

# Sumana Ghosh

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## EDUCATION

### UNIVERSITY OF CENTRAL FLORIDA, ORLANDO, USA

PH.D. IN ELECTRICAL ENGINEERING  
Fall 2018 - present

### NATIONAL INSTITUTE OF TECHNOLOGY, DURGAPUR, INDIA

M.TECH. IN ELECTRICAL ENGINEERING  
June 2018

### WEST BENGAL UNIVERSITY OF TECHNOLOGY, INDIA

B.TECH. IN ELECTRICAL ENGINEERING  
June 2014

## COURSEWORKS

- Advanced Power Electronics
- Grid-Connected PV System
- Machine Drives
- Machine Analysis
- Power System Stability
- Smart Power Grid Protection
- DSP Applications
- Advanced Control System
- Soft Computing Techniques
- Digital Control System
- Semiconductor Material and Device Characteristics

## PROGRAMMING SKILLS

- Matlab •PSIM •LTspice •Python •Eagle
- Arduino •DIALux •MiPower •Aspen

## WORKSHOPS

### RTOS FOR EMBEDDED SYSTEM

UNIVERSITY OF CENTRAL FLORIDA  
2020 | Florida, USA

### PCB DESIGN WORKSHOP

UNIVERSITY OF CENTRAL FLORIDA  
2019 | Florida, USA

### PRACTICAL TRAINING ON MIPOWER SOFTWARE

NATIONAL INSTITUTE OF TECHNOLOGY  
2018 | Durgapur, India

## PUBLICATIONS

A.Alhatlani, S.Ghosh, I.Batarseh, and, N.Kutkut, "Exact Steady-State Analysis of Phase-Shifted Dual-Input LLC Converter," 2019 IEEE Energy Conversion Congress and Exposition (ECCE), Baltimore, MD, USA, 2019, pp. 1394-1400.

S.Ghosh, R.Rezaii, A.Alhatlani and, I.Batarseh, "Analysis and Control of Grid-Tied Quad-PV LLC Converter with MPPT," 2020 IEEE Energy Conversion Congress and Exposition (ECCE), Detroit, MI, USA, 2020, pp. 1912-1918.

A.A.Hussein, A.Alhatlani, S.Ghosh, and, I.Batarseh, "A Double-Loop Maximum Power Point Tracking Algorithm for Dual-Input Phase-Shifted LLC Converter", 2020 IEEE Energy Conversion Congress and Exposition (ECCE), Detroit, MI, USA, 2020, pp. 3205-3209.

## PROJECTS

**STEADY STATE ANALYSIS AND GRID INTEGRATION OF QUAD-INPUT LLC CONVERTER** (Fall 2018 - present)  
Supervisor: Dr. Issa Batarseh, University of Central Florida

**GRID-TIED THREE-PORT INTEGRATED PV+BATTERY SYSTEM WITH ANFIS BASED MODEL PREDICTIVE CONTROLLER** (Spring 2020 - present)  
Supervisor: Dr. Issa Batarseh, Dr.Qun Zhou, University of Central Florida

**MODEL PREDICTIVE CONTROL OF SOLAR-WIND HYBRID SYSTEM SMART DC DISTRIBUTION SYSTEM** (May 2017 - May 2018)  
Supervisor: Jitesh Chandra Barman, NIT, Durgapur, India

**INVESTIGATION OF A LIGHTING SYSTEM OF A SEMINAR HALL AND MODIFICATION IN DESIGN FOR BETTERMENT** (July 2015 - December 2015)  
Supervisor: Dr. Biswanath Roy, Jadavpur University, Kolkata, India

**DESIGN OF A PID CONTROL TO COMPENSATE A PRACTICAL SYSTEM MODEL** (January 2014 - May 2014)  
Supervisor: Mahadev Sen, AIT, Kolkata, India  
2014| Kolkata, India

## TRAININGS

### TRANSMISSION LINE AT 132/33KV SUBSTATION

WEST BENGAL STATE ELECTRICITY TRANSMISSION COMPANY LIMITED, WEST BENGAL, INDIA

### DISTRIBUTION OF ELECTRICITY IN 33/11KV SUBSTATION

WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED, WB, INDIA

### ELECTRICITY DISTRIBUTION AND VARIOUS ASPECTS OF METRO RAILWAY SYSTEM

METRO RAILWAY KOLKATA, WEST BENGAL, INDIA