



K.L.N.COLLEGE OF ENGINEERING

Pottapalayam - 630 612, Sivagangai (Dt), Tamil Nadu, India.
www.klnce.edu

ESTD : 1994



INDUSTRIAL HARMONIC AUDIT AND CONSULTANCY

Industry Institute Partnership Cell (IIPC)



(IIPC - Established under grant-in-aid scheme, AICTE, New Delhi)



GO POWER WITH GREEN POWER

Information Brochure

Best IIPC Award



Dr. S. Parthasarathy

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About KLNCE

K.L.N. College of Engineering is the first Self - Financing Co-Educational Engineering College in Madurai, started in 1994 by Munificence of Philanthropist and well-wishers in Sourashtra Community which is a Linguistic Minority in Tamilnadu. Our founder President Amaran Shri **K.L.N. Krishnan** established this institution. We offer seven UG Courses, B.E. Mech, EEE, ECE, CSE, AUE, EIE & B.Tech IT and Seven PG Courses, M.E. CAD/CAM, PSE, CS, CSE, CSE(N/W), MBA & MCA.

Power Quality

Electric Power Quality (PQ), is today's need for all Power Utilities (power suppliers), end users (customers and all other manufactures). Power quality is defined as the set of parameters, concerned with the power supply properties, characteristics of voltage and current (magnitude, frequency, symmetry, waveform etc). The recent technologically influenced industries have to satisfy the specific applications according to their need with the help of non linear devices. Such devices used in industries are power electronics based nonlinear loads such as Variable Frequency Drives (VFD), Arc-Furnaces, Converters / Inverters, Computers, LED's and Uninterrupted Power Supply (UPS). These non-linear loads create wave form distortion in the supply system leading to PQ problems. Poor PQ has become a more important concern of both Power utility and its end users. Poor PQ adversely effects a country's economy in a big way. More initiatives are expected from the concerned parties and regulating bodies to take corrective measures for maintaining better power quality from utility and end users.

Harmful Effects of Harmonics

1. Damage to Capacitors.
2. Increase in noise level, additional vibrations & overheating in Motors.
3. Over heating of neutral conductor.
4. Malfunctioning of Circuit breakers & Instruments.
5. False tripping of Protection equipment.
6. Increasing the transformer current, losses and over heat in transformer winding.
7. Transformer core saturation.

Power Quality Analyzer Screen Shots



International Industrial Collaboration:

Utilities Instrumentation Service, Dexter, MI, USA
AYYEKA Technologies, Jerusalem, Israel
Concept To Commissioning Engineering, Ann Arbor, MI, USA



We Can Help

We measure the Power and Harmonic profile of the supply with the help of high accuracy FLUKE Power Quality Analyzer

Nature of Harmonics and other power quality disturbances like Sag, Swell, Transient, Unbalance and Waveform Distortions can be easily viewed by using the Analyzer.

Our expert team members Dr.S.Parthasarathy-Prof/EEE (Harmonic Consultant), Dr.S.M.Kannan, and Dr.K.Gnanambal are doing research in this area.

Our Harmonic Consultant visits your industry and conducts Harmonic Audit the audit report will be submitted accordingly.

The Harmonic Audit Report helps to identify the Power Quality (PQ) issues in the Transformers, Main Panel Boards, Distribution Feeders, APFC, Loads and exact causes behind PQ disturbances in your industry at 440 V / 11 kV / 22 kV / 33 kV and 66 kV supply lines.

We also give valuable suggestions to improve the PQ and we design the Harmonic Filters accordingly

Recognized Speaker

Prof.Dr.S.Parthasarathy, Harmonic Consultant has been recognized by the following associations, as speaker to orient towards Power Quality through out the country.

Asia Power Quality Initiative (APQI)

Central Power Research Institute (CPRI), Bangalore

International Copper Association (ICA)

The Institution of Engineers India (IEI)

Engineering Staff College of India (ESCI), Hyderabad

Federation of Indian Chamber of Commerce & Industry (FICCI)

Centre for Skill Development & Engineering Consultancy - IEI, Shimla, HP.

Western State Electricity Corporation of Odisha (WESCO), Odisha



Our Clients

We have already carried out Harmonic Audit in various Public & Private Sector Industries listed below - 2017

Cluster	Name of the Industry	Cluster	Name of the Industry
Utility	Himachal Pradesh State Electricity Corporation Ltd - Centre for Skill Development and Engineering Consultancy (CSDEC),IEI, Shimla, Himachal Pradesh, Training Programme	Tele Communication Industry	Bharat Sanchar Nigam Limited (BSNL) Main Exchange
	Western Electricity Supply Company of Orissa Ltd (WESCO), Orissa - Training Programme		BSNL - Ellis Nagar Exchange, Madurai, Tamilnadu
	Great Shine Holding India Pvt Ltd, Ellumalai, Tamilnadu (ON Grid - 1 MW Solar Power Plant)		BSNL CTO, Trichy,Tamilnadu
Steel Industry	Aruna Steel Alloy, Unit-1, Othakadai, Madurai		BSNL – EWSD MG Gate, Trichy,Tamilnadu
	SANAM Alloy Pvt Ltd, Unit 1, Pondicherry.		BSNL D-TAX (Digital Trunk Automatic Exchange),Trichy
	Aruna Steel Alloy, Unit-2,Industrial Estate, K.Pudur.MDU		BSNL GM Office,BB Kulam, Madurai, Tamilnadu
	Jindal Steels (India) Ltd, Andul, Kolkata, West Bengal		BSNL Main TE Building ,Thanjavur, Tamilnadu
	Aruna Steel Alloy, Unit-1 Madurai		BSNL Telephone Exchange, Namakkal, Tamilnadu
	SANAM Alloy Pvt Ltd, Unit 2, Pondicherry	BSNL TE, Pattukottai, Mannarkudi, Thiruvarrur	
	Aruna Steel Alloy, Unit-3, Olaganeri, Madurai,Tamilnadu	TVS Southren Rodways Ltd, Madurai, Tamilnadu	
Sugar Industry	TVS Sweing Needles Ltd, Tamilnadu	Transport Industry	Tamilnadu State Transport Corp. Ltd., Madurai
	NSL Sugars- Unit 1 , Koppa, Mathur, Karnataka	Granite Industry	HARIHAR Rocks, Tamilnadu
	EID Parry (India) Ltd-Distillery Unit, Sivagangai	Hospital	IQRAA International Hospital & Research Centre, Malaparamba, Calicut, Kerala.
	Dharani Sugars and Chemicals Ltd, Vasudevanallur	Hotel	HERITAGE Madurai – HOTEL, Madurai, Tamilnadu
Rubber Industry	NSL Sugars- Unit 2, Gulbarga, Karnataka	Textile Industry	Madura Coats Pvt. Ltd, Madurai, Tamilnadu
	TVS Srichakra Ltd -Unit HT45, Madurai, Tamilnadu		Global Thread Supply India Pvt Ltd, Tuticorin,
Non Owen Fabric Industry	TVS Srichakra Ltd Unit HT126), Madurai, Tamilnadu		IMF Cotton Mill, Ambasamudram, Tamilnadu
	Jeyashri Spun Bond Ltd.,Pottapalayam, Sivagangai		Madura Coats Pvt Ltd, Ambasamudram, Tamilnadu
Food Industry	Adhi Mangala Fabric, Uranganpatti		Kalpna Cotton Mill, Madurai, Tamilnadu
	S.V.M.A. Agro Products, Dindigul.		Omega Zip Manufacturing Unit, Thirunelveli, Tamilnadu
	OMGAKRA Kudil,Thuriyur, Trichy, Tamilnadu		Jasmine Towels (P) Ltd , Sivagangai, Tamilnadu
Printing Industry	Sri Mappillai Vinayagar Flour Mill, Madruai Tamilnadu		Irulappa Mills India Pvt. Ltd, Dindigul, Tamilnadu
	Safire Printers, Sivakasi, Tamilnadu	SMART WATT Energy Solutions, Madurai, Tamilnadu	
Gas Industry	Hindustan Petroleum Corporation Ltd(HPCL), Kappalur,	Lighting Industry	Excel Tetronics, Madurai, Tamilnadu

Awards

Best Industry Institute Partnership SEED Award - 2015 at IIT Madras

Best Faculty Award - IEI - 2017

Best Industry Institute Partnership Cell Co-ordinator Award - SEED - 2016 at IEC, New Delhi.

SNAP SHOTS



Three Phase Harmonic Filter for 20 KVA UPS



Energy & Harmonic Audit at 1000 KVA Transformer Secondary side



Harmonic Audit at M.V Panel ACB Incoming



ARM Processor Based Harmonic Filter



Dr.S. Parthasarathy Visited Ayyeka Tech, Jerusalem, Israel with Official of UIS & CTC, UIS



PQ Audit at 1MW Grid Integrated Solar Power Plant



Energy Study and Harmonic Audit at VFD

CONTACT US

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