Course Description

NOISE ON TELECOM SYSTEMS – INVESTIGATION & MITIGATION

This two day course will provide students with a good understanding of noise principles on copper loops in telecom systems. I will teach a systematic and efficient method of attacking and solving noise troubles. Since a major source of noise in telecom systems is induction from power lines, a significant portion of this course covers power influence.

WHO SHOULD TAKE THIS COURSE?

This course is aimed primarily at telecom company technicians involved in installation and repair. However, the course delivery can be altered for other audiences, such as engineers, design technicians and management in both telecom and power companies.

FEES

Please call for current course fees. Reasonable travel expenses will be charged.

Course Content

DAY 1

Telecom Review

Noise immunity of twisted pair cable, noise measurements, decibels, noise sources.

Power System Overview

Power system basics, recognizing components such as substations, distribution lines, transmission lines, transformers, capacitor banks, regulator banks.

Power Influence

How telecom systems are affected by power line induction: voltage, noise and harmonics.

DAY 2

Noise Troubleshooting

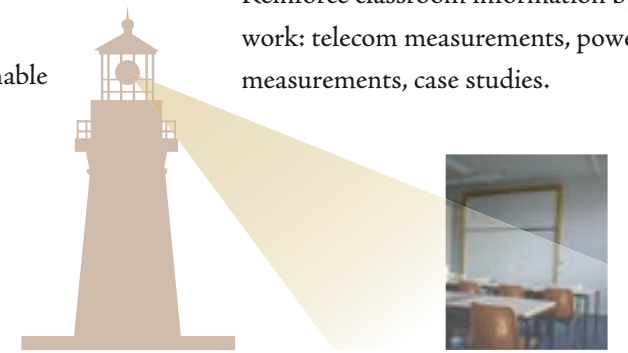
Test equipment, telecom measurements, power system measurements, mitigation techniques on telecom and power systems.

Test

Reinforce classroom information by review.

Noise Troubleshooting – Field or In-Class Examples

Reinforce classroom information by hands-on work: telecom measurements, power system measurements, case studies.



Instructor

Kevin Jacobson holds a B.Sc. in Electrical Engineering from the University of Manitoba, and an M.Sc. in Electrical Engineering from the University of Alberta, and is a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA). His 15 year work background includes design, engineering, troubleshooting, consulting and training at companies such as:

Nortel Networks, MTS, Manitoba Hydro, TELUS Communications, TELUS Mobility, ENMAX, Altalink, TransAlta, Fortis (formerly Aquila Networks Canada) and Expertech.

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Jacobson Engineering Services specializes in electrical interference, damage, and electrical protection of telecommunication systems. We provide consulting services, design solutions and training to telecom companies and power companies.

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The principal of Jacobson Engineering Services is Kevin Jacobson, M.Sc., P.Eng. He has been a practicing engineer for more than 15 years, and is a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA). Members of APEGGA adhere to the highest standards of ethics and professionalism in engineering practice.

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