

## DR. AKHTAR HUSSAIN JALBANI

Professor in Department of Computer Science and Information Technology, Quaid-e-Awam University of Engineering, Science and Technology, Shaheed Benazir Abad/Nawabshah, Sindh, Pakistan

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# OBJECTIVE

To play a leading role in design and development of scientific and technological projects and impart knowledge through academia that may boost economic and social apects of the society and the country.

#### **EDUCATION**

- Ph.D (Computer Science) in 2012 from Asian Institute ofTechnology, Bangkok, Thailand.
- Master of Science (Computer Science) in 2009 from AsianInstitute of Technology, Bangkok, Thailand.
- Bachelor of Science (Computer Science) in 2003 from Quaid-e-Awam University of Engg. & Tech., Nawabshah, Pakistan).

## WORK/PROFESSIONAL EXPERIENCE

- Assistant Professor till Feb, 2013
- Lecturer since 2005 at Quaid-e-Awam University of Engg. & Tech., Nawabshah, Pakistan
- Visiting lecturer at College of Modern Sciences(CMS) Nawabshah Affiliated with University of Sindh Jamshoro, Pakistan.
- Visiting lecturer at Habib College of Technology Nawabshah
- Cisco Network Academy Instructor in QUEST CCNA Academy from 2006 to 2007.
- Teaching Assistant in Asian Institute of Technology (AIT), Bangkok, Thailand from 2009 to 2012.

#### **JOURNAL PUBLICATIONS**

- Leghari, Mehwish, Shahzad Memon, Lachhman Das Dhomeja, Akhtar Hussain Jalbani, and Asghar Ali Chandio. "Online signature verification using deep learning based aggregated convolutional feature representation." Journal of Intelligent & Fuzzy Systems Preprint: 1-9 (2022). Impact Factor 2022: 1.737
- Lakho, Shamshad, Akhtar Hussain Jalbani, Imran Ali Memon, Saima Siraj Soomro, and Asghar Ali Chandio. "Development of an integrated blended learning model andits performance prediction on Students' learning using Bayesian network." Journal of Intelligent & Fuzzy Systems Preprint: 1-9(2022). Impact Factor 2022: 1.737
- Soomro, Saima Siraj, Akhtar Hussain Jalbani, Muhammadlbrahim Channa, Shamshad Lakho, and Imran Ali Memon. "An evaluation of smart learning approach using bloom taxonomy based neuro-fuzzy system." Journal of Intelligent &Fuzzy Systems Preprint: 1-10 (2022). Impact Factor 2022: 1.737
- Bakhtiari, Zohreh, Rozita Jamili Oskouei, Mona Soleymani, and **Akhtar Hussain Jalbani**. "Presenting an Effective Method to Detect and Track the Broken Path in VANET UsingUAVs." Wireless Communications and Mobile Computing 2020 (2020). (IF 1.819).

- Tariq, Muhammad Imran, Shakeel Ahmed, Nisar Ahmed Memon, Shahzadi Tayyaba, Muhammad Waseem Ashraf, Mohsin Nazir, **Akhtar Hussain**, Valentina Emilia Balas, andMarius M. Balas. "Prioritization of Information Security Controls through Fuzzy AHP for Cloud Computing Networks and Wireless Sensor Networks." Sensors 20 (2020):1310(IF 3.03).
- Sodhar, Irum Naz, Akhtar Hussain Jalbani, Abdul Hafeez Buller, Muhammad Ibrahim Channa, and Dil Nawaz Hakro. "Sentiment analysis of Romanized Sindhi text." Journal of Intelligent & Fuzzy Systems 29 February 2020: 1-7.(IF *1.637*).
- Tariq, Muhammad Imran, Shahzadi Tayyaba, Muhammad Shahzad Sarfraz, Akhtar Hussain, Muhammad Imran, Emil Pricop, Otilia Cangea, Nicolae Paraschiv, and Natash Ali Mian. "An analysis of the application of fuzzy logic in cloud computing." Journal of Intelligent & Fuzzy Systems Preprint (2020): 1-15. 1-7.(IF *1.637*).
- Sodhar, Irum Naz, Akhtar Hussain Jalbani, and Abdul Hafeez Buller. "AN EMPIRICAL AND STATISTICAL STUDY ON POS TAGGING OF SINDHI SOCIAL MEDIA TEXT." FOURRAGES Journal 2020. (IF0.273).
- Leghari, Mehwish, Shahzad Memon, Lachman Das Dhomeja, and Akhter Hussain Jalbani. "Analyzing the effects of data augmentation on single and multimodal biometrics." Mehran University Research Journal Of Engineering & Technology 39, no. 3 (2020): 647.
- CHANDIO, ASGHAR ALI, MEHWISH LEGHARI, MUKHTIAR AHMED MEMON, MEHJABEEN LEGHARI, and **AKHTAR HUSSAIN JALBANI**. "A Database for Urdu Text Detection and Recognition in Natural Scene Images." Mehran University Research Journal of Engineering and Technology 39, no. 1 (2020): 47-54.
- Siraj, Saima, Akhtar Hussain Jalbani, and Muhammad Ibrahim Channa. "Traditional Learning Problems of Computing Students." International Journal of Advanced Computer Science and Applications(IJACSA), Volume 10 Issue 11, 2019.
- Sodhar, Irum Naz, Akhtar Hussain Jalbani, Muhammad Ibrahim Channa, and Dil Nawaz Hakro. "Parts of Speech Tagging of Romanized Sindhi Text by applying Rule Based Model." IJCSNS 19, no. 11 (2019): 91.
- Irum Naz Sodhar, Akhtar Hussain Jalbani, MuhammadIbrahim Channa and Dil Nawaz Hakro, "Identification of Issues and Challenges in Romanized Sindhi Text" International Journal of Advanced Computer Science and Applications(IJACSA),10(9), 2019.
- Chandio, Asghar Ali, Mehwish Leghari, Mehjabeen Leghari, and **Akhtar Hussain Jalbani**. "Multi-Font and Multi-Size Printed Sindhi Character Recognition using Convolutional Neural Networks." Pakistan Journal of Engineering and Applied Sciences 24, no. 1 (2019).
- Solangi, Shauban Ali, Muhammad Memon, Khalil-ur-Rehman Khoumbati and Akhtar Hussain Jalbani.
  "Optimization byGenetic Algorithm in Wireless Sensor Networks Utilizing Multiple Sinks." Mehran University Research Journal of Engineering and Technology 38, no. 4 (2019): 923-934.
- Rafique, Ayesha, Kamran Malik, Zubair Nawaz, Faisal Bukhari, and **Akhtar Hussain Jalbani**. "Sentiment Analysis for Roman Urdu." Mehran University Research Journal of Engineering and Technology 38, no. 2 (2019): 463-470.
- Memon, Zojan, **Akhtar Hussain Jalbani**, Mohsin Shaikh, Rafia Naz Memon, and Ahmed Ali. "Multi-Agent Communication System with Chatbots." Mehran University Research Journal *of* Engineering *and* Technology 37, no. 3 (2018): 663-672.
- AWAN, S., HAKRO, D., ABRO, Z. and Jalbani, A.H., 2018. Segmentation of Sindhi Handwritten Text. Sindh University Research Journal-SURJ (Science Series), 50(2), pp.205-208.
- Unar, Salahuddin, **Akhtar Hussain Jalbani**, MuhammadMoazzam Jawaid, Mohsin Shaikh, and Asghar Ali Chandio. "Artificial Urdu Text Detection and Localization from Individual Video Frames." Mehran University Research Journal of Engineering and Technology 37, no. 2 (2018): 429-438.
- Awan, Shafique Ahmed, Zahid Hussain Abro, **Akhtar Hussain Jalbani**, Dil Nawaz Hakro and Maryam Hameed. "Handwritten Sindhi Character Recognition Using Neural Networks." Mehran University Research Journal of Engineering and Technology 37, no. 1 (2018): 6.
- Unar, Salahuddin, Akhtar Hussain, Mohsin Shaikh, Kashif Hussain Memon, Muhammad Adil Ansari, and Zojan Memon."A Study on Text Detection and Localization Techniques for Natural Scene Images." IJCSNS 18, no. 1 (2018): 100.
- Mohsin Shaikh, Akhtar Hussain Jalbani, Adil Ansari andAhmed Ali, "Evaluating Dependency based Package-levelMetrics for Multi-objective Maintenance Tasks" InternationalJournal of Advanced Computer Science andApplications(IJACSA),8(10),2017 <a href="http://dx.doi.org/10.14569/IJACSA.2017.081045">http://dx.doi.org/10.14569/IJACSA.2017.081045</a>.
- Parveen, Rahila, Akhtar Hussain Jalbani, Mohsin Shaikh, Kashif Hussain Memon, Saima Siraj, Mairaj Nabi, andShamshad Lakho. "Prediction of Malaria using Artificial Neural Network." IJCSNS 17, no. 12 (2017): 79.

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- Chandio, Asghar Ali, **Akhtar Hussian Jalbani**, Mehwish Laghari, and Shafique Ahmed Awan. "Multi-Digit Handwritten Sindhi Numerals Recognition using SOMNeural Network." Mehran University Research Journal of Engineering and Technology 36, no. 4 (2017): 8.
- Chandio, A.A., Leghari, M., HAKRO, D., AWAN, S. and **Jalbani, A.H.**, 2016. A Novel Approach for Online Sindhi Handwritten Word Recognition using Neural Network. Sindh UniversityResearch Journal-SURJ (Science Series), 48(1).
- Qamar-un-nisa Soomro, **Akhtar Hussain Jalbani** and Zahid Hussain "Voice Enabled Platform Independent System forSwitching Among the Applications" Bahria University Journal ofInformation & Communication Technologies Vol. 8, Issue 1, April 2015.
- Ashraf, M. W., S. Tayyaba, H. Rasheed, M. S. Khan, S. M. Rana, **A. Jalbani**, and N. Afzulpurkar. "Dynamic Simulation of Solid Silicon Nanoneedle for Cell Surgery." Bahria University Journal of Information & Communication Technology 8, no. 1 (2015): 74.
- Ashraf, Muhammad Waseem, Shahzadi Tayyaba, Muhammad Saleem Khan, Akhtar Hussain Jalbani, and Saira Shaheen. PDMS MEMBRANE ANALYSIS FOR PIEZOELECTRIC MICROPUMP ACTUATION." NED University Journal Research (2014): 69.
- Amur, K.B., Buriro, E., Jalbani, A.H., Sheikh, W.A. and Ghoto, A.A., 2013. Local and Adaptive selection of optimal Parameters for TV regularization model and the FEMBased Stereo-Vision Simulation. QUEST Research Journal, 12(2), pp.9-13.
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- Akhtar H. Jalbani, Pardeep Kumar, M. Ibrahim Channa, Anees A. Soomro & Chee Wai Mak, "Coin Recognition based on Heuristic Segmentation and Image Fusion via Bayesian Approach", published in the Quaid-e-Awam University of Engineering, Science & Technology Research Journal, Volume 11, Number 2, 2012.
- Pardeep Kumar, **Akhtar H. Jalbani**, M. Ibrahim Channa, Anees A. Soomro & Iftikhar A. Koondhar, "Design, Challenges and Future Research Aspects of MAC Protocols for Wireless Sensor Networks", published in the Quaid-e-Awam University of Engineering, Science & Technology Research Journal, Volume 11, Number 2, 2012.
- Akhtar Hussain, Abdul Rehman Abbasi, Nitin V. Afzulpurkar "Detecting & Interpreting Self-Manipulating Hand Movements for Students Affect Prediction", Human Centric Computing and Information Sciences, SpringerOpen Journal (Vol. 2 No. 14, pp.1-31, 2012). <u>http://www.hcis-journal.com/content/2/1/14</u>.
- Anees Ahmed Soomro, Akhtar Hussain, M. Ibraheem Channa, Nisar A. Memon "Predicting Karachi Stock Exchange shares using Dynamic Bayesian Network", Sindh University Research Journal (SURJ). (Vol. 45 No.A-1, 2013).
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- M. Ibrahim Channa, Akhtar Hussain Jalbani, Pardeep KumarHarani, "A Survey of Power Aware Routing Schemes for MobileAd Hoc Networks", International Journal of Computer Applications, New York, USA. (Vol. 58 No. 11, 2012). <u>http://www.ijcaonline.org/archives/volume58/number11/9330-3635</u>.
- Akhtar Hussain, Abdul Rehman Abbasi, Muhammad Ibrahim Channa, Sadia Murawwat, Ghullam Mustafa Bhutto "Blob Analysis of Hand-Touch-Head/Face Movements for Affective Computing ", Sindh University Research Journal(2012) (SURJ). (Vol. 44 No. 2-AB, pp. 125-130, 2012).
- Anees Ahmed Soomro, Nisar Ahmed Memon, Zahid Hussain, **Akhtar Hussain Jalbani**, "Implementation and Evaluation of the Intelligent System to predict Karachi Stock Exchange (KSE) Shares using Bayesian Networks", in Sindh Univ. Res. Jour(2012) (Vol. 44 No. 2-AB, pp. 111-118, 2012.).
- Sadia Murawwat, **Akhtar Hussain**, Muhammad Imran, Zhao San-Yuan, Liu Zhen-Juan, Niu Hui-Bo "Modeling and analysis of multiservice queuing system for WiMAX network" Journal of Beijing institute of Technology (Volume 1, 2013)<u>http://caod.oriprobe.com/issues/1415889/toc.htm</u>.

- Muhammad Ibrahim Channa, Akhtar Hussain Jalbani, Samad Baseer, "A Dynamic Trust Management Framework for Emergency Ad Hoc Networks", Sindh University Research Journal (SURJ), (Vol. 43 No. 1-A, pp. 5-12, 2011).<u>http://www.surj.usindh.edu.pk/volume\_43\_01a/2.pdf</u>.
- Munnwer Hussain, Ghullam Mustafa, Akhtar Hussain "Life cycle assessment of Autoliv's night vision camera" International Journal of Environmental Sciences – (Volume 3, No.1 2012). <a href="http://www.ipublishing.co.in/ijesarticles/twelve/articles/volthree/EIJES31049.pdf">http://www.ipublishing.co.in/ijesarticles/twelve/articles/volthree/EIJES31049.pdf</a>
- Anees A. Soomro, **Akhtar Hussain**, Pardeep Kumar, M. Ibrahim Channa, Nisar A. Memon" An Intelligent Assessment Tool for IT Professionals, QUEST Research Journal VOLUME 10, NO. 2 JUL-DEC, 2012.
- Sadia Murawat, M. I Channa, Pardeep Kumar, Akhtar Hussain Jalbani "Load Balancing Handovers through Femto Cell Cooperation" Sindh University Research Journal (SURJ), (Vol. 45 No. A-1, pp. 99-104, 2013).
- Pardeep Kumar, Sadia Murawat, M. I channa, **Akhtar Hussain Jalbani**, Nisar A. Memon "Performance Evaluation of Wireless Sensor Network with Varying Radio Properties" Sindh University Research Journal (SURJ), (Vol. 45 No. A-1, pp. 91- 98, 2013).

### **CONFRENCE PUBLICATIONS**

- Tanwani, Nisha, Sandesh Kumar, Akhtar Hussain Jalbani, Saima Soomro, Muhammad Ibrahim Channa, and Zeeshan Nizamani. "Student opinion mining regarding educational system using facebook group." In Electrical Engineering and Computing Technologies (INTELLECT), 2017 First International Conference on Latest trends in, pp. 1-5. IEEE, 2017.
- Zeeshan Ahmad, Farhan Ahmad and **Akhtar Hussain Jalbani** "On the Achievable Rate Region of Interference Channel in the Presence of a Single Decode-and-Forward Relay" First International Conference on Modern Communication and Computing Technologies (MCCT'14), QUEST Nawabshah.
- Anees Ahmed Soomro, Nisar Ahmed Memon, Zahid Hussain, **Akhtar Hussain Jalbani**, "Implementation and Evaluation of the Computerized Karachi Stock Exchange Shares' Prediction Model", ICCET 2012, SALU Khairpur.
- Abdul Rehman Abbasi, Akhtar Hussian, Nitin V. Afzulpurkar, "Towards Context-Adaptive Affective Computing", 7th International Electrical/Electronics, Computer, Telecommunication and IT (ECTI) Conference, Chiang Mai, Thailand, 19-21 May, 2010, pages 122-126.
- Akhtar Hussain, M. W. Asharaf, Shahzadi Tayaba, Nitin V.Afzulpurkar Abdul Rehman Abbasi, "Detecting Unintended Gesture in Real-Time Video for Mental State Prediction,", International Conference on Signal and Information Processing (ICSIP 2011) Changsha, China.
- Abdul Rehman Abbasi, Akhtar Hussain, Nitin V. Afzulpurkar "Towards Development of Student Affect-Sensitive ClassroomBarometer", 1st IFoTMM International Symposium on Robotics and Mechatronics, Hanoi, Vietnam, 21-23 Sep., 2009.

## TEACHING

- Information Retrieval and Knowledge Management,
- Computer Vision,
- Artificial Neural Networks,
- ✤ AI and Neuro Fuzzy,
- Human-Computer Interaction,
- Pattern Analysis and Machine Intelligence,
- Object Oriented Programming,
- Computer Networks,
- Visual Programming,
- Data Structures and Algorithms,
- Artificial Intelligence

# **RESEARCH INTEREST**

Computer Vision, Advanced/Digital Image Processing,

- Pattern Recognition,
- Machine Learning,
- Data Mining,
- Information Retrieval and knowledge Management.

#### **PHD STUDENTS**

- > 03 PhD student completed Currently.
- > 7 Phd students enrolled under my supervision at QUEST Nawabshah.
- > 1 Student from Sindh University Jamshoro.

#### **MS/ME STUDENTS**

- > 30 MS students already completed their MS under my supervision.
- 4 students currently enrolled.

#### REFERENCE

- 1. Dr. Mukhtiar Ahmed Memon professor, Chairman Department of Information Technology QUEST Nawabshah. Quaid-e-Awam University Nawabshah, District Shaheed Benazirabad (Email: mukhtiar.a@gmail.com).
- 2. Dr. Muhammad Ibrahim Channa, Professor, Dean Department of Information Technology QUEST Nawabshah. (Email: ibrahim.channa@gmail.com)