RESUME

IHTISHAM ALI, PhD

HEC Approved Supervisor

MAILING ADDRESS:
Sino-Pak Center for Artificial Intelligence, Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology, Khanpur Road, Mang, Haripur, Khyber Pakhtunkhwa
PHONE: 0345-3335312, 0333-9432983
EMAIL: ihtisham.ali@spcai.paf-iast.edu.pk, ihtisham62@gmail.com
SKYPE I.D: ihtisham.ali

PERSONAL PROFILE

A computer and information technology researcher with experience in industrial research and academic work environments, interested in conducting research and scholarly work in artificial intelligence.

RESEARCH INTEREST

- Data Science and Artificial Intelligence Applications development for Smart Agriculture.
- To conduct research on the economic and environmental feasibility of the precision farming technology to be accepted and adopted by farmers.

EDUCATION AND QUALIFICATION

Ph.D. (Distributed Systems) **Ph.D. Thesis Title:** Modeling and algorithmic decomposition of the mobile workflow graph in distributed systems.	1st Division	Department of Informatics, Gyeongsang National University, South Korea.
MS (Information Technology) (2009/2012) **MS Thesis Title:** A Reproducibility Framework for Cloud Workflows	1st Division	Institute of Management Sciences, Peshawar, Pakistan.
BS (Information Technology) (2000/2004)	1st Division	IBMS, NWFP Agricultural University, Peshawar, Pakistan.

PROFESSIONAL EXPERIENCE (TOTAL EXPERIENCE: 9 YEARS +)

Year: 01/2022 - Present
Job Title and description: Assistant Professor IT/Computer Science, Teaching at the undergrade and graduate level. Supervising students in data science and artificial intelligence.
Employer: Sino-Pak Center for Artificial Intelligence, PAK-Austria Fachhochschule, Institute of Applied Sciences and Technology, Haripur, KPK, Pakistan

Year: 07/2020-01/2022
Job Title and description: Postdoc Researcher: Applications development using IoT and ML for smart agriculture.
Employer: Sino-Pak Center for Artificial Intelligence, PAK-Austria Fachhochschule, Institute of Applied Sciences and Technology, Haripur, KPK, Pakistan

Year: 09/2013-09/2016
Job Title and description: IT Officer, carrying out network management and troubleshooting activities.
Employer: FATA Development Program, United Nations International Organization for Migration (IOM), DI Khan, Pakistan

Year: 01/2010-02/2012
Job Title and description: Lecturer. Carrying out research, teaching at the college level.
Employer: Oriental college of commerce and Information Technology, Peshawar, Pakistan

Year: 09/2007-09/2008
Job Title and description: Lecturer, teaching at the college level
Employer: Euro Institute of Management Sciences (EIMS), Peshawar, Pakistan

Year: 02/2005-06/2006
Job Title and Description: ORACLE instructor, teaching oracle developer track 8i/9i
Employer: ISOFT Corporation, Peshawar, Pakistan

INTERNATIONAL RESEARCH PUBLICATIONS (peer-reviewed)

1. Babar, Mohammad, Maneeha Rani, and Ihtisham Ali. "A Deep learning-based rainfall prediction for flood management." In 2022 17th International Conference on Emerging Technologies (ICET), pp. 196-199. IEEE, 2022.

2. Kifayat Ullah, Ihtisham Ali. "OLSR-ETX: Parameterize Based Solution for Oscillatory Network", International Journal of Wireless and Mobile Computing, Under Review 2021.

3. Ali, Ihtisham, and Susmit Bagchi. "A Comparative Study and Algorithmic Analysis of Workflow Decomposition in Distributed Systems." International Journal of Grid and High-Performance Computing (IJGHPC) 11.1 (2019): 71-100.

4. Ali, Ihtisham, and Susmit Bagchi. "Designing Hybrid Graph Model and Algorithmic analysis of workflow decomposition in mobile distributed systems." Future Generation Computer Systems 86 (2018): 145-161.

5. Ihtisham Ali, Susmit Bagchi. "Algorithmic node classification in AND/OR mobile workflow graph." International Journal of Grid and utility computing, (2019).

6. Ihtisham Ali, Susmit Bagchi, "Isolating critical flow path and algorithmic partitioning of the AND/OR Mobile Workflow Graph," Future Generation Computer Systems, (2019).

CURRENT RESEARCH PROJECTS

- **Wheat Crop diseases identification and recommendation system using Artificial Intelligence techniques.**
  - o Diseases identification using image analysis.
  - o Pesticides recommendation based on severity of the disease and damaged area.
- **Artificial Intelligence Enabled Tool for Automated Insect Pest Monitoring**
  - o Identification of the pest hotspots
  - o Using chemical lures and traps to collect field data.
  - o Image analysis and prediction of the population dynamics of insect.
- **Smart irrigation system using Internet of Things and Machine Learning**
  - o IoT Sensors for humidity and soil moister
  - o Evapotranspiration measuring
  - o ML algorithms to automate the irrigation system.
- **Smart Mushroom farming using IoT and Machine Learning**
  - o IoT sensors for temperature, humidity, and watering
  - o Deep learning algorithms to automate the whole process of mushroom farming.

ACHIEVEMENTS/AWARDS

- ✓ **Ph.D. Scholarship Award (Brain Korea 21, BK21)**, Gyeongsang National University, South Korea. 2016.

- ✓ **Young Pioneer Research Award** (for outstanding research performance from February 2018 to September 2018) Gyeongsang National University.

- ✓ **Young Pioneer Research Award** (for outstanding research performance from September 2018 to February 2019) Gyeongsang National University.

SUBJECTS OF INTEREST

- ✓ Introduction to ICT
- ✓ Tools and Techniques for Data Science
- ✓ Advanced Database System
- ✓ Computer networks and data communication
- ✓ Operating System
- ✓ Distributed and Parallel computing
- ✓ Data Structure and Analysis

TRAINING RECEIVED

- ✓ Artificial Intelligence & Machine Learning in Life Sciences, COMSTECH, Islamabad
- ✓ AI as Practitioner's Tool, Comsats University, Islamabad**.**
- ✓ The Role of AI in healthcare, energy, and agriculture, COMSTECH, Islamabad

REFERENCES

1. **Dr. Susmit Bagchi**

   Senior Professor, Department of Informatics, Gyeongsang National University, Jinju, 660-701, South Korea.

   Email: profsbagchi@gmail.com

2. **Dr. Arshad Iqbal**

   Assistant Professor, Pak-Austria Fachhochule: Institute of Applied Sciences and Technology, Haripur, Pakistan.

   Email: arshad.iqbal@spcai.paf-iast.edu.pk

   Tel: +92 333 9289566

3. **Dr. Moazam Ali**

   Assistant Professor, Department of Computer Science, Bahria University, Islamabad, Pakistan.

   Tel: +92 333 9474959