Dr. Ali Javed

Associate Professor
Department of Software Engineering
University of Engineering and Technology, Taxila

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EDUCATION

- PhD in Computer Engineering, Computer Engineering Department, 2016
  Thesis Title: Event Driven Video Summarization for Sports
  University of Engineering & Technology Taxila, Pakistan
  6 months research work during **PhD** under **IRSIP HEC Scholarship at University of Michigan, USA**
- M.S in Computer Engineering, Computer Engineering Department, 2010 **(Gold Medalist)**
  Thesis Title: Video Analytic Algorithm for Handout Extraction from Video Lectures
  University of Engineering & Technology Taxila, Pakistan
- B.E in Software Engineering, Software Engineering Department, 2007 **(3rd Position)**
  Thesis Title: Fingerprint Biometric based Time and Attendance System
  University of Engineering & Technology Taxila, Pakistan

PERSONAL DESCRIPTION

- I have done my Postdoc from Oakland University, USA. I have completed my PhD degree in Computer Engineering from UET Taxila, Pakistan and University of Michigan, USA. I have done my MS degree in Computer Engineering and BE degree in Software Engineering from UET TAXILA, Pakistan. I have teaching experience of more than 13 years and have a sound knowledge and skills and above all the zest. I have a tremendous academic record to back me up. I think being a young and energetic person I can provide my employer's organization with a very proficient and hardworking employee who has a great learning ability as depicted by his excellent academic carrier. I assure my employer as well that I, being a zealous supporter of the cause of the organization, can work anytime on any assignment with utmost courage, devotion, honesty and with 100% of my technical ability and with one goal of taking my organization to the zenith of success.

OBJECTIVE

- Boldness and vision to initiate new ideas and implement innovative approaches through strategic direction to facilitate student learning and research.

AWARDS AND HONORS

- Awarded **Chancellors Gold Medal** for securing **4.0 CGPA** in **M.S Computer Engineering**

- Awarded **Certificate of Excellence** for securing **4.0 CGPA** in **MS Computer Engineering.**
- Awarded **Certificate of Merit** for securing **3rd position** overall in **BE Software Engineering.**
- **A+ grade** in **BE Software Engineering** with an Aggregate of 90**%** alongwith distinction in some of the subjects**.**
- Acting **Head of Software Engineering Department** at **UET Taxila.**
- **Ambassador** of **Asian Council of Science Editors (ACSE)** from Pakistan.
- Secured **First Position** with **96.4%** marks among 500 participants in **HEC Online Teaching Level-1 course** organized by **National Academy of Higher Education.**
- Secured **Second Position** for supervised FYP titled "**Realtime Replayed Audio Detection Voicebot**" in Final Year Design Project competition organized by Institution of Engineers Pakistan.

RESEARCH INTERESTS

- Video Content Analysis
- Image Processing
- Multimedia Forensics
- Medical Image Processing
- Computer Vision
- Machine Learning
- Software Quality Assurance & Testing

APPOINTMENTS

- **Associate Professor** — **Jan, 2022-Present**
  UET Taxila, Department of Software Engineering — **Taxila, Punjab**
- **Technologist PGS Board** — **July, 2022- Present**
  UET Taxila, Department of Software Engineering — **Taxila, Punjab**
- **Associate Professor** — **Feb, 2021-Jan, 2022**
  UET Taxila, Department of Computer Science — **Taxila, Punjab**
- **Assistant Professor** — **Mar, 2012- Feb, 2021**
  UET Taxila, Department of Software Engineering — **Taxila, Punjab**
- **Postdoctoral Scholar** — **Mar, 2019- Sep, 2019**
  Oakland University, Computer Science and Engineering Department — **Rochester, Michigan**
- **PhD Visiting Research Scholar** — **Apr, 2015-Nov, 2015**
  UM Dearborn, Electrical and Computer Engineering Department — **Dearborn, Michigan**
- **Acting Chairman** — **July, 2014**
  UET Taxila, Department of Software Engineering — **Taxila, Punjab**
- **Director- Postgraduate Studies** — **Sep 2020-Feb 2021**
  UET Taxila, Department of Software Engineering — **Taxila, Punjab**
- **Member- Central Purchase Committee** — **Jan 2023-Present**
  UET Taxila, — **Taxila, Punjab**
- **Advisor Softdesk Society** — **2012-Present**
  UET Taxila, Department of Software Engineering — **Taxila, Punjab**
- **Director- Multimedia Signal Processing (MSP) Research Lab** — **2016-Present**
  UET Taxila, Department of Software Engineering — **Taxila, Punjab**
- **Head of Windows Mobile Application Development** — **2014-2018**
  UET Taxila, Mobile Application Development Wing — **Taxila, Punjab**
- **Software Engineering Lab Director** — **2012-2015**
  UET Taxila, Department of Software Engineering — **Taxila, Punjab**
- **Research Monitoring Committee Member for MS Thesis** — **Mar, 2013- Mar, 2014**
  Military College of Signals-NUST, Department of Software Engineering — **Rawalpindi, Punjab**
- **Assistant Professor Visiting** — **Jan, 2013-Aug, 2013**
  Fatima Jinnah Women University, Department of Software Engineering — **Rawalpindi, Punjab**

- **Lecturer**   **Apr, 2008- Mar, 2012**
  UET Taxila, Department of Software Engineering   **Taxila, Punjab**
- **Lab Engineer**   **Sep, 2007- Apr, 2008**
  UET Taxila, Department of Software Engineering   **Taxila, Punjab**

RESEARCH GRANTS & FUNDINGS

- **PIRCA Research Grant Awardee** as **Principal Investigator** of PKR 45,00,000/- from Punjab HEC for Project titled "**A unified framework for benchmarking deepfakes detection algorithms**" 2021-2023.
- Worked as a Postdoctoral Scholar for **ForensicExaminer: Testbed for Benchmarking Digital Audio Forensic Algorithms Project** funded by the **National Science Foundation (NSF)-USA** (**Award No. 1815724**).
- Worked as a Postdoctoral Scholar for **Clinical Decision Support System Tool for Brain Aneursym Detection and Rupture Prediction Project** funded by the **Brain Aneurysm Foundation-USA.**
- Worked as a Postdoctoral Scholar for **Usage of Modern Technologies to predict emergence of infectious diseases and to detect outbreak of pandemics** funded by the **Ministry of Education-KSA, and Imam Mohammad Ibn Saud Islamic University-KSA** (**Award No. 959**).
- Team Lead for **NSF** funded project **REU Site: Undergraduate Computer Research (UnCoRe) in Cyber Security** (**Award No. 1852475**).
- Working as a Co-Investigator/International Collaborator for project titled **Drone for Crop's Pest Detection and Removal using Deep Leaning techniques** that has been awarded the research grant by the **Deanship of Scientific Research (DSR)**, **Qassim University, Saudi Arabia,** under **research grant No. (10338-COC-3-1-2020-I),** 2021-2022.
- Worked as an International Collaborator for project titled **Shot Classification and Replay Detection for Sports Video Summarization** that has been awarded the research grant by the **Deanship of Scientific Research (DSR)**, **University of Jeddah, Jeddah,** under **research grant No. (UJ-04-18-ICP),** 2020-2021.
- Worked as an International Collaborator for project titled **Audio features-based Fall Detection Framework for Elderly people and Patients** that has been awarded the research grant by the **Deanship of Scientific Research (DSR)**, **University of Jeddah, Jeddah,** under **research grant No. (UJ-20-043-DR),** 2020-2021.
- Worked as an International Collaborator for project titled **Protecting the World Leaders from Voice Spoofing Attacks** that has been awarded the research grant by the **Deanship of Scientific Research (DSR)**, **University of Jeddah, Jeddah,** under **research grant No. (UJ-21-DR-28),** 2020-2021.
- Worked as an International Collaborator for project titled **Face Mask Detection and Masked Facial Recognition** that has been awarded the research grant by the **Taif University Researchers Supporting Project number (TURSP-2020/115), Taif University, Taif, Saudi Arabia**, 2020-2021.
- Worked as an International Collaborator for project titled **A Multi-Layer Dual Attention Deep Learning Model with Refined Word Embeddings for Aspect-Based Sentiment Analysis** that has been awarded the research grant by the **Deanship of Scientific Research (DSR)**, **University of Jeddah, Jeddah,** under **research grant No. (UJ-12-18-DR), 2017-2018.**
- Team Lead for **NSF** funded project **REU Site: Undergraduate Computer Research (UnCoRe) in Cyber Security** (**Award No. 1852475**).
- **International Research Support Initiative Program (IRSIP) Scholarship** Awardee **of PKR One Million** from **Higher Education Commission Pakistan** to conduct PhD research as Visiting PhD Research Scholar **at University of Michigan, USA.**
- **Travel Grant Awardee PKR 2,51,326/-** from **Higher Education Commission Pakistan** to present research paper in **7th International Conference on Frontiers of Information Technology, 2018** at **Paris, France.**
- **Research Grant Awardee** of **PKR 1,50,000/-** from **NESCOM** for Project titled **"Face Recognition and Authentication System (FaRAS)"** 2017-2018

- **Travel Grant Awardee PKR 2,37,253/-** from **PUNJAB Higher Education Commission Pakistan** to present research paper in **IEEE International Conference on Consumer Electronics-Asia 2016 at Seoul, Republic of Korea.**
- **Travel Grant Awardee** of **PKR 106,845/-** from **Higher Education Commission Pakistan** to present research paper in **International Conference on Software & Information Engineering 2012 at Phuket, Thailand.**
- **Research Grant Awardee** of **PKR 76,500/-** from **National ICT R&D Fund** for Project titled **"Mobile Spy Agent"** 2012-2013.
- **Research Grant Awardee** of **PKR 66,250/-** from **National ICT R&D Fund** for Project titled **"An Automated Traffic Congestion and Evasion"** 2013-2014.
- **Research Grant Awardee** of **PKR 43,750/-** from **National ICT R&D Fund** for Project titled **"Mobi Blind Signaling"** 2013-2014.
- **Research Grant Awardee** of **PKR 90,000/-** from **UET Taxila** for Project titled **"Citizen Journalist"** 2014-2015.
- **Research Grant Awardee** of **PKR 56,250/-** from **National ICT R&D Fund** for Project titled **" Sign Language Translator and Web Platform "** 2014-2015.
- **Research Grant Awardee** of **PKR 1,25,000/-** from **UET Taxila** for Project titled **"Recommender System for Mobile based discounted shopping"** 2015-2016.
- **Research Grant Awardee** of **PKR 80,000/-** from **UET Taxila** for Project titled **"A Unified Agile Testing Framework for Mobile Applications"** 2015-2016.
- **Research Grant Awardee** of **PKR 2,90,000/-** from **Directorate ASR&TD UET Taxila** for Project titled **"An Automated Framework for Advertisement and Removal from Sports Videos using Audio-Visual Cues"** 2017-2018 **(Award No. UET/ASR&TD/RG-1002-2)**
- **Research Grant Awardee** of **PKR 2,20,000/-** from **Directorate ASR&TD UET Taxila** for Project titled **"An Excitement Detection Framework for Automatic Highlights Generation of Sports Videos"** 2017-2018 **(Award No. UET/ASR&TD/RG-1002-3)**.
- **Research Grant Awardee** of **PKR 95,000/-** from **Directorate ASR&TD UET Taxila** for Project titled **"An Effective Framework for Speech and Music Segregation"** 2017-2018 **(Award No. UET/ASR&TD/RG-1002-4)**.
- **Research Grant Awardee** of **PKR 1,90,000/-** from **Directorate ASR&TD UET Taxila** for Project titled **"Egocentric Video Summarization for Alzheimer's Patients"** 2017-2018 **(Award No. UET/ASR&TD/RG-1002-5)**.
- **Research Grant Awardee** of **PKR 70,000/-** from **Ignite Research Fund** for Project titled **"Bio Smart Secure "** 2017-2018.
- **Research Grant Awardee** of **PKR 55,000/-** from **Ignite Research Fund** for Project titled **"Smart Mirror"** 2017-2018.
- **Research Grant Awardee** of **PKR 70,000/-** from **Ignite Research Fund** for Project titled **"Gymfit-Workout Scheduling and Fitness Guidance Application "** 2018-2019.
- **Research Grant Awardee** of **PKR 65,000/-** from **Ignite Research Fund** for Project titled **"Commercial Insurance App using AI"** 2018-2019.
- **Research Grant Awardee** of **PKR 69,820/-** from **Ignite Research Fund** for Project titled **"Smart Shoe-An Obstacle Detection Framework using Wearable Sensors"** 2018-2019.
- **Research Grant Awardee** of **PKR 80,000/-** from **Ignite Research Fund** for Project titled **"Financial Analysis Software for Trading"** 2019-2020.
- **Research Grant Awardee** of **PKR 25,275/-** from **Ignite Research Fund** for Project titled **"Virtual Try-On"** 2019-2020.
- **Research Grant Awardee** of **PKR 74,800/-** from **Ignite Research Fund** for Project titled **"RadBot-Realtime Replayed Audio Detection VoiceBot"** 2021-2022.

RESEARCH COLLABORATIONS

- **Dr. Bruce R. Maxim (Professor, CIS Department, University of Michigan-Dearborn, USA)**
  Projects:

A Unified Agile Testing Framework for Mobile Applications.
- **Dr. Hafiz Malik (Professor, ECE Department, University of Michigan-Dearborn, USA)**
  Projects:
  Video Summarization
  Multimedia Forensics
- **Dr. Muhammad Tariq Mahmood (Associate Professor, School of Computer Science and Engineering, Korea University of Technology and Education, Republic of Korea)**
  Projects:
  Video Summarization
  Content-based Image Retrieval
  Human Activity Recognition
- **Dr. Khalid Mahmood Malik (Associate Professor, Department of Computer Science and Engineering, Oakland University, MI, USA)**
  Projects:
  Forensics Examiner
  Clinical Decision Support System for Aneurysm Detection and Rupture Prediction
- **Dr. Waleed Albattah (Associate Professor, Department of Information Technology, Qassim University, KSA)**
  Project:
  Drone for Crop's Pest Detection and Removal using Deep Leaning techniques
- **Dr. Ameen Banjer (Assistant Professor, College of Computer Science and Engineering, University of Jeddah, KSA)**
  Project:
  Aspect-Based Sentiment Analysis
- **Dr. Saleh Mohammad (Assistant Professor, Department of Information Technology, Qassim University, KSA)**
  Projects:
  Recognition and Detection of Diabetic Retinopathy
  Handwritten character recognition

TEACHING EXPERIENCE & SUPERVISION

- **Faculty at UET Taxila**   Sep, 2007-Present
  Undergrad and Postgrad Software Engineering Courses   Taxila, Punjab
- **Visiting Faculty at Fatima Jinnah Women University**   Jan, 2013-Aug, 2013
  Final Year Project Supervision at Undergrad level   Rawalpindi, Punjab
- **Research Monitoring Committee Member at MCS, NUST**   Mar, 2013- Mar, 2014
  MS Thesis at Postgraduate level   Rawalpindi, Punjab
- **Research Monitoring Committee Member at UET Taxila**   Mar, 2017- Present
  Serving as RMC member of 3 PhD Students   Taxila, Punjab

TEACHING

- **Postgraduate Courses**
  1. Advanced Machine Learning
  2. Digital Forensics
  3. Image and Video Processing
  4. Digital Image Processing
  5. Software Verification & Validation
  6. Software Quality Assurance & Process Improvement
  7. Software System Quality
  8. Mobile Application Development

- **Undergraduate Courses**

  1. Digital Image Processing
  2. Software Quality Assurance
  3. Software Testing
  4. Software Quality Assurance & Management
  5. Software Quality Engineering
  6. Software Requirements Engineering
  7. Software Project Management
  8. Software Design and Architecture
  9. Advanced Software Technologies
  10. Introduction to Software Engineering
  11. Computer Graphics & Image Processing
  12. Software Engineering-I
  13. Machine Learning

PROFESSIONAL MEMBERSHIPS

- Member Pakistan Engineering Council- Registered Engineer
- Senior Member Institute of Electrical and Electronics Engineering (SMIEEE)
- Member Pakistan Student Association (PSA) University of Michigan-Dearborn, USA, 2015
- Member Muslims Student Association (MSA) University of Michigan-Dearborn, USA, 2015
- Lifetime Member of Asian Council of Science Editors (ACSE)
- Executive Member- Teaching Staff Association (TSA) UET Taxila, 2013-2014

PROFESSIONAL ACTIVITIES

Member HEC Accreditation/Inspection Committee since Sep 2021
Member Board of Faculty (FT&IE), UET Taxila
Member Board of Undergraduate Studies, SED, UET Taxila
Member Board of Undergraduate Studies, EED, University of Wah
Member Board of Undergraduate Studies, EED, Federal Urdu University of Arts, Science and Technology
Member Board of Undergraduate Studies, SED, Balochistan University of Information Technology, Engineering and Management Sciences
Member Industry Advisory Board (IAB) for Software Engineering Department, UET Taxila
Member Industry Advisory Board (IAB) for Computer Science Department, COMSATS, Wah.
Technical Program Committee Membership
  - International Conference on Frontiers of Information Technology (FIT) **2016, 2017, 2022**
  - International Conference on Software Engineering and Applications (SEA) **2015**
  - IEEE EMBS International Conference on Biomedical and Health Informatics (BHI) **2021, 2022**
Technical Reviewer (Selected Nominations)
  - IEEE Transactions on Circuits Systems and Video Technology
  - IEEE Transactions on Audio Speech and Language Processing
  - IEEE Transactions on Artificial Intelligence
  - International Journal of Computer Vision
  - IEEE Signal Processing Letters
  - International Journal of Experimental and Theoretical Artificial Intelligence
  - International Journal of Medical Imaging and Health Informatics
  - Journal of Ambient Intelligence and Humanized Computing
  - Microscopy Research and Technique
  - Informatics in Medicine Unlocked
  - IEEE Access
  - Multimedia Systems
  - Mobile Information Systems

INVITED TALKS

Is seeing still believing? Deepfakes, a tool for disinformation
- 19th International Conference on Frontiers of Information Technology, Comptech, Islamabad, 12-13 Dec, 2022.

Deepfakes: state-of-the-art open challenges, countermeasures, and a way forward
- 16th International Conference on Open-Source Systems and Technologies, UET Lahore, 14-15 Dec, 2022.

Workshop on Digital Image Processing
- Women in IEEE Engineering AG of IEEE SB UET Taxila at EED UET Taxila, Nov 2015

Speech Deepfakes Detection
- CPD Activity at NUML Rawalpindi, May 2023

Workshop on Multimedia Forensics
- 20th IBCAST, 2023, Bhurban, Murree

Multimedia Forensics Analyzer- AI tool to combat disinformation in Cyberspace
- 20th IBCAST, 2023, Bhurban, Murree

PUBLICATIONS

Research Statistics
- **Cumulative Impact Factor- 261.807**
- **Citations – 2434**
- **I10-Index - 55**
- **H-Index - 27**
- **Reference - http://scholar.google.com.pk/citations?user=057gJdYAAAAJ**

Selected Journal Publications

1. Noor Ul Huda, **Ali Javed**, et al. "Fake-Checker: A Fusion of Texture features and Deep Learning for Deepfakes Detection", Multimedia Tools and Applications, Accepted in Press, (**SCI, IF: 3.6**).
2. Tanees Riaz, **Ali Javed**, et al. "Shuffle SwishNet-181: COVID-19 Diagnostic Framework using ECG Images", Multimedia Tools and Applications, Accepted in Press, (**SCI, IF: 3.6**).
3. Iram Abdullah, **Ali Javed**, Khalid Mahmood Malik, Ghaus Malik, "DeepInfusion: A Dynamic Infusion based-Neuro-Symbolic AI Model for Segmentation of Intracranial Aneurysms", Neurocomputing, 2023, (**SCI, IF: 5.779**)
4. Naeem Ullah, **Ali Javed**, Ali Alhazmi, Syed M. Hasnain, Ali Tahir, Rehan Ashraf, "TumorDetNet: A unified deep learning model for brain tumor detection and classification", PLOS ONE, Sep 2023, (**SCI, IF: 3.7**)
5. Marriam Nawaz, Tahira Nazir, **Ali Javed**, Sherif Tawfik Amin, Fathe Jeribi, Ali Tahir, "CoffeeNet: A deep learning approach for coffee plant leaves diseases recognition", Expert Systems with Applications, 2023, (**SCI, IF: 8.665**)
6. Marriam Nawaz, **Ali Javed**, Aun Irtaza, "Convolutional long short-term memory-based approach for deepfakes detection from videos", Multimedia Tools and Applications, July 2023, (**SCI, IF: 3.6**)
7. Yahya Alqahtani, Marriam Nawaz, Tahira Nazir, **Ali Javed**, et al., "*An improved deep learning approach for localization and Recognition of plant leaf diseases.*", Expert Systems with Applications, Vol 230, 120717, Nov 2023 (**SCI, IF: 8.665**)
8. Fatima Khalid, **Ali Javed**, Quratulain, Hafsa Ilyas, Aun Irtaza, "DFGNN: An Interpretable and Generalized graph neural network for deepfakes detection.", Expert Systems with Applications, Vol 222, 119843, July 2023 (**SCI, IF: 8.665**)
9. Momina Masood, Marriam Nawaz, Tahira Nazir, **Ali Javed**, et al., MaizeNet: A deep learning approach for effective recognition of maize plant disease, IEEE Access, May 2023. (**SCI, IF: 3.476**)
10. Hafsa Ilyas, **Ali Javed**, Khalid Malik, Aun Irtaza, E-Cap Net: An Efficient-Capsule Network for Shallow and Deepfakes Forgery Detection, Multimedia Systems, May 2023. (**SCI, IF: 2.603**)

11. Hafsa Ilyas, Ali Javed, Khalid Malik,AVFakeNet: A unified end-to-end Dense Swin Transformer deep learning model for audio-visual deepfakes detection, Applied Soft Computing, Feb 2023. **(SCI, IF: 8.263)**

12. Tahira Nazir, Marriam Nawaz, Momina Masood, Ali Javed, Copy Move Forgery Detection and Segmentation using improved Mask region-based convolution network (RCNN), Applied Soft Computing, Vol 131, Dec, 2022. (**SCI, IF: 8.263**)

13. Marriam Nawaz, **Ali Javed**, Aun Irtaza, ResNet-Swish-Dense54: a deep learning approach for deepfakes detection, The Visual Computer Journal, Dec 2022. (**SCI, IF: 2.835**)

14. Marriam Nawaz, Momina Masood **Ali Javed**, Tahira Nazir, FaceSwap based DeepFakes Detection, International Arab Journal of Information Technology, Vol. 19, No. 6, November 2022. (**SCI, IF: 0.724**)

15. Marriam Nawaz, Tahira Nazir, Ali Javed, et al. "Efficient-ECGNet Framework for COVID-19 Classification and Correlation Prediction with the Cardio Disease through ECG Medical Imaging", Frontiers in Medicine, Accepted in Press. (**SCI, IF: 5.058**)

16. Marriam Nawaz, Tahira Nazir, **Ali Javed**, Momina Masood, et al., "A Robust Deep Learning Approach for Tomato Plant Leaf Disease Localization and Classification", Scientific Reports, 12(1), 1-18, 2022. (**SCI, IF: 4.996**)

17. Momina Masood, Rabbia Mahum, **Ali Javed**, et al., "Brain MRI analysis using deep neural network for medical of internet things applications", Computers and Electrical Engineering, Sep, 2022 (**SCI, IF: 4.152**)

18. Waleed Albattah, Momina Masood, **Ali Javed**, Marriam Nawaz, Saleh Albahli, "Custom CornerNet: a drone-based improved deep learning technique for large-scale multiclass pest localization and classification", Complex & Intelligent Systems, 5 Aug, 2022 (**SCI, IF: 6.7**)

19. Tarim Dar**, Ali Javed** et al., "Efficient-SwishNet based System for Facial Emotion Recognition", IEEE Access, July 2022 (**SCI, IF: 3.476**)

20. Umer Ali Khan, **Ali Javed**, "A Hybrid CBIR System using Novel Local Tetra Angle Patterns and Color Moment Features", Journal of King Saud University: Computer and Information Sciences, July 2022 (**SCI, IF: 8.839**)

21. Momina Masood, Marriam Nawaz, Khalid Mahmood Malik, **Ali Javed**, Aun Irtaza, Hafiz Malik, "Deepfakes Generation and Detection: State-of-the-art, open challenges, countermeasures, and way forward", Applied Intelligence, June 2022 **(SCI, IF:5.019)**

22. Waleed Albattah, **Ali Javed**, Marriam Nawaz, Momina Masood, Saleh Albahli, "AI-based Drone System for Multiclass Plant Disease Detection using an improved Efficient Convolutional Neural Networks", Frontiers in Plant Sciences, June 2022 (**SCI, IF: 5.753**)

23. Farman Hassan, Saleh Albahli, **Ali Javed**, Aun Irtaza "A Robust Framework for Epidemic Analysis, Prediction and detection of COVID-19", Frontiers in Public Health, May 2022 (**SCI, IF: 6.461**)

24. Ameen Banjar, Hussain Dawood, Ali Javed, Farman Hassan, "Fall Event Detection using the Acoustic-Adaptive Local Ternary Patterns and BiLSTM", Applied Acoustics Journal, Volume 192, April 2022, 108725, (**SCI, IF: 3.614**)

25. **Ali Javed**, Khalid Mahmood Malik, Hafiz Malik, Aun Irtaza, "Voice Authenticator: A Unified Antispoofing Framework for Voice Controlled Systems", Expert Systems with Applications, Vol 198, July 2022 (**SCI, IF: 8.665**)

26. Awais Khan**, Ali Javed**, Khalid Mahmood Malik, et al., "Towards Realigning Automatic Speaker Verification in the Era of COVID-19", Sensors, 22(7), 2638 (**SCI, IF: 3.847**)

27. Hussain Dawood**, Sajid Saleem, Farman Hassan, **Ali Javed**, "A Robust Voice Spoofing Detection System using Novel CLS-LBP Features and LSTM", Journal of King Saud University: Computer and Information Sciences, 22 March 2022 (**SCI, IF: 8.839**)

28. Tahira Nazir, Marriam Nawaz, Ali Javed, et al. "COVID-DAI: A Novel Framework for COVID-19 Detection and Infection Growth Estimation using CT images", Microscopy Research and Techniques, 23 Feb, 2022 (**SCI, IF: 2.769**)

29. Saleh Albahli, Farman Hassan, Ali Javed, Aun Irtaza "Pandemic Analysis and Prediction of COVID-19 Using Gaussian Doubling Times", Computers Materials & Continua, Vol 72, No 1, 24 Feb, 2022 (**SCI, IF: 3.860**)

30. Rubab Mehboob**, Ali Javed**, Hassan Dawood, Hussain Dawood, "Histogram of Low-level Visual Features for Salient Feature Extraction", Arabian Journal for Science and Engineering, March 2022 (**SCI, IF: 2.807**)

31. NaeemUllah, **Ali Javed**, et al., "A Novel DeepMaskNet Model for Face Mask Detection and Masked Facial Recognition", Journal of King Saud University: Computer and Information Sciences, 25 January 2022 (**SCI, IF: 8.839**)

32. Marriam Nawaz, Tahira Nazir, Ali Javed, et al., "An Efficient Deep learning approach to automatic Glaucoma detection using Optic Disc and Optic Cup localization", Sensors, 22, 434, 7 Jan, 2022 (**SCI, IF: 3.847**)

33. Tuba Arif**, Ali Javed**, et al., "Voice Spoofing Countermeasure for Logical Access Attacks Detection", IEEE Access, Vol 9, 2021, pp. 162857 – 162868 (**SCI, IF: 3.476**)

34. Ayesha Khan**, Ali Javed**, Muhammad Tariq Mahmood, Muhammad Hamza, IK Hyun Lee, "Directional Magnitude Local Hexadecimal Patterns: A Novel Texture Feature Descriptor for Content-based Image Retrieval", IEEE Access, Vol 9, 2021, pp. 135608-135629 (**SCI, IF: 3.476**)

35. Waleed Albattah, Marriam Nawaz, **Ali Javed**, Momina Masood, Saleh Albahli, "A Novel Deep Learning Method for Detection and Classification of Plant Diseases", Complex & Intelligent Systems, 1317, 28 Sep, 2021 (**SCI, IF: 6.7**)

36. **Ali Javed**, Khalid Mahmood Malik, Hafiz Malik, Aun Irtaza, "Towards Protecting Cyber-physical and IoT Systems from Single- and Multi-order Voice Spoofing Attacks", Applied Acoustics, Vol 183, December 2021 (**SCI, IF: 3.614**)

37. Awais Khan, **Ali Javed**, Aun Irtaza and Muhammad Tariq Mahmood,"A Robust Approach for blur and sharp regions detection using Multi Sequential Deviated Patterns", International Journal of Optics, Volume 2021 (**SCI, IF: 1.072**)

38. Samina Bilquees, Hassan Dawood, Hussain Dawood, Nadeem Majeed, **Ali Javed**, and Muhammad Tariq Mahmood,"Noise Resilient Local Gradient Orientation for Content Based Image Retrieval", International Journal of Optics, Vol 2021 (**SCI, IF: 1.072**)

39. Marriam Nawaz, Momina Masood, **Ali Javed**, Javed Iqbal, Tahira Nazir, Awais Mehmood, Rehan Ashraf, "Melanoma Localization and Classification through Faster Region-Based Convolutional Neural Network and SVM", Multimedia Tools and Applications, June 2021 **(SCI, IF: 2.757)**

40. Muteb Aljasem, Aun Irtaza, Hafiz Malik, Noureen, **Ali Javed**, Khalid Mahmood Malik, "Secure Automatic Speaker Verification (SASV) System through sm-ALTP Features and Asymmetric Bagging", IEEE Transactions on Information Forensics and Security, 21 May 2021 (**SCI, IF: 7.178**)

41. **Ali Javed**, Amen Ali Khan, "Shot Classification and Replay Detection for Sports Video Summarization", Frontiers of Information Technology and Electronic Engineering, May 2021 **(SCI, IF: 2.161)**

42. Umer Ali Khan, **Ali Javed**, Rehan Ashraf, "An Effective Hybrid Framework for Content Based Image Retrieval (CBIR)", Multimedia Tools and Applications, May 2021 **(SCI, IF: 2.757)**

43. Saleh Albahli, Marriam Nawaz, **Ali Javed**, Aun Irtaza, "An improved faster-RCNN model for handwritten character recognition", Arabian Journal for Science and Engineering, Vol. 91, Mar 2021 **(SCI, IF: 2.334)**

44. Saleh Albahli, Tahira Nazir, Aun Irtaza, **Ali Javed**, "Recognition and Detection of Diabetic Retinopathy Using Densenet-65 Based Faster-RCNN", Computers, Materials & Continua, Vol. 67, No. 2, pp. 1333-1351, Feb 2021(**SCI, IF:3.772**)

45. Momina Masood, Tahira Nazir, Marriam Nawaz, **Ali Javed**, et al., "Brain Tumor Localization and segmentation using Mask RCNN", Frontiers of Computer Science, Sep 2020 **(SCI, IF: 2.061)**

46. Tahira Nazir, Aun Irtaza, **Ali Javed**, Hafiz Malik et al. "Retinal Image Analysis for Diabetes-based Eye Disease Detection using Deep Learning", Applied Sciences, 10(8), 6135, Sep 2020 **(SCI, IF: 2.679)**

47. Roland Baumann, Khalid Mahmood Malik, **Ali Javed**, Hafiz Malik, Andersen Ball, Brandon Kujawa, "Voice Spoofing Detection Corpus for Single and Multi-order Audio Replays", Computer Speech and Language, July 2020 (**SCI, IF: 1.899**)

48. Khalid Mahmood Malik, **Ali Javed**, Hafiz Malik, Aun Irtaza, "A Light-weight Replay Detection Framework for Voice Controlled IoT Devices", IEEE Journal of Selected Topics in Signal Processing, 14(5), pp. 982-996, August 2020. (**SCI, IF: 6.688**)

49. Awais Khan, Aun Irtaza, **Ali Javed**, et al. "Defocus Blur Detection using novel Local Directional Mean Patterns (LDMP) and segmentation via KNN Matting" Frontiers of Computer Science, May 2020 **(SCI, IF: 1.275)**

50. **Ali Javed**, Khalid Mahmood Malik, Aun Irtaza, Hafiz Malik, "A Decision Tree Framework for Shot Classification of Field Sports Videos", The Journal of Supercomputing, Vol. 76, No. 9, pp. 7242-7267, 2020 (**SCI, IF: 2.469**)

51. Abeer Toheed, **Ali Javed**, et al. "An Automated Framework for Advertisement Detection and Removal from Sports Videos using Audio-Visual Cues" Frontiers of Computer Science, January 2020 **(SCI, IF: 1.275)**

52. Syeda Rida Fatima, **Ali Javed,** et al., "A Multi-Layer Dual Attention Deep Learning Model with Refined Word Embeddings for Aspect-Based Sentiment Analysis", IEEE Access, Vol. 7, 22 August 2019, pp. 114795–114807 **(SCI, IF:3.745)**.

53. Sidra Sajid, **Ali Javed**, Aun Irtaza, "An Effective Framework for Speech and Music Segregation" International Arab Journal of Information Technology, Vol. 17, No. 04, pp. 507-514, July 2020 **(SCI, IF: 0.467)**

54. Tahira Nazir, Aun Irtaza, Zain Shabbir, **Ali Javed** et al. "Diabetic Retinopathy Detection through Novel Tetragonal Local Octa Patterns and Extreme Learning Machines", Artificial Intelligence in Medicine, Vol. 99, August 2019 **(SCI, IF:4.383)**.

55. Saba Sultan, **Ali Javed**, et al. "A Hybrid Egocentric Video Summarization Method to Improve the Healthcare for Alzheimer Patients", Journal of Ambient Intelligence and Humanized Computing, 10 Sept, 2019, pp 1-10. (**SCI, IF: 4.594).**

56. M. Ehtisham-ul-Haq, **Ali Javed**, et al., "Robust Human Activity Recognition using Multimodal Feature-Level Fusion", IEEE Access, Vol. 7, 29 April 2019, pp. 60736 – 60751 **(SCI, IF:4.098)**.

57. Zain Shabbir, Aun Irtaza, **Ali Javed**, M. Tariq Mahmood, "Tetragonal Local Octa-Pattern (T-LOP) based image retrieval using genetically optimized support vector machines" Multimedia Tools and Applications, 7 May 2019, pp. 1-22 **(SCI, IF:2.101)**.

58. **Ali Javed**, Aun Irtaza, Yasmeen Khaliq, Hafiz Malik, Muhammad T. Mahmood, "Replay and Key-Events Detection for Sports Video Summarization using Confined Elliptical Local Ternary Patterns and Extreme Learning Machine, Applied Intelligence, 12 Feb 2019, pp. 1-19 **(SCI, IF:2.882)**.

59. Nudrat Nida, Aun Irtaza, **Ali Javed**, M. Haroon Yousaf, M. Tariq Mahmood, "Melanoma Lesion Detection and Segmentation using Deep Region based Convolutional Neural Network and Fuzzy C-Means Clustering, International Journal of Medical Informatics, Vol. 124, 2019, pp. 37-48. **(SCI, IF:2.731)**.

60. Rabia A. Minhas, **Ali Javed**, Aun Irtaza, Muhammad Tariq Mahmood and Young Bok Joo, "Shot Classification of Field Sports Videos Using AlexNet Convolutional Neural Network", Applied Sciences, Vol. 9, No. 3, January 2019. **(SCI, IF:2.217)**.

61. Humaira A. Ghafoor, **Ali Javed**, Aun Irtaza, Hassan Dawood, Hussain Dawood, and Ameen Banjar, "Egocentric Video Summarization Based on People Interaction Using Deep Learning", 29 Nov, 2018. **(SCI, IF:1.179)**.

62. **Ali Javed**, Aun Irtaza, Hafiz Malik, M. Tariq Mahmood, Syed Adnan, "Multimodal Framework based on Audio-Visual Features for Summarization of Cricket Videos" IET Image Processing, 16 Jan, 2019 **(SCI, IF: 2.004)**

63. Syed Adnan, Aun Irtaza, Sumair Aziz, M. Obaidullah, **Ali Javed**, M. Tariq Mahmood, Fall Detection through Acoustic Local Ternary patterns", Applied Acoustics, Vol. 140, pp. 296-300 **(SCI, IF: 2.29)**

64. Aun Irtaza, Tehseen Ahmad, Arfan Jaffar, Ahmad Khan, Ali Javed, M. Tariq Mahmood, "An Ensemble Based Evolutionary Approach to Class Imbalance Problem with Applications in CBIR" Applied Sciences, Vol. 08, No. 04, March 2018. **(SCI, IF: 1.68)**

65. **Ali Javed**, Khalid Bashir Bajwa, Hafiz Malik, Aun Irtaza, "An Efficient Framework for Automatic Highlights Generation from Sports Videos", IEEE Signal Processing Letters, Vol. 23, No. 07, July, 2016. (**SCI, IF: 2.5**)

Selected Conference Proceedings

66. Hafsa Ilyas, **Ali Javed**, Muteb Aljasem, Mustafa Alhababi "Fused Swish-ReLU Efficient-Net Model for Deepfakes Detection", 9th International Conference on Automation, Robotics and Applications (ICARA), 10-12 Feb 2023, Abu Dhabi, UAE.

67. Hafsa Ilyas, **Ali Javed**, Khalid Malik, Aun Irtaza "Deepfakes Examiner: An End-to-End Deep Learning Model for Deepfakes Videos Detection", 16th IEEE International Conference on Open-Source Systems and Technologies (ICOSST), 14-15 December 2022.

68. Zarish Anwar, **Ali Javed**, Khalid Malik, "AEXANet: An End-to-End Deep Learning based Voice Anti-spoofing System", AI4MFDD workshop on International Conference on Pattern Recognition, August 2022, Montreal Canada.

69. Marriam Nawaz, Tahira Nazir, **Ali Javed**, Momina Masood and Hussain Dawood, "Melanoma moles detection and classification using CornerNet model", International Conference on Logistics (ICL), 2022, Jeddah, Saudi Arabia.

70. Muhammad Umer, **Ali Javed** and Hussain Dawood, "EnhancedNet deep learning model for plant disease classification", International Conference on Logistics (ICL), 2022, Jeddah, Saudi Arabia.
71. Qurat-ul-Ain, **Ali Javed**, Khalid Malik, "Face-Swap Deepfakes Detection using Novel Multi-directional Hexadecimal Feature Descriptor", IBCAST, September 2022, Bhurban Murree.
72. Baber Younis, **Ali Javed**, Farman Hassan, "Fall Detection System Using Novel Median Deviated Ternary Patterns and SVM", 2021 4th International Symposium on Advanced Electrical and Communication Technologies (ISAECT), Khobar, Saudi Arabia, 6-8 December 2021, Virtual Conference.
73. Yousra Zafar, **Ali Javed**, Khalid Mahmood Malik, Jeremy Santamaria, Ghous Malik, "A Diagnostic System for Intracranial Saccular and Fusiform Brain Aneurysm with Location Detection", IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI), 27-30 July 2021, Virtual Conference.
74. Muhammad Umer Farooq, **Ali Javed**, Khalid Mahmood Malik, Anas Raza, "A Lightweight and Interpretable Deepfakes Detection Framework", International Conference on Advanced Engineering, Technology and Applications (ICAETA), 9-11 July 2021, Istanbul, Turkey.
75. Farman Hassan, **Ali Javed**, "Voice Spoofing Countermeasure for Synthetic Speech Detection", 2021 International Conference on Artificial Intelligence (ICAI), 5-7 April 2021, Islamabad, Pakistan.
76. Tahira Nazir, Aun Irtaza, **Ali Javed**, Hafiz Malik, Awais Awan, Marriam Nawaz, "Digital Image Forensic Analysis using Hybrid Features", 2021 International Conference on Artificial Intelligence (ICAI), 5-7 April 2021, Islamabad, Pakistan.
77. Momina Masood, Marriam Nawaz, Tahira Nazir, **Ali Javed**, Awais Awan, Rabiya Mahum, "Classification of Deepfake videos using pre-trained convolutional neural networks", 2021 International Conference on Digital Futures and Transformative Technologies (ICoDT2), 20-21 May 2021, Islamabad, Pakistan.
78. Fatima Zohra, **Ali Javed**, Hussain Dawood, "Survival Rate Prediction Model of Cardiovascular Disease Patients by Quantifying the Risk Profile using SVM", IEEE International Conference on Computer and Information Sciences (ICCIS), 13-15 Oct, 2020.
79. Tahira Nazir, Aun Irtaza, **Ali Javed**, et al., "Diabetic Retinopathy Detection based on Hybrid Feature Extraction and SVM", 13th IEEE International Conference on Mathematics, Actuarial, Computer Science and Statistics, 14-15 Dec, 2019.
80. Faiza Rashid, Aun Irtaza, Nudrat Nida, **Ali Javed**, Hafiz Malik, Khalid Mahmood Malik, "Segmenting melanoma Lesion using Single Shot Detector (SSD) and Level Set Segmentation Technique", 13th IEEE International Conference on Mathematics, Actuarial, Computer Science and Statistics, 14-15 Dec, 2019.
81. Rabia Afzal Minhas, and **Ali Javed**. "X-EYE: A Bio-smart Secure Navigation Framework for Visually Impaired People." In *2018 International Conference on Signal Processing and Information Security (ICSPIS)*, pp. 1-4. IEEE, 2018.
82. Muhammad Haseeb Nasir, **Ali Javed**, Aun Irtaza, Hafiz Malik, Muhammad Tariq Mahmood, "Event Driven Video Summarization of Cricket", 7th International Conference on Frontiers of Information Technology, Paris, France, 14-16 April, 2018.
83. Aun Irtaza, Syed Adnan, Sumair Aziz, **Ali Javed**, Obaid Ullah, Muhammad Tariq Mahmood, "A Framework for Fall Detection of Elderly People by Analyzing Environmental Sounds through Acoustic Local Ternary Patterns", IEEE International Conference on Systems, Man, and Cybernetics, Banff, Canada, 5-8 Oct, 2017.
84. **Ali Javed**, Khalid Bashir Bajwa, Hafiz Malik, Aun Irtaza, "An Efficient Framework for Automatic Highlights Generation from Sports Videos", presented in IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), NewOrleans, USA, March 5-9, 2017.
85. **Ali Javed**, K.B. Bajwa, Hafiz Malik, Aun Irtaza, M. T. Mahmood, "A Hybrid Approach for Summarization of Cricket Videos", IEEE International Conference on Consumer Electronics-Asia, Seoul, Korea, 26-28 Oct, 2016.
86. Samina Jan, **Ali Javed,** Muhammad Nadeem Majeed, "Quality Category Matrix to ensure the quality of Software Products" International Conference on Software and Information Engineering, Phuket, Thailand May 2012

Book Chapters

87. Mahum, R., Irtaza, A., Javed, A. (2023). Text to Speech Synthesis Using Deep Learning. In: Parah, S.A., Hurrah, N.N., Khan, E. (eds) Intelligent Multimedia Signal Processing for Smart Ecosystems. Springer, Cham. https://doi.org/10.1007/978-3-031-34873-0_12

88. Riaz, T., Dar, T., Ilyaas, H., **Javed, A.** (2022). An Inception-ResNetV2 Based Deep Learning Model for COVID-19 Detection. In: Ullah, A., Anwar, S., Rocha, Á., Gill, S. (eds) Proceedings of International Conference on Information Technology and Applications. Lecture Notes in Networks and Systems, vol 350. Springer, Singapore. https://doi.org/10.1007/978-981-16-7618-5_19

89. Fatima Khalid, **Ali Javed**, Aun Irtaza, Khalid Malik, "Deepfakes Catcher: A Novel Fused Truncated DenseNet Model for Deepfakes Detection", In: Anwar, S., Ullah, A., Rocha, Á., Sousa, M. (eds) Proceedings of International Conference on Information Technology and Applications (ICITA) 20-22 Oct, 2022, Lisbon, Portugal. Lecture Notes in Networks and Systems, vol 614. Springer, Singapore. https://doi.org/10.1007/978-981-19-9331-2

90. Tarim Dar, Ali Javed, "DarkSiL Detector for Facial Emotion Recognition", In: Anwar, S., Ullah, A., Rocha, Á., Sousa, M. (eds) Proceedings of International Conference on Information Technology and Applications (ICITA) 20-22 Oct, 2022, Lisbon, Portugal. Lecture Notes in Networks and Systems, vol 614. Springer, Singapore. https://doi.org/10.1007/978-981-19-9331-2

ADVISING ACTIVITY

PhD Thesis Supervision
Students Graduated: **02**
1. **Umar Ali Khan, Fall 2022 (Currently Assistant Professor at Gordon College, Rawalpindi, Pakistan)**
2. **Mariam Nawaz, Spring 2023 (Currently Lecturer at UET Taxila, Pakistan)**

Students currently enrolled: **5**

3. **Iram Abdullah, Fall 2023 (Currently Lecturer at NUTECH University, Pakistan)**
4. **Momina Masood, Fall 2023 (Currently Programmer at UET Taxila, Pakistan)**
5. **Qurat-ul-ain, Fall 2024 (Currently Research Assistant at MSP Lab, SED, UET Taxila, Pakistan)**
6. **M. Khateeb Khan, Fall 2025 (Currently Lecturer at Iqra University, Pakistan)**
7. **Hafsa Ilyas, Fall 2026 (Currently Research Assistant at MSP Lab, SED, UET Taxila, Pakistan)**

MS Thesis Supervision
Students Graduated: **56**

1. **Sidra Islam, MS Software Engineering, UET Taxila, Fall, 2011 (Faculty at HITECH University-Taxila)**
   Thesis: "An Intelligent Event Detection and Alarm Based Surveillance Algorithm for Video Summarization"
2. **Rabeea Islam, MS Software Engineering, UET Taxila, Fall, 2012**
   Thesis: "An Intelligent Alarm and messaging based Surveillance system for Fall Detection and Absence Recognition of Unaccompanied Child"
3. **Samina Jan, MS Software Engineering, UET Taxila, Fall, 2012**
   Thesis: "A customized approach of process improvements in Agile blend with CMMI Practices in Pakistan"
4. **Muazzam Maqsood, MS Software Engineering, UET Taxila, Spring, 2013 (Currently Faculty at COMSATS Attock, Pakistan)**
   Thesis: "A Layered approach for Railway Track Detection and stacking using satellite imagery"
5. **Arta Iftikhar, MS Software Engineering, UET Taxila, Spring, 2013 (Currently Faculty at UET Taxila, Pakistan)**
   Thesis: "Video Analytic Algorithm for Automatic Vehicle Classification"
6. **Aziz-ur-Rehman, MS Software Engineering, UET Taxila, Spring, 2013 (Currently at NETSOL Lahore, Pakistan)**
   Thesis: "Location Aware Application using Targeted Approach"
7. **Sadaf Naheed, MS Software Engineering, UET Taxila, Spring, 2013 (Currently at MoD, Islamabad, Pakistan)**
   Thesis: "Human Identification on the basis of gaits"
8. **Wajeeha batool, MS Software Engineering, UET Taxila, Fall, 2013 (Currently Faculty at UET Taxila, Pakistan)**

Thesis: "Face Recognition based Video Skimming Algorithm for Theft Prevention"

9. **Zeeshan Aslam, MS Software Engineering, UET Taxila, Fall, 2013 (Currently at WAPDA, Islamabad, Pakistan)**
   Thesis: "An Intelligent Alarm based Visual Eye Tracker for Preventing cheating in exams"

10. **Syed Khurram Shah, MS Software Engineering, UET Taxila, Fall, 2013 (Currently at Ufone, Islamabad, Pakistan)**
    Thesis: "Architecture for ensuring high availability of threads-based Grid"

11. **Azhar-ud-din, MS Software Engineering, UET Taxila, Fall, 2013 (Currently at IT Org. in Canada)**
    Thesis: "Real Time Billing and Failover in AAA (Authentication, Authorization and Accounting)"

12. **Saima Nazir, MS Software Engineering, UET Taxila, Spring, 2014 (Currently Faculty at FJWU, Islamabad, Pakistan)**
    Thesis: "Urdu Optical Character Recognition System"

13. **Faiza Ayub Syed, MS Software Engineering, UET Taxila, Spring, 2014 (Currently Faculty at GIFT University, Pakistan)**
    Thesis: "Vehicle Make and Model Recognition System"

14. **Adeel Rafeeq, MS Software Engineering, UET Taxila, Spring, 2014 (Currently PhD Scholar at Jeju National University, South Korea)**
    Thesis: "Automatic Detection and Recognition of Traffic Sign Board under Adverse Condition"

15. **Uzair Iqbal, MS Software Engineering, UET Taxila, Spring, 2015 (Currently Faculty at NUML, Islamabad, Pakistan)**
    Thesis: "R-SCRUM: Introduction of Model driven Architecture (MDA) in agile method"

16. **Saym Pervaiz, MS Software Engineering, UET Taxila, Spring, 2015 (Currently Assistant Director at Higher Education Commission Islamabad, Pakistan)**
    Thesis: "Development procedures for Inventory Management with Financial Accounting System"

17. **Arash Korrani, MS Software Engineering, UET Taxila, Fall, 2015 (Currently Software Consultant at Qatar)**
    Thesis: "Implementing HL7 V3 Standard using Windows Phone with Client Server Cache Architecture"

18. **M Kamran, MS Software Engineering, UET Taxila, Fall, 2015 (Currently Faculty at COMSATS Attock, Pakistan)**
    Thesis: "An Intelligent Medical Recommender System"

19. **Salman Khan, MS Software Engineering, UET Taxila, Fall, 2015 (Currently Faculty at UST, Bannu, Pakistan)**
    Thesis: "Overcoming the Energy Efficiency Issues in Mobile Cloud Computing"

20. **M Jabbar, MS Software Engineering, UET Taxila, Fall,2015 (Currently Faculty at University of Gujrat, Pakistan)**
    Thesis: "An Intelligent Book Recommender System for mobile platform"

21. **Haseeb Nasir, MS Software Engineering, UET Taxila, Spring, 2016 (Currently Faculty at UMT, Sialkot, Pakistan)**
    Thesis: "Text Caption based Video Skimming Algorithm for Cricket"

22. **Samia Ishtiaq, MS Software Engineering, UET Taxila, Spring, 2016**
    Thesis: "Recommender System for Mobile based discounted shopping"

23. **Iram Abdullah, MS Software Engineering, UET Taxila, Spring, 2016 (Currently faculty at HiTech University, Taxila, Pakistan)**
    Thesis: "Action Recognition Via Human Pose Estimation"

24. **Hikmat-ullah Khan, MS Software Engineering, UET Taxila, Spring, 2016**
    Thesis: "E-Filing System for Government Offices"

25. **Shamayla Shahzadi, MS Software Engineering, UET Taxila, Fall, 2016 (Currently at Intelligensia Software House, Islamabad, Pakistan)**
    Thesis: "A Unified Agile Testing Framework for Mobile Applications"

26. **Zia-ur-Rehman, MS Software Engineering, UET Taxila, Fall, 2016 (Currently faculty at UST-Bannu, Pakistan)**
    Thesis: "Middleware Application for Alerting Forest Fires using Wireless Sensor Network"

27. **Fatimah Danish Ali, MS Software Engineering, UET Taxila, Fall, 2016 (Currently faculty at APCOMS, Pakistan)**

Thesis: "Robust Real-Time Video Streaming Analysis Algorithm for Situation Awareness through Hand Gestures"

28. **Saba Awan, MS Software Engineering, UET Taxila, Spring, 2017 (Currently faculty at UET Taxila, Pakistan)**
    Thesis: "Mining Road Accident Data to Profile Certain Accident Types in order to Improve Road Safety"

29. **Abeer Toheed, MS Software Engineering, UET Taxila, Spring, 2018 (Currently faculty at APCOMS, Pakistan)**
    Thesis: "An Automated for Advertisement Detection and Removal from Sports Videos using Audio-visual cues"

30. **Sidra Sajid, MS Software Engineering, UET Taxila, Spring, 2018 (Currently working as IT Officer in District Hospital Kalarsayedan, Pakistan)**
    Thesis: "An Effective Framework for Speech and Music Segregation"

31. **Bushra Zeb, MS Software Engineering, UET Taxila, Spring, 2018 (Free Lancer)**
    Thesis: "An Excitement Detection Framework for Automatic Highlights Generation of Sports Videos"

32. **Amen Ali, MS Software Engineering, UET Taxila, Fall, 2018. (Captain in Pak Army)**
    Thesis: "A Generic method to detect slow motion replays in Sports Videos"

33. **Humaira Abdul Ghafoor, MS Software Engineering, UET Taxila, Fall, 2018**
    Thesis: "Egocentric Video Summarization based on People Interaction"

34. **Rabia Afzal Minhas, MS Software Engineering, UET Taxila, Fall, 2018 (Currently Faculty at Capital University of Science and Technology, Islamabad)**
    Thesis: "Shot Classification in Sports Videos"

35. **Syeda Rida Fatima, MS Software Engineering, UET Taxila, Fall, 2019 (Free Lancer)**
    Thesis: "A Multi-Layer Dual Attention Deep Learning Model with Refined Word Embeddings for Aspect-Based Sentiment Analysis"

36. **Fatima Zohra, MS Software Engineering, UET Taxila, Spring, 2020 (Captain in Pak Army)**
    Thesis: "Survivability Level Prediction of Cardio-Vascular Disease (CVD) Patients by Quantifying the Risk Profile"

37. **Tanzeel Rehman, MS Software Engineering, UET Taxila, Spring, 2020 (Captain in Pak Army)**
    Thesis: "An Effective Framework for Fatigue Detection"

38. **Farman Ali Khan, MS Software Engineering, UET Taxila, Feb, 2021**
    Thesis: "A Hybrid Voice Anti-spoofing Framework"

39. **Muhammad Umer Farooq, MS Software Engineering, UET Taxila, Fall, 2020 (Freelancer)**
    Thesis: "Deepfakes Detection using Audio-visual Cues"

40. **Tuba Arif, MS Software Engineering, UET Taxila, Mar, 2021 (Currently working at I-Engineering PVT LTD,)**
    Thesis: "Spoofing Countermeasure for Logical Access Attacks"

41. **Ayesha, MS Software Engineering, UET Taxila, Feb, 2021**
    Thesis: "A Novel Texture Descriptor for Image Retrieval"

42. **Yousra Zafar, MS Software Engineering, UET Taxila, Dec, 2021 (Currently working at PoF)**
    Thesis: "Intracranial Aneurysm Detection System"

43. **Yusra Banaras, MS Software Engineering, UET Taxila, Feb, 2021**
    Thesis: "Speaker Verification System for ASV systems"

44. **Awais Khan, MS Computer Science, UET Taxila, Feb, 2021-Co-Supervision (PhD Scholar at Oakland University, USA)**
    Thesis: "De-Focus Image Blur Detection"

45. **Baber Younis, MS Software Engineering, UET Taxila, Mar, 2022**
    Thesis: "Fall Detection using Acoustic Local features"

46. **NaeemUllah, MS Software Engineering, UET Taxila, Mar, 2022**
    Thesis: "A Hybrid Deep Learning Model for Face Mask Detection and Masked Face Recognition"

47. **Rimsha Rafiq, MS Computer Science, UET Taxila, May, 2022**
    Thesis: "DeepFake Detection using Deep Learning Techniques"

48. **Muhammad Umer, MS Software Engineering, UET Taxila, July, 2022**
    Thesis: "A deep learning model for plant disease classification"

49. **Tarim Dar, MS Software Engineering, UET Taxila, July, 2022**
    Thesis: "A deep learning model for facial emotions classification"
50. **Zarish Anwar, MS Software Engineering, UET Taxila, Aug, 2022**
    Thesis: "Audio Examiner: An End-to-End Deep Learning based Voice Anti-spoofing System"
51. **Hafsa Ilyas, MS Software Engineering, UET Taxila, Dec, 2022**
    Thesis: "A Deep Learning Model for Synthetic Image Detection"
52. **Samra Nawazish, MS Software Engineering, UET Taxila, Dec, 2022**
    Thesis: "A Deep Learning Framework for Diabetic Retinopathy Detection"
53. **Tanees Riaz, MS Software Engineering, UET Taxila, Aug, 2022**
    Thesis: "Classification of covid-19 patients using ECG image
54. **Sundus Ibrar, MS Computer Science, UET Taxila, Aug, 2022**
    Thesis: "Voice Presentation Attacks Detection"
55. **Anam Khursid, MS Software Engineering, UET Taxila, Jan, 2023**
    Thesis: "Deep-Net: A medical image segmentation method based on convolutional neural network"
56. **Noor-ul-Huda, MS Computer Science, UET Taxila, Aug, 2023**
    Thesis: "Detection of synthetic video using deep learning algorithms"

Students currently enrolled: 2

57. **Sifat Ullah, Software Engineering, UET Taxila, Apr, 2024**
    Thesis: "A deep learning based framework for wound classification"
58. **Fasiha Fatima, Software Engineering, UET Taxila, Apr, 2024**
    Thesis: "Image forgery detection using deep learning"

BE Final Year Project Supervision (92 Projects till date)

Selected projects at UET Taxila

1. Project titled **"Automated Handout Generation System"** (June, 2011) **Won 2nd Position in 1st Open House, 2012 at UET Taxila**
2. Project titled **"Boutique system with 3d model for web and android"** (June, 2012) **Won 1st Position in 2nd Open House, 2012 at UET Taxila**
3. Project titled **"Video analytics algorithm for summarization based surveillance system"** (June, 2012)
4. Project titled **"Vehicle 4 Me,"** (June, 2013) **Won 1st Position in 3rd Open House, 2013 at UET Taxila**
5. Project titled **"Mobile Spy Agent,"** (June, 2013) **Won 2nd Position in 3rd Open House, 2013 at UET Taxila**
6. Project titled **"Image Manipulation Suite,"** (June, 2013) **Won 3rd Prize in 3rd Open House, 2013 at UET Taxila**
7. Project titled **"iOnDrive "** (June, 2014) **Won 2nd Position in 4th Open House, 2013 at UET Taxila**
8. Project titled **"Citizen Journalist for Social Issues Reporting"** (May, 2015)
9. Project titled **"Sign Language Translator and Web Platform"** (May, 2015) **Won 2nd Position in 5th Open House, 2015 at UET Taxila**
10. Project titled **"X-Eye"** (May, 2016) **Won 1st Position in 6th Open House, 2016 at UET Taxila**
11. Project titled **"Optical Panel"** (May, 2016) **Won 2nd Position in 6th Open House, 2016 at UET Taxila**
12. Project titled **"Be My Virtual Eyes"** (May, 2017) **Won 2nd Position in 7th Open House, 2017 at UET Taxila**
13. Project titled **"Interactive Driving Simulator"** (May, 2017) **Won 2nd Position in Software Department at 7th Open House, 2017 at UET Taxila**
14. Project titled **"Bio Smart Secure"** (May, 2018) **Won 2nd Position in 8th Open House, 2018 at UET Taxila**
15. Project titled **"Smart Mirror"** (May, 2018)
16. Project titled **"Be My Voice"** (May, 2018)
17. Project titled **"Portable Doctor"** (May, 2018)
18. Project titled **"GYM-Fit"** (May, 2019), **Won FYP grant from IGNITE, Islamabad in 2018-19**
19. Project titled **"SmartShoe"** (May, 2019) **Won FYP grant from IGNITE, Islamabad in 2018-19**
20. Project titled **"Commercial Insurance App Using AI"** (May, 2019) **Won FYP grant from IGNITE, Islamabad in 2018-19**

21. Project titled **"CarTasy"** (May, 2019) **Won 3rd Position in 9th Open House, 2018 at UET Taxila**
22. Project titled **"3D Model Framework of Webstore Products in Augmented Reality"** (May, 2019)
23. Project titled **"Financial Analysis Software for Trading"** (May, 2020)
24. Project titled **"Voice Operated Fall Detection System"** (May, 2021)
25. Project titled **"RadBot"** (May, 2022) **Won FYP grant from IGNITE, Islamabad in 2021-22**
26. Project titled **"Speech Deepfakes Detector"** (May, 2022)
27. Project titled **"Deepfakes Detector"** (May, 2022)
28. Project titled **"Face-swap Detection"** (May, 2022)
29. Project titled **"Audio Cloning Detection System"** (May, 2022)
30. Project titled **"Forensics Voicebot"** (June, 2023)
31. Project titled **"Unified Deepfakes Detection"** (June, 2023)
32. Project titled **"Facial Liveness Detection"** (June, 2023)
33. Project titled **"Facial Emotion Detection"** (June, 2023)

Supervision at Fatima Jinnah Women University, Rawalpindi

34. Project titled **"Image Merger"** (July, 2013)
35. Project titled **"An Intelligent Human Computer Interface System Based on Eye Gaze Control and Blinking"** (July, 2013)
36. Project titled **"Real Time Traffic Controller"** (July, 2013)
37. Project titled **"Analysis of Parking Patterns"** (July, 2013)
38. Project titled **"Business Intelligence Based Recommendation System For Trip Planner"** (July, 2013)
39. Project titled **""** (July, 2013)
40. Project titled **"Design and Evaluation of effective Graphical User Interface for a business-intelligence based tourism application"** (July, 2013)
41. Project titled **"Gamified Assignment System for Motivational Learning and Education"** (July, 2013)
42. Project titled **"A Complete Guide to Tourism for Smart Phones Using Artificial Intelligence"** (July, 2013)

SEMINARS, TRAININGS AND WORKSHOPS

- Participated in **HEC-British Council** training on Capacity Building of Principal Investigators held at **Marriot, Islamabad, 12-16 September 2022.**
- Participated in **HEC Online Teaching Level-1** course organized by **National Academy of Higher Education, 2021.**
- **Pakistan-U.S Startup and Ideation training program** organized by **USAID and GIST** on **28th-30th August, 2018** at **Grand Hyatt Hotel, Dubai-UAE.**
- **Pakistan Software Quality Conference** organized by **Pakistan Software Testing Board** on **7th April, 2018** at **FAST University Lahore.**
- **4th Pakistan Agile Conference** organized by **Pakistan Agile Development Society** on **21st October, 2017** at **Islamabad.**
- **Pakistan Software Quality Conference** organized by **Pakistan Software Testing Board** on **8th April, 2017** at **Marriot Hotel Islamabad.**
- **2nd Editors Café of Asian Council of Science Editors (ACSE)** on **21st November, 2016** held at **Pakistan Academy of Sciences, Islamabad**.
- **Asian Council of Science Editors (ACSE)** short course for **Journal Editors on Improving the Journal Quality** on **10th August, 2016** held at **Carlton Palace Hotel Dubai, UAE**.
- **Asian Council of Science Editors (ACSE)** short course for **Journal Editors on Bibliometric for Editors** on **10th August, 2016** held at **Carlton Palace Hotel Dubai, UAE**.
- ACSE Workshop on **Research Integrity and Peer Review** held on **18th February, 2016** organized by **Asian Council of Science Editors** at **Marriot, Islamabad.**
- 29th Workshop on **Faculty Development for Entrepreneurship and Improvement of Industry Academia Linkage** held on **9th February, 2016** at **ICMAP, Islamabad.**
- **Modern Day IT Technologies** Seminar held on **October, 2015** at **University of Michigan, USA**.
- Workshop on **Signal processing in MATLAB** held on **July, 2015** at **University of Michigan, USA**.

- Entrepreneurship Workshop for Scientists and Engineers held on **2-7 June, 2014** jointly organized by **USAID** and **NUST University** at **NUST, Islamabad.**
- Technology Entrepreneurship Workshop for Faculty Development and Capacity Building in Pakistan held on **18ᵗʰ & 19ᵗʰ April, 2014** jointly organized by **Coventry University, UK and IBA Karachi at Iqra University Islamabad.**
- Interactive Workshop on **CPD Framework for Professional Development of Engineers** held on **May 06, 2014 at Army Public College of Management Sciences.**
- **GIS Development Workshop** held on **April 14, 2012 at Foundation University Institute of Engineering & Management Sciences.**
- Workshop on **Communication Skills for Teachers** held on **November 1, 2011 at CASE.**
- **Windows Phone Application Development Bootcamp** organized under the umbrella of **HEC-Microsoft Education Alliance Agreement** on **28th November 2011** held at **HEC**.
- Workshop on **Modeling of Biological and Active Machine Vision in Robotics** held from **19ᵗʰ to 22ⁿᵈ December, 2008** jointly organized by **GET Lab, University of Paderborn Germany and IPC, MCS NUST.**
- 1ˢᵗ Interactive Seminar on **The Linux Operating System and Linux Security** on **21ˢᵗ day of April, 2005** held at **U.E.T Taxila.**

PARTICIPATIONS AND CERTIFICATIONS

- **Chancellors Gold Medal Certificate of Excellence** in **MS Computer Engineering.**
- **Certificate of Merit** for **3ʳᵈ position** overall in class during **BS Software Engineering.**
- Participated as **Author in " 7ᵗʰ International Conference on Frontiers of Information Technology"** to present the research paper on **April 14-16, 2018** held at **TimHotel Berthier Paris, France.**
- Participated as **Author in "IEEE International Conference on Consumer Electronics-Asia 2016"** to present the research paper on **26-28th October, 2016** held at **COEX Convention Center, Seoul, Republic of Korea**
- Participated as **Ambassador of Asian Council of Science Editors (ACSE)** in **ACSE Annual Conference** held at **Carlton Palace Hotel**, **Dubai, UAE** on **11-12 August 2016**.
- Certificate of Participation for **ACSE short course for Journal Editors on Improving the Journal Quality** on **10ᵗʰ August, 2016** held at **Carlton Palace Hotel Dubai, UAE**. (**Speaker: Dr. Pippa Smart**)
- Certificate of Participation for **ACSE short course for Journal Editors on Bibliometric for Editors** on **10ᵗʰ August, 2016** held at **Carlton Palace Hotel Dubai, UAE**. (**Speaker: Dr. Philip J. Purnell**)
- Participated as **Author in "International Conference of Software & Information Engineering" to present the research paper** on **28th May, 2012** held at **Cape Panwa Hotel, Phuket, Thailand**
- Certificate of Participation for exclusive Event on **Oracle's Solution for Universities and Higher Education** with the **Chairman of the Higher Education Commission** on **December 2, 2010** held at **Marriot Hotel Islamabad**
- Certificate of Participation for acting as a **Judge of Mathematics Guru Committee in Computing & Engineering Competition 2008** held at **U.E.T Taxila.**
- Certificate of Participation for **Active organizer of Windows Vista launch event** on **30ᵗʰ April, 2007** held at **U.E.T Taxila.**
- Certificate of Participation for **Active organizer of Pakistan Developer Conference on 19ᵗʰ June, 2007** held at **Serena Hotel Islamabad.**
- Certificate of Participation in **International GRAMI Software Competition 2006** held at **U.E.T Taxila.**
- Certificate of Participation in **4ᵗʰ Java Soft exhibition 2005** held at **U.E.T Taxila.**

LANGUAGE PROFICIENCY

- Very fluent and proficient in speaking as well as writing English and Urdu

COUNTRIES VISITED

- United States of America (2015, 2019)

- France (2018)
- Spain (2018)
- United Arab Emirates (2016, 2018)
- Republic of Korea (2016)
- The Kingdom of Thailand (2012)
- The Kingdom of Saudi Arabia (2017)

HOBBIES

- Travelling
- Squash
- Photography
- Reading
- Hiking

ADMINISTRATIVE RESPONSIBILITIES

- Acting Chairman, Software Engineering Department, UET Taxila July 2014
- Director Postgraduate Studies, Software Engineering Department, U.E.T Taxila Sep 2020-Feb 2021
- MSP Lab Director, U.E.T Taxila
- Head of Curriculum Review Monitoring Committee, Software Engineering Laboratory at U.E.T Taxila, 2017-present
- Lab Director, Software Engineering Laboratory at U.E.T Taxila, 2012-2015
- In charge Windows Phone Development in Mobile Application Development Wing at UET Taxila
- Advisor SOFTDESK Society
- Focal Person QEC, Computer Science Department at U.E.T Taxila 2021-2022
- Focal Person Social Entrepreneurship, Software Engineering Department at U.E.T Taxila
- Focal Person Open House and Job Fair, Software Engineering Department at U.E.T Taxila
- Class Advisor of Final Year Software Batch at U.E.T Taxila 2012-2014
- In charge Seminar and Workshops conduction in Software Engineering Department at U.E.T Taxila
- In charge Timetable 2012-2014
- Member of Exams Scrutiny Committee for Postgraduate program in Software Department
- Educational and Recreational Trips Advisor for Software Engineering Department at U.E.T Taxila

REFERENCES

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