



## Mohammad Imran Mir

M.Tech

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## Intro

I was raised in a small town, a distant place with limited access to quality education and I never imagined collaborating with brilliant thinkers in the best laboratories in India, scratching my head while looking for the solutions to the problems of electrical engineering

## Vision

With the world today, technical advancement is very important, hence it is appropriate to restore enthusiasm for the basic cause of technology. Unless there is a reawakening of interest amongst the masses without rejuvenation of the rich engineering teaching—the world is in harsh times. I have a very strong stand and I will look forward to working on engineering and technology after dreaming of a future in dynamic engineering environment.

## Curriculum Vitae

### Present Position

Pursuing Machine Learning & Python

### Education

- 2018-2020 M.Tech (Electrical Engineering) *Lovely Professional University*  
*Contingency Analysis of power system*
- 2012-2015 B.Tech. (Electrical Engineering)  
*A Prototype of Power factor correction for Ac-Dc Converter*
- 2009-2012 Polytechnic (Electrical Engineering) *SSM College Jammu Kashmir India*  
*Simulation based power electronic converter with Harmonic analysis*

### Research Interests

Power system Dynamics & Control, Power system Protection, Power Quality, Renewables, Power Management, Reliability, Electricity Market, Smart Grid, Optimal Operation & Control.

### National/International Level Exams Qualified

- 2021 GATE *IIT Bombay, India*  
*Graduate Aptitude Test in Engineering*

### Thesis / Dissertation

- June. 2020 M. Tech (Electrical Engineering) *Lovely Professional University*  
*Contingency Analysis of power system*
- June. 2015 B. Tech (Electrical Engineering) *MDU Rohtak, India*  
*A Prototype of Power factor correction for Ac-Dc Converter*

### Projects

- 2020 Power system security using contingency analysis tool for evaluation of, IEEE-12,14,30,39 Bus systems  
12- June 2020 *Lovely Professional University*
- 2015 A Prototype of Power factor correction for Ac-Dc Converter.  
26 June 2015, *NGF College of Engineering & Tech*
- 2012 Simulation based power electronic converter with Harmonic analysis  
June 08-07, 2012 *SSM college of Engineering and Technology J&K Kashmir India*

# Skills

PLC, SCADA & Automation

LABVIEW

MATLAB

MS-OFFICE

# Career

I did my graduation (B. Tech) from MDU Rohtak India and later did master's degree (Master of Technology (M. Tech.)) from Lovely Professional University, India. After graduating I did multiple internships including industrial automation, Maintenance of electric Power Grids, and also joined skill enhancement programs to boost my knowledge in electrical engineering. This helped me to get a strong hold in getting technically sound and it gave me an edge over number of projects that I did during my graduate and post graduate studies.

I am pursuing short term course from coursera in Machine learning, Currently I am focusing on the application of Machine learning for the improvement of Power system security.

# R&D

I have worked on Power system security and also designed a prototype of Power factor correction for Ac-Dc Converter during my Masters work. This part of the work was performed at Lovely Professional University.

Specifically, the R&D work at Lovely Professional University was performed in the context of improving the power system reliability and security and Optimal Control of Renewable Energy System Integrated with Electric Vehicle. This work has resulted in a couple of Conference papers. I have gained the Wide knowledge of electrical distribution system.

Strong grasp of electrical engineering techniques and principles.

Excellent operational knowledge of system design and implementation with Superior proficiency in programmable logic controls, Outstanding abilities with Microsoft Office, MATLAB, LabView, CAD & SCADA

## Conference Papers/ Publications

- |      |  |                                       |
|------|--|---------------------------------------|
| 2020 | Power system security of distributed network using contingency analysis<br>ICICS LPU, June 27-06, 2020     | Lovely Professional University, India |
| 2020 | Optimal Control of Renewable Energy System Integrated with Electric Vehicle<br>ICICS LPU, June 27-06, 2020 | Lovely Professional University, India |

## Internships

- |      |  |   |
|------|--|---|
| 2016 | Post Graduate Diploma in industrial automation Engineering<br>6 months | Prolific systems and Technologies Pvt Ltd , India |
| 2015 | Industrial Automation Engineer<br>5 months                             | Sofcon India Pvt, Ltd Noida UP India              |
| 2015 | Trainee<br>3 months  | Accenture (Udaan)India                            |
| 2012 | Maintenance Engineer<br>3 months                                       | Rawalpura Grid Statin Srinagar J&K India          |

## Positions of Responsibility

- |           |  |                                       |
|-----------|--|---------------------------------------|
| 2018-2020 | Secretary of IEEE student chapter LPU                              | Lovely Professional University, India |
| 2018-2020 | Member of Institute of Electrical and Electronics Engineers (IEEE) | Lovely Professional University, India |

## Industrial Visits

More than 20 industrial visits including Nuclear power plants, Hydro power plants, Thermal power plants, Power grid stations Substations, International exhibitions on renewable energy Sources and innovations in the field of electrical engineering

## Seminars

- |      |  |  |
|------|--|--|
| 2021 | International Seminar on Advances in Artificial Intelligence & Machine Learning                                | Aligarh Muslim University, India                       |
| 2020 | International Conference on Renewable energy organized by Department of Electrical and Electronics Engineering | Lovely Professional University, India                  |
| 2015 | Nuclear energy radiation effects on humans and environment   | NGF college of Engineering & Technology Haryana, India |
| 2014 | Utilization of non-conventional sources of energy  | Energy expo Greater Noida India                        |
| 2014 | Electrical energy conservation and development   | SSM College of engineering J&K Indi                    |

## Languages Known

Language	Speak	Read	Write
English:	Yes	Yes	Yes
Urdu:	Yes	Yes	Yes
Kashmiri	Yes	Yes	Yes
Hindi:	Yes	Yes	Yes
Arabic:	No	Yes	Yes

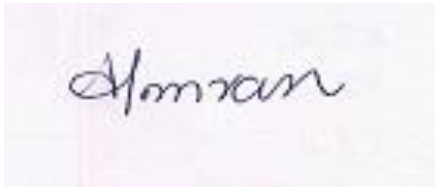
## References

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## 1. POWER SYSTEM SECURITY OF DISTRIBUTED NETWORK USING CONTINGENCY ANALYSIS

<sup>1</sup>Mohammad Imran Mir, <sup>2</sup>Dr. Amit Kumar Singh, <sup>3</sup>Muzaffar Ahmad Shah

<sup>1</sup>Research Scholar Department of Electrical and Electronics Engineering Lovely Professional University Jalandhar Punjab, India

<sup>2</sup>Associate Professor Department of Electrical and Electronics Engineering Lovely Professional University Jalandhar Punjab, India

<sup>3</sup>Research Scholar Department of Electrical and Electronics Engineering Lovely Professional University Jalandhar Punjab, India

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*Abstract—The study of contingency consists of the evaluation of the failure of elements for example transmission lines, transformers, generators and effects on line power flows and the bus voltages of the other unit. The objective of the power system analysis is to provide the operator with statistical safety information. power system contingency analysis is an important practice in preparation and maintenance of the power plant. A failure of a transmission line or transformer may usually lead to overloads in other branches or sudden increase or decrease in the network voltages. In this paper, a process of contingency analysis and sequential simulation cascading is to be implemented and tested so as to recognize possible cascading approaches. A method of modeling designated in this article provides a special ability to detect events leading to cascade failures. This method can be applied to boost the stability and susceptibility of the transmission network to cascading failures*

## 2. Optimal Control of Renewable Energy System Integrated with Electric Vehicle

Muzafar Ahmad Shah<sup>1</sup>, Mohammad Imran Mir<sup>2</sup>, Dr. Javed Dhillon<sup>3</sup>

<sup>1</sup>Research Scholar, Department of Electrical & Electronics Engineering, Lovely Professional University, Punjab, India.

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*Abstract—Wind power is a major source of renewable energy, and the world is in high demand. Nevertheless, due to large variations in power output, it is difficult to manage wind power. To mitigate these fluctuations, this paper proposes a method for suppressing frequency variability in wind power. The smart grid concept in the grid has recently developed the role that electric vehicles play in the form of vehicles in terms of grid technology. The grid management vehicle allows the two-way sharing of energy between the power grid and the electricity vehicle, providing various power grid services. Because the implementation of grid technology by vehicles is a challenging unit commitment issue with multiple conflicting goals and constraints, optimization techniques are commonly used. If a generating unit is suddenly disconnected by the protective equipment, there will be a long-term imbalance in the power balance between that supplied by the turbines and that consumed by the loads. Originally, the kinetic energy of spinning turbine, generator and engine rotors covers this discrepancy, resulting in a shift in the frequency of the process. The Load- Frequency - Control (LFC) problem is as such one of the worth important subjects in the control and operation of the electrical power system. The traditional PI type controllers were applied to LFC in functional systems. Several methods have been suggested in the literature to address the limitations of modern PI controllers. A PID form controller for the LFC problem is considered in this paper. The proposed PID controller's parameters were tuned using the Particle Swarm Optimization (PSO) approach.*