europass Curriculum vitae

PERSONAL INFORMATION

Yousaf Ali

Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology, Pakistan.

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Date of birth 20 January 1993 | Nationality Pakistani

WORK EXPERIENCE

September 2024 – Present

Lecturer

Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology, Pakistan.

- Teaching the following courses: Electric Machines, Basic Electrical Engineering, Digital Signal Processing and Engineering Project Management.
- Supervising the students in course projects.

August 2018 – August 2024

Lab Engineer

Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Topi, Pakistan.

- Conducted the following labs: Power System Protection Lab, Power System Analysis Lab, Power Electronics Lab, Electric Machines Lab, and Electronic Devices & Circuits Lab.
- Designed lab manuals for the above-mentioned labs.

January 2016 – June 2018

Graduate Assistant

Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Topi, Pakistan.

Assisted the faculty in the following undergraduate courses: Introduction to ASIC Design, Waves Propagation and Antennas, Renewable Electrical Energy Resources, and Power Distribution and Utilization

EDUCATION AND TRAINING

2016–2018

Master of Science in Energy Systems Engineering

Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Topi, Pakistan.

Majors: Energy Conservation and Management, Energy Materials, Photovoltaic Energy and Its Applications.

2011–2015

Bachelor of Science in Electrical (Power) Engineering

University of Engineering and Technology, Peshawar, Pakistan.

Majors: Power Generation and Transmission, Power System Analysis, Power System Protection, Power Electronics

PUBLICATIONS

[1] Muhammad Amin and Yousaf Ali. *"Theory and Design of Induction Motor and Transformer"*. Book, 2023.

[2] Yousaf Ali. “A Novel Machine Learning-Based Power Trading Algorithm (MLPTA) for Demand Side Management (DSM).” In: *2nd International Conference on Emerging Power Technologies (ICEPT)* (2023).

[3] Yousaf Ali. “Automated Smart Home Energy Management System Using the Application of Dynamic Pricing”. In: *4th International Pak-Turk Conference on Emerging Technologies in the field of Sciences and Engineering* (2021).

[4] Yousaf Ali. “A Review on Novel Techniques Used in Demand Side Management (DSM)”. In: *16th International Conference on Emerging Technologies (ICET)* (2021).

MS RESEARCH

Automated Smart Home Energy Management System Under Dynamic Pricing and Penetration of Renewable Energy Resources

Abstract: Demand Side Management (DSM) aims for cost-effective electricity use by consumers, traditionally focusing on peak shaving—shifting loads from peak to off-peak hours. However, this can create new peaks during off-peak hours. Our model, based on peak leveling, addresses this issue, significantly increasing electricity bill savings. We also integrated Distributed Generation (DG), developing an autonomous power trading mechanism.

PERSONAL SKILLS

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	B2	C1	C2

Computer skills
- Software Skills: ETAP, MATLAB, PSS, PSIM, PowerWorld Simulator, LaTeX, Multisim, Labview.
- Programming Skills: C++, Python.

Other skills Skilled Graphic Designer

COURSERA SPECIALIZATIONS

April 2024 **Google Data Analytics**

In this specialization, I covered the following courses:
- Foundations: Data, Data, Everywhere
- Ask Questions to Make Data-Driven Decisions
- Prepare Data for Exploration
- Process Data from Dirty to Clean
- Analyze Data to Answer Questions
- Share Data Through the Art of Visualization
- Google Data Analytics Capstone: Complete a Case Study

January 2024 **IBM AI Engineering**

In this specialization, I covered the following courses:
- Machine Learning with Python
- Introduction to Deep Learning and Neural Networks with Keras
- Deep Neural Networks with PyTorch
- Building Deep Learning Models with TensorFlow
- Introduction to Computer Vision and Image Processing
- AI Capstone Project with Deep Learning

May 2022 **Machine Learning (Stanford University and Deep Learning.AI)**

In this specialization, I covered the following courses:
- Supervised Machine Learning: Regression and Classification
- Unsupervised Learning, Recommenders, Reinforcement Learning
- Advanced Learning Algorithms

WEBINARS ATTENDED

- Research Management with IEEE Xplore: Tips & Practices
- IEEE New Resources for Your Technical Research
- IEEE Standards: What, Why and How?
- From Research to Publication: An overview on IEEE Publication Process

- Chat GPT and Professional Integrity
- Dynamic Entrepreneurship for Engineers
- Solar and Wind Power Potential in Pakistan
- The Future use Cases of Blockchain for Cyber Security
- Artificial intelligence: Implications for Technologies and Business Strategy
- Cellular Networks (2G to 5G Technology): Future Implications
- Online Earning Skills for Engineers
- Planning and Design of Micro Hydropower Plant
- Personal Branding and Career Choices for Engineers

WORKSHOPS ORGANIZED

- Open-Source Processor Design Workshop, GIK Institute, 2024.
- Accelerated Chip Design Cycle Workshop, GIK Institute, 2023.
- Workshop on Understanding Insulation of High Voltage Power Transmission and Distribution Systems, GIK Institute, 2017.

LABS DEVELOPMENT

Power System Protection Lab

This lab is comprised of various protective relays such as under/over current relays, under/over voltage relays, under/over frequency relays, IDMT relays and instrument transformers i.e., CTs and PTs. The relays are purchased from Schneider Electric.

Power System Analysis Lab

In this lab, various power system analysis techniques are analyzed by using ETAP, MATLAB, and PowerWorld Simulator. Fault analysis (symmetrical and unsymmetrical faults) and contingency analysis is also studied. The simulation lab comprised of Corei7 PCs.

Power Electronics Lab

This lab is comprised of Power Diodes, Power IGBTs, Thyristors, Power MOSFETs, Filtering capacitors and inductors, Bridge Rectifiers and PWM Inverters. The equipment is purchased from FESTO Didactic.

REFERENCES

Dr. Taqi Ahmad Cheema

Dean and Associate Professor, Faculty of Mechanical Engineering,

GIK Institute,Pakistan

Email: tacheema@giki.edu.pk.

Dr. Adnan Noor

Assistant Professor, Faculty of Electrical Engineering,

GIK Institute,Pakistan

Email: adnannoor@giki.edu.pk.