Adnan**. "Rotation invariant person tracker using top view." Journal of Ambient Intelligence and Humanized Computing (2019): 1-17.

10. Nazir, Shah, Muhammad Nawaz, **Awais Adnan**, Sara Shahzad, and Shahla Asadi. "Big Data Features, Applications, and Analytics in Cardiology—A Systematic Literature Review." *IEEE Access* 7 (2019): 143742-143771.
11. M Ahmad, I Ahmed, K Ullah, I Khan, A Khattak, A Adnan, "Person detection from overhead view: A survey", *Int. J. Adv. Comput. Sci. Appl.* 10 (4), 567-577, 2019
12. Imran Ahmed, Misbah Ahmad, **Awais Adnan**, Awais Ahmad, Murad Khan; "*Person detector for different overhead views using machine learning*", *International Journal of Machine Learning and Cybernetics*, 2019
13. Naila Habib Khan and **Awais Adnan**. "*Urdu Optical Character Recognition Systems: Present Contributions and Future Directions*", *IEEE Access*, 2018.
14. Amin, A., Al-Obeidat, F., Shah, B., **Awais Adnan**, Loo, J. and Anwar, S., 2018. "*Customer churn prediction in telecommunication industry using data certainty*". *Journal of Business Research* 2018.
15. Muhammad Khalid, Zahid Ullah, Naveed Ahmad, Muhammad Arshad, BilalJan, Yue Cao, and Awais Adnan, "*A Survey of Routing Issues and Associated Protocols in Underwater Wireless Sensor Networks*", *Journal of Sensors* 2017.
16. Amin, Adnan, Sajid Anwar, Awais Adnan, Muhammad Nawaz, Khalid Alawfi, Amir Hussain, and Kaizhu Huang, "*Customer churn prediction in the telecommunication sector using a rough set approach*", *Neurocomputing*, Vol 237, Pages. 242–254, 2017.
17. Ahmed, Imran; Rehman, Qazi Nida Ur; Masood, Ghulam; Nawaz, Muhammad; Adnan, Awais; et al, "*Segmentation of Brain Tumor from Healthy Tissues using Multimodal MRI images*", *International Journal of Computer Science and Information Security (IJCSIS)*, Vol 14 ( 10), Pages. 676-689, 2017.
18. Imran Ahmed, Awais Adnan, "*A robust algorithm for detecting people in overhead views*", *Cluster Computing, The Journal of Networks, Software Tools and Applications*, 2017.
19. Adnan Amin, Babar Shah, Sajid Anwar, Feras Al-Obeidat, Asad Masood Khattak, Awais Adnan, "*A prudent based approach for compromised user credentials detection*", *Cluster Computing, The Journal of Networks, Software Tools and Applications*, 2017.

20. Naila Habib Khan, Awais Adnan, Sadia Basar., ***“Urdu ligature recognition using multi-level agglomerative hierarchical clustering”***, **Cluster Computing, The Journal of Networks, Software Tools and Applications**, 2017.
21. Muhammad Qasim Jan, Awais Adnan, ***“Biometric Watermarking Technique Withimproved Picture Quality And Larger Embedding Capacity”***, **International Journal of Computer Science and Information Security (IJCSIS)**, Vol 15(1), 2017.
22. Adnan Amin, Sajid Anwar, Awais Adnan, Muhammad Nawaz, Newton Howard, Junaid Qadir, Ahmad Hawalah, Amir Hussain, ***“Comparing oversampling techniques to handle the class imbalance problem: A customer churn prediction case study”***, **IEEE Access**, Vol 4, Pages. 7940-7957, 2016.
23. Naila Habib Khan, Awais Adnan, ***“Ego-motion estimation concepts, algorithms and challenges: an overview”***, **Multimedia Tools and Applications**. Vol 76(15), Pages. 16581–16603, 2016.
24. Ali, Muhammad, Mah-Rukh Fida, Ameer Shakayb Arsalaan, and Awais Adnan, ***“Implementation And Analysis Of Clustering Techniques Applied On Pocket Switched Network”***, **International Journal of Distributed Sensor Networks**, 2015.
25. Basar, Sadia, R. A. Nawaz, and Awais Adnan, ***“Next Generation, Threats & Opportunities For Higher Education Institutes”***, **Life Science Journal**, Vol 10 (12), Pages. 327-377, 2013.
26. Basar, Sadia, Khalid Asad Rahatullah, and Awais Adnan, ***“Paradigm Shift From Elearning-1 To Elearning-2:Prospects for Higher Education in Developing Countries like Pakistan”***, **Life Science Journal**, Vol 10(12), Pages. 564-571, 2013.
27. Awais Adnan, Muhammad Ali, ***“Shot Boundary Detection Using Sorted Color Histogram Polynomial Curve”***, **Life Science Journal**, Vol 10(4), Pages. 1965-1972, 2013.
28. Anwar, Sajid, Awais Adnan, Masoom Alam, Tamleek Ali Tanveer, Muhammad Ali, Muhammad Ramzan, Arfan Jaffer, Arshad Ali Shahid, and Abdul Rauf, ***“Architecture Based Software Quality Maintenance Ripple Effect Analysis”***, **International Journal of Innovative Computing, Information and Control**, Vol 8 (1) , 2012.
29. Alam, Masoom, Xinwen Zhang, Mohammad Nauman, Tamleek Ali, Sanaullah Khan, Shahbaz Khan, Quratulain Alam , Awais Adnan, ***“Dynamic Remote Attestation Through Behavior Measurement And Verification”***, **International Journal of Innovative Computing, Information and Control**, Vol 8 (3) , 2012.

30. Anwar, Sajid, Shehzad Haleem, Toqeer Ali Syed, Awais Adnan, Tamleek Ali Tanveer, Masoom Alam, Muhammad Ali, Muhammad Ramzan, and Abdul Rauf, "***A FODA Oriented Approach To Architecture Based Ripple Effect Analysis***",**Information-An International Interdisciplinary Journal**, Vol 14(6), Pages. 2139-2149, 2011.
31. Ramzan, M., M. Qasim Khan, M. Amjad Iqbal, M. Aasem, Arfan Jaffar, Sajid Anwar, Awais Adnan, A. Tamleek, Muhammad Ali, and Masoom Alam, "***A Genetic Algorithms Based Approach For Conflicts Resolution In Requirement***",**International Journal of Physical Sciences**, Vol 6(4), Pages. 828-836, 2011.
32. Alam, Masoom, Tamleek Ali, Sajid Anwar, Quratulain Alam, Muhammad Ali, Awais Adnan, Amir Hayat, and Sohail Khan, "***Towards Trusted Information Sharing In Enterprise Information Systems***",**Information-An International Interdisciplinary Journal**, Vol 14(10) , Pages. 3515-3526, 2011.
33. Alam, Masoom, Shahbaz Khan, Quratulain Alam, Tamleek Ali, Sajid Anwar, Amir Hayat, Arfan Jaffar, Muhammad Ali, and Awais Adnan, "***Model-Driven Security For Trusted Systems***",**International Journal of Innovative Computing, Information and Control**, Vol 8(2) , 2012.
34. Alam, Masoom, Muhammad Ali, Quratulain Alam, Tamleek Ali, Sajid Anwar, Awais Adnan, and Mudasser Ali, "***MAUTH: A Fine-Grained And User-Centric Permission Delegation Framework For Web Services***",**International Journal of Physical Sciences**, Pages. 2060-2071, 2011.
35. Muhammad Khalid , Awais Adnan , Zahid Ullah , Waqar Khalid , Naveed Ahmad , Ahsan Ashfaq, "***Comparison of Localization Free Routing Protocols in Underwater Wireless Sensor Networks***",**(IJACSA) International Journal of Advanced Computer Science and Applications**, Vol 8(3) , 2017.
36. Nazish Khan, Imran Ahmed, Mehreen Kiran, Awais Adnan, "***Overview of Technical Elements of Liver Segmentation***", **International Journal of Advanced Computer Science and Applications**. Vol 7 (12), Pages. 271-278, 2016.
37. Qarni, Muhammad Awais, Awais Adnan, Kashif Nasr, M. Hannan, and M. Tayyab, "***Analysis Of Cluster-Head Selection Techniques In Wireless Sensor Networks***", **Global Journal on Technology**, Vol 4(2), 2013.

38. Adnan, Awais, Muhammad Ali, and Muhammad Nawaz, "***Shot Boundary Detection Using Motion Information In Macro Blocks***", **Global Journal on Technology**, Vol 4 (2), 2013.
39. Ahmad, Sadique, Awais Adnan, Gulnawar Khan, and Nasir Mehmood, "***Emotions, Age, And Gender Based Cognitive Skills Calculations***", **International Journal of Computer Theory and Engineering**, Vol 7(1) 2015.
40. Adnan, Awais, Muhammad Ali, and Amir Hanif Dar, "***Image Search By Features Of Sorted Gray Level Histogram Polynomial Curve***", **International Journal of Applied Mathematics and Computer Sciences**, Vol 4, 2007