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Sl. No.	Title of the collaborative activity	Name of the collaborating agency with contact details	Name of the participant	Year of collaboration	Duration	Nature of the activity
2016-17	Cognitive computational semantic for high resolution image interpretation using artificial neural network	Wireless Personal Communications-Springer	Nagarajan G, Minu R,, Suresh A, Jayanthila Devi	2016		Research paper publication
	Parametric method based inter-turn incipient short circuit stator fault detection of induction motor	Indian Journal of Science and Technology	Abitha Memala.W, V Rajini	2016		Research paper publication
	Multimodal Fuzzy Ontology Creation and Knowledge Information Retrieval	Springer	G.Nagarajan, R.I.Minu	2016		Research paper publication
	FSM-Based VLSI Architecture for	Advances in Intelligent Systems and Computing, ISBN: 978-3-319-	k.Vasanth, V Elanangai, S Saravanan, G Nagarajan	2016		Research paper

the 3×3 Window-Based DBUTMPF Algorithm	48516-4 (Print) 978-3-319-48517-1 (Online)				publication
Dual Converter Multimotor Drive for Hybrid Permanent Magnet Synchronous in Hybrid Electric Vehicle	Advances in Intelligent Systems and Computing, ISBN: 978-3-319-48516-4 (Print) 978-3-319-48517-1 (Online)	G. Nagarajan, C. N. Ravi, K. Vasanth, D. Godwin Immanuel, S. D. Sundarsingh Jebaseelan	2016		Research paper publication
Robust Adaptive Algorithm by an Adaptive Zero Attractor Controller of ZA-LMS Algorithm,”	Mathematical Problems in Engineering	Radhika, S., and Arumugam Sivabalan	2016		Research paper publication
Smart Fuzzy based Energy-saving Photovoltaic Burp charging system	Int.conf .on power,Energy,information and communication (ICCPEIC)	G.Nagarajan, R I Minu	2017		Research paper publication
Implementation of fast square root carry select adder with low power consumption	InternationalConference on Computation of Power, Energy Information and Commuincation (ICCPEIC-2017)	V.Elanangai and Dr.K.Vasanth	2017		Research paper publication
Novel cascaded H-bridge sub-multilevel inverter with reduced switches towards low total harmonic distortion for photovoltaic application	International Journal of Ambient Energy, Taylor & Francis & Informa UK Limited, trading as Taylor & Francis Group	Ramesh Babu, A.,Raghavendiran, T.A.,Sivachidambaranathan, V.,Barnabas Paul Gladys, J.	2017		Research paper publication
Multi Variable Speed Control of Induction Motor Using Z-Source Inverter.	Research Journal of Pharmaceutical, Biological and Chemical Sciences (RJPBCS)	D.N.S Ravi Kumar J.Hema Devi	2017		Research paper publication

Intelligent Power Management for Residential Buildings Using Sensor Networks and Zigbee Pro.	Research Journal of Pharmaceutical, Biological and Chemical Sciences (RJPBCS)	D.N.S Ravi Kumar J.Hema Devi	2017		Research paper publication
Drivers Safety For Alerts On Pot Holes and Humps on Road a Cloud Based Approach.	Research Journal of Pharmaceutical, Biological and Chemical Sciences (RJPBCS)	D.N.S Ravi Kumar J.Hema Devi	2017		Research paper publication
Alleviate the Voltage gain of High Step-up DC to DC converter using Quasi Active Switched Inductor Structure for Renewable Energy	2017 International Conference on Computation of Power,Energy, Information and Communication (ICCPEIC).,Adhiprasakthi Engineering collge ,Melmaruvathur	V.Balasubramanian,V.Senthil Nayagam, Jayarama pradeep	2017		Research paper publication
Implementation of High Voltage Gain Interleaved Boost Converter Combined with Switched Capacitor for the Low Power Application	International Conference on Computation of Power, Energy Information and Communication (ICCPEIC), 2016,Adhiparasakthi Engineering College	V.Senthil Nayagam , L.Prema latha	2017		Research paper publication
Novel Non-Isolated High Step-Down Three Phase Interleaved Dc-Dc Converter With Capacitor Voltage Division Technique	IEEE CONFERENCE (ICCCT 2017)	Ramesh Babu Arunagiri, Raghavendiran T A, Barnabas Paul Gladly J,Dr.G.T.Sundar rajan	2017		Research paper publication
FPGA Based Modified Space Vector PWM technique for induction motor drive	2017 International Conference on Computation of Power,Energy, Information and Communication (ICCPEIC).,Adhiparasakthi Engineering College	V.Meenakshi,s.paramasivam	2017		Research paper publication
A Novel Approach to	Springer India	S.NirmalRaj, Dr.T.Vigneswaran	2017		Research paper

	Compress an Image Using Cascaded Transform and Compressive Sensing					publication
	Closed-loop control of FACTS devices in power system	Advances in Intelligent Systems and Computing, ISBN: 978-3-319-48516-4 (Print) 978-3-319-48517-1 (Online),Springer	S. D. Sundarsingh Jebaseelan1 C. N. Ravi G. Nagarajan S. Marlin	2017		Research paper publication
	Hybrid Genetic Algorithm for Medical Image Feature Extraction and selection	Procedia Computer Science,Science Direct, (Elsevier).	G.Nagarajan, R.I.Minu, B Muthukumar , V.Vedanarayanan & S.D.Sundarsingh	2017		Research paper publication
	Fuzzy Empowered Cognitive Spatial Relation Identification and Semantic Action Recognition	Science Direct, (Elsevier).	G.Nagarajan, R.I.Minu	2017		Research paper publication
	Motor current signatures and their envelopes as tools for fault diagnosis	Intelligent Automation & Soft Computing	Abitha Memala W. & V. Rajini	2017		Research paper publication
	STUDENT FOREIGN EXCHANGE PROGRAMME	University of Craiova, Romania	Malepati Pavan Kumar	2017		STUDENT FOREIGN EXCHANGE PROGRAMME
	STUDENT FOREIGN EXCHANGE PROGRAMME	University of Craiova, Romania	Rishu Ranjan	2017		STUDENT FOREIGN EXCHANGE PROGRAMME
	STUDENT FOREIGN EXCHANGE PROGRAMME	University of Craiova, Romania	Kanteti Kalyan Pavan Kumar	2017		STUDENT FOREIGN EXCHANGE PROGRAMME

	Neural Network Controlled High-Step Up Based Single-Phase PV Inverter System with Improved Dynamic Response	Book Series: IEEE- International Conference on Advanced Computing and Communication Systems	M.L.Bharathi, V.Kirubakaran	2017		Research paper publication
	World Festival Of Youth And Students, Russia	World Festival Of Youth And Students, Russia	Samarjit Roy	2017		Won Best Paper Award
	3rd Annual NASA Human Exploration Rover Challenge	3rd Annual NASA Human Exploration Rover Challenge	Shekhar Datt Pathak	2017		Participated
	CTS AWARD	CTS AWARD	Shekhar Datt Pathak	2017		BEST OUTGOING STUDENT AWARD
	Programming and Customizing an IOT Product and Application using TEXAS Platform	Mr.Rajesh, Digital Sharks & Texas Instrumentation Texas Instruments Digital shark technology, Bangalore	II Year,2016-2020 & III Year 2015-2019	2017	2 days	Workshop
	Recent Industrial Trends in IOT & Applications of IOT	Mr.Yathish.M, MR.Prashanth Ram, Digital Sharks & Texas Instrumentation Texas Instruments Digital shark technology, Bangalore	2015 batch EEE students	2017	2 hours	Workshop
	Implementation of a solar PV system	Mr.G.Rajaganesan, Chief Technical officer- Solar Initiatives, TATTI, Chennai.	II Year,2017-2021 & III Year 2016-2020	2018	7 days	Training program
	Opportunities and challenges of renewable energy in smart grid system	Mr.Arul doss albert anna university,chennai Mr.Srinivas IIT chennai	2016 batch EEE third year 2018 batch EEE 1st year	2018	3 days	Seminar
	Integration of green energy with smart	Dr.Balaraman director NIWE Dr.Shanthi swarnam IIT chennai	Faculty and students	2018	8 days	FDP

	grid through IOT	Dr.Kumaravel NIT calicut				
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Wireless Personal Communications-Springer

Biomedical Research



All submissions of the EM system will be redirected to **Online Manuscript Submission System**. Please submit articles directly to **Online Manuscript Submission System** of respective journal.

► Research Article - Biomedical Research (2016) Volume 0, Issue 0

Cognitive computational semantic for high resolution image interpretation using artificial neural network

In this paper presented an, intellectual methodology for automation in segmentation and semantic annotation of Synthetic Aperture Radar (SAR) images. A hybrid, artificial neural network based combination of region connection calculus (RCC) and fractal JSEG algorithm was used to segment the spatially oriented SAR images. Ontological approach was used to semantically annotate the notable regions on the segmented SAR images. For the automatic tagging of images, shape based contour gradient algorithm were proposed and used effectively. The contour gradient feature for the region like road, irrigation land, building, water reservoirs and etc., are extracted and the values are indexed respectively in the created ontology. The experimental results show promising gain on the annotation of untrained SAR images.

Author(s): Minu RI, Nagarajan G, Suresh A, Iyavanthila Devi A

Parametric Method based Inter-Turn Incipient Short Circuit Stator Fault Detection of Induction Motor

W. Abitha Memala and V. Rajini

EEE, SSNCE, Old Mahabalipuram Road, Kalavakkam, Chennai - 603110, Tamil Nadu, India;
abithamemalaw82@yahoo.com, rajiniv@ssn.edu.in

Abstract

Objectives: The parametric method is proposed to identify the inter-turn incipient short circuit fault of induction motor.

Methods/Statistical Analysis: The Parametric methods are the high resolution methods, which are used to detect the frequencies with low signal to noise (SNR) ratio using smaller number of data samples. The subspace parametric methods use the Multi-signal Classification (MUSIC) algorithm to identify the inter-turn incipient fault and its severity. The pseudo spectrum from the MUSIC algorithm estimates the frequencies related to the faulty condition of the induction motor.

Findings: The frequencies which are related inter-turn short circuit fault are obtained from the pseudo spectrum and are compared with the estimated frequencies and thus it proves the estimated frequencies. **Application/Improvements:** The proposed algorithm is used to estimate the harmonic components from the pseudo spectrum which helps to differentiate the healthy and faulty conditions of the motors. Also the severity of the fault is identified from the pseudo spectrum.

Multimodal Fuzzy Ontology Creation and Knowledge Information Retrieval

[G. Nagarajan](#)  & [R. I. Minu](#)

Conference paper | [First Online: 08 December 2015](#)

1048 Accesses | **4** Citations

Part of the [Advances in Intelligent Systems and Computing](#) book series (AISC, volume 398)

Abstract

The main objective of this paper is to design an information retrieval system for both text and image data using the concept of ontology. The focus of this paper is to improve information retrieval for sports events using Ontologies. For this purpose, an integration of domain knowledge with images using fuzzy ontology technique was implemented. In this work, the domain of basketball event is considered for creating low-level visual ontology for certain sport event images. The created multimodal ontology definition will provide a wide domain

FSM-Based VLSI Architecture for the 3×3 Window-Based DBUTMPF Algorithm

Authors: K. Vasanth, V. Elanangai, S. Saravanan, G. Nagarajan

Published in: [Proceedings of the International Conference on Soft Computing Systems](#)

Publisher: Springer India

[Login to get access](#)

Abstract

This paper gives a Novel FSM-based architecture for the decision-based unsymmetrical trimmed midpoint algorithm used for high-density salt and pepper noise (SPN) removal in images. The proposed VLSI architecture uses a FSM-based scheduler for the evaluation of unsymmetrical trimmed midpoint in a fixed 3×3 window. The proposed scheduler moves between 4 states of the finite state machine for the evaluation of a suitable value to replace the corrupted value in the decision-based algorithm. The proposed architecture consists of sorting network,

Dual Converter Multimotor Drive for Hybrid Permanent Magnet Synchronous in Hybrid Electric Vehicle

December 2016

DOI:[10.1007/978-81-322-2671-0_23](https://doi.org/10.1007/978-81-322-2671-0_23)

In book: [Proceedings of the International Conference on Soft Computing Systems \(pp.237-249\)](#)

Authors:



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Vidya Jyothi Institute of Technology



K. Vasanth

Vidya Jyothi Institute of Technology



D. Godwin Immanuel

Robust Adaptive Algorithm by an Adaptive Zero Attractor Controller of ZA-LMS Algorithm

Radhika Sivashanmugam  ¹ and Sivabalan Arumugam²

[Show more](#)

Academic Editor: Stefan Balint

Received	Revised	Accepted	Published
16 May 2016	07 Jul 2016	18 Jul 2016	21 Aug 2016

Abstract

This paper proposes a new approach to identify time varying sparse systems. The proposed approach uses Zero-Attracting Least Mean Square (ZA-LMS) algorithm with an adaptive optimal zero attractor controller which can adapt dynamically to the sparseness level and provide appreciable performance in all environments ranging from sparse to nonsparse conditions. The optimal zero attractor controller is derived based on the criterion that confirms largest decrease in mean square deviation (MSD) error. A

Smart fuzzy-based energy-saving photovoltaic burp charging system

N. Govidan  & M. Rajasekaran Indra

Pages 671-677 | Received 19 Sep 2016, Accepted 19 Mar 2017, Accepted author version posted online: 19 Apr 2017

Published online: 30 May 2017

 Download citation  <https://doi.org/10.1080/01430750.2017.1318780>



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ABSTRACT

This paper focuses on the optimal usage of photovoltaic energy by implementing 'pulse charging' technique to charge batteries and to keep the supply from the solar panel continuously without any interruption. The burp-pulse charging technique is used to supply multiple loads. Three different batteries Bp, Ba1 and Ba2 are smart charged concurrently and individually during three kinds of charge statuses controlled by a charge

Novel cascaded H-bridge sub-multilevel inverter with reduced switches towards low total harmonic distortion for photovoltaic application

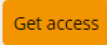
A. Ramesh Babu , T. A. Raghavendiran, V. Sivachidambaranathan & J. Barnabas Paul Gladly

Pages 117-121 | Received 13 Sep 2016, Accepted 23 Sep 2016, Accepted author version posted online: 08 Dec 2016,

Published online: 06 Jan 2017

 Download citation  <https://doi.org/10.1080/01430750.2016.1269683>



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ABSTRACT

The main objective of this paper is to develop a novel inverter to produce multilevel output voltage. This paper proposes the cascaded H-bridge with sub-multilevel inverter (CHBSMLI) using three unequal DC sources in order to get 15-level output voltage. The unequal DC sources can be obtained

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Research Journal of Pharmaceutical, Biological and Chemical Sciences

Multi Variable Speed Control of Induction Motor Using Z-Source Inverter.

Ravi Kumar DNS¹, and Hema Devi J².

¹Assistant Professor, EEE Department Sathyabama University Chennai Tamil Nadu

²Assistant Professor ,ECE Department Jeppiaar SRR Engineering College Chennai Tamil Nadu

ABSTRACT

This paper presents the speed control of Induction motors using ZSI. V/F control is well adapted for the control of induction motor . The overall method of controlling the Induction motor by v/f control using ZSI has been presented in this paper. ZSI is the common control scheme is the control of induction motor . In this paper the ZSI has been modeled of using inductors and capacitors of cross connection and output of this ZSI as fed to the Induction motor. A MATLAB code was developed to implement the open-loop and closed loop control of ZSI fed three phase squirrel-cage IM and the torque as found to be constant for various speeds of the motor. The advanced PIC16F microcontroller is used for generating the gate pulses for the universal bridge circuit.

Keywords: Speed control, Z-source inverter, v/f control, Induction motor, power factor

Research Journal of Pharmaceutical, Biological and Chemical Sciences

Intelligent Power Management for Residential Buildings Using Sensor Networks and Zigbee Pro.

Ravi Kumar DNS¹, and Hema Devi J².

¹Assistant Professor, EEE Department Sathyabama University Chennai Tamil Nadu

²Assistant Professor, ECE Department Jeppiaar SRR Engineering College Chennai Tamil Nadu

ABSTRACT

One of the major problem in many households and Industries is the over consumption of power and also the protection of various equipment's from over voltage and over current. This paper discusses the design and development of a cost effective smart monitoring and controlling system for household electrical appliances in real time. The electrical parameters such as voltage and current are principally monitored and the power consumed is calculated. The proposed system allows the user to control his appliance in different ways using ZigBee and LabVIEW. Automatic control of the appliances is also done by setting required tariff rates. The developed system is low cost, easily operatable and flexible in operation, thus saving the electrical expenses of the user. The prototype has been extensively tested and the results are very encouraging.

Keywords: Power management, Smart Monitoring, Wireless sensor Networks, ZigBee, Wattmeter

Research Journal of Pharmaceutical, Biological and Chemical Sciences

Drivers Safety For Alerts On Pot Holes and Humps on Road a Cloud Based Approach.

Ravi Kumar DNS¹, and Hema Devi J².

¹Assistant Professor, EEE Department Sathyabama University Chennai Tamil Nadu

²Assistant Professor , ECE Department Jeppiaar SRR Engineering College Chennai Tamil Nadu

ABSTRACT

The problem of developing country is the maintenance of road. The country economy is based on the major development of well maintained road. Potholes and humps found as pavement distress to avoid accidents and maintained the roads. This paper discuss about the detection of potholes and humps. It is developed to identify the potholes and humps on roads to alert the drivers to avoid the accidents and vehicle damages. To establish the potholes and humps the ultrasonic sensor are used to measure the height and the depth relatively. It captures the geographic location and the position of potholes and humps by GPS receiver. The potholes, height of hump and geographical location are the sensed data it is used to store in the cloud database. This provides the estimate acquire of information to the government authorities and to vehicle drivers. A LCD monitor is used to awake drivers so that the precaution measures to be taken to get away from accidents. Alert are given in the form of audio with latitude and longitude.

Keywords: Ultrasonic sensor, GPS, LCD, Voice synthesizer, PIC16F887.

Alleviate the voltage gain of high step-up DC to DC converter using quasi active switched inductor structure for renewable energy

Publisher: IEEE

Cite This

PDF

V. Balasubramanian ; V. Senthil Nayagam ; Jayarama Pradeep All Authors

1

Paper Citation

279

Full Text Views



Abstract	Abstract:
Document Sections	
I. Introduction	
II. Principle of Operation	
III. Voltage Gain Expression	
IV. Simulation Block Diagram of the	

The demand for non-isolated high step-up DC-DC-dc converters in applications such as DC backup energy systems for UPS and photovoltaic has been gradually increasing. Generally, Boost converter should operate at high duty cycle in order to get the high-output voltage but it generates more EMI, conduction loss and increase the switch rating. High voltage gain DC-DC converter implemented quasi-active switched-inductor structure for a non conventional system is included in this paper. The PV system is available in the proposed system as well as two coupled inductors with magnetic core, two capacitors, two active switches, three diodes and PI filter [1]. The input supply is connected in shunt with primary part of the coupled inductor for charging. Meanwhile the charged coupled inductor is discharged in series manner along with the source and the capacitor in order to get efficient high output voltage with proper duty cycle is selected. The diode capacitor set will act as a clamp circuit so

Implementation of high voltage gain interleaved boost converter combined with Switched Capacitor for the low power application

Publisher: IEEE

[Cite This](#)

[PDF](#)

V.Senthil Nayagam ; L. Premalatha [All Authors](#)

391

Full

Text Views



Abstract

Document Sections

I. Introduction

II. Conventional DC-DC Converter

III. Proposed DC-DC Converter

IV. Modes of Operation

Abstract:

This paper discuss about the high efficient boost converter for the low power application. In order to implement the high efficient boost converter the transformerless converter is approached meanwhile the high output can be achieved with the help of switched capacitor and coupled inductor with low duty cycle. Problem of High Inrush Current to the Switches due to the Charging and Discharging Nature of Switched Capacitor can be avoided with the help of coupled inductor in the input side. The simulation of the proposed interleaved boost converter with switched capacitor is done with input voltage of 20v and output voltage of 200v using MATLAB software.

Published in: 2016 International Conference on Computation of Power, Energy Information and Commuincation (ICCPEIC)

Novel non-isolated high step-down three phase interleaved DC-DC converter with capacitor voltage division techniques

Publisher: IEEE

Cite This

PDF

A. Ramesh Babu ; Raghavendiran ; Barnabas Paul Gladly ; G. T. Sundar Rajan [All Authors](#)

4

Paper

Citations

411

Full

Text Views



Abstract

Document Sections

I. Introduction

II. Analysis of Proposed Converter

III. Simulation Result

IV. Hardware Result

V. Conclusion

Abstract:

The novel non-isolated high step-down DC-DC converter is proposed to reduce the voltage stress of main switch. The new capacitive voltage division method is used to store the input energy in input capacitors. The three input capacitors are connected across the input supply to store and release the energy to three interleaved buck converter with high step down ratio without less duty ratio. The input capacitor voltage division method will reduce the voltage stress of switch, hence easy to select the low rating switch. The low rating switch offer low on state resistance, which result in reduced conduction loss of switch. The application of interleaved PWM provides input ripple current cancellation as a result input and output current ripple get reduced. The three phase interleaved converter proposes analysis, principle of working and simulation results are presented. The proposed new method is examined under various simulation parameters are such as switching loss, conduction loss, current ripple, and voltage gain. The proposed converter simulation was done using

FPGA based modified space vector PWM technique for induction motor drive

Publisher: **IEEE**

[Cite This](#)

[PDF](#)

V. Meenakshi ; S. Paramasivam [All Authors](#)

205

Full

Text Views



Abstract

Document Sections

I. Introduction

II. Induction Motor Drive System

III Working Principles Space Vector Pwm

IV Space Vector Switching

Abstract:

This paper presents, In SVPWM based VSI fed induction motor drive, is compared to conventional PWM method. And proposed method hardware implementation of using FPGA kit in SPARTAN-6. In this work, the authors proposed the idea of THD reduced the output of VSI fed induction motor drive. Then improved dc link voltage and case studies of open loop and different control technique used to control VSI fed induction motor are presented. Conventional method used to PWM technique control method and proposed method space vector modulation technique used. Prototype hardware is implemented to FPGA controller used to results are presented. The drive system has advantages like reduced THD and improved motor speed.

Published in: 2017 International Conference on Computation of Power, Energy Information and Communication (ICCPERIC)

A Novel Approach to Compress an Image Using Cascaded Transform and Compressive Sensing

[S. Nirmalraj](#)  & [T. Vigneswaran](#)

Conference paper | [First Online: 29 December 2015](#)

1579 Accesses | **1** Citations

Part of the [Advances in Intelligent Systems and Computing](#) book series (AISC, volume 397)

Abstract

Transmission of high-frequency signals require a channel with very high bandwidth. But effective use of bandwidth always remains as an important criterion in communication. So, compression of the message signal is important before transmission. Many transforms are used such as discrete Fourier transform, discrete cosine transform, etc. The objective of this paper is to compress the given image using a cascaded transform and a novel technique known as compressive sensing.

T. Vigneswaran 

Department of E.C.E, VIT University, Chennai, India

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[PubMed](#) | [Google Scholar](#)

Closed-Loop Control of Facts Devices in Power System

[S. D. Sundarsingh Jebaseelan](#) , [C. N. Ravi](#), [G. Nagarajan](#) & [S. Marlin](#)

Conference paper | [First Online: 29 December 2015](#)

1585 Accesses | **2** Citations

Part of the [Advances in Intelligent Systems and Computing](#) book series (AISC, volume 397)

Abstract

This paper presents the improvement of reactive power and voltage in fourteen bus system using TCTC and STATCOM. Flexible AC transmission systems (FACTS) are the option to mitigate the problem of overloaded lines due to increased electric power transmission by controlling power flows. In this work, combined controller based on optimal power flow (OPF) with multiple objectives is derived in order to provide secure transmission and reduces transmission losses. Static compensator and thyristor-controlled tap changer are two such compensators belonging to FACTS devices are used in this work. The fourteen bus system with closed-loop-controlled STATCOM and TCTC is modeled and simulated.

S. Marlin

T.J. Institute of Technology, Chennai, 600119, Tamil Nadu, India



Hybrid Genetic Algorithm for Medical Image Feature Extraction and Selection ☆

G. Nagarajan ^a , R.I. Minu ^b, B. Muthukumar ^a, V. Vedanarayanan ^b, S.D. Sundarsingh ^a

^a Department of EEE, Professor, Sathyabama University, Chennai, India

^b Department of CSE, Associate Professor, Jerusalem College of Engineering, Chennai, India

Available online 1 June 2016, Version of Record 1 June 2016.



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<https://doi.org/10.1016/j.procs.2016.05.192>

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Fuzzy Empowered Cognitive Spatial Relation Identification and Semantic Action Recognition

R. I. Minu¹, G. Nagarajan²

¹Department of Computer Science and Engineering, Jerusalem College of Engineering, Chennai, India.

²Department of Electrical and Electronic Engineering, Sathyabama University, Chennai, India.

DOI: 10.4236/cs.2016.78165 [PDF](#) [HTML](#) [XML](#) **1,408** Downloads **1,921** Views

Abstract

Automatic labeling of the action held by the players in a live-in sports video is the main motivation of this paper. In this paper, we proposed a fuzzy-based action recognition system from a basketball sports image. This paper deals with the intellectual sports event action recognition from a live video stream. It required an intelligent system which would automatically and semantically label the action in the videos through machine understandability concept. The machine knowledge can be feed through the domain ontology of particular sports event. The major required component for this kind of system is an efficient image analysis component and automation action labelling component. The image is labelled using Type-2 Fuzzy set concept.

Keywords

SIFT, Type II Fuzzy, Segmentation, JSEG, RCC

Motor current signatures and their envelopes as tools for fault diagnosis

Abitha Memala W. and V. Rajini

EEE, SSNCE, Chennai, India

ABSTRACT

Induction motor inter-turn short circuit stator fault is identified using motor current signals with the help of Discrete Wavelet Transform along with Power Spectral Density. This methodology is adopted for motor current signals and their envelopes in order to identify a better tool for fault diagnosis. First, the analysis is performed using the original stator current signal, which has the fundamental frequency components along with the slip frequency and other harmonic/fault components. The fundamental component in the stator current can be eliminated by using the envelope of the signal. The transient in the wavelet decomposition can be suppressed by modifying the current envelope. This is done by pre-multiplying the original envelope with the Tukey window. The Power Spectral Density is calculated for both the signatures. Comparison of these two methods show that the proposed analysis based on modified envelope using Discrete Wavelet Transform along with Power Spectral Density offers better results compared to the original signal analysis.

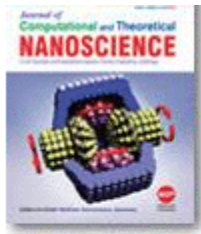
KEYWORDS

Discrete Wavelet Transform (DWT); Energy; Inter-turn short circuit fault; Motor Current Signature Analysis (MCSA); Multi-Resolution Analysis (MRA); Power Spectral Density (PSD); Stator fault

STUDENT FOREIGN EXCHANGE PROGRAMME

Roll Number	Batch	Name of the Student	Foreign Univerity	Period of Year
13SEE611	2013 -2017	Kanteti Kalyan Pavan Kumar	University of Craiova, Romania	Oct 2016 To March 2017
13SEE614	2013 -2017	Malepati Pavan Kumar	University of Craiova, Romania	Oct 2016 To March 2017
14SEE698	2014 -2018	Rishu Ranjan	University of Craiova, Romania	Oct 2016 To March 2017





Neural Network Controlled High-Step Up Based Single-Phase PV Inverter System with Improved Dynamic Response

Authors: Bharathi, M. L ¹; Kirubakaran, D ²;

Source: [Journal of Computational and Theoretical Nanoscience](#), Volume 14, Number 1, January 2017, pp. 421-429(9)

Publisher: American Scientific Publishers

DOI: <https://doi.org/10.1166/jctn.2017.6338>

[< previous article](#)

[view table of contents](#)

[next article >](#)

Abstract

[References](#)

[Citations](#)

[Supplementary Data](#)

[Suggestions](#)

In AC utility closed loop high step up based single phase PV inverter system is preferred because of fast dynamic response. This paper deals with comparison of dynamic response of the PI and the neural network controlled single phase PV inverter system. The output from the solar cell is stepped up using a high step up converter and the output is converted into AC using an inverter. The insolation is considered in the present investigation. Simulation studies are conducted using MATLAB. The closed loop systems using the PI controller and the neural network controller are investigated and their results are compared. The results for the above system are developed and they are successfully used for simulation studies. The hardware is fabricated and practical results matches with the simulation results.

Keywords: DC—DC Converter; Dynamic Response; Neural Network; PI Controller; PV Inverter



**19th World
Festival of Youth
and Students**

**ХІХ Всесирний
фестиваль моладе
жи и студентов**

14-22 October 2017

Samarjit Roy, the student of 4th year Electrical and Electronic Engineering Department and also working as the **President of Science Club** represented our University and was among the 140 Students representing **India** in **19th World Festival of Youth and Students** in **Sochi, Russia**. Around 20,000 students and professional from 185 countries took part in this mega event. He participated in various events and workshops and **Won best Presentation Award** among the 8 selected students of the world on the topic "**Role of Youth in Space Technology**". He also won **Gold medal in curling tournament** in the International event.

We wish him all the best for his future.!

List of Students attend 3rd Annual NASA Human Exploration Rover Challenge in the year 2016 -2017 and Best outgoing award from CTS



Experimental Test Bed for Rover Challenge in NASA





SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited with 'A' grade by NAAC
Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai - 600 119.

Phone: 044 - 2450 3150 / 3151 / 3152 / 3154 / 3155 Fax: 044 - 2450 2344
www.sathyabama.ac.in



CIRCULAR

Ref:-SU/EEE -2018/MAR

06/03/2018

The Department of EEE is organizing a Hands on Workshop in association with Authorized TEXAS INSTRUMENTS partner on "Programming & Customizing an IOT Product & Application using TEXAS platform"

Note:

- Workshop is open all Year UG Students
- Industrial Authorized Certification from TEXAS
- Workshop Seats Limited to 60 Only

Date & Time of Workshop :12th & 13th MAR 2018 9.00 AM to 2.45 PM

Venue : IOT Innovation Lab [Embedded Systems Lab EEE Dept 2nd Floor]

Registration for Workshop: Registration can be done at EEE Dept (Embedded Lab 2nd Floor) by paying Rs.800/- on or before 10th MAR 2018 to Mr. D.N.S Ravi Kumar.


Dean (Student Affairs)



SATHYABAMA UNIVERSITY, CHENNAI

SCHOOL OF ELECTRICAL AND ELECTRONICS

DEPARTMENT OF ELECTRICAL ELECTRONICS ENGINEERING



Date: 18/08/2017

This is to inform about the Guest Lecture on "Recent Industrial Trends in IOT" scheduled on 23rd August 2017 at Sathyabama University. It is an initiative of Department of Electrical and Electronics Engineering, School of Electrical and Electronics Engineering in Association Digital Shark Technology Pvt Ltd, Bangalore is authorized partner for Texas Instruments (India) University Program.

Resource person: Mr. Yathish M

Country Manager, Digital Shark Technology.

Venue: Sathyabama University

Date: 23rd August 2017

Time: 11:15 AM to 01:15 PM

Registration Fee: NIL


DEAN /SCHOOL



SATHYABAMA

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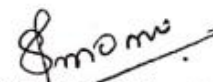
STUDENT CIRCULAR

Dean(Student Affairs)/ 2018-19/even/02

8th January, 2019

School of Electrical and Electronics Engineering **Department of Electrical and Electronics Engineering**

This is to inform that Department of Electrical and Electronics Engineering is organizing In-House Professional Certificate Training Programme on "Implementation of Solar PV systems" in association with Tamilnadu Advanced Technical Training Institute from 21.01.2019 to 25.01.2019. Interested students shall register their names with Dr.E.Annie Elisabeth Jebaseeli /Asso.Prof. of EEE Department on or before 12.01.2019 by paying a registration amount of 1300/- INR. Please contact at geetha.eee@sathyabama.ac.in for further details.


Dean (Student Affairs)

Copy to



**TNSCST Sponsored three day National Level Seminar
on
Opportunities and Challenges of Renewable Energy in Smart Grid Systems
(31.10.2018 to 02.11.2018)**

Abstract of the Programme

The department of Electrical and Electronics Engineering has conducted the TNSCST Sponsored Three day National Level Seminar on, "Opportunities and Challenges of Renewable Energy in Smart Grid Systems (OCRESGS -18)" from 31.10.2018 to 02.11.2018.

Inauguration: The seminar was inaugurated by Dr. T. Aruldoss Albert Victoire, Professor, Department of Electrical and Electronics Engineering, Anna University Regional Campus, Coimbatore, in the presence of Dr. N.M. Nandhitha, Professor & Dean of School of Electrical and Electronics Engineering and Dr. V.Sivachidambaranathan, Professor & Head of the Department of Electrical and Electronics Engineering. Dr. N.M. Nandhitha delivered the welcome address and Dr. V.Sivachidambaranathan, felicitated the Chief Guest with a memento.

INTEGRATION OF GREEN ENERGY WITH SMART GRID THROUGH IOT

(19.06.2018 to 23.06.2018)



Science and Engineering Research Board (SERB)
Department of Science and Technology (DST)
Govt. of India



Title	Five days DST – SERB Sponsored National Level Seminar on "INTEGRATION OF GREEN ENERGY WITH SMART GRID THROUGH IOT" – (IGESGIOT-18)
Date	19.06.2018 to 23.06.2018
Venue	Smart Class - I
Objectives	Internet of Things (IoT), "the internet in which the things are connected to each other" is the extension and expansion of Internet based network. IoT is enabled by the latest developments in RFID, smart sensors, communication technologies and Internet protocols. IoT is an important technical means to enhance the operation of Smart Grid. Smart Grid uses the advanced technological innovation and development for efficient and reliable power transmission and distributions. SG is the classical power grid augmented with a large scale Information and Communication Technology (ICT) and Renewable Energy integration. Presently, the application of Internet of Things technology in smart grid has been the research topic at the global level. This training programme on "Internet of Things and Smart Grid" will provide extensive training to the participants on IoT, Building automation and Smart Grid. Eminent Professors from IIT's, NIT's, Industry and other Reputed Organizations delivered talks on various topics in Green energy, Smart Grid and IoT.