



# Dr. Shahnawaz Qureshi

## Professional Summary

"Highly accomplished Assistant Professor with over 8 years of experience in Artificial Intelligence, Machine Learning and Deep learning. Recognized internationally for pioneering research in neurocognitive AI, with multiple funded projects and collaborations with leading institutions. Proven leader in academic and research domains with a strong track record of innovation, publications, and global contributions. Serving as a peer reviewer in the Brain Health section of the World Health Organization (WHO) from 2023 to the present. Successfully contributed to a European research project on psychophysiological interaction and empathetic cognition for human-robot cooperative work (<http://www.echord.info/wikis/website/psyintec.html>) in the Distributed and Intelligent Systems Lab at Blekinge Institute of Technology, Sweden.

## Core Areas of Expertise

- Artificial Intelligence and Machine Learning
- Deep Learning
- Cyber Security
- Healthcare in AI
- Generative AI
- Research Leadership and International Collaboration

## Academic Qualifications

2016–2019 **PhD in Computer Science**, *Prince of Songkla University*, Thailand, *Specialized in Machine and Deep Learning*.

**Thesis Title:** A Genetic Algorithm with Convolutional Neural Networks for Classification of Sleep Stages from Single-Channel EEG Signals without Hand-Engineering Feature Extraction

2010–2012 **Ms in Computer Science**, *Blekinge Institute of Technology*, Sweden, *Specialized in Machine Learning*.

**Thesis Title:** An Empirical Study of Machine Learning Techniques for Classifying Emotional States from EEG Data

2004–2008 **BS (Hons) in Computer Science**, *Hazara University*, Pakistan, *CGPA –3.14/4.0*.  
**Final Year Project:** Virtual Doctor Clinic Expert System

May 2023–July 2023 **Oxford Machine Learning Summer School (OxML2023)**, *Oxford Mathematical Institute, Oxford*, *Organized by AI for Global Goals & in partnership with the University of Oxford's Deep Medicine & CIFAR*, United Kingdom, *CPD Certification*.

**Track:** Attending MLx Health in Person

## Professional Experiences

- Feb 2024–Present **Asst.Prof (Tenure Track System) and Principal Investigator**, SINO-PAK CENTER FOR ARTIFICIAL INTELLIGENCE (SPCAI), CYBER SECURITY AND INTELLIGENT BIOMEDICAL APPLICATION LAB, SCHOOL OF COMPUTING, DEPARTMENT OF COMPUTER SCIENCE, PAK-AUSTRIA FACHHOCHSCHULE INSTITUTE OF APPLIED SCIENCES AND TECHNOLOGY), Pakistan.  
**Duties:**Teaching at undergraduate and postgraduate level  
**Courses Taught:** Programming for Artificial Intelligence, Cyber Security Artificial Neural Network, Deep Learning, Advanced Machine Learning
- July 2019–Dec 2023 **Asst.Prof**, NATIONAL UNIVERSITY OF COMPUTING AND EMERGING SCIENCES (FAST-NUCES), Islamabad, Pakistan.  
**Duties:**Teaching at undergraduate and postgraduate level  
**Courses Taught:** Data Science, Statistical Modeling, Advanced Machine Learning, Artificial Intelligence, Human Computer Interaction, Data Structure and Deep Learning for Perception
- August 2019–July 2020 **Lecturer**, MAYNOOTH INTERNATIONAL ENGINEERING COLLEGE CHINA (NATIONAL UNIVERSITY OF IRELAND MAYNOOTH UNIVERSITY).  
**Duties:**Teaching at undergraduate level  
**Courses Taught:**Embedded System and Intro to Computer Science II
- Feb 2017–Aug 2017 **Teaching Assistant**, PRINCE OF SONGKLA UNIVERSITY INTERNATIONAL COLLEGE, Thailand.  
**Duties:**Teaching at undergraduate level  
**Courses Taught:** Database Management System
- Sep 2015–Aug 2016 **Research Associate**, ANKARA UNIVERSITY, ANKARA, Turkey.  
**Duties:**Teaching and Research Work
- Feb 2013–July 2014 **Lecturer**, HAZARA UNIVERSITY, Pakistan.  
**Duties:**Teaching at undergraduate and graduate level  
**Courses Taught:** Artificial Intelligence, Computer Architecture, Web Engineering
- Sep 2014–Aug 2015 **Developer**, REAL SOFT, Copenhagen, Denmark.  
**Duties:** Web development in Word Press

## Administrative Role

1. **Final Year Project Coordinator:** Contributing as FYP coordinator for BS (SE) program
2. **Convener:** Outcome Based Education (Feb 2024 - Present): Led OBE implementation, faculty training, and accreditation documentation.
3. **Industry-Academia liaison Officer:** Facilitated key partnerships.
4. **Committee Member:** Contributed to course design, development, and quality assurance.
5. **Course Coordinator:** Managed courses in AI, Machine Learning, and related fields.
6. **Student Advisor:** Provided academic and career guidance to students, supporting their academic success and professional development.
7. **Organizer:** Led the AI Conference & Expo 2024.

## Publications

### ISI Index

1. Rashid, Muhammad Umar, **Shahnawaz Qureshi**, Abdullah Abid, Saad Said Alqahtany, Ali Alqazzaz, Al Reshan, Mana Saleh, and Asadullah Shaikh. "Hybrid Android Malware Detection and Classification Using Deep Neural Networks." International Journal of Computational Intelligence Systems 18, no. 1 (2025): 1-26. IF:2.5
2. Mahmood ul Hassana, Ammara Ikramb, Amin A. Al-Awady, **Shahnawaz Qureshi**, Hani Al-shahranic, Adel Rajabc, Syed Muhammad Zeeshan Iqbald, Asadullah Shaikhe & Seppo Karrila, "Binclean: Sanitizing Disassemblies to Improve Malware Recognition", Journal of Information Security and Applications, IF:5.6, Status: Under Review.
3. Mahmood ul Hassan<sup>1</sup>, Zunaira Anwar, Amin A. Al-Awady, **Shahnawaz Qureshi**, Mohammad Alsulami, Ali Zia, Sultan Alyami, Syed Muhammad Zeeshan Iqbal, Sajid Anwar, Asadullah Shaikh, "Genre-Aware User Profiling using Duration Count Matrices: A Novel Approach to Enhancing Content Recommendation Systems", PloS one, (2025):IF:3.7
4. Alsolai, H., **Shahnawaz, Qureshi**, Zeeshan Iqbal, Siriut Vanichayobon, Craig A. Lindley, Henesey, L. E., & Seppo Karrila "A Systematic Review of Literature on Automated Sleep Scoring" in IEEE Access, 2022. I.F:3.4
5. **Shahnawaz Qureshi**, Seppo Karrila, Siriut Vanichayobon "Human Sleep Scoring Based on K-Nearest Neighbors" Turkish Journal of Electrical Engineering & Computer Sciences, Year:2018 Volume: 26 Number:6, IF: 1.2.
6. **Qureshi Shahnawaz**, Seppo Karrila, Siriut Vanichayobon "A Genetic Algorithm Designing the Convolutional Neural Network Architecture for Optimal Classification of Sleep Stages from a Single EEG Channel (CNN SleepTuneNet)" Turkish Journal of Electrical Engineering & Computer Sciences, Year:2019 Volume: 27 Number:6, IF: 1.2.
7. Alsolai, H., **Shahnawaz Qureshi**, Zeeshan Iqbal, S. M, Ameer, A, Cheaha, D, Henesey, L. E., & Karrila, S "Employing a Long-Short-Term Memory Neural Network in improving the Automatic Sleep Stage Classification of Pharmaco-EEG Profiles" Applied Sciences 12, no. 10 (2022): 5248, IF:2.5.
8. **Shahnawaz Qureshi**, Syed Muhammad Zeshan Iqbal, Asif Ameer, Seppo Karrila, Yazeed Yasin Ghadi & Syed Aziz Shah, "Enhancing Drug-Target Interaction Predictions in Context of Neurodegenerative Diseases Using Bidirectional Long Short-Term Memory in Pharmaco-EEG Analysis", Heliyon, IF: 3.4, Volume 10, Issue 21, 15 November 2024.
9. Zunaira Anwera, **Shahnawaz Qureshi**, Ali Zia, Syed Muhammad Zeeshan Iqbal, Sajid Anwer & Seppo Karril "Predicting User Behavior on Video Streaming by Using Watch-Time Duration Analysis", Knowledge-Based Systems, IF: 7.2, Status: Under Revision.
10. Salma, **Shahnawaz Qureshi**, Muhammad Gufran Khan, Sajid Anwar, Seppo Karrila "Empowering Real-Time Speech Information Retrieval: A Hybrid-Transformer Approach for Accurate Urdu Keyword Spotting" Pattern Recognition Letters, Status: Underreview

### Proceedings/Conferences

1. **Shahnawaz Qureshi**, Ali Zia, Muhammad Fouzan, Emil, Fazal Wahab, "Expert Fusion Network (EFN) for Automated Segmentation and Morphological Classification of Blastocysts to Optimize IVF Success Rates", IJCAI 2025, the 34th International Joint Conference on Artificial Intelligence, Status:Under review
2. Muhammad Umer Ramzan, Ali Zia, Abdelwahed Khamis, Ahmad Liaqat, Usman Ali, **Shahnawaz Qureshi** "Facial Sketch to Image Generation using Coordinate-preserving Gated Fusion" The 39th

Annual AAAI Conference on Artificial Intelligence AAAI 2025, Status: Under review

3. Hussain, A., Ashas, H., Shahid, A., **Shahnawaz Qureshi**, Karrila, S. (2024). Hybrid Approach Involving Genetic Algorithm and Hill Climbing to Resolve the Timetable Scheduling for a University. In: Arai, K. (eds) Advances in Information and Communication. FICC 2024 Germany. Lecture Notes in Networks and Systems, vol 919. Springer.
4. **Shahnawaz Qureshi**, Johan Hagelback, Syed Muhammad Zeeshan Iqbal, Hamad Javaid, & Craig A. Lindley. "Evaluation of Classifiers for Emotion Detection While Performing Physical and Visual Tasks: Tower of Hanoi and IAPS." In Proceedings of SAI Intelligent Systems Conference, London, UK, pp. 347-363. Springer, 2018.
5. **Qureshi Shahnawaz** and Sirirut Vanichayobon "Evaluate Different Machine Learning Techniques for Classifying Sleep Stages on Single-Channel EEG", 14th International Joint Conference on Computer Science and Software Engineering, 2017 IEEE Thailand.
6. Ahmad Tauseef Sohaib, **Shahnawaz Qureshi**, Johan Hagelback, Olle Hilborn, Petar Jercic, "Evaluating Classifiers for Emotion Recognition using EEG" 15th HCI International Conference, 21-26 July 2013, Las Vegas, Nevada, USA.
7. Muhammad Nadeem, **Shahnawaz Qureshi**, Syed Muhammad Zeeshan Iqbal, Naveeda Bibi and Lars Lundberg, "Analysis and Comparison of Web Development Platform based on Software Quality Attributes in Network Management System", Journal of Advances in Computer Networks, Vol. 5, No. 1, June 2017.
8. **Shahnawaz Qureshi**, Ahmad Tauseef Sohaib, Salman Chaudhry, "Classifying Emotional States from EEG Data using Machine Learning Techniques" 24th European Students Conference 4-7th Sep 2013, Berlin, Germany. [Poster published]

#### Book Chapter

1. **Shahnawaz Qureshi**, Muhammad Haseeb Arshad, Md Nurul Islam, M Shamim Kaiser, Mufti Mahmud, & Marzia Hoque Tania, "Navigating the Neuroethical Frontier: Brain-Computer Interface Dilemmas", Springer, Status: Under Review

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## Research Funding and Projects

### Funding Project Awardee as Principal Investigator

Project Title: Low Altitude based Early Site-specific Precision Farming and Recommendation  
Funding Agency Name: Faculty Research Support Grant  
Total Amount: 1 million PKR  
Start Date: Jan 2022– Dec 2022

### Funding Project Submitted as Principal Investigator

Project Title: Multi-modal Dementia Patient Monitoring Using Higher Order Representational Deep Learning  
Funding Agency Name: The Medical Research Future Fund (MRFF) Australia – 2024  
Total Amount: 2.7M  
*Status : Underreview*

### Funding Project Submitted as Co-Principal Investigator

Project Title: AI Application for Addressing Aging and Mental Disorder Conditions Using Deep Learning Technique  
Funding Agency Name: Young Scholar Grant, Saudi Arabia.  
Total Amount: 1600000 SR

Status: Under review

## Online Courses and Hands-on Projects

- Generative AI with large language models, Earned Course Certificate from Coursera
- Metaverse Fundamentals:Blockchain,Cryptocurrency and NTFs Earned Course Certificate from Udemy
- Google Cloud Big Data and Machine Learning Fundamentals Earned Course Certificate from Coursera
- Classify Images of Clouds in the Cloud with AutoML Vision Earned Project Certificate from Coursera
- Data Science on Google Cloud: Machine Learning hands on Google Cloud Self-Paced Labs conducted by Google Cloud Partner
- BigQuery for Machine Learning hands on Google Cloud Self-Paced Labs conducted by Google Cloud Partner
- Data Science (Certificate Earned from DataCamp 365)
- Applied Machine Learning For Healthcare (Certificate Earned from Udemy)
- CS231: Convolutional Neural Networks for Visual Recognition, Stanford University, USA.
- Deep Learning, Stanford University, USA.
- Deep Learning for Business, Yonsei University, Japan.
- WEKA Machine Learning advance course, Waikato University, New Zealand.

## Recent Projects Completed as a Principal Investigator in Biomedical Intelligent Lab at Sino-Pak Center for Artificial Intelligence

1. Parkinson Disease Detection Using AI Modals
2. Early Stage Embryo Classification Using AI Modals

### Currently Supervised PhD Student

1. Mr. Rizwan UI Haq Topic: Birds Species Identification using deep learning
2. Mr. Muhammad Shahrose Khan Topic: Role of Semantic Data in Image Generation of Food Recipes

## Participation Silent Speech Decoding Challenge 2025

"Decoding Silent Speech: Leveraging EEG Data for Arabic Inner Speech Recognition Using the Native Arabic Silent Speech Dataset".

Silent speech refers to internalized verbal thoughts without vocalized speech or lip movements. Decoding silent speech represents a frontier in Brain Computer Interface research, offering transformative applications for individuals with speech impairments.

## Conferences and Workshops

1. Organizer, "Artificial Intelligence Conference & Expo" (2024)
2. Attendee in Person, Oxford Machine Learning Summer School (OxML2023) University of Oxford, UK
3. Presenter, "Intelligent Systems Conference," London, UK (2018)
4. Presenter, "14th International Joint Conference on Computer Science and Software Engineering", Bangkok,Thailand, IEEE, (2017)
5. Presenter, "5th International Conference on Information and Computer Networks", Bangkok,

- Thailand, (2017)
6. Presenter, "24th European Students' Conference", Berlin, Germany, (2013)
  7. Presenter, "Poster Competition, IEEE Conference", Sweden, (2012)
  8. International Webinar Series on Healthcare Technologies and Medical Sciences, Webinar, Coventry, UK, (2023)
  9. Attendee, "Accelerating Climate Science with Artificial Intelligence", Webinar Event, (2021).
  10. Attendee, "MLOps: From Model-centric to Data-centric Artificial Intelligence", Online Event, (2021).
  11. Attendee, "AI Finland & AI Day 2021: Reboot with Artificial Intelligence", Virtual Event, (2021)
  12. Attendee, "Data Science Conference Europe 2020", Online, (2020)
  13. Attendee, "One-week Workshop for Southeast Asia Machine Learning School", Conducted by Google, Facebook, and DeepMind, Jakarta, Indonesia (2019)
  14. Attendee, "Academic Writing and Presentation", Prince of Songkla University, Prof. Dr. Martin Walton from Universite de Pau et des Pays de l'Adour France, (2019)
  15. Attendee, "International Workshop on Machine Learning for Understanding the Brain", Ankara, Turkey (2016)

## Scholarships and Awards

- 2019 Southeast Asia Machine Learning School Conducted by Google, Facebook and Deep Mind
- 2016 Thailand's Education Hub of ASEAN Countries Project (THE-AC) scholarship for PhD position, Thailand
- 2010 Swedish Government Scholarship for Master Program, Sweden
- 2013 Winner of the Poster Contest Session in 24th European Students Conference, Berlin, Germany

## Professional Affiliations and Memberships

- Member of the International Scientific Program Committee: INTELLI Series
- Peer Reviewer, World Health Organization (WHO) Global Dementia Observatory Knowledge Exchange (GDO KE) Platform
- Computer Society, IEEE
- Society of Artificial Intelligence, International Association of Engineers
- Society of Bioinformatics, International Association of Engineers

## Country Visited

- 2023 University of Oxford United Kingdom
- 2010-2012 Master Studies, Sweden
- 2011 Visitor, Barcelona, Spain
- 2011-2012 Study Tour (Oxford University, Cambridge University, Newcastle University and Conference attended, UK)
- 2014-2015 Worked as developer, Copenhagen Denmark
- 2015-2016, Research Assistant, Turkey
- 2016-2019, PhD Studies, Thailand
- 2019, Workshop Attended, Indonesia

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## Communication Skills

- 2018 Oral Presentation at Intelligent Systems Conference, America Square Conference Center, London, United Kingdom
- 2017 Oral Presentation at 14th International Joint Conference on Computer Science and Software Engineering, Thailand
- 2013 Poster at 24th European Students' Conference, Berlin, Germany

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## Languages

English	<b>Fluent</b>	<i>Speaking , Reading ,Writing and Listening</i>
Turkish	<b>Intermediate</b>	<i>C1 Certificate</i>
Swedish	<b>Basic</b>	<i>A1 Level</i>
Danish	<b>Basic</b>	<i>Basic words and phrases only</i>
Urdu	<b>Fluent</b>	<i>Mothertongue</i>

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## Reference

### University Advisors

1. Associate.Prof.Dr.Sirirut Vanichayobon  
**Email:** sirirut.v@gmail.com  
Department of computer science, Prince of Songkla University, Thailand
2. Prof. Dr. Craig Lindley  
**Email:**craig.lindley@data61.csiro.au  
Senior Principal Research Scientist CSIRO Data 61 Pullenvale, Australia.
3. Dr Ali Zia **Email:** Ali.Zia@anu.edu.au Postdoctoral Research Fellow Biological Data Science Institute The Australian National University