



Atif Mahmood

Date of birth: 03/06/1986

Nationality: Pakistani

CONTACT

Electrical and Computer
Engineering Department,
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WORK EXPERIENCE

05/09/2016 – CURRENT Sahiwal, Pakistan

Engineering Lecturer COMSATS University

Delivering Lectures
Convener of Final Year Project Committee
Member of Campus Admission Committee
Member of Departmental Course learning program committee

15/09/2021 – 05/07/2022 Waterloo, Canada

Educational scholar Univeristy of Waterloo

RTV-SiR samples fabrication
Prepared Corona aging Setup
Performed FTIR, Contact Angle measurement SEM and EDX Analysis
Journal Article Write-up

08/04/2013 – 04/09/2016 Multan, Pakistan

Engineering instructor Institute of Southern Punjab

Delivering Lectures
Time table Incharge
Course Allocation Incharge
Program Coordinator of Electrical Engineering Department

05/11/2011 – 01/01/2015 Multan, Pakistan

Visiting Lecturer Bhauddin Zakariya University

14/01/2019 – 14/09/2021 Topi, Pakistan

Education researcher Ghulam Ishaq Khan Institute of Engineering

PhD Scholar
Performed Research Experimentation
8 Research Articles Published

EDUCATION AND TRAINING

14/01/2019 – 31/01/2024 Topi, Pakistan

PhD Electronics Engineering Ghulam Ishaq Khan Institute of Engineering
Technology

Website www.giki.edu.pk

01/04/2013 – 01/04/2016 Bahawalpur, Pakistan

MSc Electrical Power Engineering Islamia University Bahawalpur

Website www.iub.edu.pk

14/11/2005 – 30/06/2010 Multan, Pakistan

BSc Electrical Engineering Bhauddin Zakariya University

Website www.bzu.edu.pk

PUBLICATIONS

2024

[Incorporating GO in PI Matrix to Advance Nano-composite Coatings to Prevent Corrosion](#)

2023

Performance evaluation of micro/nano-silica filled silicone rubbers aged under multiple environmental stresses and bipolar DC voltage

A. Mahmood and S. Alam

2023

Performance and degradation analysis of HTV-SiR polymeric composites under the influence of bipolar DC voltages along with multiple stresses

A. Mahmood and S. Alam

2022

RTV-SiR based composites aged in a multi-stressed environment under AC and bipolar DC voltages

A. Mahmood and S. Alam

2021

Hydrophobic, Dielectric and Water Immersion Performance of 9000 Hours Multi-stresses Aged Silicone Rubber Composites for High Voltage Outdoor Insulation

H.Khan, A. Mahmood, Israrullah, M.T. Nazir, and M. Amin

2021

Healing of water tree aged cables using rejuvenation nanofluid

K. Zhou, H. Yuan, S. Akram, P. Meng, A. Mahmood, M. Aamir

2021

Development of Semitransparent UV Photodetector Based on PTB7-Th:PCBM Composite Using the Cost-effective Fabrication Method

M. Riaz , M. M.Bashir , K.S. Karimov , J.Un. Nabi, R.T.Ahmad , Z.Ahmad , A. Mahmood

2020

Investigation of multiple-stresses on mechanical and thermal properties of 9000 h Aged RTV-SiR composites for high-voltage insulation

A. Mahmood , M. Amin,H. Khan, Israrullah, F. Muhammad , T. Ejaz

2020

Accelerated multi stress aging and life estimation of polymeric insulators

Israrullah, M Amin, A Mahmood, A Khattak

2018

Variation of Inductance in A Switched Reluctance Motor Under Various Rotor Faults

SS Khan, A Mahmood, M Mansoor, Y. Saleem

2016

Reactive Power Control of A 220kv Transmission Line Using PWM Based Statcom with Real Time Data Implementation

A Mahmood, M Amjad, MI Malik, A Ali, A Muhammad

2016

Cost effective power generation using renewable energy based hybrid system for Chakwal, Pakistan

HONOURS AND AWARDS

14/01/2019 Higher Education Commission of Pakistan

Awardee of prestigious Faculty development program scholarship for PhD Studies

01/10/2021 University of Waterloo, Canada

One year fully funded research grant at University of Waterloo, Canada

31/12/2019 Ghulam Ishaq Khan Institute of Engineering Sciences and Technology

Distinction in PhD course work

EXPERIMENTAL EXPERTISE

Material and Testing

1. RTV and HTV-SiR Samples fabrications using micro and nano-fillers
2. Experimental setup preparation for environmental stresses and corona discharge aging

Characterizations

Hydrophobicity measurements (Static Contact Angle, STRI Hydrophobicity Classification), SEM, EDX, FTIR, XRD, TGA, DSC Analyses, Water Immersion Tests, Leakage Current Measurements, Mechanical Strength Tests

DIGITAL SKILLS

Microsoft Office (Word , Excel and Power Point) | Origin software (data processing and analysis) | C,C,C++ | Academic Writer | Skilled researcher | Multi-skilled | Senior and Professional Lecturer | COMSOL - Intermediate

RESEARCH DIRECTIONS

Current research work alongwith future research

1. Creating non-destructive diagnostic techniques to early detect aging in silicone rubber and polymeric insulators could assist in evident predictive maintenance and further retention of the same.
2. Investigate surface modification techniques which enhance the hydrophobicity of polymeric insulators and reduce contamination to enhance performance in pollution conditions.
3. High-Voltage Testing of New Insulating Materials: Basic knowledge of breakdown mechanism and electrical properties during stress.
4. Simulation models to be developed to analyze the distribution of electric fields in insulation systems and designs should be optimized to minimize stress concentrations with the objective of enhancing reliability.
5. Develop and test new nanocomposites with improved thermal, mechanical, and electrical properties.
6. Materials such as graphene, carbon nanotubes, and boron nitride nanosheets will be investigated.
7. Utilize in-situ and operando X-ray diffraction (XRD), transmission electron microscopy (TEM), and Raman spectroscopy to understand the real-time behaviour of materials .

ORGANISATIONAL SKILLS

Lecturer and Program Coordinator

1. Reviewed articles for IEEE Transaction Dielectrics and Insulation, Nanotechnology reviews, Karbala International Journal of Modern Science and journal of elastomer and plastics
2. Supervised more than 30 Final Year Projects
3. Program Coordinator of Electrical Engineering Department
4. Convener of Final year Project Committee (Present)
5. Member of campus admission Committee (Present)
6. Head of Course Allocation Committee.

COURSES TAUGHT

15/11/2011 - CURRENT

Engineering Subject Taught during my Teaching Career

Applied Physics, Introduction to Computing, Digital Logic Design, Data Communication, Data Structures, Computer Networks, Circuit Analysis, Network Analysis, Basic Electronics, Electronics II, Applied Electrical Engineering, Instrumentation and Measurements, Introduction to Power Engineering, Power Electronics, Power Generation, Renewable Energy Resources, Power Transmission, Power Distribution and Utilization, Industrial Electronics, Electromagnetic Field Theory, Control system theory