# SAI SHIBU N B

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**PERSONALITY PROFILE**

Self-Motivated, Self-Confident, Quick learning.
Ability to work with team as well as individually.

**WORK EXPERIENCE**

**Aug 2015 to Present:** Research Associate at Amrita Centre for Wireless Networks and Applications (Amrita WNA), Amrita Vishwa Vidyapeetham, Amritapuri Campus, Kollam, Kerala
**Dec 2016 to Present:** Faculty in-charge for Amrita Smart Grid Laboratory

**RESEARCH PUBLICATIONS**

https://scholar.google.co.in/citations?user=XaYGOZQAAAAJ&hl=en

**PROJECTS AT AMRITA WNA**

**Rural electrification using Renewable Energy for 101 adopted Villages**

Helped in the construction of micro hydro power generator for Komazhikudi village in Idukki district. Around 15 houses, streetlights and water pumps are powered from this source.

**Stabiliz-Energy**

Indo-European project funded under EU FP7 programme on Smart Grid with Distributed Energy Resources and Wireless Sensor Networks. Helped in setting up the communication infrastructure, real time data collection system and renewable energy system

**OceanNet**

Designed and deployed an automatic transceiver stabilizer for marine internet service for fisherman

**Jivamritham**

Jivamritham is an Initiative by Mata Amritanandamayi Mutt to deploy water purifiers over 100 panchayats in India. Helped the team in the deployment of water purifier at Pathanamthitta, Kerala.

**Amritavarsham**

Amritavarsham is the birthday celebration of our chancellor, Shri. Mata Amritanandamayi (AMMA). Every year more than 1 Million people gather for the function. Volunteered various activities for around 3 years.

**EDUCATION**

**2013 - 2015:**
MTech in Power Electronics
Amrita School of Engineering,
Coimbatore
**2009 to 2013:**
BTech in Electrical and Electronics Engineering
Amrita School Of Engineering,
Amritapuri
**2009:**
Higher Secondary Course Certificate
SBOA Matric Higher Secondary School, Chennai

**2007:**
Secondary School Leaving Certificate
Vidya Vikas Boys Higher Secondary School, Tiruchengode

**PROJECTS DURING POSTGRADUATE**

***Design of Active Series Compensator For Real Power Flow Rerouting in Transmission System***

A new Flexible AC Transmission System designed to eliminate the loss that happens in a transmission system due to power congestions. Power rerouting is achieved by varying the load angle of the system. The system consists of a Unipolar Sine PWM Inverter and the Arduino Mega 2560 for the control logic.

***Inductorless Multilevel Inverter for Hybrid Vehicle Drive***

The present inverter drives are costly and are inefficient due to the bulky inductors. Inductors are avoided using the 3 leg H-bridge inverter to make an efficient power delivery to the motors of hybrid vehicle. Five such inverters are cascaded to provide the multilevel configuration.

**PROJECTS DURING UNDERGRADUATE**

***Autonomous Self Balancing Bicycle***

The final year project was to design a working prototype capable of driving by itself to the harsh environment and defense area. The bicycle provides a platform to carry monitoring sensors and camera to these areas. The drive and steering are operated by a DC geared motor and servo motor respectively. Arduino Uno interfaced with the Gyro and accelerometer module provides the control algorithm.

***Students Social Responsibility Project***

As a part of Corporate & Industry Relations (CIR) program, a group with five members was assigned a task to bring awareness about Electrical and Electronics Engineering to higher secondary students who were interested in Engineering career. As a part of this project, we as a group visited nearby schools and gave a brief presentation about Engineering career and its future. The task was completed successfully having an active participation over 100 students.