



## Shakir Ullah

**Nationality:** Pakistani **Date of birth:** 30/04/1992

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**Home:** tehsil Wana, District South Waziristan, KPK, Pakistan, 29540 Wana (Pakistan)

### EDUCATION AND TRAINING

#### Doctor of Philosophy

**University of Verona** [ 01/10/2024 – Current ]

**City:** Verona | **Country:** Italy | **Website:** <https://www.univr.it/home>

**Supervisor:** Dr. Andrea Giachetti

#### Master of Philosophy in Electronics

**Quaid-i-Azam University** [ 14/02/2017 – 24/06/2019 ]

**Address:** Department of Electronics, 45320 Islamabad (Pakistan) | **Field(s) of study:** Computer Vision | **Final grade:** 3.50/4.00(79%)

**Courses Overview:** I studied eight different courses in two semesters in which the major courses were Digital Image Processing, Game Theory, Wave Propagation, Scattering From Random Media, Error Correction Code, Information Theory, Advance Computer Architecture, Remote Sensing.

**Thesis:** Determining Optimal Number of Superpixels in an Image

**Short Description:** During my M.Phil. degree, I worked on the Adaptive Tuning of SLIC parameter number of superpixels K. In this work, we present granulometry and quality metrics-based methods for adaptive tuning of the parameter K. The proposed granulometric method exploits the weighted average of the image pattern spectrum for the adaptive tuning of the parameter K. In the quality metrics method, we suggested majority voting scheme based on information, texture and ground truth independent quality metrics. The experimental results demonstrate that the proposed methods achieve boundary adherence of the ground truth for the images of the data set with high value of the compactness.

**Supervisor:** Dr. Muhammad Naeem Ali Bhatti

#### Bachelor of Science in Electronics

**University of Peshawar** [ 03/09/2011 – 04/10/2016 ]

**Address:** Department of Electronics, 25120 Peshawar (Pakistan) | **Final grade:** 67%

**Courses Overview:** I studied different courses in eight semesters in which the major courses were Circuit Analysis, Calculus and analytical geometry, Linear Algebra and Differential equation, Basic Electronics, Digital Logic Design, Amplifier and Oscillator, programming language, Probability and Statistic, Control System and Information Theory, Industrial Electronics and Programmable Logic Control, Electronic Devices and Circuit Theory, Digital and Analog Communication, Applied Mathematics, Microprocessor and Micro controller Interface, Data Communication and Networking, Computer Language C++, Optical Fiber, Laser Theory, Solid State Electronics.

**Thesis:** Indoor Patient Localization with Wireless Sensor Network(WSN)

**Short Description:** During my Bachelor degree, I worked on the Patient localization inside hospital using Wireless Sensor Network (WSN). In this project mobile mote was connected to the patient body and stationary mote was fixed in patient room. Mobile mote received the received signal strength Indicators (RSSI) packets from stationary mote and sent to the master mote. Master mote sent them to a server. This work was sponsored by National ICT R&D Fund, Pakistan

**Supervisor:** Dr. Muhammad Kamran Khan

## WORK EXPERIENCE

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### **Higher Education Department (GPGC Haripur) – Haripur, Pakistan**

City: Haripur | Country: Pakistan

#### **Lecturer**

[ 02/12/2022 – Current ]

- As a Lecturer BS Electronics, I am teaching subjects Image Processing, Pattern Recognition, Artificial Intelligence, Computer Programming and Digital Logic Design .
- I am responsible to supervised students in final year project.
- I am also a member of Proctorial board, Quality Assurance Cell and department course supervisor.

### **National Center of Artificial Intelligence NCAI – Lahore, Pakistan**

City: Lahore | Country: Pakistan

#### **Research Assistant: Deep Learning**

[ 01/10/2020 – 30/12/2022 ]

- As a Computer vision Engineer, in National Center of Artificial Intelligence, worked with PyTorch, TensorFlow, OpenCV, YOLO custom Training, image segmentation, object tracking.

### **COMSIP Lab (Quaid-i-Azam University) – Islamabad, Pakistan**

City: Islamabad | Country: Pakistan

#### **Research Assistant**

[ 01/07/2018 – 24/06/2019 ]

- As a Research Assistant in Communication and Image Processing lab, worked on development of novel algorithm for image segmentation, image classification, action localization and anomaly detection.

### **Government Degree College, (Wana) – Wana, Pakistan**

City: Wana | Country: Pakistan

#### **Teaching Assistant**

[ 01/07/2017 – 30/06/2018 ]

- I work as a Teaching Assistant for introductory classes of Computer Science and Physics.
- Responsible for assignment grading, class review sessions, and student meetings.

## LANGUAGE SKILLS

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**Mother tongue(s):** Pashto

**Other language(s):**

**English**

**LISTENING B2 READING B2 WRITING B2**

**SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2**

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user*

## SKILLS

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Microsoft Office / programming: Python, MATLAB and SQL / Deep Learning frameworks: Pytorch, Tensorflow, Keras / LaTeX (very good) / Image Processing, Image Analysis, Image Segmentation

## PUBLICATIONS

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**State of the Art Report on Inverse Rendering** Submitted to Eurographics 2026

Ullah, Shakir, Giachetti, Andrea, Pellacini, Fabio

**BASS-MLIC: a Novel Synthetic Dataset for Single-View Inverse Rendering Tasks on Cultural Heritage Artifacts**

Submitted to STAG 2025 Conference

Righetto, Leonardo, Ullah, Shakir, Giachetti, Andrea,

[2021]

**Adaptive Tuning of SLIC Parameter K** Ullah, S., Bhatti, N., & Zia, M. (2021). Adaptive tuning of SLIC parameter K. *Multimedia Tools and Applications*, 80(17), 25649-25672.

## PROJECTS

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[ 15/02/2016 – 04/10/2016 ]

**Patient Localization inside Hospital with Wireless Sensor Network** BS final year project was funded by National ICT R&D Fund, Pakistan. The main duties to perform under this project:

- Literature View.
- Patient localization inside hospital.
- All the numerical results under this project have acquired via MATLAB.

[ 02/02/2023 – 15/06/2023 ]

**Driver's drowsiness detection system using Raspberry Pi OpenCV.** Student final year project funded by University of Haripur, Pakistan. The main duties to perform under this project:

- Literature View.
- Results comparison and discussion.
- All the software work under this project have acquired via Python, OpenCV and hardware implemented using Raspberry Pi.

## CONFERENCES AND SEMINARS

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### Online Courses

- Microsoft Specialist (<https://www.certipoint.com/Portal/Pages/CredentialVerification.aspx>)
- Deep Learning Specialization (<https://www.credly.com/earner/earned/badge/08c927a1-8eb1-4ecd-8ddb-389e4e455eba>)
- Python (<https://www.coursera.org/account/accomplishments/records/FFK9NPW7ZTS3>)
- Intro to Deep Learning (<https://www.kaggle.com/learn/certification/hasnainshakir/intro-to-deep-learning>)
- DevOps on AWS (<https://coursera.org/verify/specialization/MJCUR48ZSGP9>)

### Conferences and seminars

- 14th International Conference on Emerging Technologies 21-22 November 2018 (ICET)
- Seminar Series-2018 Held from September 2018-January 2019 at Quaid-i-Azam University, Islamabad.
- Arrange seminar titled abroad studies on scholarship for undergraduate students in GPGC Haripur.
- Arrange seminar titled online earning for undergraduate students in GPGC Haripur.

## HONOURS AND AWARDS

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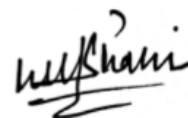
### Here is the list

- Awarded merit based scholarship by Higher Education Commission of Pakistan for the study M.Phil. Electronics in Quaid-i-Azam University, Islamabad (2017-2019).
- English Language Proficiency certificate issued by Quaid-i-Azam University Islamabad, Pakistan.
- Secured 1st position by obtaining 92% marks in the Master's viva-voce exam.

- Awarded merit-based laptop through Prime Minister's Laptop Scheme announced for talented students.
  - Awarded fund for my BS final year project by National ICT R&D Fund, Pakistan.
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*Self certified Curriculum Vitae by the Candidate:*

University of Verona, Italy, 37129, 24/10/2025

A handwritten signature in black ink, appearing to read 'Shakir Ullah', with a stylized flourish underneath.

Shakir Ullah