

## PERSONAL INFORMATION



## WORK EXPERIENCE

05/06/2020-Continue

House # T-6572, Mushtaqabad, Nothia Jadeed, Peshawar Cantt, KPK, Pakistan.  
 suleman2113@gmail.com +923085677922 ORCID ID: 0000-0003-0027-9745  
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<https://www.researchgate.net/profile/Muhammad-Suleman-Malik>

**PERSONAL STATEMENT:** With practical expertise in Electrical Power Generation, Transmission, Distribution, and Protection, I am passionate about delivering innovative, sustainable solutions, and dedicated to driving progress and societal impact.

**Electrical Power System Engineer (Transmission & Distribution)/ Assistant Director Tribal Areas Electric Supply Company (TESCO), Peshawar (Pakistan)**

- Short- and Medium-term electrical load forecasting using historical data and seasonal trends.
- Power Distribution planning, design & analysis using Synergy Electric and ArcGIS software.
- Power Transmission planning, design & analysis using PSS/E & DIgSILENT Power Factory.
- Preparation of Power Transmission & Distribution system expansion and upgradation plans.
- Management of power system operations, respond to outages and implement load management strategies.
- Preparation of power acquisition and business plan for smooth operation of power system.
- Development, management, cost estimation and progress tracking of power system projects.

**Lecturer & Lab Engineer**

**Gandhara Institute of Science & Technology (GIST), Peshawar (Pakistan)**

- Taught Electrical Technology, Electrical Machines & Electrical Circuit Analysis.
- Practical Demonstration of Control Systems, Electrical Machines & Workshop Lab.

**Junior Electrical Engineer**

**QRI Construction (Pvt) Ltd, Renewable Energy & Engineering Services (Pakistan)**

- Designing and Installation of ON Grid, Off Grid and Hybrid Solar PV Systems.

**Research Engineer & Teaching Assistant**

**USA-Pakistan Center for Advanced Studies in Energy (USPCAS-E), University of Engineering & Technology (UET), Peshawar (Pakistan)**

- Research & Development of Solar PV, Pumped Hydro & CAES Systems.
- Teaching Assistance & Lab Demonstration of High Voltage & Control Systems.

26/12/2018-01/06/2020  
(1 Year & 5 Months)

07/07/2018- 24/12/2018  
(5.5 Months)

03/07/2017-03/07/2018  
(1 Year)

## EDUCATION

16/10/2017–07/05/2019

**Master of Science: Electrical Engineering (Power Systems)**

University of Engineering & Technology, Peshawar (Pakistan) | CGPA: 3.77/4.00 (93.43 %)

04/10/2019– 23/05/2022

**Master of Business Administration-Executive (EMBA): Management**

Virtual University of Pakistan | CGPA: 3.41/4.00

07/10/2013–18/08/2017

**Bachelor of Science: Electrical Engineering (Power Systems)**

University of Engineering & Technology, Peshawar (Pakistan) | CGPA: 3.52/4.00 (86.29 %)

## RESEARCH PUBLICATIONS

- [1]. Muhammad Suleman Malik et al. (2022), Analysis of Energy Management and Battery Sizing in an Off-Grid Hybrid Solar Thermoelectric Generation System. Energy Technology, 10: 2100732. <https://doi.org/10.1002/ente.202100732>
- [2]. Muhammad Iftikhar Khan, Muhammad Suleman Malik, Faheem Ali, Uzma Nawaz, Majid Ashraf & Abid Khan (2021) Fixed Frequency Slide Mode Controller Cascaded with Proportional Resonant Controller and Droop Controller a New Approach for an Effective 3-Phase Microgrid under Islanded Operation, Electric Power Components and Systems, 49:6-7, 602-611, DOI: [10.1080/15325008.2021.2011484](https://doi.org/10.1080/15325008.2021.2011484)
- [3]. Muhammad Suleman Malik et al. (2021) Simulation Study to Evaluate the Hybrid Photovoltaic - Thermoelectric Energy Generation System with Heat Recovery Mechanism, Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 47(1), 7932-7950 DOI: [10.1080/15567036.2021.1926599](https://doi.org/10.1080/15567036.2021.1926599)
- [4]. Muhammad Suleman Malik et al. Design and Fabrication of Solar Thermal Energy Storage System Using Potash Alum as a PCM" Energies 13, No. 23: 6169. DOI: [10.3390/en13236169](https://doi.org/10.3390/en13236169)
- [5]. Muhammad Suleman Malik (2020) Electricity generation from the high-speed wind of the spillway in a hydroelectric power station, Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 46(1), 5743–5755 DOI: [10.1080/15567036.2020.1739784](https://doi.org/10.1080/15567036.2020.1739784)

**PROFESSIONAL TRAINING  
CERTIFICATION**

- **DigSilent PowerFactory** - Power Systems Analysis by Power to Human on Udemey (Dec 2023).
- **PSS/E - Power System Analysis** by Power to Human on Udemey (June 2024).
- **PSCAD & Renewable Energy** by Power to Human on Udemey (Oct 2023).
- **Electricity Market Professional** by Central Power Purchasing Agency (CPPA-G), Pakistan (Dec 2022).
- **Transmission Planning and PSS@E Software** by Power Sector Improvement Activity (PSIA), USAID Pakistan (Aug 2024).
- **Generation Planning and PLEXOS Software** by Power Sector Improvement Activity (PSIA), USAID Pakistan (Aug 2024).
- **Electricity Planning Software (ARC GIS & Synergi Electric)** by USAID's sustainable energy for Pakistan Project (Jan 2021).
- **Power System: Generation, Transmission & Protection Specialization** by L&T EduTech on Coursera (Feb 2023).
- **Industrial Power Systems Analysis and Stability** by L&T EduTech on Coursera (Oct 2024)
- **A Practitioner's Approach to Power Distribution & Automation Specialization** by L&T EduTech on Coursera (Feb 2023).
- **Energy Production, Distribution & Safety specialization** by The State University of New York & University at Buffalo (USA) on Coursera. (May 2019).
- **Medium-Term Load Forecasting** by Power Sector Improvement Activity (PSIA), USAID Pakistan (Aug 2024)
- **Renewable Energy Specialization** by University of Colorado Boulder on Coursera (Oct 2022).
- **Solar Energy for Engineers, Architects and Code Inspectors Specialization** by University at Buffalo (USA) on Coursera (Aug, 2020).
- **Google Project Management Professional Specialization** by Google on Coursera (Dec 2022).
- **ICPM Certified Supervisor Professional Specialization** by Institute of Certified Project Managers (ICPM) on Coursera (Oct, 2022).
- **Six Sigma Black Belt Specialization** by University System of Georgia on Coursera (Feb 2024).
- **Google Data Analytics Professional Specialization** by Google on Coursera (Mar 2023)
- **Project Management Principles and Practices Specialization** by University of California Irvine (USA) on Coursera (Nov, 2020).
- 60+ International Certifications in the field of Electrical Power Engineering & Management Sciences.

**HONORS & AWARDS**

- Appreciation for excellent performance in ArcGIS & Synergi Electric Software Training.
- Appreciation for Final Year Project Implementation at Warsak Power Station Pakistan.

**TECHNICAL SKILLS**

- PSS@E, DIGSILENT Power Factory, PSCAD, and MATLAB (Simulink Software).
- Arc GIS and Synergi Electric Software for feeder mapping and Load Flow Analysis.
- Electrical Drafting & Designing in AutoCAD Software.
- Python & C++ Programming language.
- Office Suite (Word, Presentation, Excel, Project).

**PERSONAL PROJECTS**

- Modeling & Simulation of Thermoelectric Power Generation from Solar PV System.
- Hybrid Electricity Generation System using Waste Heat & Wind from Exhaust Ducts.

**MEMBERSHIPS**

- International Member of **IEEE & PES**.
- Member of the Renewable & Alternative Energy Association of Pakistan (**REAP**).

**PERSONAL SKILLS**

Mother Language

Hindko

Other Languages

	UNDERSTANDING		LISTENING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
Urdu	C2	C2	C2	C2	C2
Pashto	B1	A1	C1	B2	A2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user  
**Common European Framework of Reference for Languages**

**REFERENCES**

- 1) Engr. Dr Abdul Basit (PhD Denmark), Manager (Research & Development), National Transmission and Despatch Company (NTDC) of Pakistan.  
Email: [a\\_basitkhan@hotmail.com](mailto:a_basitkhan@hotmail.com), [abdul.basit3@ntdc.com.pk](mailto:abdul.basit3@ntdc.com.pk)
- 2) Engr. Dr. Affaq Qamar (PhD Italy), Assistant Professor (Electrical Engineering Dept.), Imam Mohammad Ibn Saud Islamic University, Saudi Arabia.  
Email: [aaqamar@immau.edu.sa](mailto:aaqamar@immau.edu.sa)