

ATHIRA M MOHAN

Graduate Research and Teaching Assistant
Department of Electrical Engineering, Qatar University
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CURRENT ROLE

Student of Ph.D. Program in Electrical Engineering at Qatar University and Working as Graduate Research and Teaching Assistant in Department of Electrical Engineering at Qatar University.

PROFESSIONAL SUMMARY

- Experience as research and teaching assistant at Qatar University.
- Experience as research trainee under scientist at Vikram Sarabhai Space Centre, ISRO, Trivandrum, India.
- Experience in Cognizant Technology Solutions Pvt. India Ltd., as a Software Developer
- Experience in Solutions Institute of Engineering and technology as a teaching faculty

SCHOLASTIC RECORD

YEAR	COURSE	BOARD/UNIVERSITY	INSTITUTION
2019-Till Date	Doctor of Philosophy	Qatar University	College of Engineering, Qatar University, Doha (Currently pursuing)
2014-16	Master of Engineering	Anna University	Sri Ramakrishna Engineering College, Coimbatore, India
2009-13	Bachelor of Technology	M.G. University	Federal Institute of Science and Technology, Ernakulam, Kerala, India

TECHNICAL SKILL SUMMARY

- Research and analysis skills in the fields of Control Systems, Power Systems, Cyber Security and Cyber-Attacks in Industrial Power Systems
- Programming Platforms: MATLAB, LABVIEW
- Programming languages: C, Java
- Scripting Languages: jQuery, Javascript
- Database: MYSQL, SQL Server
- Documentation tools: Microsoft office tools
- Language Skills: English, Malayalam, Tamil, Hindi
- Good skills in Analysis, Requirement, Mapping Documentation for IT projects. Skills in Coding, Testing and Defect Fixing.

EXPERIENCE SUMMARY

Research and Teaching Assistant Experience : 3 Years

Organization : **Electrical Engineering Department, Qatar University, Doha**

Designation : Graduate Research and Teaching Assistant

Duration : August 2019 – August 2022

Labs and Courses : Electric Circuits Lab, Signals and Systems Lab, Fundamentals to Electronics, Electric Circuits, Signals and Systems

Roles and Responsibilities : Research assistance, Teaching assistance, Providing labs, tutorials and support sessions.

Industrial Experience : 2.2 Years

Organization : **Cognizant Technology Solutions Pvt. India Ltd.**

Designation : Programmer Analyst (Software Developer)

Duration : April 2016 – June 2018

Teaching Experience : 1 Year

Organization : **Solutions Institute of Engineering and Technology**

Designation : Faculty

Duration : June 2013 - June 2014

Courses : Control Systems, Signals and Systems, Microprocessors and Microcontrollers

IT INDUSTRIAL PROJECT EXPERIENCE

- **Participant Enrollment Automation:**

Conducted automation testing for quality analysis in the Insurance industry, prepared testing documents and done coding for web application automation using cucumber and selenium.

- **Application Tracker:**

Roles include design and development of an application which provides details of upstream and downstream applications related to a particular app. Development Environment: Angular2, Java, STS, and Jersey Web Service

- **Clarity Tracker Application:**

Roles include Design, Coding, Testing, Defect Fixing, Preparation of Requirement Analysis Documents and Test Case Documents. Development Environment: STS, Java, Spring MVC, Hibernate, JSP.

- **Premium Calculator:** Development and Coding

ACADEMIC PROJECT EXPERIENCE

1. **Stabilization of flexible dynamics of launch vehicle using angular rate sensor located near the vehicle nose**

- Project Roles : Implementation of Control Techniques, Filter Designing, Analysis of launch vehicle models, Incorporation of flexible dynamics of launch vehicle, Preparation Project Reports,

Preparation of Journal, Data Collection

- Project Location : Vikram Sarabhai Space Center, ISRO, Trivandrum, India

2. Modeling of non-linear systems using soft computing techniques

- Project Roles : Data Collection, Data Analysis, Modeling using techniques of fuzzy, neural and neuro-fuzzy, Fuzzy modeling using various clustering techniques, Analyzing the efficiency of each method
- Project Location : Sri Ramakrishna Engineering College, Tamilnadu, India

3. Flow control using machine learning

- Project Roles : Implementation of PID control algorithm for flow control, Implementation of Neural Network Control Algorithm
- Project Location : Federal Institute of Science and Technology, Kerala, India

4. Guiding Robot

- Project Roles : Implementation of C Code to motor movements, Development of circuit
- Project Location : Federal Institute of Science and Technology, Kerala, India

PAPER PUBLICATION

1. Mohan, Athira M., Nader Meskin, and Hasan Mehrjerdi. "A comprehensive review of the cyber-attacks and cyber-security on load frequency control of power systems." *Energies* 13, no. 15 (2020): 3860. <https://www.mdpi.com/1996-1073/13/15/3860>
2. Mohan, Athira M., Nader Meskin, and Hasan Mehrjerdi. "Covert Attack in Load Frequency Control of Power Systems." In 2020 6th IEEE International Energy Conference (ENERGYCon), pp. 802-807. IEEE. <https://ieeexplore.ieee.org/document/9236537>
3. Mohan, Athira M., Nader Meskin, and Hasan Mehrjerdi. "MPC-Based Virtual Inertia Control of Islanded Microgrid Load Frequency Control and DoS Attack Vulnerability Analysis." In 2022 3rd International Conference on Smart Grid and Renewable Energy (SGRE), pp. 1-6. IEEE, 2022. <https://ieeexplore.ieee.org/document/9774122>

DECLARATION

I hereby declare that all the details and particulars provided above are true to the best of my knowledge.

Place: Doha, Qatar

Athira M Mohan