

# Nasir Ahmad

## Curriculum Vitae



### Personal information

First name / Surname

**Dr. Nasir Ahmad**

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Department of Computer Systems Engineering, University of Engineering and Technology Peshawar, Peshawar Pakistan, 25120.

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Nationality

Pakistani

Date of birth

02 April, 1981

Gender

Male

### Work experience

Dates

July 2011 – present

Position held

**Assistant Professor**

Name and address of employer

Department of Computer Systems Engineering, University of Engineering and Technology Peshawar Pakistan, 25120. [www.uetpeshawar.edu.pk](http://www.uetpeshawar.edu.pk)

Main activities and responsibilities

Teaching courses at undergraduate and postgraduate level, Postgraduate Advisor of the Department for 5 years, Member PEC accreditation committee of DCSE, Project Coordinator Dir Upper Campus of UET Peshawar

Type of business or sector

Public Sector University

Additional Responsibility

Advisor postgraduate studies; duties include guiding postgraduate students in the selection of their postgraduate courses and research topics, and coordination of the overall research activities carried out in the department.

Project Coordinator Dir Upper Campus of UET; Duties include liaison with the Government for funding, preparation of PC1 document, preparation of the OBE based curriculum for the proposed departments in the new campus, and other activities related to the establishment of the sub-campus of UET Peshawar at Upper Dir.

Dates

January 2005 – August 2006

Occupation or position held

**Assistant Engineer**

Main activities and responsibilities

Review and assessment of the safety related systems of the power production Nuclear Power Plants in Pakistan. Assessment and regulation of the nuclear safety of the medical diagnostic, treatment machines in Pakistani hospitals and laboratories.

Name and address of employer

Pakistan Nuclear Regulatory Authority (PNRA), PNRA headquarters, Islamabad Pakistan

Type of business or sector

National Nuclear Regulatory Authority

### Education and training

Dates

January 2007 – June 2011

Title of qualification awarded

**Doctor of Philosophy**

Main area of research

Audio-visual Speech Recognition

Name of organisation

Department of Electronic and Electrical Engineering, Loughborough University UK, LE11 3TU

Dates

January 2000 – October 2004

Title of qualification awarded

**Bachelor of Science in Electrical (Communication) Engineering**

Principal subjects

Communication

Name of organisation

NWFP University of Engineering and Technology, Peshawar Pakistan

## Research Publications

- ◆ **Syed Yaqoob Shah, Muhammad Ismail, Sahib Khan and Nasir Ahmad**, (2017) “Age Classification using Facial Image Features in DCT Domain”, *Sindh University Research Journal (Science Series)*, vol. 49, issue. 3, pp. 535-540, September 2017.
- ◆ **Mufassir Abdur Rahim, Ghulam Rasool, and Nasir Ahmad**, (2017) “EMG-Controlled Transradial Prostheses – An Investigation into Machine Learning Techniques”, *International Journal of Computer Applications*, vol. 174, issue. 3, pp. 1-8, September 2017.
- ◆ **Faisal Jamal Nasir, Nasir Ahmad, and Syed Shadab Ali Shah**, (2017) “A Parametric Discriminative Approach for Skin color Detection by Training Weak Learners on Normalized Chrominance and Luminance”, *International Journal of Computer Applications*, vol. 173, issue. 3, pp. 35-41, September 2017.
- ◆ **Jehad Ali, Khalil Khan, Muhammad Naeem, Usman Ali and Nasir Ahmad**, (2017) “Robust Multimodal Face Recognition With Pre-Processed Kinect Rgb-D Images”, *Journal of Engineering and Applied Science (JEAS)*, vol. 36, no. 1.
- ◆ **Sahib Khan, Muhammad Naeem, Tawab Khan, and Nasir Ahmad**, (2017) “4LSB based data hiding in complex region of digital images and its effects on edges and histogram”, *Journal of Engineering and Applied Science (JEAS)*, vol. 36, no. 1.
- ◆ **Muhammad Naeem, Sahib Khan, and Nasir Ahmad**, (2017) “A Distributed GA and A-Priori Algorithm for the hub and Facility Location Problems”, *Journal of Engineering and Applied Science (JEAS)*, vol. 36, no. 1.
- ◆ **Asima Latif, Shah Khusro, Irfan Ullah, Nasir Ahmad**, (2017) “A Hybrid Technique for Annotating Book Table”, Accepted for publication in International Arab Journal of Information Technology.
- ◆ **Sadiq Shah, Muhammad Ismail, Muhammad Naeem and Nasir Ahmad**, (2017) “A Hybrid Face Detection Approach Based on Facial Features and Skin color Information”, *Sindh University Research Journal (Science Series)*, vol. 49, issue. 1, pp. 229-233, March 2017.
- ◆ **Khalil Khan, Nasir Ahmad, Khalil Ullah, Irfanud Din** (2017) “Multi-class semantic segmentation of faces using CRFs”, *Turkish Journal of Electrical Engineering and Computer Science*.
- ◆ **Sahib Khan, Muhammad Ismail, Tawab Khan and Nasir Ahmad**, (2017), “Enhanced stego block chaining (ESBC) for low bandwidth channels”, *Security and Communication Networks*.
- ◆ **Muhammad Gulraj, and Nasir Ahmad**, (2016). Mood detection of psychological and mentally disturbed patients using Machine Learning techniques. *International Journal of Computer Science and Network Security (IJCSNS)*, vol. 16, issue. 8, pp. 63-67.
- ◆ **Arbab Waseem Abbas, Nasru Minallah, Nasir Ahmad, Sahibzada Abdur Rehman Abid, and Muhammad Akbar Ali Khan**, (2016) “K-Means and ISODATA Clustering Algorithms for Landcover Classification Using Remote Sensing”, *Sindh University Research Journal (Science Series)*, vol. 48, issue. 2, pp. 315-318, June 2016.
- ◆ **Sahib Khan, Twab Khan, Muhammad Ismail and Haseeb Zafar, M. Abeer Irfan, and Nasir Ahmad** (2016) “Increasing Hiding Efficiency of Image Steganography using Pre and Post Image Compression”, *Sindh University Research Journal (Science Series)*, vol. 48, issue. 2, pp. 297-300, June 2016.
- ◆ **Muhammad Ismail, Sahib Khan, Muhammad Naeem and Nasir Ahmad**, (2016) “Stego Block Chaining: A Secure 4LSB Steganography Technique”, *Sindh University Research Journal (Science Series)*, vol. 48, issue. 1, pp. 151-154, March 2016.
- ◆ **Sahib Khan, Nasir Ahmad, Muneeza Wahid**, (2016) “Varying index varying bits substitution algorithm for the implementation of VLSB steganography”, *Journal of the Chinese Institute of Engineers*, vol. 39, no.1, pp. 101-109.
- ◆ **Sahib Khan, Abdur Rehman, Nasir Ahmad, and Muhammad Naeem**, (2015) “The Reduction of Specific Absorption Rate at Different Frequencies”, *Journal of Engineering and Applied Science (JEAS)*, vol. 34, no. 2, pp. 71-75.
- ◆ **Atta Ur Rehman, Laiq Hasan, Nasir Ahmad, Kashif Ahmad and Shakirullah**, (2015) “Comparative Study of Support Vector Machine and Hamming Distance Used for Iris Recognition”, *Journal of Engineering and Applied Science (JEAS)*, vol. 34, no.

1, pp. 116-122.

- ◆ **Sahib Khan, Twab Khan, Muhammad Naeem and Nasir Ahmad**, (2015) “Run-Length Encoding Based Lossless Compressed Image Steganography”, *Sindh University Research Journal (Science Series)*, vol. 47, issue. 3, pp. 231-236, September 2015.
- ◆ **Sahib Khan, Nasir Ahmad, Muneeza Wahid, Muhammad Naeem and B. Baloch**, (2015) “Design of Circular Stud Antenna and Parametric Analysis”, *Sindh University Research Journal (Science Series)*, vol. 47, issue. 2, pp. 231-236, June 2015.
- ◆ **Hazrat Ali, Nasir Ahmad, Xianwei Zhou** (2015) “Automatic speech recognition of urdu words using linear discriminant analysis”, *Journal of Intelligent and Fuzzy Systems*, vol. 28, issue. 5, pp. 2369-2375, April 2015.
- ◆ **Sahib Khan, Nasir Ahmad, Muneeza Wahid, and B. Baloch, Muhammad Naeem** (2015) “Design and Characterization of Rectangular Stud Antenna”, *Sindh University Research Journal (Science Series)*, vol. 47, issue. 1, pp. 433-437, March 2015.
- ◆ **Nasir Ahmad, Yasir Saleem Afiridi, Jawad Saleem Afiridi and B. Baloch** (2014) “Robust Automatic Speech Recognition in Real Life Environment using Active Noise Control”, *Sindh University Research Journal (Science Series)*, vol. 46, issue. 4, pp. 433-437, December 2014.
- ◆ **Shakir Ullah, Nasir Ahmad, Kashif Ahmad and Syed Riaz-ul-Hassnain** (2014) “Expressions Invariant Face Recognition”, *Sindh University Research Journal (Science Series)* vol. 46, issue. 4, pp. 419-422, December 2014.
- ◆ **Muhammad Abeer Irfan, Nasir Ahmad, and Sahib Khan** (2014) “Analysis of Varying Least Significant Bits DCT and Spatial Domain Steganography”, *Sindh University Research Journal (Science Series)* vol. 46, issue. 3, pp. 301-306, September 2014.
- ◆ **Hazrat Ali, Nasir Ahmad, Xianwei Zhou, Khalid Iqbal, and Sahibzada Muhammad Ali** (2014) “DWT features performance analysis for automatic speech recognition of Urdu”, *SpringerPlus*, vol. 3, issue. 1, April 2014.
- ◆ **Alauddin, Haseeb Zafar, Tariqullah Jan, Nasir Ahmad and Syed Riaz-ul-Hassnain** (2014) “Efficient Variable Least Significant Bits Audio Steganography (VLSBAS) Algorithms”, *Sindh University Research Journal (Science Series)* vol. 46, issue. 1, pp. 53-58, March 2014.
- ◆ **Muhammad Akbar Ali Khan, Sahibzada Abdur Rehman Abid, Nasir Ahmad, Arbab Waseem Abbas and Muhammad Waqas** (2014) “Formant based Pashto Digits and Numbers Synthesizer”, *Sindh University Research Journal (Science Series)* vol. 46, issue. 1, pp. 47-52, March 2014.
- ◆ **Nasir Ahmad, Asif Ali Khan, Sahibzada Abdur Rehman Abid, Muhammad Yasir and Naseem Ullah** (2013) “Pashto Isolated Character Recognition Using K-NN Classifier”, *Sindh University Research Journal (Science Series)*, vol. 45, issue. 4, pp. 679-682, December 2013.
- ◆ **Sahib Khan, Muhammad Nawaz Khan, Somia Iqbal, Syed Yaqoob Shah, Nasir Ahmad** (2013) “Implementation of Variable Tone Variable Bits Gray-scale Image Steganography using Discrete Cosine Transform”, *Journal of Signal and Information Processing*, vol. 4, issue. 4, pp. 343-350, November 2013.
- ◆ **Kashif Ahmad, Nasir Ahmad, Rehan Ullah Khan, Jebran Khan, Atta-ur-Rehman, Syed Riaz-ul Hassnain** (2013), “Evaluation of SIFT and SURF using Bag of Words Model on a Very Large Dataset”, *Sindh University Research journal*, vol. 45, issue. 3, pp. 492-495, September 2013.
- ◆ **Hameed Ullah Khan, and Nasir Ahmed** (2013) “A genealogical study of the origin of pashtuns”, *Intelligent Computing Theories*. Springer Berlin Heidelberg, 2013. 402-410.
- ◆ **Muhammad Akbar Ali Khan, Sahibzada Abdur Rehman Abid, Fatima Tuz Zuhra and Nasir Ahmad** (2013) “The Development of Pashto Speech Synthesis System”, *International Journal of Computer Applications*, vol. 71, issue. 24, pp. 49-53, June 2013.
- ◆ **Sahibzada Abdur Rehman Abid, Nasir Ahmad, Muhammad Akbar Ali Khan and Fatima Tuz Zuhra** (2013) “Concatenative based Pashto Digits and Numbers Synthesizer”, *International Journal of Computer Applications*, vol. 72, issue. 6, pp. 39-42, June 2013.
- ◆ **Muhammad Sohaib, Nasir Ahmed and Nasru Minallah**, (2013) “Image Enhancement for the 3-D Reconstruction in the Uncontrolled Environment using Shape from Silhouette”, *International Journal of Computer Applications*, vol. 70, issue. 11,

pp. 33-38, May 2013.

- ◆ **Rafaqat Alam Khan, Nasir Ahmad and Nasru Minallah (2013)** "Classification and Regression Analysis of the Prognostic Breast Cancer using Generation Optimizing Algorithms", *International Journal of Computer Science Issues (IJCSI)*, vol. 68, issue. 25, April 2013, pp. 42-47.
- ◆ **Kashif Ahmad, Nasir Ahmad, Kamal Haider and M. Jawad Ikram (2012)** "Effect of Salient Features in Object Recognition", *International Journal of Computer Science Issues (IJCSI)*, vol. 61, issue. 13, January 2013, pp. 34-39.
- ◆ **Khalil Khan, Rehan Ullah, Nasir Ahmad, and Khwaja Naveed (2012)** "Urdu Character Recognition using Principal Component Analysis", *International Journal of Computer Applications (IJCA)*, vol. 60, issue. 11, December 2012.
- ◆ **Ali J., Khan R., Ahmad N., and Maqsood I. (2012)** "Random Forest and Decision Trees", *International Journal of Computer Science Issues (IJCSI)*, vol. 9, issue. 5, no. 5, September 2012.
- ◆ **Siddique M., Khan R., Khan K., and Ahmad N. (2012)** "Performance Evaluation of Super-Resolution Reconstruction Algorithms Based On Linear Magnifications", *IJCSI International Journal of Computer Science Issues*, vol. 9, issue. 3, no. 2, May 2012.
- ◆ **Sahib Khan, Muhammad Abeer Irfan, Muhammad Ismail, Tawab Khan and Nasir Ahmad (2017)** "Dual Lossless Compression based Image Steganography for Low Data Rate Channels", *2017 International conference on Communication Technologies (ComTech-2017)*, April 19-21 2017, National University of Sciences and Technology (NUST), Islamabad, Pakistan.
- ◆ **Khalil Khan, Nasir Ahmad, Irfan Uddin, ME Mazhar, Rehan Ullah Khan (2017)** "FaceParser – A New Face Segmentation Approach and Labeled Database", *International Conference on Engineering, Technologies and Applied Sciences*, January 23-25 2017, Malaysia.
- ◆ **Sahib Khan, Tawab Khan, Muhammad Ismail, Muhammad Haseeb, Rehan Ashraf, Nasir Ahmad (2016)**, "5LSB Steganography using Monotonic RGB Color Image as Cover Medium", *6th IEEE International Conference on Innovative Technology (INTECH'2016)*, Islamabad, Pakistan Sept. 19-21, 2016.
- ◆ **Sahib Khan, Muhammad Ismail, M. Haseeb Zafar, Tawab Khan, Muhammad. Naeem, Nasir Ahmad (2016)** "Analysis of Data hiding in R, G and B Channels of Color Image using Various Number of LSBs", *6th IEEE International Conference on Innovative Technology (INTECH'2016)*, Islamabad, Pakistan Sept. 19-21, 2016.
- ◆ **Hazrat Ali, Nasir Ahmad, Abdul Hafeez, (2016)**, "Urdu Speech Corpus and Preliminary Results on Speech Recognition", *International Conference on Engineering Applications of Neural Networks*. Springer International Publishing, pp. 317-325.
- ◆ **Tanvir Ahmad, Nasir Ahmad and Yaseen Ahmad (2016)**, "Dynamic Wind Flow Modelling – A Step towards Green Energy in Pakistan", *International Conference on Environmentally Sustainable Development (ESDev)*, Abbottabad, Pakistan, April 25th to 27th 2016.
- ◆ **Khalil Khan, Nasir Ahmad, Rehan Ullah Khan, and Ali Alkhalifah (2015)**, "Urdu Text Classification Using Decision Trees", *2015 12th International Conference on High-capacity Optical Networks and Enabling/Emerging Technologies (HONET)*, Islamabad, 2015, pp. 1-4.
- ◆ **Sahib Khan, Nasir Ahmad, Shamrez Khan, Tawab Khan, Amir Hussain and Abubakar Siddique (2015)**, "Wrinkles Energy based age estimation Using Discrete Cosine Transform", *2015 IEEE International Conference on Emerging Technologies (ICET)*, pp. 1-4.
- ◆ **Sahib Khan, Nasir Ahmad, Muhammad Ismail, Nasru Minallah, and Tawab Khan (2015)**, "A Secure True Edge based 4 Least Significant Bits Steganography", *IEEE International Conference on Emerging Technologies (ICET)*, pp. 1-4..
- ◆ **Umair Khan, Nasru Minallah, Ahmad Junaid, Kashif Gul and Nasir Ahmad (2015)**, "Parallelepiped and Mahalanobis Distance Based Classification for Forestry Identification in Pakistan", *IEEE International Conference on Emerging Technologies (ICET)*.
- ◆ **Nasir Ahmad, Saddam Hussain, Kashif Ahmad, and Nicola Conci, (2015)**, "Computer vision based room interior design", *Eighth International Conference on*

*Machine Vision*, pp. 98751G-98751G. International Society for Optics and Photonics.

- ◆ **Minallah, Nasru, Amaad Khalil, and Nasir Ahmad.** (2015) "Iterative H. 264 video decoding using mutual information exchangeable DSTS and SP modulation", *IEEE/CIC International Conference on Communications in China (ICCC), 2015*, pp. 1-5.
- ◆ **Sumayyea Salahuddin, Muniba Ashfaq, Madiha Sher, Laiq Hasan, Nasir Ahmad,** (2015) "Performance Comparison and Analysis of DivSufSort-Based and FM-index", *The IEEE 10th International Conference on Computer Science & Education*, Fitzwilliam College, Cambridge University, UK, July 22-24, 2015, pp. 64-69.
- ◆ **Sahibzada Abdur Rehman Abid, Nasir Ahmad, Muhammad Akbar Ali Khan and Jebran Khan,** (2014) "Speech Synthesizer for the Pashto Continuous Speech based on Formant Technique", *First International Conference on Modern Communication & Computing Technologies (MCCT'14)*, Nawabshah, Pakistan, February 26–28, 2014.
- ◆ **Hazrat Ali, Nasir Ahmad, Xianwei Zhou, Muhammad Ali, Ali Asghar** (2013), "Linear Discriminant Analysis Based Approach for Automatic Speech Recognition of Urdu Isolated Words" *2013 International Multitopic Conference (IMTIC'13)*, Springer CCIS, Mehran University Jamshoro, Pakistan, December 18-20, 2013.
- ◆ **Kashif Ahmad, Nasir Ahmad, Rehan Ullah Khan, Akhthar Hussain Khalil** (2013), "Saliency based Skin Detection in Complex Scenes", *Sixth International Conference on Machine Vision (ICMV 2013)*, International Society for Optics and Photonics, London, United Kingdom, November 16–17, 2013.
- ◆ **Irfan, M. and Shah, H. A. and Ahmad, N. and Aman-ur-Rabi,** (2013), "PAPR Optimization Of SC-FDMA Signal Using M-Ary Signaling", *Proceedings of 2013 3rd International Conference on Computer, Control and Communication (IC4)*, Karachi, Pakistani, pp. 1-4, September 25-26, 2013
- ◆ **Hazrat Ali, Nasir Ahmad, Xianwei Zhou** (2013) "Development of Language Resource and Automatic Speech Recognition System for Pashto" *TERENA Networking Conference, TNC2013*, June 2013, Maastricht, The Netherlands. (Grant of TERENA Student Award to Mr. Hazrat Ali for attending the conference).
- ◆ **Ahmad I., Ahmad N., Ali H., and Ahmad G.,** (2012) "The Development of Isolated Words Corpus of Pashto for the Automatic Speech Recognition Research", *Proceedings of the 1st International Conference on Robotics & Artificial Intelligence ICRAI-2012*, National University of Science and Technology, Rawalpindi, Pakistan, October 22, 2012.
- ◆ **Shah S. Y., Ahmad N., and Naeem M.,** (2012) "Identification of Critical Bands in DCT Domain Representation for Fingerprint Recognition", *Proceedings of the 18th International Conference on Automation & Computing*, Loughborough University, Leicestershire, UK, September 8, 2012, pp. 119-122.
- ◆ **Sher M., Ahmad N., and Sher M.,** (2012) "TESPAR Feature Based Isolated Word Speaker Recognition System", *Proceedings of the 18th International Conference on Automation & Computing*, Loughborough University, Leicestershire, UK, September 8, 2012, pp. 333-336.
- ◆ **Ahmad I., Ahmad N., Ali H., and Ahmad G.,** (2012) "The Development of Isolated Words Pashto Automatic Speech Recognition System", *Proceedings of the 18th International Conference on Automation & Computing*, Loughborough University, Leicestershire, UK, September 8, 2012, pp. 348-351.
- ◆ **Abbas A. W., Ahmad N., and Ali H.,** (2012) "Pashto Spoken Digits Database for the Automatic Speech Recognition Research", *Proceedings of the 18th International Conference on Automation & Computing*, Loughborough University, Leicestershire, UK, September 8, 2012, pp. 363-366.
- ◆ **Hazrat Ali, Nasir Ahmad, Khawaja M. Yahya, Omar Farooq,** (2012) "A Medium Vocabulary Urdu Isolated Words Balanced Corpus for Automatic Speech Recognition", in *2012 4th International Conference on Electronics Computer Technology*, Kinyakumari India.
- ◆ **Ahmad, N., Mulvaney, D., Datta S., and Farooq, O.** (2010) "Stream Weights Optimisation for Audio-Visual Automatic Speech Recognition", *Proceedings of National Symposium on Acoustics NSA-2010*, Pt. L. M. S. Govt P. G. College, Rishikesh, India, pp. 112-117.
- ◆ **Ahmad, N., Mulvaney, D., Datta S., and Farooq, O.** (2009) "Dynamic Visual Features for Audio-Visual Automatic Speech Recognition", *Proceedings of National Symposium on Acoustics NSA-2009*, Research Centre Imarat, Andhra Pradesh, India, pp. 91-96.
- ◆ **Ahmad, N., Datta S., Mulvaney, D., and Farooq, O.** (2008) "A comparison of visual features for

audiovisual automatic speech recognition”, *Proceedings of the 2nd joint conference of the Acoustical Society of America (ASA) and the European Acoustics Association (EAA), Acoustics'08*, Paris, pp. 6445-6449.