

PERSONAL INFORMATION

Shahi Dost



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<https://scholar.google.com.pk/citations?user=3ZZvNegAAAAJ&hl=en&oi=ao>

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Sex Male | Nationality Pakistan

OBJECTIVE

To use my skills and potential to work with highly professional and technical sound people in this highly reputed international standard organization.

RESEARCH/INTEREST AREAS

Image and video Processing, Computer Vision, Deep Learning, Machine Learning and Data Sciences.

WORK EXPERIENCE

13 Feb 2013–Present

Higher education teaching professional

FAST National University of Computer and Emerging Sciences, Islamabad (Pakistan)
www.nu.edu.pk

Lecturer (Faculty member)

February 2013 – Present

FAST National University of Computer and Emerging Sciences, Islamabad, Pakistan

Profile link: http://www.nu.edu.pk/Campus/Employee/Shahi-Dost_9087

I am working as a Lecturer in the department of Computer Science and Engineering since February 13, 2013. I have been taught various labs including:

1. Digital Image Processing and Computer Vision Lab
2. Computer Networks Lab
3. Introduction to Computing Lab
4. Computer Programming Lab
5. Database Systems Design Lab
6. Data Structures and Algorithms Lab
7. Data Communication Lab
8. Digital Logic Design Lab

I supervised various projects in the area of Computer Vision, Digital Image Processing, Computer Networks, Database Systems, Computer Programming & Algorithm Design and Data Structure in bachelor level.

EDUCATION AND TRAINING

15 Jul 2014–30 Aug 2016

Master of Computer Science

FAST National University of Computer and Emerging Sciences, Islamabad (Pakistan)
www.nu.edu.pk

Computer Science, Master of Science (MSCS)

August 2014 – July 2016

FAST-National University of Computer and Emerging science , Islamabad Pakistan
<http://www.nu.edu.pk>

CGPA 3.89/4.0 (97.25%) (Magna Cum Laude)

My studies focused were in Image and Video Processing, Deep Learning, Computer Vision, Machine Learning, Data Processing, Data Mining and Data warehousing. My Master thesis title is "*Reduced Reference Image Quality Assessment method based on Three-Component Image Model*". I have also developed Spying module for dengue mosquito and larva habitat detection areas using satellite images as a GIS (Geographical Information System) tools during my master studies. On the basis of these two research projects, I have written two journal papers in the domains of Perceptual Image and Video Processing, Satellite Imaging and Machine Learning.

10 Sep 2008–20 Aug 2012

Bachelor of Computer Engineering

National University of Sciences & Technology (NUST), Islamabad (Pakistan)
<http://www.nust.edu.pk>

Computer Engineering, Bachelor of Engineering (BSCE)

September 2008 –October 2012

National University of Sciences & Technology (NUST), Islamabad, Pakistan <http://www.nust.edu.pk/>

CGPA 3.01/4.0 (75.25%)

Specialized in Computer Science and Engineering. Studies focused were in image and video processing and its applications, Data Processing, Communications courses, computer networks and network security, computer science core courses, computer architecture and design, signal and systems and algorithms analysis and development.

I have actively participated in research project of title "IPv-6 10 Giga-hertz router simulation and design" in my final year.

RESEARCH PAPERS

1. "**S. Dost**, S. Anwer, F. Saud and M. Shabbir, *Outliers classification for mining evolutionary community using Support Vector Machine and Logistic Regression on Azure ML*, 2017 International Conference on Communication, Computing and Digital Systems (C-CODE), Islamabad, Pakistan, 2017, pp. 216-221". **(Published)**
2. "**S. Dost**, S. Sarfraz, N. K.Tripathi and F. S. Faruque, *Automated Tool for Spying Aedes Genus Mosquitoes Habitat from Space for Predication and Decision Making*, the International Journal of Environmental Monitoring and Assessment, Springer". **(Submitted)**
3. "**S. Dost**, F. Saud, M. Shabbir, M. Gufran Khan, *Methods and Algorithms of Reduced Reference Image and Video Quality Assessment methods*, the Institution of Electronics and Telecommunication Engineers (IETE), India (IETE Technical Review)". **(Submitted)**
4. "M. Shabbir , **S. Dost**, S. Anwer and F. Saud , *MOOCs: Global and Local Perspective*, 2018 International Conference on Communication, Computing and Digital Systems (C-CODE). **(Submitted)**
5. "F. Saud, **S. Dost**, M. Shabbir, S. Anwer and, *Intelligent System for Mining Educational Data to Analyze Students' Performance*, 2018 International Conference on Communication, Computing and Digital Systems (C-CODE). **(Submitted)**

RESEARCH PROJECTS

1. **Outliers Classification for Mining Evolutionary Community using Support Vector Machine and Logistic Regression on Azure ML**

This project was for Evolutionary Community Outliers detection, classification and removal in Big Data of Portugal Forest Fire to clean and pre-process the data. We developed a new approach for Outlier detection and removal using machine learning algorithms i.e. Support Vector Machine (SVM) and Logistic Regression (LR) on

Azure Machine Learning (ML) tool. The paper was presented by me in 2017 International Conference on Communication, Computing and Digital Systems (C-CODE). **(Published)**

<http://ieeexplore.ieee.org/document/7918931/>

ISBN No: 978-1-5090-4448-1

"S. Dost, S. Anwer, F. Saud and M. Shabbir, Outliers classification for mining evolutionary community using Support Vector Machine and Logistic Regression on Azure ML, 2017 International Conference on Communication, Computing and Digital Systems (C-CODE), Islamabad, Pakistan, 2017, pp. 216-221".

2. Automated Tool for Spying Aedes Genus Mosquitoes Habitat from Space for Predication and Decision Making

This paper is accepted in "the International Journal of Environmental Monitoring and Assessment. The impact factor of this congress is 1.633. The basic work of this research project was "Automated Tool for Spying Aedes Genus Mosquitoes Habitat from Space for Predication and Decision Making" is a prediction tool for favourable habitat such as dense vegetation, crowded area, shaded houses etc. for dengue mosquitos **(Accepted)**.

<https://www.springer.com/environment/monitoring++environmental+analysis/journal/10661>

3. Reduced Reference Image and Video quality assessment methods and Algorithm development

Besides my thesis, I have written journal paper on the review work of my thesis topic on the reduced referenced image and video quality assessment i.e. "Methods and Algorithms of Reduced Reference Image and Video Quality Assessment methods". The paper is submitted in the Institution of Electronics and Telecommunication Engineers (IETE), India (IETE Technical Review) **(Submitted)**

<http://www.tandfonline.com/action/journalInformation?show=aimsScope&journalCode=tijr20>

4. Reduced Reference Image Quality Assessment method based on Three-Component Image Model

The topic of my research thesis is "Reduced Reference Image Quality Assessment Method Based on Three-Component Image Model". This is basically the proposed Reduced Reference (RR) Image quality assessment work to measure distortion and degradation of image and video added by channel, compression, rendering, noise and other sources of image distortion. We proposed Three-Component image model based on image edges, textures and corners to measure the quality of the image/video. The paper is submitted and currently in the process review in the journal of Machine Vision and Applications **(Submitted)**.

<http://www.springer.com/computer/image+processing/journal/138>

5. Intelligent System for Mining Educational Data to Analyze Students' Performance

In this paper, students' marks of final examination are predicted during and also at the end of the semester using different classifiers such as decision tree induction, rule based classification and Bayes classification methods. The data of BS (CS) students from FAST-National University of Computer and Emerging Sciences (NUCES), Pakistan is collected and pre-processed before applying classification algorithms **(Submitted)**.

<https://ccode.bahria.edu.pk>

6. MOOCs: Global and Local Perspective

In this study, two data sources are used to see sentiments of people about Massive Open Online Courses which is an interesting topic for academicians and some businesses. One data set represents global opinion and the other represents opinion of Pakistani people. Our findings suggest that there are more positive sentiments about MOOCs than negative ones. Moreover, a huge number of neutral opinions are also seen which suggest that MOOCs are still not extinct **(Submitted)**.

<https://ccode.bahria.edu.pk>

7. A Reduced-Reference perceptual image and video quality metric based on edge preservation

During my master degree, I implemented the journal paper in title name "A reduced-reference perceptual image and video quality metric based on edge preservation" on Matlab-2016a with improved results. The improved and optimized algorithm of stated paper is in my drop box, which I am planning to write up in the form of research paper. **(Progress)**

8. Under-Ten year child tracing system using Kalman filter

I co-supervised the project title name "Under-Ten year child tracing system using Kalman filter" as a bachelor semester project of "Computer Vision Lab" in FAST-NUCES. This is the working prototype to track the

moment of Child under 10 years and to inform the recipient to take some measure to handle the child activity under un-protected area (Implemented).

9. Age and Gender Identification tool for security purpose

I co-supervised the project title name “Age and Gender Identification tool for security purpose” as a bachelor semester project of “**Computer Vision Lab**” in FAST-NUCES. This is the working prototype to find the age and gender of human during online CCTV footage of security cameras (Implemented).

10. 10-Giga IPv-6 Router implementation on Net-FPGA

During my bachelor degree, I worked on research project, name “10-Giga IPv-6 Router implementation on Net-FPGA using Verilog HDL”. I worked with my team members on simulation and implementation of 10 Giga IPv-6 router. It was my BS final year project. (Worked as Team Leader) (Implement).

PERSONAL SKILLS

Technical Skills and Tools

C/C++/C#, Matlab, Python, Java, OpenCV, ITK & VTK, Microsoft Azure Machine Learner, NS2/3, Wireshark, Socket Programming, Pentahoo Data Integrator, Oracle Data warehouse Builder, Weka and R Programming for data Processing, SPSS, SQL server 2014, CISCO Packet Tracer, Verilog HDL and OpenGL.

Mother tongue(s)

Pashto, Urdu

Other language(s)

English

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C2	C2	C1	C1	C1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

ORGANISATIONAL / MANAGERIAL SKILLS

MANAGEMENT EXPERIENCE

- Besides a faculty member I am also a Lab Supervisor in FAST-NUCES and my responsibilities include establishing new labs for Higher Education Commission visits.
- I have actively participated for the Electrical department accreditation and approval during PEC (Pakistan Engineering Counsel) accreditation process.
- I have also actively participated in NCEAC (Computer Science department) accreditation process.
- Hostel discipline and management committee senior member.
- Active consultant, mentor and management committee member and students mentor in Daira, Barselego, Job Fair and Open Houst16' mega events.

Job-related skills

- Besides a faculty member I am also a Lab Supervisor in FAST-NUCES and my responsibilities include establishing new labs for Higher Education Commission visits.
- I have actively participated for the Electrical department accreditation and approval during PEC (Pakistan Engineering Counsel) accreditation process.
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Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Digital competences - Self-assessment grid**Other skills** HONORS & ACHIEVEMENTS

1. Awarded faculty development program for study in MS Computer Science in FAST-NUCES University, Islamabad Pakistan. (<http://www.nu.edu.pk>)
2. Awarded ICT R and D merit scholarship for study in BS Computer Engineering in NUST University, Islamabad Pakistan.(<http://www.nust.edu.pk/>)
3. Talent scholarship during MS studies by securing 4.0/4.0 SGPA in second, third and fourth semester.
4. Dean and Rector list award by securing high CGPA during master studies.