MARCH 2017 EDITION

GOKUL EPITOME

GOKUL GROUP OF INSTITUTIONS BOBBILI

BY
R.SRINIVAS RAO
ASST.PROFESSOR in EEE

CONTENTS

Publication & Presented By Members

Mr.R.Srinivas Rao, M.Tech
Asst.Professor of Electrical & Electronics Engineering.
Gokul Institute of Technology and Sciences
Bobbili.

1. **Title of Paper**: "**Modeling and Simulation of SRF and P-Q based Control DSTATCOM**" in ***International Journal for Scientific Research & Development, Vol. 2, and Issue 06, 2014 | ISSN (online): 2321-0613***

Abstract: With the widespread use of harmonic generating devices, the control of harmonic currents to maintain a high level of power quality is becoming increasingly important. An effective way for harmonic suppression is the harmonic compensation by using active power filter. This paper presents a comprehensive survey of DSTATCOM control strategies put forward recently. It is aimed at providing a broad perspective on the status of DSTATCOM control methods to researchers and application engineers dealing with harmonic suppression issues. Many control techniques have been designed, developed, and realized for active filters in recent years. This paper presents different types of Synchronous reference frame methods for real time generation of compensating current for harmonic mitigation and reactive power compensation. All the techniques are analyzed mathematically and simulation results are obtained which are being compared in terms of its compensation performance with different parameters under steady state condition. The three techniques analyzed are the Synchronous Reference Frame Theory (SRF), SRF theory without synchronizing circuit like phase lock loop (PLL) also called instantaneous current component theory and finally modified SRF theory. Simulation results are obtained under sinusoidal balanced voltage source balanced load condition. The comparison and effectiveness of all the methods is based on the theoretical analysis and simulation results obtained with MATLAB employing a three phase three wire DSTATCOM test system.

2. **Title of Paper**: "Simulation of SRF Control Based Shunt Active Power Filter and Application to BLDC Drive" in ***International Journal of Inventive Engineering and Sciences (IJIES), ISSN: 2319–9598, Volume-3 Issue-8, July 2015***

Abstract: With the widespread use of harmonic generating devices, the control of harmonic currents to maintain a high level of power quality is becoming increasingly important. An effective way for harmonic suppression is the harmonic compensation by using active power filter. This paper presents a comprehensive survey of active power filter (APF) control strategies put forward recently. It is aimed at providing a broad perspective on the status of APF control methods to researchers and application engineers dealing with harmonic suppression issues. Many control techniques have been designed, developed, and realized for active filters in recent years. This paper presents different types of Synchronous reference frame methods for real time generation of compensating current for harmonic mitigation and reactive power compensation. All the techniques are analyzed mathematically and simulation results are obtained which are being compared in terms of its compensation performance with different parameters under

steady state condition. The three techniques analyzed are the Synchronous Reference Frame Theory (SRF), SRF theory without synchronizing circuit like phase lock loop (PLL) also called instantaneous current component theory and finally modified SRF theory. Simulation results are obtained under sinusoidal balanced voltage source balanced load condition. The comparison and effectiveness of all the methods is based on the theoretical analysis and simulation results obtained with MATLAB employing a three phase three wire shunt active filter test system. Finally shunt active power filter is applied to BLDC drive application. THD plots with and without APF is presented.

Mr.B,SH,Suresh Kumar, M.Tech, (Ph.D)
Asst.Professor of Electrical & Electronics Engineering.
Gokul Institute of Technology and Sciences
Bobbili.

1. **Title Of Paper**: "Design and Simulation of Seven and Nine Level Diode Clamped Inverter" in ***International Journal of Advance Technology and Innovative Research, IJATIR, Vol.08,Issue.12, September-2016, ISSN 2348–2370, Pages:2218-2223***

Abstract: This paper displays a detailed harmonic analysis of seven and nine level multilevel inverter. Utilization of traditional two – level pulse width modulation (PWM) inverter provide less distorted current and voltage however at expense of higher switching losses due to high switching frequency. Multilevel inverter is developing as a suitable option for high power, medium voltage application. The most common multilevel inverter topologies are the neutral-point- clamped inverter (NPC), flying capacitor inverter (FC), and cascaded H-bridge inverter (CHB). This work is to analyze the performance of Diode clamped multilevel inverter with various multi carrier PWM control techniques. Sinusoidal PWM technique is used to control the switches of the inverter. The reduction in harmonics can be validated with %THD value get from the simulation results carried in MATLAB/SIMULINK.

2. **Title of Paper**: "**Modeling And Simulation Of Dstatcom For Power Quality Enhancement In Distribution System**" in ***International Journal of Advance Research In Science And Engineering, IJARSE, Vol. No.4, Issue No.01, January 2015, ISSN-2319-8354(E)***

Abstract: *Shunt compensation for medium voltage distribution systems requires higher rating for voltage source converters (VSCs). Ratings of the semiconductor devices in a VSC are always limited; therefore, for higher rated converters it is desirable to distribute the stress among the number of devices using multilevel topology. Cascaded multilevel configuration of the inverter has the advantage of its simplicity and modularity over the configurations of the diodeclamped and flying capacitor multilevel inverters. Application of cascaded multilevel converters for shunt compensation of distribution systems has been described in Literature. This paper presents an investigation of five- Level Cascaded H – bridge (CHB) Inverter as Distribution Static Compensator (DSTATCOM) in Power System (PS) for compensation of reactive power and harmonics. The advantages of CHB inverter are low harmonic distortion, reduced number of switches and suppression of switching losses. A CHB Inverter is considered for shunt compensation of a 11 kV distribution system. Finally a level shift carrier PWM (LSCPWM) and*

phase shifted PWM (PSPWM) techniques are adopted to investigate the performance of CHB Inverter. The results are obtained through Matlab/Simulink software package. The proposed DSTATCOM is simulated for both linear and nonlinear loads.

Mr.P.Pavan Kumar, M.Tech
Asst.Professor
Dept. of ECE
Gokul Institute of Technology and Sciences

1. **Title of Paper**: "A Novel Arm Based accident Preventive System For Automobiles" ***in International Journal of Intelligence Research, IJOIR,Volume 8, July - December 2016, (e) 0976-9859 (p) 0976-985x, pages : 73-77.***

Abstract: Present world is being controlled by technologies and now a day's so many useful technologies are coming out to make our life style more comfort, luxurious and secure. Especially in automobiles many technologies are being implemented to provide more safety for users. This project is best application for avoiding collisions in automobiles. Based on requirements of modern vehicle, in- vehicle Controller Area Network (CAN) architecture has been implemented. In order to reduce point to point wiring harness in vehicle automation, CAN is suggested as a means for data communication within the vehicle environment. The benefits of CAN bus based network over traditional point to point schemes will offer increased flexibility and expandability for future technology insertions. This paper describes system which uses sensors to measure various parameters of the car like speed, distance from the other car, presence of alcohol in car and accidental change of lane and sends a warning signal to the driver if any of the parameter goes out of range to avoid accidents. The aim of this project is to avoid collision by detecting obstacles, vehicles using obstacle sensors (IR or Ultrasonic) and controlling the vehicle accordingly by using CAN protocol.

Mr.CH. VINODH KUMAR, M.Tech
Asst.Professor
Dept. of CIVIL
Gokul Institute of Technology and Sciences

1. **Title of Paper**: "An Experimental Study on GEO-POLYMER Concrete With Fly Ash and METAKAOLIN as Source Materials" in ***International Journal and Magazine of Engineering Technology ,Management & Research, volume No: 3, Issue:10, November 2016.***

Abstract: Concrete is probably the most extensively used construction material in the world. The main ingredient in the conventional concrete is Portland cement. The amount of cement production emits approximately equal amount of carbon dioxide into the atmosphere. Cement production is consuming significant amount of natural resources. That has brought pressures to reduce cement consumption by the use of supplementary materials. Availability of mineral admixtures marked opening of a new era for designing concrete mix of higher and higher strength. GROUND GRANULATED BLAST FURNACE SLAG (GGBS) is a new mineral admixture, whose potential is not fully utilized. Moreover only limited studies have been carried out in India on the use of slag for the development of high strength concrete with addition of steel fibres. The study focuses on the

flexural strength performance of the blended concrete containing 20% percentage of GGBS and different %s of steel fibres as a partial replacement of OPC. The cement in concrete is replaced accordingly with the percentage of 20% by weight of GGBS and 1%, 2%, 3% by weight of steel fiber. Concrete Samples are tested at the age of 7 and 28 days of curing. Finally, the strength performance of slag blended fiber reinforced concrete is compared with the performance of control mix. From the experimental investigations, it has been observed that, the optimum replacement of 20% of Ground Granulated Blast Furnace Slag to cement and steel fiber of 2% with respect to the weight of cement showed improved better results in flexural strength and proved to be optimum proportion when compared with other proportions with respect to strength and economy.

2. **Title of Paper**: "Effect Of External Pre stressing On Steel Arches" in ***International Journal and Magazine of Engineering Technology ,Management & Research,volume No: 3, Issue:10, November 2016***

Abstract: Arch bridges are amongst the oldest man made bridges. It is a most efficient structural form that is both striking in appearance and aesthetic in character. An arch is a curved structure that is usually made of stone, brick, concrete, or, more recently, steel. Its purpose is to support or strengthen a building.

Pre stress is the method of inducing a stress in a structural element to enhance its loading capacity. Pre stress is usually induced in a material that has a high compressive strength in relation to its tensile strength, so that the member is kept in compression and the loading capacity is maximized.

In this view, considered two hinged arch with external pre stressing to increase the load carrying capacity with different tendon configuration of different spans. Then analyzed all the mentioned arches with four different tendon configurations for spans of 30, 60, 90 and 120m.

From the study, it was observed that applying external pre stressing force to the arches shown significant variation in the bending moment and deflection for all the considered spans.

3. **Title of Paper**: "An experimental investigation on performance of ternary Concrete in strength and durability aspects" in ***International Journal of Academic Research, Vol.2, Issue-1(4), January-March, 2015, ISSN: 2348-7666.***

Abtract: The Enormous growth in the urbanization and industrialization demanding the environment friendly and high performance construction materials it also requires more durability to ensure the longer lifespan of the structures. The necessity of these materials made the civil engineers to carry out a research on preparation of strong construction materials. Concrete is one of the rigid and effective construction materials in the present's scenario. The adequate improvement in strength of the concrete includes addition of some secondary cementatious compoundssuch as Fly Ash, Ground Granulated Blast Furnace Slag (GGBS), natural Pozzolans and silica fume. The advances in concrete technology and engineering have not been adequately captured in the specification of concrete. Usage is often curtailed because of prescriptive concerns or historical comparisons about how such materials perform.in addition SCMs (Secondary Cementatious Compounds) should can exhibit significant variation in chemical and physical properties both within a given source and more commonly between

sources. Users need specific Guidance to assist them in defining the performance of requirements for a concrete application and the selection of optimal proportions of the cementitious materials needed to produce the required durable concrete. The selection process is complicated by the fact that blended cements are currently available in selected regions(ACI2007).Both port land and blended cements have already been optimized by the manufacturer to provide specific properties(i.e. setting time, shrinkage, strength gain). The addition of SCMs (as binary, ternary or even more complex mixtures) can alter these properties, and hence, has the potential to impact the overall performance of the concrete. Silica fume and Fly Ash are recognized as desirable cementations ingredients of concrete and as a valuable cement replacement material that imparts some specific qualities to the composite cement concrete. The present study gives details on strength and durability characteristics of ternary concrete. Ternary means three different cementitious components in the mix, in general includes Portland cement and other two cementitious materials, reclaimed industrial byproducts like silica fume and fly ash. The proposed study on ternary concrete produced by partial replacement of cement by 5% both fly ash and silica fume in various combinations. In the present work an attempt has been made to study the strength properties of ternary concrete in compression, tension and flexure and also durability aspects of ternary blended concrete. In durability studies 5% concentration of acids are used. In the investigation, M20 Grade concrete mix is designed with different percentages of cementitious materials (5%. 7.5%, 10% & 12.5%) and tests were conducted for compressive strength, split tensile strength and modulus of rupture strengths at 7, 28 and 56 days. Durability studies were carried in the same combination of ternary concrete (OPC, silica fume and fly ash) immersed in Sulphuric acid (H2SO4) and Hydrochloric acid (HCl), Potassium Sulphide (K2SO4) solutions and Sea water. The results obtained from the experimentation are compared with the results of reference mix made with regular cement. Test results indicate that the replacement of cement by 10% had attained a maximum strength in M25 Grade concrete. The results obtained thus are encouraging for partial replacement.

Mr.P.L.Pradhan, HOD
M.Tech, (ph.d)
Assoc.professor
Dept. of CSE
Gokul Institute of Technology and Sciences

1. **Title of paper: "Dynamic SFK Model Optimizing the Risk on Operating System"** *(Single-Authore PL Pradhan) in IJCST7.1, ISSN: 0976-8491, Jan-Mar 2016.*

Abstract: Now-a-days, increasing the importance of business and resources over a complex RTS and growing the external risks is a very common phenomenon. The system risks put forward to the senior management focus on complex risk on RTS. The senior management has to decide whether to accept expected losses or to implement into security mechanisms in order to minimize the down time of risk on complex infrastructure. This paper contributes to the development of an optimization model that aims to determine the optimal cost to be invested into UFS mechanisms that, the allocation& distribution of measure components on operating system and relevant resources (i.e. Shell, File and Kernel). Our SFK pattern should be design in such way; the file systems, shell and kernel automatically protected, detected &

corrected all the time. We have to reduce the system risk by implementing SFK pattern based on semi-group structure, mean while improving the highest access control on the File, Memory and Processor & Kernel system. Finally, we have to maximize the performance, reliability, and fault Tolerance & minimize the cost, time of the RTOS over a complex web application. Our objective is that fix up the risk at optimal level with minimal cost and time.

Dr.B.Venkat Rao,
MBA, M.Com,Ph.D
HOD & Asst.Professor
Dept. of MBA
Gokul Institute of Technology and Sciences

1. **Title of paper:** "Performance Evaluation Of Andhra Pradesh Grameena Vikas Bankin Rural area. A Study With Reference To Andhra Pradesh" **in** ***International Journal Of Multidisciplinary Educational Research ISSN : 2277-7881; Impact Factor – 4.527; IC Value:5.16; ISI Value:2.286 Volume 5, Issue 12(2), December 2016***

Abstract: APGVB plays a vital role in the agriculture and rural development of A.P. APGVB have more reached to the rural area ofA.P,through their huge network. The success of rural credit in A.P is largely depends on their financial strength APGVB is key financing institution attherural level which shoulders responsibility of meeting credit needs of different types of agriculture credit in rural areas. Therefore,it is necessary to study financial performance of APGVB in A.P. This paper attempts to analyze the financial performance of APGVB in India during the period 2006-07 to 2015-2016. The study is based on secondary data collected form annual reports of APGVB. An analytical research design of Key Performance Indicators Analysis such as number of branches, deposits, loans, investments and growth rate index is followed in the present study. The study is diagnostic and exploratory in nature and makes use of secondary data. The study finds and concludes that performance of APGVB has significantly improved.

SRINIVAS RAO,
MBA,
Asst.Professor
Dept. of MBA
Gokul Institute of Technology and Sciences

CASE STUDY: Andhra Pradesh bifurcation

ABSTRACT: The Andhra Pradesh bifurcation will have significant implications on resource flow to the two new States – Telangana and new Andhra Pradesh – and on their economic development. In the long run, both of the regions are likely to benefit, but both of them will face considerable uncertainty in the immediate future. Hyderabad will be the common capital of new Andhra Pradesh and Telangana for an initial period of 10 years, after which it will be the capital of Telangana. The special position of Hyderabad gives rise to considerable complications in working out both revenues and fiscal transfers for both of the new states. Being the center of economic activities and a source of Government finance, it will critically define the fiscal prospects of the two states. The bifurcation will impact a wide range of relevant aspects, including the division of assets and liabilities, water resources, land resources, and the division of pensioners and existing government employees and public sector enterprises.

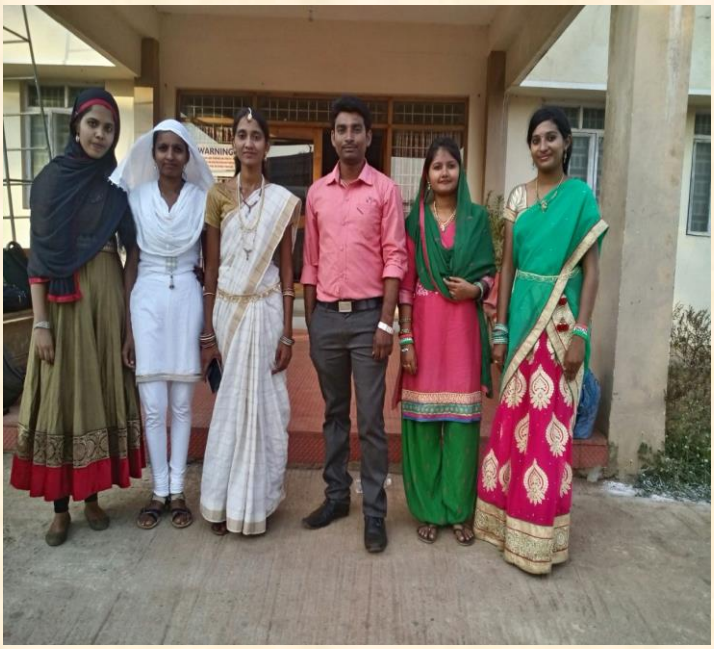
INDUSTRIAL VISIT TO **JK PAPER LIMITED** ON 04-03-2017

INDUSTRIAL VISIT TO **JK PAPER LIMITED** ON 04-03-2017

Our Distinguished Academia with "PADMASRI Dr.B.V.R.MOHAN REDDY GARU at CII- international conference on "ECONOMIC DISRUPTION HICC", at HYD.

One Day National Level Management Event VIDURA 2K17 Participated by Our Students in Maharaja PG College, Vizianagaram on 02-03-2017

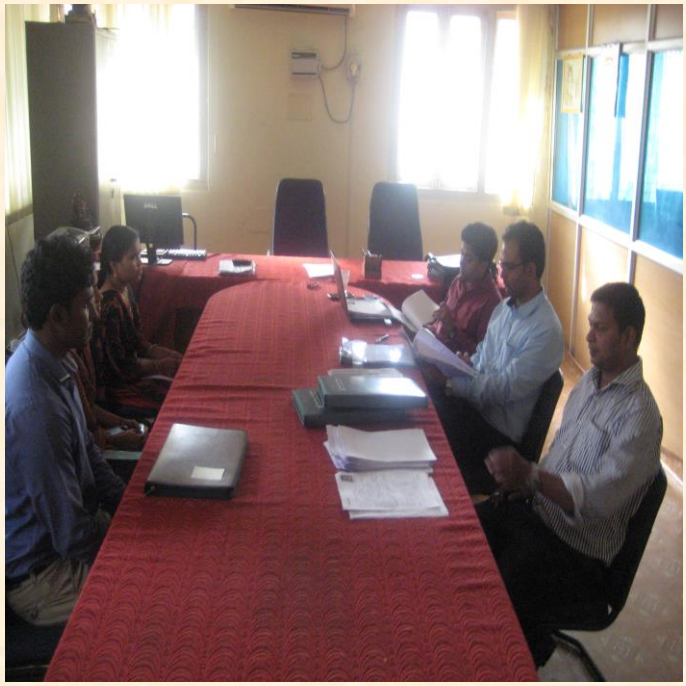
One Day National Level Management Event VIDURA 2K17 Participated By Our Students in Maharaja Pg College Vizianagaram on 02-03-2017

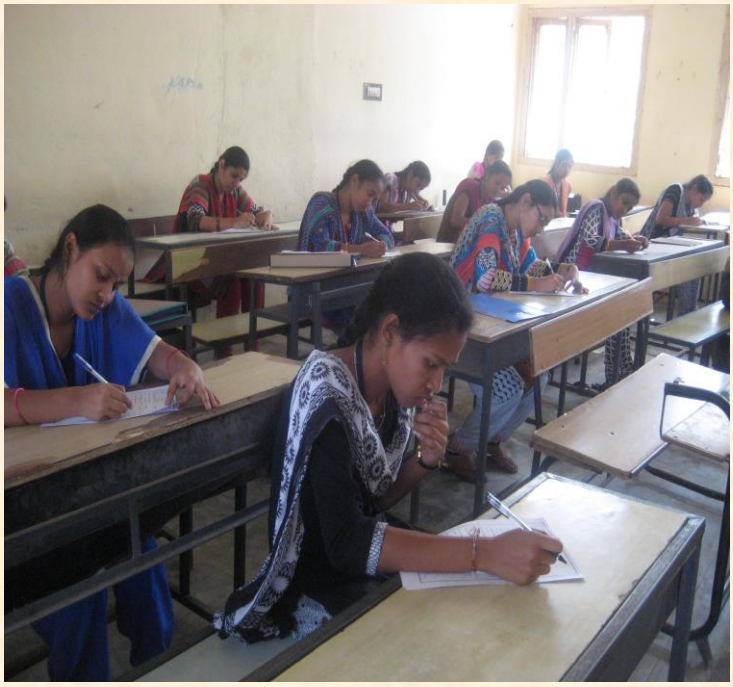


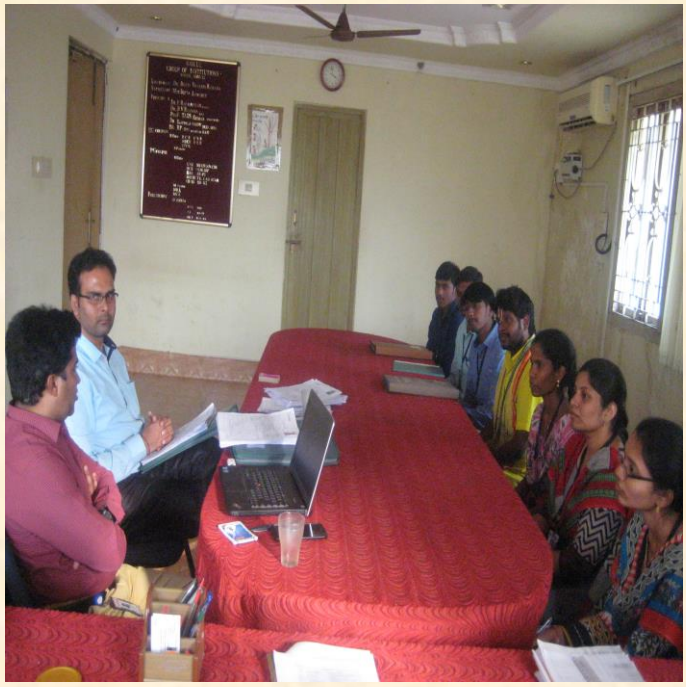
Our Principals Had a Dialog with CII CHAIRMAN-SOUTHERN REGION Shri RAMESH DATLA AT CII ANNUAL REGIONAL SUMMIT 2016-2017

HETERO DRUGS CONDUCTED ON CAMPUS PLACEMENTS AT GOKUL IN 08-03-2017

HETERO DRUGS CONDUCTED ON CAMPUS PLACEMENTS AT GOKUL IN 08-03-2017







Medical camp conducted at yerrasamantha valasa on 18-03-2017

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