

CURRICULUM VITAE

S. Sheik Mohammed

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Objective:

Intend to build a career with leading corporate of hi-tech environment with committed & dedicated people, which will help me to explore myself fully and realize my potential. Willing to work as a key player in challenging & creative environment.

Experience: 5 Years in Teaching

- Working as Instructor in the Department of **Electrical and Computer Engineering** at **Dhofar University, Salalah, Sultanate of Oman** from **September 2008 to till date**.

Responsibilities

- Handling Laboratory Classes
 - Handling Theory Classes, Tutorials and Assignments
 - Preparing Lab Manuals and Designing circuits for Lab Experiments
 - Guiding and Supervising student's projects
 - Installing laboratory equipments and maintaining the records
- Worked as a Lecturer in the Department of **Electrical and Electronics Engineering** at **St. Peter's University, Chennai, India** from **September 2006 to August 2008**.

Responsibilities

- Handling Theory Classes, Tutorials and Assignments and Handling Lab
- Preparing Lab Manuals and Designing circuits for Lab Experiments
- Maintaining ISO files
- IEEE Branch Counselor
- Motivating students to participate in technical events
- Guiding students projects and technical papers

Education:

- **M.E in Power Electronics and Drives** from **Bannari Amman Institute of Technology, Sathyamangalam, Tamilnadu, India** with First class in **April 2006**.
Aggregate: 72% of all semesters
- **B.E in Electrical and Electronics Engineering** from **Syed Ammal Engineering College, Ramanathapuram, Tamilnadu, India** with First class in **April 2002**.
Aggregate: 70.00% of all semesters.

Skill Set:

Operating System Packages	:	Win 9X, Win XP and Vista
	:	OrCAD Pspice, MATLAB Simulink, Multisim, Zeland IE3D, VHDL (Beginner)
Languages	:	C, C++ (Basics)
Microcontroller	:	89C51
DSP	:	TMS320F240

Subjects Handled:

- ❖ **Special Electrical Machines**
- ❖ **Basic Electrical Engineering**
- ❖ **Electrical Machines**
- ❖ **Solid State Electric Drives**
- ❖ **Measurement and Instrumentation**
- ❖ **Power Electronics**
- ❖ **Analysis of Power Converters**

Laboratories Handled:

- ❖ **Electric Circuits Lab**
- ❖ **Microcontroller Lab**
- ❖ **Electrical Machines Lab**
- ❖ **Digital system Design Lab**
- ❖ **Basic Electronics Lab**
- ❖ **Measurements and Instrumentation Lab**
- ❖ **Power Electronics Lab**

Field of Interest:

- ❖ **Antenna and Microwave Engineering**
- ❖ **Communication Systems**
- ❖ **Wireless Power Transmission**
- ❖ **Power Electronics**
- ❖ **Special Electrical Machines**
- ❖ **Electric Drives**

Curriculum Project

Post Graduate Degree

1. Project Title : **“Design and Implementation of High Power DC-DC Converter and Speed Control of DC Motor using TMS320F240 DSP”.**
- Place : Bharat Electronics Limited (A Govt. of India Enterprise), Chennai, India.
2. Project Title : **Simulation of “A Novel Unity Power Factor Stage for AC Drive Application” using OrCAD Pspice**

Under Graduate Degree

Project Title : **“Remote Temperature Controller using Microcontroller 89C51”.**

Paper Presentation and Publications:

Journal Publications:

1. **S. Sheik Mohammed**, K.Ramasamy, T.Shanmuganantham **“A Sierpinski Based Mirostrip Patch Antenna for Wireless Power Transmission System”** Accepted for publication in the International Journal on Futuristic Computer Application (IJFCA). (International Conference on Futuristic Computer Applications, March 2010, to be held IISc, Bangalore, India).
2. **S. Sheik Mohammed**, K.Ramasamy, T.Shanmuganantham **“Wireless Power Transmission – A Next Generation Power Transmission System”** Accepted for publication in the International Journal on Futuristic Computer Application (IJFCA). (International Conference on Futuristic Computer Applications, March 2010, to be held IISc, Bangalore, India).

Conference Publications:

1. **S. Sheik Mohammed**, K.Ramasamy **“Solar Power Generation using SPS and Wireless Power Transmission”** International Conference on Energy and Environment, March 2009, held at Chandigarh, India.
2. **S. Sheik Mohammed**, V. Kumar Chinnaiyan **“Design and Implementation of High Power DC-DC Converter and Speed Control of DC Motor using TMS320F240 DSP”** at **IEEE conference of India**, December 2006, held at Chennai, India.
3. **S. Sheik Mohammed**, V. Kumar Chinnaiyan **“A Novel Unity Power Factor Stage for AC Drives Application”** on February 2006 at Bannari Amman Institute of Technology, Tamilnadu, India.
4. **S. Sheik Mohammed**, V. Kumar Chinnaiyan **“DSP based DC Motor Speed Control for Industrial Application”** on March 2006 at Government College of Engineering, Salem, India.

5. **S. Sheik Mohammed, V.Kumar Chinnaiyan** “**Design and Implementation of Multistage DC-DC Step Up Converter for DC Drive Application** on February 2006 at Bannari Amman Institute of Technology, Tamilnadu, India.”

6. **S. Sheik Mohammed, V. Kumar Chinnaiyan** “**Implementation of Closed Loop Speed Control of DC Motor using TMS320F240 DSP**” on April 2006 at S.S.N College of Engineering, Chennai, India.

Current Proposals:

- To develop a model for charging cellular phone battery by “**Microwave Power Transmission**”
- To develop a prototype for supplying power to the DC Motor “**Without using wires**”.

Training and Workshop:

- Attended 3 days workshop on Advanced Digital Signal Processors at Bannari Amman Institute of Technology, Tamilnadu, India

- Attended 11 days Faculty Development Training Programme at NITTTR, Chennai, Tamilnadu, India

Achievements:

- Received cash award from the institute for **secured 100% result** in Special Electrical Machines twice.

- Received cash award from the institute for **secured 100% result** in Analysis of converters.

- Received cash award from the institute for **secured 100% result** in Basic Electrical Engineering.

- Received cash award from the institute for **secured 95% result** in Measurements and Instrumentations.

Project Description

1. Design and Implementation of High Power DC-DC Converter and Speed Control of DC Motor using TMS320F240 DSP”.

DESCRIPTION:

The high power DC-DC step- up converter using analog control circuits and speed control of DC motor using TMS320F240 DSP are designed and implemented. In this technique a 24V DC input supply is converted into 135V DC by two-stage conversion. The full bridge topology is proposed for step up the DC voltage. The output of step-up converter is provided to the capacitive accumulator circuit which consists of 1.2F capacitor bank in it. The capacitive accumulator is mainly used to compensate peak power demand of the load for a transient period when sudden changes occur at load side and to store the energy under regenerative braking condition of DC motor. The capacitive accumulator circuit provides a constant voltage to the DC chopper under normal working condition. The closed loop speed control of DC motor is achieved using TMS320F240. The current and speed feed back are compared with their references respectively to achieve the speed control of DC motor which is used in military application.

2. Simulation of “A Novel Unity Power Factor Stage for AC Drive Application”

DESCRIPTION:

In this project, the method of improving the input current THD and power factor of the front-end rectifier relies on only using a bidirectional switch. The switch is gated on during a given overlapping duration of the input voltage. This method includes features like low cost, small size, high efficiency and simplicity. The Delta Modulation (DM) technique with proportional integrator is used for the control of the output stage of the Voltage Source Inverter (VSI) to provide constant volts per Hertz operation for AC motor drives without feedback complexity. The novelty of this proposed work is the incorporation of a simple Power Factor (PF) correction circuit into a complex rectifier inverter structure. It also aims to explore the effect of inverter generated frequency harmonics on the PF corrector, and inverter output voltage boosting capability over a wide power range. The complete circuit simulation of this project is done with the help of **OrCAD Pspice** Software.

Personal Profile:

Father's Name	:	M.Sulthan
Age	:	27
Date of Birth	:	30.07.1981
Sex	:	Male
Nationality	:	Indian
Religion	:	Muslim

References:

1. Dr. K. Ramasamy,
Professor,
Kamarajar College of Engg. and Tech.,
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3. Mr. G. Prakash
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Chennai, India.

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Declaration:

I consider myself familiar with Electrical Engineering Aspects. I am also confident of my ability to work in a team.

I hereby declare that the information furnished above is true to the best of my knowledge.

Date:

Place:

(S. Sheik Mohammed)