From Failed Class to a Fruitful Online Engineering Technology Program

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How many of you have started a new program with great hope, only to see it fail? Would some of you share the program and the way in which it failed?
Genesis of the program 2006
Why did it fail?
Online program begins 2009
Online Certificate Course

• Module 1 — Sensors and Symbology
• Module 2 — Control Functions
• Module 3 — Installation and Engineering Functions
Live on-line presentations

vs.

Recorded, on-demand classes
Instructor agreement:
Instructor agreement:

40% of gross minus initial
$5K for marketing

Advantages and
Drawbacks?
Instructor Promotion
Online training for I&C

The ups and downs of learning instruments and controls over the Web.

By N. (Bill) Battikha, P.E.

Process instrumentation and control (I&C) typically represents 15% of the cost of an average industrial project. It's a high-tech discipline critical to the success and survival of a plant and yet is typically learned "on the job." Many people working in that field lack the proper training needed to make appropriate decisions. An error could result in a very expensive situation.

As older, experienced I&C technicians and engineers are retiring, younger generations are faced with the daunting task of assuming responsibilities for which they aren't trained. However, in most cases, there's insufficient time (nor adequate budgets) to train technical personnel. Lack of money fosters lack of training, which leads to wrong decisions and expensive corrections.

With our present situation of operating with skeleton staff, everyone is busy — dare I say 24/7? Most managers recognize the need for training, but how can a manager justify sending employees to a course? Where will the money come from and who would assume additional responsibility while the employee is away on training?

Face-to-face versus interface

For a person who needs to learn about I&C, the two most common forms of training are face-to-face courses, where the employee typically travels to a distant location where the class is
KU Blackboard
Promotion through Partnership
Benefits and drawbacks of such a partnership based on sharing a percentage of the revenue?
Ashley,

As part of our efforts to provide our members and customers with the highest quality automation information worldwide, we are sending you this note from the University of Kansas about the Online Certificate Program in Process Instrumentation and Control.

Having trouble viewing this e-mail? View it in your browser.

Online Certificate Program in
Process Instrumentation and Control

Module 2: February 9–March 8, 2012
Module 3: May 31–June 28, 2012

Update Your Knowledge
Certify Your Competence

The University of Kansas Continuing Education is offering an online certificate program in Process Instrumentation and Control (I&C), covering the different phases of I&C from a nonmathematical and practical perspective.
Fall Semester 2012

Certified Automation Professional (CAP) Online Exam Review Course
10 September - 9 November 2012

Certified Control Systems Technician (CCST) Online Exam Review Course
10 September - 23 November 2012

Safety Instrumented Systems: Design, Analysis and Justification
(EC50E: Online Version)
17 September - 19 November 2012

Certified Control Systems Technician (CCST) Online Exam Review Course
1 October - 12 December 2012

Safety Instrumented Systems: Design, Analysis, and Justification
(EC50E: Online Version)
22 October - 14 December 2012

Other Online Opportunities

University of Kansas Certificate Program: Cybersecurity for Industrial Automation and Control Systems
15 October 2012 - 29 April 2013

University of Kansas Certificate Program: Process Instrumentation and Control
11 October 2012 - 27 June 2013

University of Kansas Certificate Program: Process Control and Advanced Regulatory Control Strategies
27 September 2012 - 25 April 2013

Advanced Diploma of Industrial Automation from the EIT
(U.S. Program Name: Associate Degree in Industrial Automation)

Master of Business and Project Management (Industrial Automation) from the EIT

*Course topics subject to change.
• Large enrollment = expensive marketing

• Perspective:
  – inexpensive per person emailed
  – much less per module than marketing done in 2006
Results

• FY 2010 – 52 students (6 international)
• FY 2011 – 71 students (23 international)
• FY 2012 – 106 students (15 international)
• FY 2013 (to date) – 68 students (8 international)
FY 2011 – Adobe Connect

Figure 5-10
Bubbler.

Mohammad: I mean about accuracy of measurement.
Louis: Lead collimation outside of beam?
James Gardner: I was talking about an story.
James Gardner:...
Louis: I'm ok I was adding to the question on setter.
Mohammad: if we have 2LT device, installed on tank and interfere to other, is there any inaccuracy?
Mohammad: gamma
Mohammad: no, I mean on separate tank adjacent together
Mohammad: right
Mohammad: Thank you
Louis: so this is not really to measure level, more so delta level
William Schmitt: This looks like level transmitter with dry leg.
Louis: so what controls the regulator
John Littva: So, is this a manually operated device?
Louis: so as the level goes down the bubbles increase
John Littva: yep...
2011 – Instructor Search

• Already teaching courses “onsite”
• Industry experience
• Bonus if published a text
Choosing topics:
Cast a wide net or choose a niche from the beginning?
Manufacturing Optimization Course

• Manufacturing Quality Management
• Root Cause Failure Analysis
• Cost Reduction and Optimization
Online training now available!

We often receive calls from individuals asking if they can attend our training programs online, and we’re pleased to announce that now you can do so. We’ve teamed with the University of Kansas, and we are pleased to offer a Manufacturing Optimization Online Certificate Program.

The Manufacturing Optimization Online Certificate Program features practical, experience-based and proven approaches for rapidly optimizing your manufacturing process. The program includes basic concepts, improvement opportunity identification techniques, implementation strategies, risk identification and avoidance methodologies, and extensive use of practical examples in all modules. Here’s the schedule for our next courses:

- Delivery Performance Improvement: Aug 21 - Sep 6, 2012
- Industrial Statistics: Jan 8 - Jan 24, 2013
- Quality Management: Mar 5 - Mar 21, 2013
- Root Cause Failure Analysis: Apr 30 May 16, 2013
- Cost Reduction and Optimization: Jun 25 - Jul 18, 2013
2012 – Advanced Process Instrumentation and Control

• Retain and expand audience
• Partnered with ISA again
2012 – Maintenance Management Certificate

Module 1


Module 2

Maintenance Planning, Coordinating and Scheduling, Second Edition by Don Nyman and Joel Levitt, published by Industrial Press, NY

Module 3

Thought about going online for learning maintenance management?

BY JOEL LEVIT
CREATED: MARCH 12, 2012

Here’s a way to get targeted training with no travel costs

School as we know it is transforming at a blinding rate. If you went into a high school or college classroom it probably wouldn’t look familiar.

Kids – even young ones – do their projects on PowerPoint, their lab reports on Excel spreadsheets and their essays in Word. However, there is still a teacher up front leading the lesson.

Since a good deal of my work is teaching, I’ve followed the transformation of schools with more than a little interest. Now, it seems learning institutions have figured out how to do away with the classroom altogether.

Out of the Routine
I’ve been having some fun of late.
2012 – Maintenance Management Certificate
2012 – Maintenance Management Certificate

An opportunity to further the fleet maintenance industry
BY DAVID A. KOLMAN
CREATED: AUGUST 30, 2011

Fleet Maintenance partners with Kansas University for continued technician education.

All of us at Fleet Maintenance are big believers in advancing the maintenance profession. With each issue, we strive to provide the best practices, information and advice for keeping vehicles on the road with minimal loss of operating time.

We firmly believe that Fleet Maintenance has a responsibility to help ensure the viability and success of our industry. We work diligently to make a positive influence and help others accomplish more.

Fleet Maintenance is committed to that.
2012 – Maintenance Management Certificate

Winners of inaugural Fleet Maintenance/Kansas University Scholarship Program announced

David A. Kolman, Fleet Maintenance Editor
Created: August 1, 2012

Six scholarship recipients chosen from more than 40 entries

The winners of the newly created Fleet Maintenance/Kansas University Scholarship Program for the university's Maintenance Management Online Certificate Course have been selected. The annual program, sponsored by Michelin and WorkSafe USA, advances the cause of maintenance management - a critical component in fleet operations.

Dedicated to the improvement of sustainable mobility, Michelin designs, manufactures and sells tires for every type of vehicle, including airplanes, automobiles, bicycles, earthmovers, farm equipment, heavy duty trucks and motorcycles. www.michelinman.com.

WorkSafe USA manufactures the Dump-lok dump truck and trailer hitch, the only hitch designed with a self-latching safety feature (http://dumplok.com).
2012 – Asphalt Pavement Management

Asphalt Pavement Management, Recycling & Preservation
Online Certificate Program
September 20, 2011–March 27, 2012
Online training: Online sessions meet every Tuesday at 7:00 – 8:00 p.m. Eastern Time

The Asphalt Pavement Management, Recycling & Preservation Online Certificate Program consists of three modules covering pavement evaluation, management, recycling and preservation. Those who are faced with the challenges of maintaining roadways on a shrinking budget will learn cost and energy-efficient strategies to extend the useful service life of pavement. The instructor, Blair Bamhardt, has spent over 30 years building roads and implementing the technologies presented in this class. He has taught his innovative asphalt pavement recycling and preservation procedures to thousands of agency engineers, resulting in millions of dollars in savings.

Participants in this training program will learn:

- to evaluate pavement distress and recommend repair strategies
- to use techniques such as crack sealing/filling, patching, chip seals, slurry seals, microsurfacing, thin overlays
- to couple the pavement management program to the recycling and preservation components
- to identify strategies to get more years of service from newer pavements

Who Should Enroll

Although Module 1 has begun, registration is open for Modules 2 and 3 of the course. You can begin with Modules 2 and 3 and finish up with Module 1 next year. Please look over the course content to see what is covered in each module. You are required to take all three modules if you wish to receive a certificate.
2012 – Land Development Strategies for Civil Engineers

Land Development Strategies for Civil Engineers
ONLINE CERTIFICATE PROGRAM

By attending this webinar series, you can expect to:

- understand the issues guiding both vertical and horizontal mixed-use projects including environmental, social and economic considerations.
- assess current programs implemented to guide sustainable land development design trends.
- learn what you should research online so you can base your development decision on regulatory facts.
- discover the constraints and benefits of specific site conditions and characteristics.
- learn a detailed business plan for the role of land development engineers.
- explore how the project management system will change as technology changes.

OUR INSTRUCTOR

David E. Johnson, P.E., P.P., has more than 35 years of experience in the real estate development industry including working for local government and as a consulting engineer. He has also worked for the National Association of Home Builders in Washington, D.C., and has more than 17 years of executive experience working for major builder/developers in Florida and New Jersey. He is the author of two real estate development textbooks and is a national seminar instructor on real estate development topics. He is a professional engineer in five states, a registered professional planner in New Jersey, and a Broker/Realtor* in North Carolina.

To get more information and register visit us at ContinuingEd.ku.edu/programs/land_development
Focus for FY 13

• Subjects - industrial automation and instrumentation classes and maintenance classes

• Key audience - energy companies, who accounted for a high portion of the attendees
Continuing classes

• Process Instrumentation and Control Online Certificate Course
• Advanced Process Instrumentation and Control Course
• Maintenance Management Online Certificate Course
Expanded Manufacturing Certificate

Manufacturing Performance Online Certificate Program
Tuesdays and Thursdays • August 21, 2012–July 18, 2013
Online training — Online sessions meet every Tuesday and Thursday at 7:00 – 8:00 p.m. Eastern Time

Each year, hundreds of manufacturing practitioners worldwide learn to improve their engineering, manufacturing and process capabilities in manufacturing training seminars taught by our instructor, Joseph Berk. Our Manufacturing Performance Improvement Online Certificate Program allows individuals to receive training that was once available only to those whose companies would bring in Mr. Berk for onsite seminars. Best of all, the certificate can be completed online, so you will have no travel expenses or time away from the workplace.

How the Manufacturing Performance Certificate Works

- Complete three courses of your choice over two years and earn a certificate in Manufacturing Performance
- Complete six courses of your choice over three years and earn an advanced certificate in Manufacturing Performance

What You Will Learn

- Proven approaches for quality improvement in manufacturing and service environments
- Quality-related statistical considerations presented in an easy-to-understand manner
- Approaches for identifying all potential failure causes
- Optimal corrective action selection and implementation

Manufacturing Performance Courses

Complete any three courses of your choice within two years to receive a Certificate in Manufacturing Performance or complete any six over three years and earn an Advanced Certificate in Manufacturing Performance:

Manufacturing Delivery Performance Improvement
Manufacturing Cost Estimation
Industrial Statistics
Manufacturing Quality Management
Root Cause Failure Analysis
Cost Reduction and Optimization

Course offerings for this certificate are subject to change.
Basics of Shutdowns, Turnarounds and Outages

The Basics of Shutdowns, Turnarounds and Outages

Online Certificate Course

October 23, 2012 – June 18, 2013

Online training: Online sessions meet every Tuesday at 7 – 8 p.m. Eastern Time

The online certificate program in The Basics of Shutdowns, Turnarounds and Outages consists of three modules covering the five phases of the process. This program has been designed for heavy maintenance environments including refineries, power plants, chemical plants, mines, large factories and other large facilities. It is especially applicable for the project teams that might consist of outage planners, maintenance managers, project engineers, supervisors, maintenance engineers, planners and trainees for these positions. This course is also designed for contractors who manage client shutdowns, in whole or in part. The course focuses 85% on the planning process, and the remaining 15% consists of execution tactics to keep the project on task.

Participants in this training program will learn:

- How to evaluate the effectiveness of their current shutdown effort
- How to account for everything that goes into an outage or shutdown
- How to prepare customized checklist so everything is remembered
- When to say no to added work and avoid scope creep
- When and how to use Gantt, CPM and PERT charts
- What documents to save and how to organize them
- How to break a job into activities
- How to set up the shutdown team
- What shifts structures to use and how much they really cost
- How to set up safety program for shutdowns
- How to control a shutdown
- How to pick project management software
- What to do if a shutdown runs into trouble
- How to learn from mistakes and institutionalize lessons learned
Cybersecurity for Industrial Automation
Future Focus

• Suggestions from past students
• Expertise of current instructors
• Research and benchmarking
• Suggestions from publishers
Further information?

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