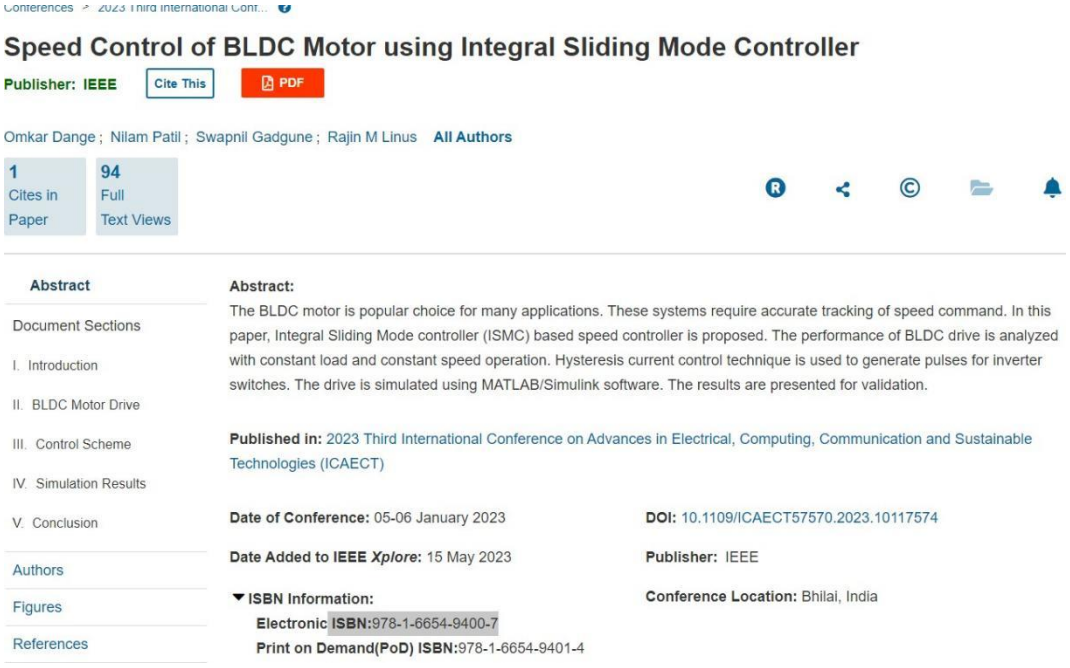
## CRITERIA III

**3.3.2 Copy of The Cover Pages, Content Page and First Page of the Publication indicating ISBN Number and Year of the Publication for books /chapters(IEEE)**

# 1)2022-23

I)Web link:-https://ieeexplore.ieee.org/document/10117574



Conferences > 2023 Third International Conf...

Speed Control of BLDC Motor using Integral Sliding Mode Controller

Publisher: IEEE | Cite This | PDF

Omkar Dange ; Nilam Patil ; Swapnil Gadgune ; Rajin M Linus All Authors

1 Cites in Paper | 94 Full Text Views

Abstract

Document Sections

I. Introduction

II. BLDC Motor Drive

III. Control Scheme

IV. Simulation Results

V. Conclusion

Authors

Figures

References

**Abstract:**

The BLDC motor is popular choice for many applications. These systems require accurate tracking of speed command. In this paper, Integral Sliding Mode controller (ISMC) based speed controller is proposed. The performance of BLDC drive is analyzed with constant load and constant speed operation. Hysteresis current control technique is used to generate pulses for inverter switches. The drive is simulated using MATLAB/Simulink software. The results are presented for validation.

**Published in:** 2023 Third International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT)

**Date of Conference:** 05-06 January 2023

**DOI:** 10.1109/ICAECT57570.2023.10117574

**Date Added to IEEE *Xplore*:** 15 May 2023

**Publisher:** IEEE

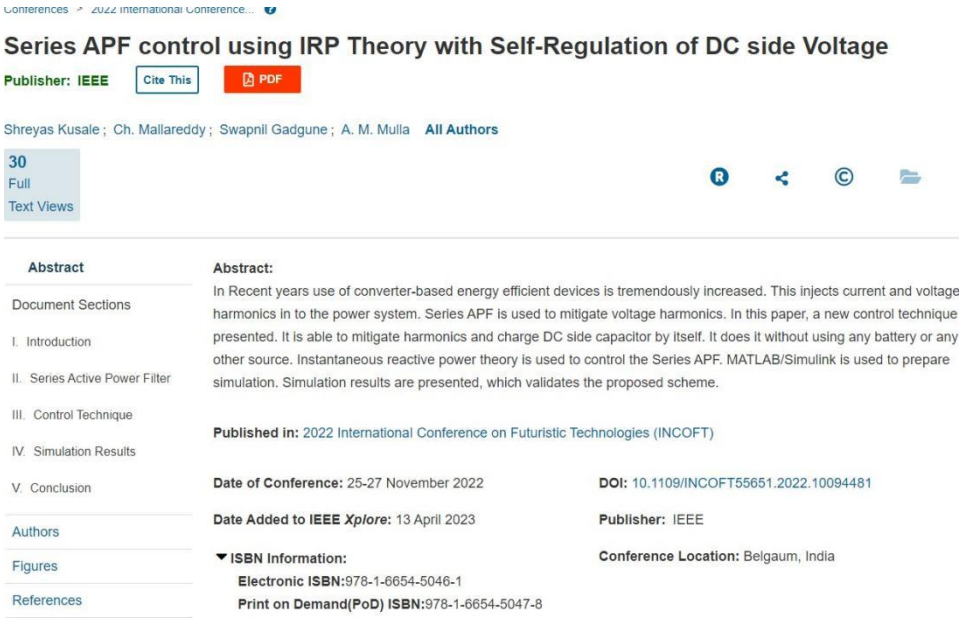
**ISBN Information:**

**Electronic ISBN:**978-1-6654-9400-7

**Print on Demand(PoD) ISBN:**978-1-6654-9401-4

**Conference Location:** Bhilai, India

Web Link:-https://ieeexplore.ieee.org/document/10094557



Conferences > 2022 International Conference...

# Series APF control using IRP Theory with Self-Regulation of DC side Voltage

Publisher: IEEE Cite This PDF

Shreyas Kusale ; Ch. Mallareddy ; Swapnil Gadgune ; A. M. Mulla All Authors





**Abstract:**
In Recent years use of converter-based energy efficient devices is tremendously increased. This injects current and voltage harmonics in to the power system. Series APF is used to mitigate voltage harmonics. In this paper, a new control technique presented. It is able to mitigate harmonics and charge DC side capacitor by itself. It does it without using any battery or any other source. Instantaneous reactive power theory is used to control the Series APF. MATLAB/Simulink is used to prepare simulation. Simulation results are presented, which validates the proposed scheme.

**Published in:** 2022 International Conference on Futuristic Technologies (INCOFT)

**Date of Conference:** 25-27 November 2022

**DOI:** 10.1109/INCOFT55651.2022.10094481

**Date Added to IEEE *Xplore*:** 13 April 2023

**Publisher:** IEEE

**ISBN Information:**
**Electronic ISBN:**978-1-6654-5046-1
**Print on Demand(PoD) ISBN:**978-1-6654-5047-8

**Conference Location:** Belgaum, India

## 2)2021-22

Web Link:-https://ieeexplore.ieee.org/document/9686478

**Published in:** 2021 IEEE Pune Section International Conference (PuneCon)

**Date of Conference:** 16-19 December 2021

**DOI:** 10.1109/PuneCon52575.2021.9686478

**Date Added to IEEE *Xplore*:** 31 January 2022

**Publisher:** IEEE

▼**ISBN Information:**

**Electronic ISBN:**978-1-6654-4479-8

**USB ISBN:**978-1-6654-4478-1

**Print on Demand(PoD) ISBN:**978-1-6654-4480-4

**Conference Location:** Pune, India

Conferences > 2021 IEEE Pune Section Intern...

# A Review On Determination Of Soil Organic Matter and Soil Moisture Content Using Conventional Methods And Image Processing Techniques

Publisher: IEEE | Cite This | PDF

Vaishali S. Patil ; Santosh A. Shinde ; Nandkishor M. Dhawale All Authors

3 Cites in Papers | 194 Full Text Views



**Abstract:**
Soil Organic Matter (SOM) and Soil Moisture Content (SMC) are very useful and important soil properties through which it is possible to monitor agricultural treatments of chemical inputs to soil for the plants. One of the physical benefit of SOM is it gives aggregate stability which results in reduce crusting, improves water holding capacity, improves water filtration capacity and pour space and air distribution by increasing SOM content. Soil moisture tension is the density of water holding capacity. The different types soil analysis techniques are available, but traditional methods are laborious time consuming as well as do not guaranteed accuracy of information in short window of time needed during the crop growing seasons. So there is need to seek for easier and proper methods of analyzing soil that are simple, precise, quick and economical in labs or/and in field. Researchers have studied the estimation of various methods for rapid quantification and monitoring of some surface soil properties such as SOM and SMC. The purpose of this work is to explore the possibilities and limitations of traditional and new techniques for soil analysis. Therefore, the review has been carried out for the determination of SOM and SMC using image processing.

**Published in:** 2021 IEEE Pune Section International Conference (PuneCon)

**Date of Conference:** 16-19 December 2021 **DOI:** 10.1109/PuneCon52575.2021.9686478

Web Link:-https://ieeexplore.ieee.org/document/9782053

# Renewable Energy based Isolated Contactless Bidirectional Energy Management System for Electric Vehicle

Publisher: IEEE | Cite This | PDF

Balasaheb M. Patil ; Swapnil Y. Gadgune All Authors

1 Cites in Paper | 108 Full Text Views

Abstract

Document Sections

I. Introduction

II. System Design

III. SIMULATION AND RESULTS

IV. Hardware implementation and Results

V. Results of Hardware

Show Full Outline

Authors

**Abstract:**
There are alternative answers to the problem of charging electric vehicles in a world where electric charging stations are essential to accelerate the energy transition As an example, wireless charging is one way to go. There are a number of differences between wireless car charging and smartphone charging. An isolated contactless bidirectional energy management system for an electric vehicle based on renewable energy is given in this research. Inductive charging allows electric vehicles to self-charge without the usage of cables. A higher voltage, more power, and more energy transfer are required to charge an electric vehicle (EV). So, technical developments, safety, cost, and the environment are all significantly more difficult to deal with as a result. This is owing to the fact that EV charging requires high voltage and high power, which makes wireless charging solutions problematic. There's an additional charge that must be built into the car in order for wireless charging to work, which increases the cost of your vehicle. As part of the proposed system, infrastructure costs may be reduced, and power can be transmitted more effectively. There is the prospect of fast charging, as well as reduced maintenance requirements and almost no electromagnetic emissions, among other benefits of this technology.

**Published in:** 2021 4th International Conference on Recent Trends in Computer Science and Technology (ICRTCST)

**Date of Conference:** 11-12 February 2022

**DOI:** 10.1109/ICRTCST54752.2022.9782053

**Date Added to IEEE *Xplore*:** 27 May 2022

**Publisher:** IEEE

**ISBN Information:**

**Electronic ISBN:**978-1-6654-6633-2

**Print on Demand(PoD) ISBN:**978-1-6654-6634-9

**Conference Location:** Jamshedpur, India

Web Link:-https://ieeexplore.ieee.org/document/9707979/authors#authors

**Published in:** 2021 4th International Conference on Recent Trends in Computer Science and Technology (ICRTCST)

**Date of Conference:** 11-12 February 2022

**DOI:** 10.1109/ICRTCST54752.2022.9782053

**Date Added to IEEE *Xplore*:** 27 May 2022

**Publisher:** IEEE

**ISBN Information:**

**Electronic ISBN:**978-1-6654-6633-2

**Print on Demand(PoD) ISBN:**978-1-6654-6634-9

**Conference Location:** Jamshedpur, India


**Published in:** 2021 5th International Conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques (ICEECCOT)

**Date of Conference:** 10-11 December 2021

**DOI:** 10.1109/ICEECCOT52851.2021.9707979

**Date Added to IEEE *Xplore*:** 16 February 2022

**Publisher:** IEEE

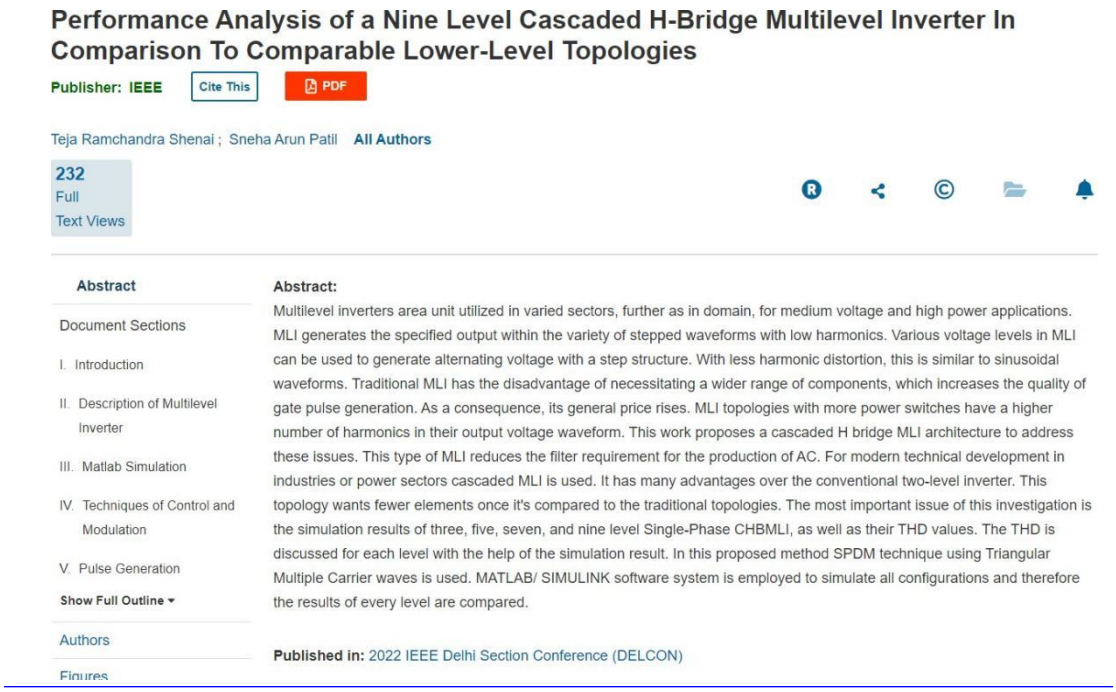
**ISBN Information:**

**Electronic ISBN:**978-1-6654-3272-6

**Print on Demand(PoD) ISBN:**978-1-6654-3273-3

**Conference Location:** Mysuru, India

Web Link https://ieeexplore.ieee.org/document/9753184



# Performance Analysis of a Nine Level Cascaded H-Bridge Multilevel Inverter In Comparison To Comparable Lower-Level Topologies

Publisher: IEEE Cite This PDF

Teja Ramchandra Shenai ; Sneha Arun Patil All Authors

232 Full Text Views

Abstract

Document Sections

I. Introduction

II. Description of Multilevel Inverter

III. Matlab Simulation

IV. Techniques of Control and Modulation

V. Pulse Generation

Show Full Outline

Authors

Figures

**Abstract:**
Multilevel inverters area unit utilized in varied sectors, further as in domain, for medium voltage and high power applications. MLI generates the specified output within the variety of stepped waveforms with low harmonics. Various voltage levels in MLI can be used to generate alternating voltage with a step structure. With less harmonic distortion, this is similar to sinusoidal waveforms. Traditional MLI has the disadvantage of necessitating a wider range of components, which increases the quality of gate pulse generation. As a consequence, its general price rises. MLI topologies with more power switches have a higher number of harmonics in their output voltage waveform. This work proposes a cascaded H bridge MLI architecture to address these issues. This type of MLI reduces the filter requirement for the production of AC. For modern technical development in industries or power sectors cascaded MLI is used. It has many advantages over the conventional two-level inverter. This topology wants fewer elements once it's compared to the traditional topologies. The most important issue of this investigation is the simulation results of three, five, seven, and nine level Single-Phase CHBMLI, as well as their THD values. The THD is discussed for each level with the help of the simulation result. In this proposed method SPDM technique using Triangular Multiple Carrier waves is used. MATLAB/ SIMULINK software system is employed to simulate all configurations and therefore the results of every level are compared.

**Published in:** 2022 IEEE Delhi Section Conference (DELCON)

**Published in:** 2022 IEEE Delhi Section Conference (DELCON)

**Date of Conference:** 11-13 February 2022

**DOI:** 10.1109/DELCON54057.2022.9753184

**Date Added to IEEE *Xplore*:** 20 April 2022

**Publisher:** IEEE

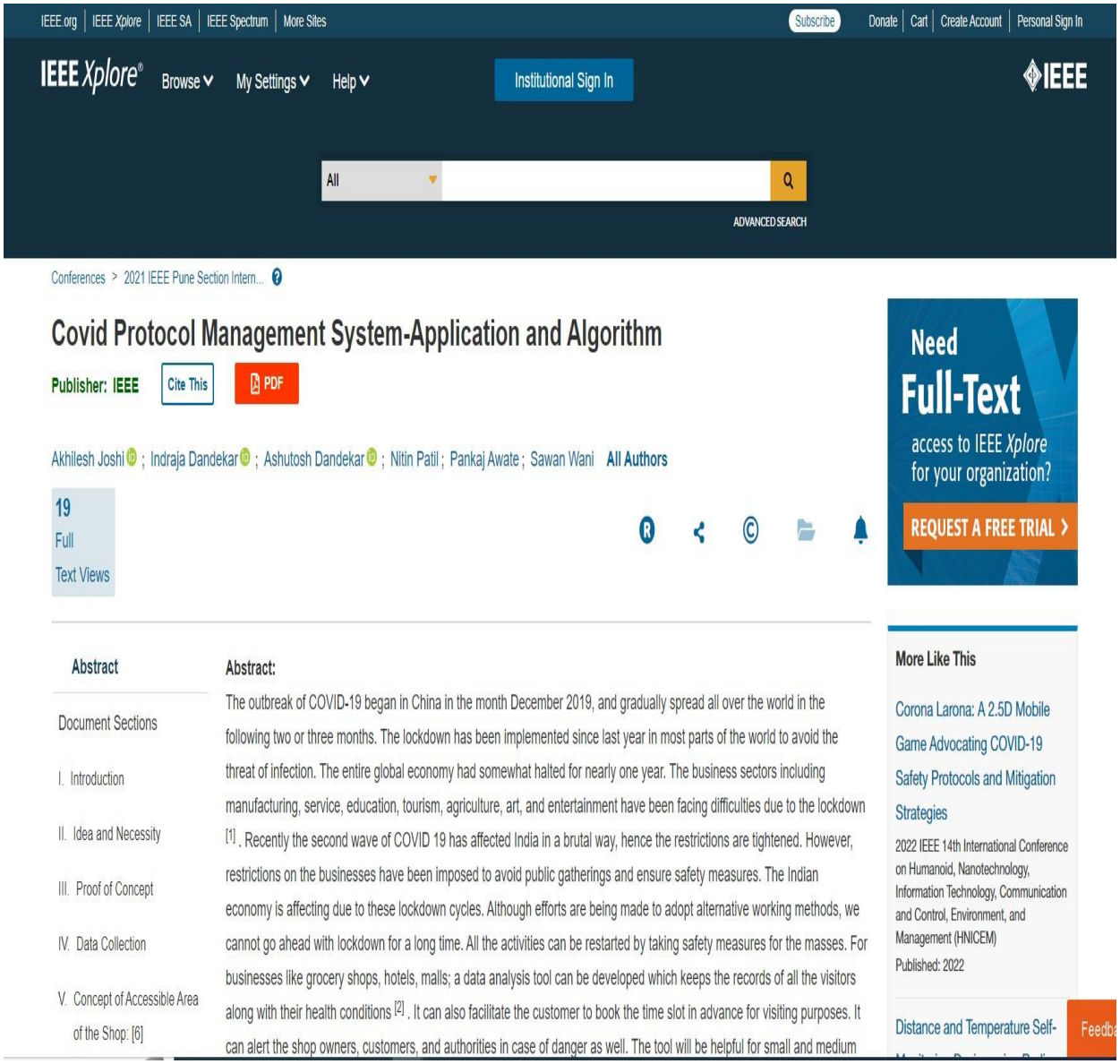
**ISBN Information:**

**Electronic ISBN:**978-1-6654-5883-2

**Print on Demand(PoD) ISBN:**978-1-6654-5884-9

**Conference Location:** New Delhi, India

Web Link https://ieeexplore.ieee.org/document/9686540




**Published in:** 2021 IEEE Pune Section International Conference (PuneCon)

**Date of Conference:** 16-19 December 2021

**DOI:** 10.1109/PuneCon52575.2021.9686540

**Date Added to IEEE *Xplore*:** 31 January 2022

**Publisher:** IEEE

**ISBN Information:**

**Electronic ISBN:**978-1-6654-4479-8

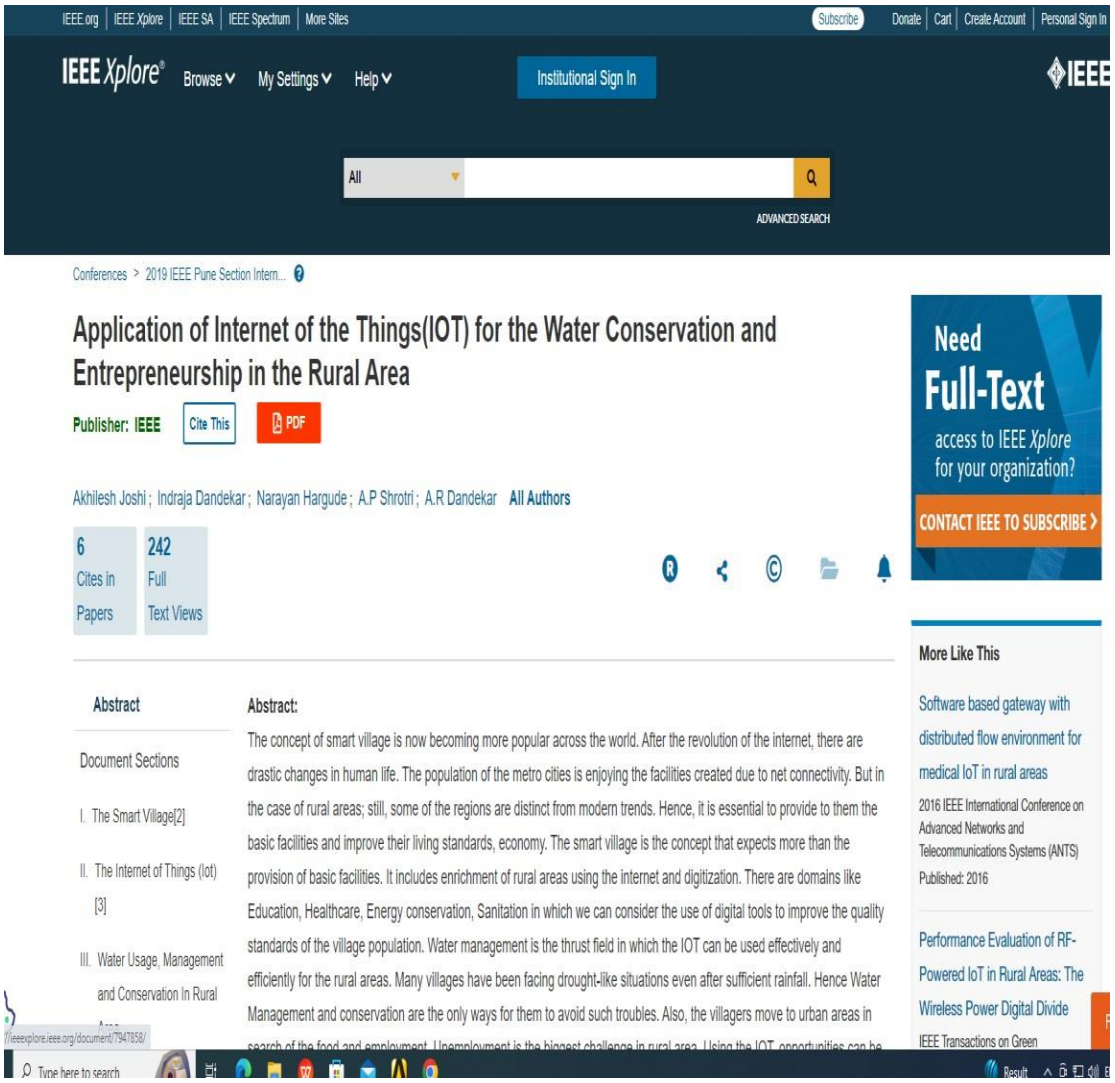
**USB ISBN:**978-1-6654-4478-1

**Print on Demand(PoD) ISBN:**978-1-6654-4480-4

**Conference Location:** Pune, India

**3)2019-20**

**Web Link:-**https://ieeexplore.ieee.org/document/9105807/similar#similar




**Published in:** 2019 IEEE Pune Section International Conference (PuneCon)

**Date of Conference:** 18-20 December 2019

**DOI:** 10.1109/PuneCon46936.2019.9105807

**Date Added to IEEE *Xplore*:** 02 June 2020

**Publisher:** IEEE

**ISBN Information:**

**Electronic ISBN:**978-1-7281-1924-3

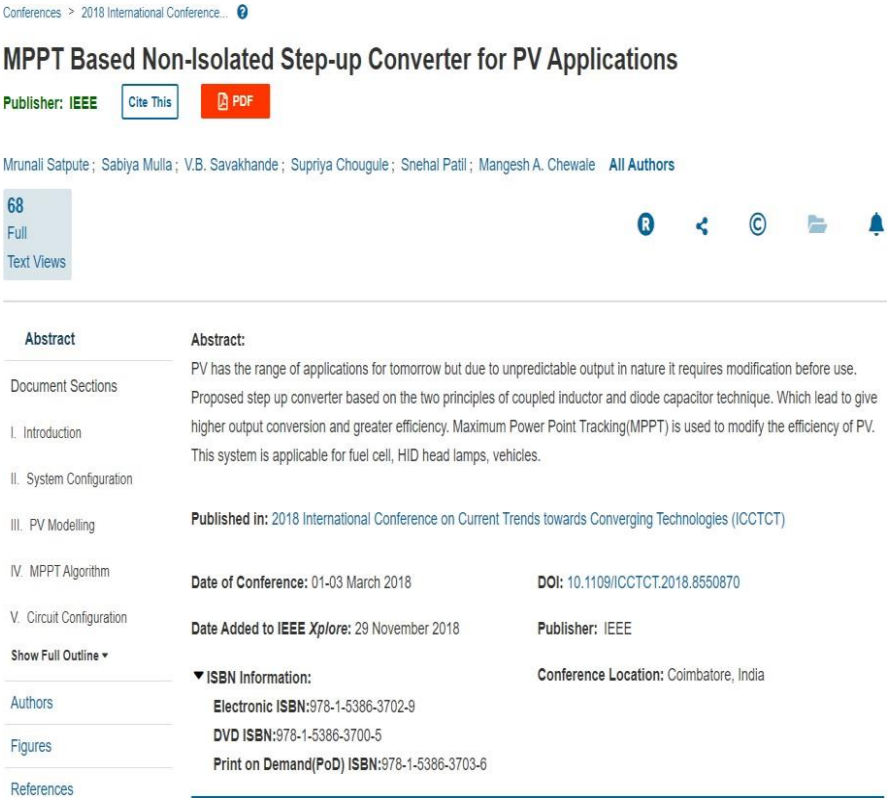
**CD:**978-1-7281-1923-6

**Print on Demand(PoD) ISBN:**978-1-7281-1925-0

**Conference Location:** Pune, India

## 4)2018-2019

## Web Link:-https://ieeexplore.ieee.org/document/8550870



Conferences > 2018 International Conference...

# MPPT Based Non-Isolated Step-up Converter for PV Applications

Publisher: IEEE | Cite This | PDF

Mrunali Satpute ; Sabiya Mulla ; V.B. Savakhande ; Supriya Chougule ; Snehal Patil ; Mangesh A. Chewale All Authors

68 Full Text Views

Abstract

Document Sections

I. Introduction

II. System Configuration

III. PV Modelling

IV. MPPT Algorithm

V. Circuit Configuration

Show Full Outline

Authors

Figures

References

**Abstract:**
PV has the range of applications for tomorrow but due to unpredictable output in nature it requires modification before use. Proposed step up converter based on the two principles of coupled inductor and diode capacitor technique. Which lead to give higher output conversion and greater efficiency. Maximum Power Point Tracking(MPPT) is used to modify the efficiency of PV. This system is applicable for fuel cell, HID head lamps, vehicles.

**Published in:** 2018 International Conference on Current Trends towards Converging Technologies (ICCTCT)

**Date of Conference:** 01-03 March 2018

**DOI:** 10.1109/ICCTCT.2018.8550870

**Date Added to IEEE *Xplore*:** 29 November 2018

**Publisher:** IEEE

**ISBN Information:**

**Electronic ISBN:**978-1-5386-3702-9

**DVD ISBN:**978-1-5386-3700-5

**Print on Demand(PoD) ISBN:**978-1-5386-3703-6

**Conference Location:** Coimbatore, India

Web Link:-https://ieeexplore.ieee.org/document/8550918

# A Review on UPQC for Power Quality Enhancement in Distribution System

Publisher: IEEE Cite This PDF

R.A. Wanjari ; V.B. Savakhande ; M. A. Chewale ; P.R. Sonawane ; R. M. Khobragade All Authors





**Abstract:**
In contemporary years, engineers are progressive lyanxious over the quality of the electrical power. In current power system contain sextensive array of power electronic and electrical apparatus into industrial and commercial applications. There is more number of electronics equipment which is in nonlinear manner which induce a power quality complications like harmonics, voltage sag, voltage swell in the system. Regarding to this power quality issues there is a many compensating devices available but among those Unified Power Quality Conditioner which have a tendency to combine shunt active and series active power filters to alleviate the any kind of voltage mitigation and improves the current variations and also it performs a power factor modification in a network like distribution. Hence at the point of common link we can get an improved power quality like smooth current and rated voltage. In This paper presents a complete literature review on the unified power quality conditioner (UPQC) to improve the electric power quality at distribution levels. This is proposed to present a extensive outline on the different probable UPQC system formation.

**Published in:** 2018 International Conference on Current Trends towards Converging Technologies (ICCTCT)

**Date of Conference:** 01-03 March 2018

**DOI:** 10.1109/ICCTCT.2018.8550918

**Date Added to IEEE *Xplore*:** 29 November 2018

**Publisher:** IEEE

**Published in:** 2018 International Conference on Current Trends towards Converging Technologies (ICCTCT)

**Date of Conference:** 01-03 March 2018

**DOI:** 10.1109/ICCTCT.2018.8550918

**Date Added to IEEE *Xplore*:** 29 November 2018

**Publisher:** IEEE

**ISBN Information:**

**Electronic ISBN:**978-1-5386-3702-9

**DVD ISBN:**978-1-5386-3700-5

**Print on Demand(PoD) ISBN:**978-1-5386-3703-6

**Conference Location:** Coimbatore, India

# Sinusoidal Tracking Algorithm Based Voltage Oriented Control of Harmonic Less Rectifier

Conference paper | First Online: 19 May 2020
pp 1633–1641 | Cite this conference paper


ICDSMLA 2019

Swapnil Y. Gadgune ✉, Utkarsh V. Patil & P. M. Joshi

Part of the book series: Lecture Notes in Electrical Engineering ((LNEE,volume 601))



## Abstract

This paper analyses the operation of rectifier using Sinusoidal Tracking Algorithm (STA). The algorithm is simple and capable of extracting fundamental component. Better current waveform, harmonic less operation is possible by this method. The unity power factor, DC link voltage regulation are also possible. Hysteresis Current Controller is used for generating gate pulses. The proposed method is simulated using MATLAB/Simulink