

# Ghulam Mustafa Shoro

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 Sindh, Pakistan

## Summary

Research-oriented, dedicated, and reliable professional seeking a full-time Assistant Professor position with an opportunity for continuous growth in the field of Electronic Engineering and in specific Renewable Energy Systems. Looking to utilize teaching and research skills to support the Engineering Department during the upcoming academic year.

## Research Areas

### Renewable Energy Systems

- Grid Connected Photovoltaic Systems
- Maximum Power Point Tracking
- DC-DC Converters & Inverters
- Control Design of PV System
- Power Electronics for Renewable Energy Systems.

## Work Experience

| Position held              | Name and address of the Employer                                                                        | From          | To           |          |
|----------------------------|---------------------------------------------------------------------------------------------------------|---------------|--------------|----------|
| <b>Assistant Professor</b> | Department of Electronic Engineering ,<br>Faculty of Engineering and Technology,<br>University of Sindh | March 2020    | Date         | (BPS-19) |
| <b>Assistant Professor</b> | Institute of Information & Communication<br>Technology, University of Sindh                             | January 2006  | March 2020   | (BPS-19) |
| <b>Lecturer</b>            | Institute of Information & Communication<br>Technology, University of Sindh                             | November 2000 | January 2006 | (BPS-18) |

## Education

| University or Institution attended                                       | Year        | Subject(s) of Study                                   | Qualification            | Class/ Grade |
|--------------------------------------------------------------------------|-------------|-------------------------------------------------------|--------------------------|--------------|
| Department of Energy Technology, Aalborg University, Denmark.            | 2012 - 2016 | Module Integrated Converters for Photovoltaic Systems | <b>(PhD in progress)</b> |              |
| Institute of Information & Communication Technology, University of Sindh | 1993-1995   | Electronics                                           | <b>MSc</b>               | First Class  |
| Institute of Information & Communication Technology, University of Sindh | 1995-1996   | Electronics                                           | <b>BSc</b>               | First Class  |

**Courses, Workshops, Trainings & Seminars (National/International)**

| PhD Courses Attended                                    |                   |                            |
|---------------------------------------------------------|-------------------|----------------------------|
| Title                                                   | held on           | at                         |
| An Introduction HVDC and Flexible AC Power Transmission | March 2012        | Aalborg University Denmark |
| Preparation of research plan for PhDs                   | Spring 2012       | Aalborg University Denmark |
| Power Electronics for Renewable energy Systems          | Spring 2012       | Aalborg University Denmark |
| Photovoltaic Power Systems - In theory and Practice     | Spring 2012       | Aalborg University Denmark |
| Power System Stability and Control                      | Spring 2012       | Aalborg University Denmark |
| Modelling, Control and Simulation of Power Converters   | Spring 2012       | Aalborg University Denmark |
| AC Microgrids                                           | Fall 2012         | Aalborg University Denmark |
| Professional Communication                              | Fall 2012         | Aalborg University Denmark |
| Professional Networking                                 | Spring 2013       | Aalborg University Denmark |
| Writing and Reviewing Research Papers                   | Spring 2013       | Aalborg University Denmark |
| Library Information Management                          | Fall 2013         | Aalborg University Denmark |
| Practical Project Management                            | Fall 2013         | Aalborg University Denmark |
| DC Microgrids                                           | Fall 2013         | Aalborg University Denmark |
| Seminars                                                |                   |                            |
| Title                                                   | held on           | at                         |
| Smart Grid Seminar                                      | 3-7 November 2014 | Aalborg University Denmark |
| Workshops                                               |                   |                            |
| Title                                                   | held on           | at                         |

|                                                                                         |                |                                                         |
|-----------------------------------------------------------------------------------------|----------------|---------------------------------------------------------|
| <b>PLECS Workshop Training</b>                                                          | 2013           | Aalborg University<br>Denmark                           |
| <b>Training</b>                                                                         |                |                                                         |
| <b>Title</b>                                                                            | <b>held on</b> | <b>at</b>                                               |
| <b>Implementation &amp; Administering Microsoft Windows 2000 Network Infrastructure</b> | July 2003      | Computer Training & Testing Centre Karachi              |
| <b>“Basic Study Manual” Course of Study Technology</b>                                  | 2009           | The Lexicon Karachi & Applied Scholastics International |
| <b>“Communication is Fun” Course of Study Technology</b>                                | 2009           | The Lexicon Karachi & Applied Scholastics International |

**Member of revision of curriculum committee for Undergraduate and Graduate Degree Programs**

Institute of Information and Communication Technology University of Sindh Jamshoro, Sindh, Pakistan.

**Member**

Institute of Electrical and Electronics Engineers (IEEE).

Ex- Member of Senate, University of Sindh Jamshoro

Ex- Member of Executive Committee, Sindh University Teachers Association (SUTA)

**Courses Taught**

Power Electronics, Control Systems, Industrial Electronics, Microprocessor and Assembly, Electronic Circuit Design, Operational Amplifiers, Digital Logic Design.

**Computer Literacy**

|                              |                                                                                             |
|------------------------------|---------------------------------------------------------------------------------------------|
| <b>Operating Systems</b>     | Windows 10                                                                                  |
| <b>Programming Languages</b> | Assembly Programming, C, C++, Java, Python Programming, HTML, CSS, Java Script, PHP, MySQL  |
| <b>Hands on Software</b>     | MS-Office, MS-Visio, MATLAB, Simulink, PLECS, LabVIEW,                                      |
| <b>Hardware</b>              | Installation of personal Computers, Modems & Peripheral Devices, Printers, email, Internet. |

| Language Proficiency |                                 |
|----------------------|---------------------------------|
| English              | Read, Write, Speak & Understand |
| Urdu                 | Read, Write, Speak & Understand |

## Research Publications Summary – Ghulam Mustafa Shoro

| No. | Paper Title                                                                                                                                   | Author(s)                                                                                                                         | Published In                                                                                                 | Year | Pages     |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|------|-----------|
| 1   | Design of UAV Autonomous Charging Pad for Surveillance                                                                                        | Shoro, Ghulam Mustafa; Rajput, Prem Singh; Iqbal, Fahad; Abro, Muhammad Arsalan Jalees; Bhand, Munwar Ali; Halepoto, Irfan Ahmed; | REVISTA GEINTEC-GESTAO INOVACAO E TECNOLOGIAS                                                                | 2021 | 1552-1561 |
| 2   | Design, Development and Control of Gesture Based Unmanned Vehicle                                                                             | Halepoto, Irfan Ahmed; Shoro, Ghulam Mustafa; Abro, Muhammad Arsalan Jalees; Nizamani, Muhammad Ali; Bhand, Munwar Ali;           | NEW ARCH-INTERNATIONAL JOURNAL OF CONTEMPORARY ARCHITECTURE                                                  | 2021 | 542-551   |
| 3   | Optimizing economic load dispatch problem using genetic algorithm: A case study of thermal power station Jamshoro                             | Bhand, Munwar Ali; Halepoto, Irfan Ahmed; Abro, Muhammad Arsalan Jalees; Rajput, Prem Singh; Shoro, Ghulam Mustafa;               | International Journal of Grid and Distributed Computing                                                      | 2021 | 15-24     |
| 4   | Power Electronic Converters for Single-Phase Grid Connected Photovoltaic System: An Overview                                                  | Shoro, Ghulam Mustafa; Hussain, DM Akbar;                                                                                         | International Journal of Integrated Engineering                                                              | 2020 | 253-264   |
| 5   | Design and control of autonomous robot using gesture based intuitive interaction                                                              | Latifa, Asad A; Nizamani, Muhammad Ali; Shoro, GM; Abassi, Faheem; Memon, Bisharat R;                                             | International Journal of Advanced Computer Systems and Software Engineering                                  | 2020 | 7-11      |
| 6   | PLC Based Transformer Monitoring & Protection System                                                                                          | Soomro, Waseem Javaid; Nohri, Ali Nawaz; Shoro, Ghulam Mustafa;                                                                   | University of Sindh Journal of Information and Communication Technology                                      | 2019 | 198-204   |
| 7   | Optical character recognition system for sindhi text: a survey                                                                                | Soomro, Waseem Javaid; Ismaili, Imdad Ali; Shoro, Ghulam Mustafa;                                                                 | University of Sindh Journal of Information and Communication Technology                                      | 2018 | 1-7       |
| 8   | Design of Integrated Analytical Process Framework for Smart City Transformation based on Strengths-Weaknesses-Opportunities-Threats Analysis. | Halepoto, Irfan Ahmed; Sahito, Anwar Ali; Shoro, Ghulam Mustafa;                                                                  | Sindh University Research Journal-SURJ (Science Series)                                                      | 2015 |           |
| 9   | Interpretation of Electric Charges Behaviour and Validation of Relativistic Charge Model in Special Relativity and Electromagnetism           | HALEPOTO, IA; ABRO, FR; SHORO, GM; LAGHARI, AA;                                                                                   | Sindh University Research Journal-SURJ (Science Series)                                                      | 2015 |           |
| 10  | Harmonie detection at initialization with Kaiman filter                                                                                       | Hussain, DM Akbar; Imran, Raja Muhammad; Shoro, Ghulam Mustafa;                                                                   | 2014 6th International Congress on Ultra Modern Telecommunications and Control Systems and Workshops (ICUMT) | 2014 | 614-617   |
| 11  | A novel technique to obtain the health of a PV panel                                                                                          | Hussain, DM Akbar; Shoro, Ghulam Mustafa; Imran, Raja Muhammad;                                                                   | 2014 IEEE PES Asia-Pacific Power and Energy Engineering                                                      | 2014 | 1-4       |

|    |                                                                 |                                                                  |                                                                   |      |         |
|----|-----------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------|------|---------|
|    |                                                                 |                                                                  | Conference (APPEEC)                                               |      |         |
| 12 | Detection of Harmonic Occurring using Kalman Filtering          | Shoro, Ghulam Mustafa; Imran, Raja Muhammed;                     | 2014 IEEE PES Transmission & Distribution Conference & Exposition | 2014 |         |
| 13 | Detection of harmonic occurring using Kalman filtering          | Hussain, DM Akbar; Shoro, Ghulam Mustafa; Raja, Muhammad Imran;  | 2014 IEEE PES T&D Conference and Exposition                       | 2014 | 1-5     |
| 14 | Photovoltaic system in progress: A survey of recent development | Shoro, Ghulam Mustafa; Akbar Hussain, Dil Muhammad; Sera, Dezso; | International Multi Topic Conference                              | 2013 | 239-250 |