IDENTIFICATION OF HARMONICS IN INVERTER USING WAVELET TRANSFORM" by Muthu Raja Lakshmi and Edwin Isaac Raj from Einstein College of Engineering, India.

ARMAND AZONNAHIN

UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL

May 25, 2015

Table of Contents

Introduction

Objective & Argument

Methodology

Results

Discussion

Conclusion

Introduction

Electrical and Electronic Engineering is arguably the technology which has most shaped the world we live in. All aspects of our lives are affected by the electrical power we take for granted.

Introduction

- Electrical and Electronic Engineering is arguably the technology which has most shaped the world we live in. All aspects of our lives are affected by the electrical power we take for granted.
- Electrical and Electronics Engineering is a dynamic and exciting discipline which will continue to serve the needs of society through the economic and responsible exploitation of existing technology and the development of innovative ideas.

Objective & Argument

 This article aims at identifying harmonics in inverter using Discrete Wavelet Transform (DWT).

Objective & Argument

- This article aims at identifying harmonics in inverter using Discrete Wavelet Transform (DWT).
- ► The authors present an argument for Students of Electrical and Electronic Engineering to use Discrete Wavelet Transform to identify harmonics in inverter which the authors believe is essential for finding the fault easily in the electrical system.

Objective & Argument

- This article aims at identifying harmonics in inverter using Discrete Wavelet Transform (DWT).
- ► The authors present an argument for Students of Electrical and Electronic Engineering to use Discrete Wavelet Transform to identify harmonics in inverter which the authors believe is essential for finding the fault easily in the electrical system.
- Muthu Lakshmi and Edwin Raj are keen to point out that the identification of harmonics in the power system forms the basis in the field of harmonic analysis.

Methodology

► The authors use a Scientific Method :Question ,Hypothesis, Prediction,Testing, Analysis & Conclusion.

Results

The authors contend that the output voltage waveform of an inverter can be compressed by using a Wavelet Transform and from which the harmonics present in the waveform can be identified.

Results

- The authors contend that the output voltage waveform of an inverter can be compressed by using a Wavelet Transform and from which the harmonics present in the waveform can be identified.
- And this identification can be used to find the fault easily.

Discussion

Students of Electrical and Electronic Engineering would find this article useful for doing simulations with Matlab as would Students of Science and Technology for identifying various categories of power system disturbances.

Discussion

- Students of Electrical and Electronic Engineering would find this article useful for doing simulations with Matlab as would Students of Science and Technology for identifying various categories of power system disturbances.
- Though lacking informative depth, the article allows to identify clearly harmonics in inverter using wavelet transform.

Conclusion

In summary, I believe that the author's position -find the solution of one of the biggest problems in power quality aspects using wavelet transform - has been profoundly developed. Students of Science, Engineering and Technology may be encouraged to use wavelet transform by identifying a powerful signal processing tool in communications.

Conclusion

- In summary, I believe that the author's position -find the solution of one of the biggest problems in power quality aspects using wavelet transform - has been profoundly developed. Students of Science, Engineering and Technology may be encouraged to use wavelet transform by identifying a powerful signal processing tool in communications.
- In terms of future research, this article could lead to identify the method of finding fault in the electrical system using Discrete Wavelet Transform (DWT).

References

- Carlos M. Orallo, Ignacio Carugati, "Harmonics Measurement With a Modulated Sliding Discrete Fourier Transform Algorithm", IEEE, April, 2014.
- Friedman,A. and Littman,W.(1994),Industrial Mathematics,A Course in Solving Real-World Problems, SIAM.
- ► W. K. Yoon and M.J. Devaney, "Power Measurement Using the Wavelet Transform", IEEE, 1998.

Contact

- armand.azonnahin@gmail.com
- r.muthu26@gmail.com
- edwinisaacraj@gmail.com
- ► Einstein College of Engineering, Tirunelveli, India .

Acknowledgement

THANKS !