



From Failed Class to a Fruitful Online Engineering Technology Program

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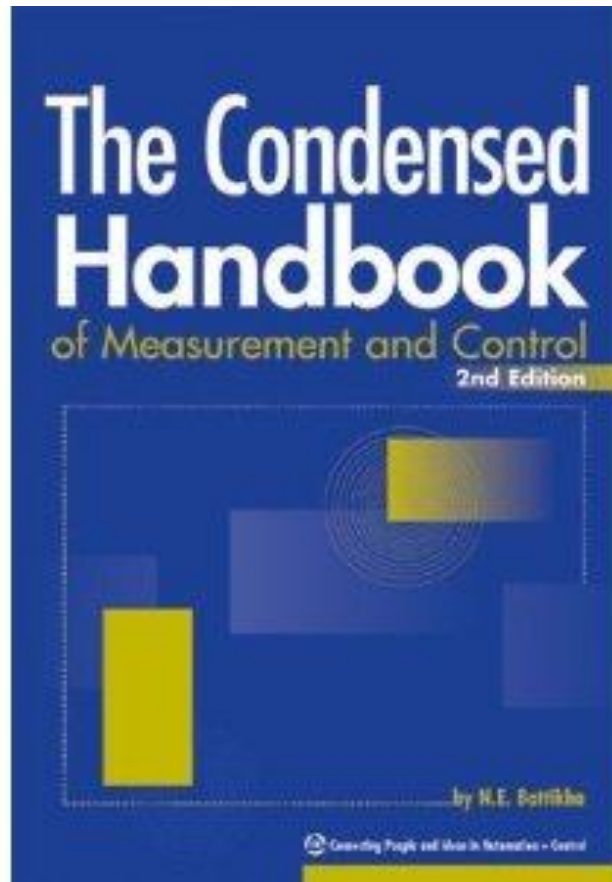
University of Kansas Continuing Education
Lawrence, KS, USA



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





ACH 500

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TLS-300C





Introduction to

PROCESS INSTRUMENTATION & CONTROL

N O V E M B E R 6 - 9, 2 0 0 6

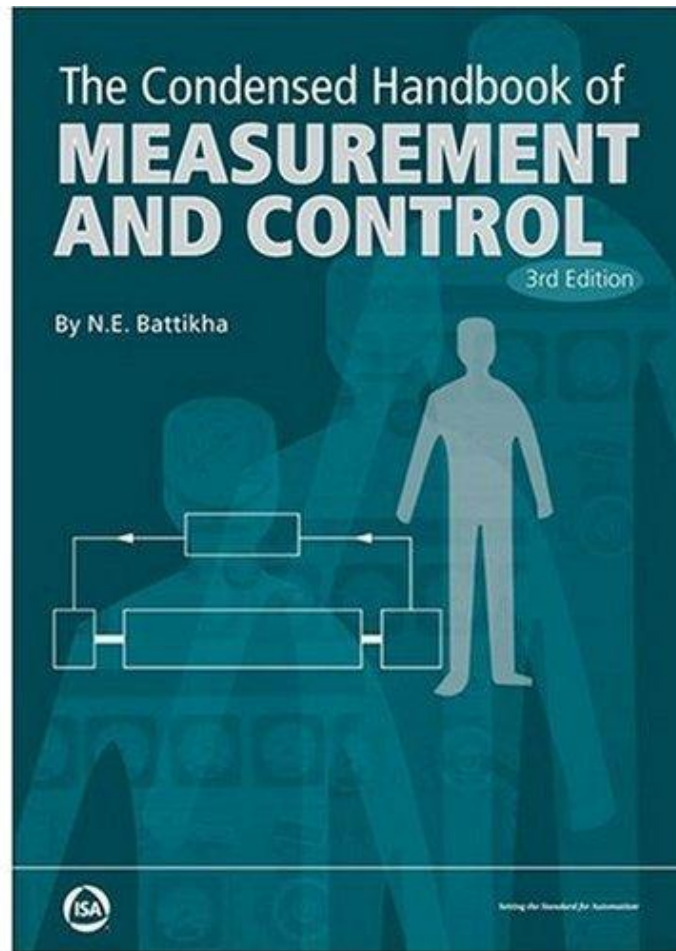
University of Kansas ◦ Lawrence, Kansas



Why did it fail?



Online program begins 2009



Online **Certificate** Course

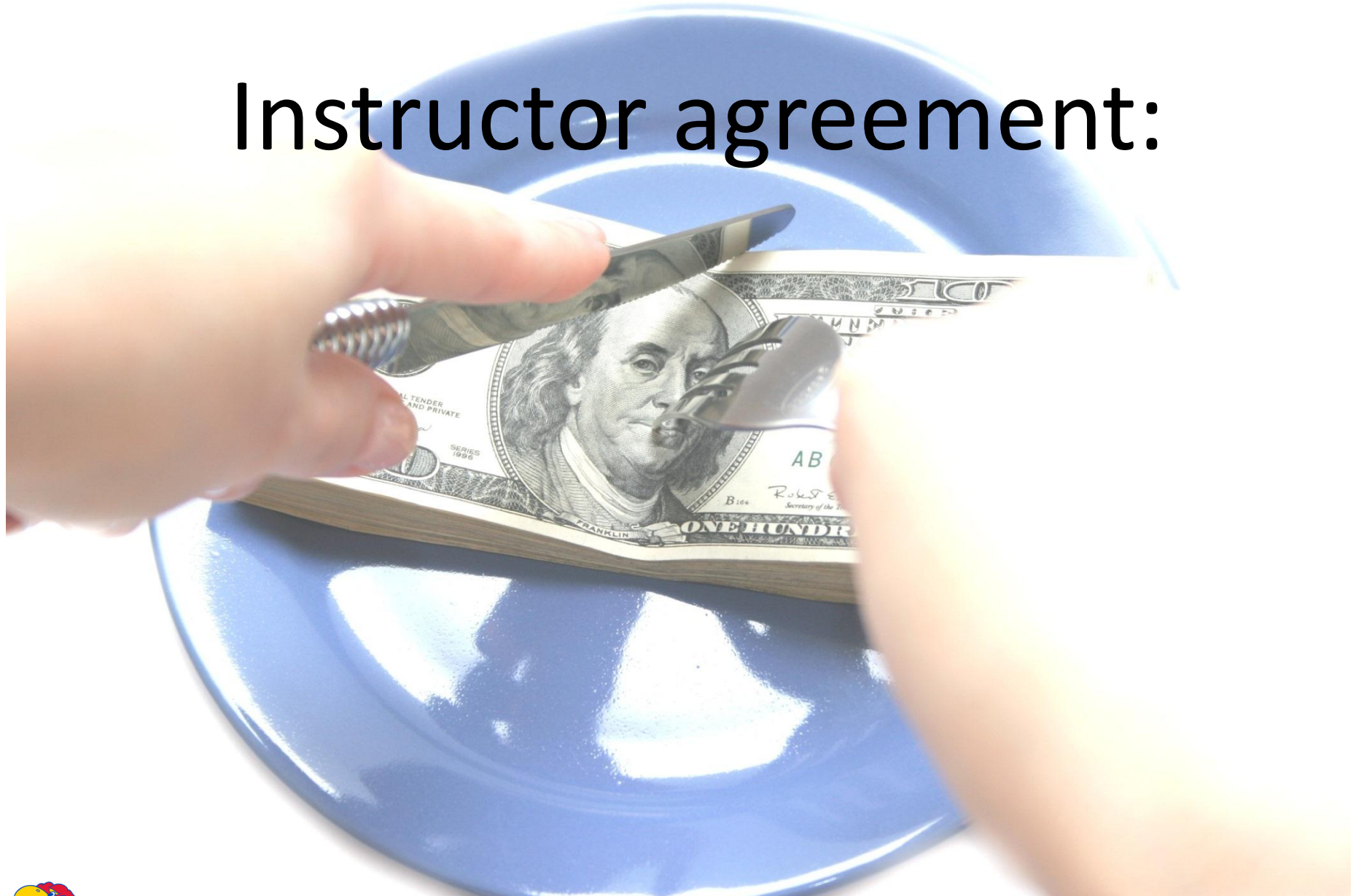
- Module 1 — Sensors and Symbology
- Module 2 — Control Functions
- Module 3 — Installation and Engineering Functions



Live on-line presentations
VS.
Recorded, on-demand classes



Instructor agreement:



Instructor agreement:

**40% of gross minus initial
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**Advantages and
Drawbacks?**



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2- Dalhousie University Continuing Education
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Online training for I&C

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

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

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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?

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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

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KU Blackboard

The screenshot shows the Blackboard course interface. At the top, the user is logged in as Kevin Curry. The course title is 'Process Instrumentation and Control: Module I - Sensors and Symbology CONT000-901'. The main content area is titled 'Course Notes' and contains a list of items:

- URL for Weekly Live Meetings** (Globe icon)
- COURSE INFORMATION AND POLICIES** (Document icon)
 - Attached Files: [SESSION 0C-INFO+POLICIES.docx](#) (18.358 KB), [SESSION 0C-INFO+POLICIES.pdf](#) (78.79 KB)
 - This section must be read by all students prior to starting this course.**
- Discussion Recording for October 11** (Globe icon)
- SESSION 1 - INTRO** (Document icon)
 - Attached Files: [SESSION 1C-INTRO.docx](#) (25.719 KB), [SESSION 1C-INTRO.pdf](#) (102.49 KB)
- Discussion Recording for October 18** (Globe icon)
- SESSION 2 - SYMBOLOGY** (Document icon)
 - Attached Files: [SESSION 2C-SYMBOLGY.docx](#) (16.389 KB), [SESSION 2C-SYMBOLGY.pdf](#) (67.022 KB)
- Discussion Recording for October 25** (Globe icon)

The left sidebar includes the University of Kansas logo, a course navigation menu (Course Notes, Assignments, Communication, Using Blackboard), and a 'COURSE MANAGEMENT' section with options like Control Panel, Files, Course Tools, Evaluation, Grade Center, Users and Groups, Customization, Packages and Utilities, and Help.



Promotion through Partnership

ISA *Setting the Standard for Automation™*

The International Society of Automation is a nonprofit organization that helps its 30,000 worldwide members and other automation professionals solve difficult technical problems, while enhancing their leadership and personal career capabilities.

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29 NOVEMBER 2012
[New ISA publication explains the concepts, techniques and tools of advanced control for the process industry; furnishes practical examples](#)

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Benefits and drawbacks of such a partnership based on sharing a percentage of the revenue?





Setting the Standard for Automation™

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.](#)

KU CONTINUING
EDUCATION
The University of Kansas

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Online Certificate Program in Process Instrumentation and Control

[Register Here](#)

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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



Safety Instrumented Systems: Design, Analysis & Justification (EC50E: Online Version)

20 August - 12 October 2012

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

Attendees (33)

Hosts (2)

- Bill Battikha
- Kevin Curry

Presenters (0)

Participants (31)

- _cenglandcolwell
- _rsantos
- _sjacqueline
- Aaron Siegel
- Ashley Weckwerth
- Bob Nash
- Don Thibeault
- dwal
- Gle...

Chat (Everyone)

Mohammad: I mean about accuracy od measurement

Louis: lead collimation outside of beam?

James Gardner: I was talking about ur story

James Gardner: .

Louis: I'm ok I was adding to the question on sctter

Mohammad: if we have 2 LT device, installed on tank and interfere to ether, 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, moreso delta level

William Schmitt: This looks like level transmitter with dry leg

Louis: so what controls the regulator

John Litva: So, is this a manually operated device?

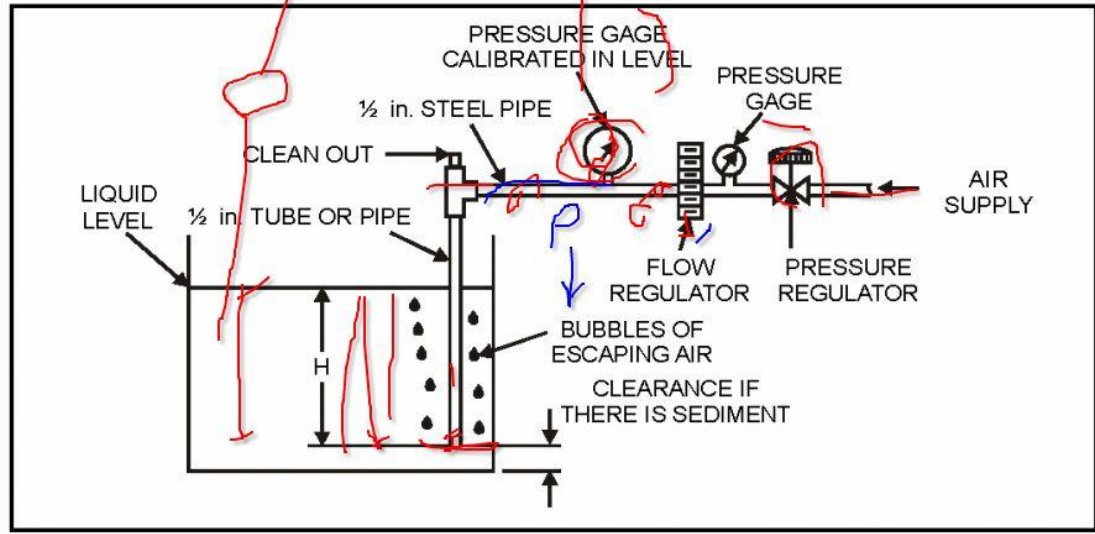
Louis: so as the level goes down the bubbles increase

John Litva: yep...

want to measure the bubbles...

Chapter05.ppt

Figure 5-10
Bubbler.



2011 – Instructor Search

- Already teaching courses “onsite”
- Industry experience
- Bonus if published a text

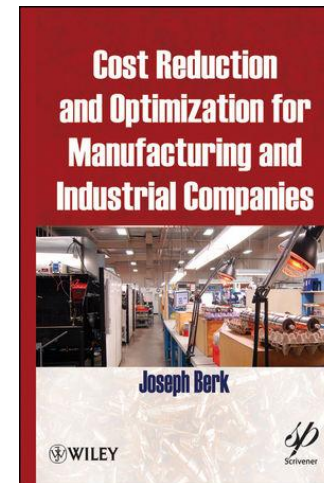
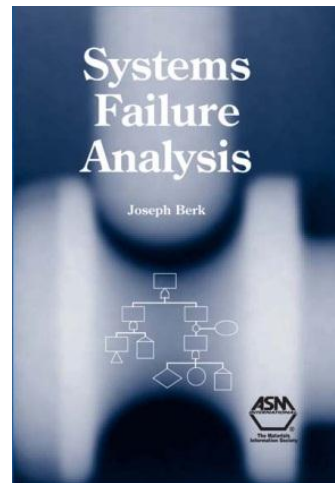
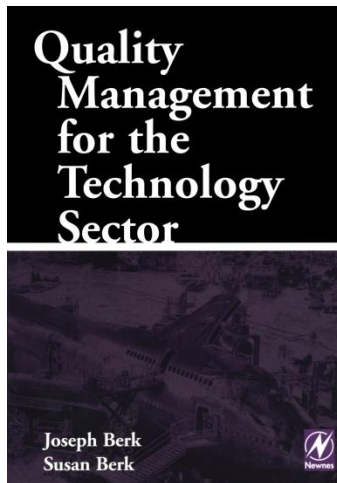


Choosing topics: Cast a wide net or choose a niche from the beginning?



Manufacturing Optimization Course

- Manufacturing Quality Management
- Root Cause Failure Analysis
- Cost Reduction and Optimization



Manufacturing Optimization Course

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

Cost Estimation: Oct 16 - Nov 1, 2012

Industrial Statistics: Jan 8 - Jan 24, 2013

Quality Management: Mar 5 - Mar 21, 2013

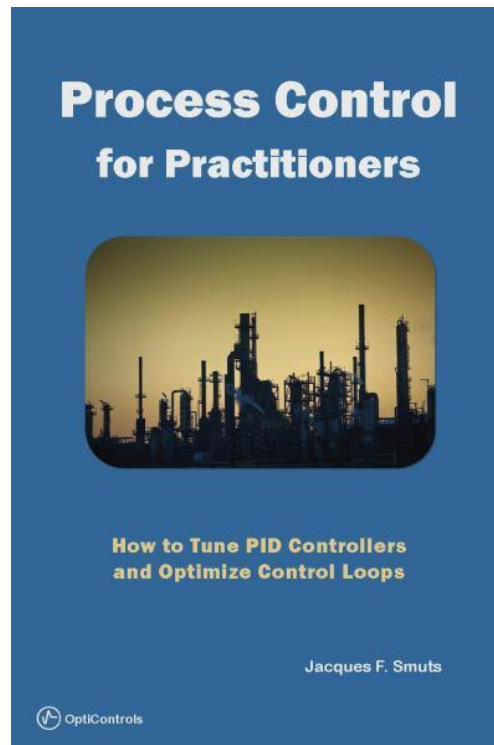
Root Cause Failure Analysis: Apr 30 - May 16, 2013

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



The Handbook of Maintenance Management, Second Edition by Joel Levitt, published by Industrial Press, NY

Module 2



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

Module 3



The Complete Guide to Preventive and Predictive Maintenance, Second Edition by Joel Levitt, published by Industrial Press, NY



2012 – Maintenance Management Certificate

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ALL TOPICS FLEET AUTOMOTIVE REGULATORY GREEN MANAGEMENT & TRAINING

Thought about going online for learning maintenance management?

BY JOEL LEVITT
CREATED: MARCH 12, 2012

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

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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.




MICHELIN

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- Record high alternative fuel vehicles hit the road in the...
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STORIES »

 The winners of the inaugural Fleet



2012 – Maintenance Management Certificate

FMX | Uptime



By David A. Kolman, Editor

A golden opportunity for the New Year

Help strengthen professionalism in our industry

I'm a firm believer in making resolutions for each New Year.

Why? Because many years ago I was struck by these words written by poet Edna St. Vincent Millay: "We will each be back. Its pages are blank. We are going to put words on them ourselves. The book is called Opportunity, and its first chapter is New Year's Day."

If you're like most people, your list of resolutions (opportunities) for the new year will probably include at least one of the following: lose weight, exercise, better manage finances, become more organized, enjoy life more, spend more time with family and friends, eat better or become a better person.

Special Resolution

As you prepare your opportunities for this year, would like to suggest adding one to your list that all of us at Fleet Maintenance believe is most worthy: helping to be professional in the fleet maintenance industry.

Upon successful completion of the Maintenance Management Online Certificate Course, participants are awarded a certificate by the University of Kansas (KU) and Fleet Maintenance documenting their specialized education and knowledge in maintenance management.

The instructor for the course is Joel Lavitt, a leading trainer of maintenance professionals and the author of a column on management matters that appears regularly in *Fleet Maintenance*.

Lavitt has conducted over 500 training sessions for more than 15,000 maintenance leaders from 3,000 organizations in more than 20 countries. Since 1990, he has been the president of Springfield Resources, a Lafayette Hill, PA-based management consulting firm that serves clients of all sizes on a wide range of maintenance issues.

Complete details about the Maintenance Management Online Certificate Course can be found on the KU Continuing Education's website at www.cdu.ku.edu/ce/programs/maintenance_management/index.php.

The Fleet Maintenance/Kansas University Scholarship Program is intended to advance the cause of maintenance management – a critical component in fleet operations.

Next Steps

You can become involved with the Fleet Maintenance/Kansas University Scholarship Program by nominating someone for a scholarship, becoming a program sponsor or doing both.

To qualify for the scholarship, a person must have, at minimum, two years of work experience in fleet maintenance and aspire to a career in fleet maintenance management. Nominations may come from anyone, including the scholarship coordinator.

Nomination forms can be found at www.vehiclemaintenance.com/scholarship.html.

The deadline for nominations is April 15, 2012. Ten full scholarships will be awarded. Winners will be notified by June 1, 2012, and will be recognized in the October issue of *Fleet Maintenance* and at the end of a Technology & Maintenance Council (TMC) annual meeting.

Program Sponsorship

At present, Michelin and WorkSafe USA are the sole program sponsors.

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

WorkSafe USA manufactures the Dump-Lok dump truck bed safety device system. The Dump-Lok locks the dump bed in the raised position,



2012 – Maintenance Management Certificate

The screenshot shows the top navigation bar of the Fleet Maintenance website. On the left is the 'VEHICLE SERVICE PROS .COM' logo. In the center are logos for 'Professional TOOL & EQUIPMENT' and 'FLEET Maintenance PROFESSIONAL DISTRIBUTOR'. To the right are links for 'ADVERTISE', 'CONTACT US', and 'BOOKMARK'. Below these are 'LOGIN' and 'REGISTER' buttons, social media icons for Facebook, Twitter, Google+, and LinkedIn, and a search bar. A secondary navigation bar contains links for 'TOPICS', 'NEWS', 'ASK THE EXPERT', 'MEDIA CENTER', 'PRODUCT GUIDE', 'MAGAZINES', 'CALENDAR', 'BLOGS', 'CAREERS', 'USED TRUCK LOT', 'DISTRIBUTORS', and 'AAPEX'. A third bar lists 'ALL TOPICS', 'FLEET', 'AUTOMOTIVE', 'REGULATORY', 'GREEN', and 'MANAGEMENT & TRAINING'.

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.

Like 14 Tweet 3 +1 0 LinkedIn 0 Comments 17 Print 17



Fleet Maintenance magazine and Kansas University have partnered to create a scholarship program.

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.

Follow us on:

The advertisement shows a blue robot character next to several bottles of Delo maintenance products. The text reads: 'Go with Delo® and you've got a partner all the way.' and 'Let's learn more >>'. At the bottom, it says 'Delo Let's go further.'

LATEST NEWS

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2012 – Maintenance Management Certificate

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ALL TOPICS FLEET AUTOMOTIVE REGULATORY GREEN MANAGEMENT & TRAINING

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

Like 34 Tweet 2 +1 2 LinkedIn 4 Comments Print 40



Linda Vinson, Caledonia Haulers, Caledonia, MN

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

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Alliance AutoGas adds four new Canadian provinces to clean...

Eaton names John Beering Senior Vice President and General...

New research on QR codes and mobile apps: What consumers...

RELATED CONTENT



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

- [Course Home](#)
- [Course Schedule & Module Descriptions](#)
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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 Barnhardt, 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

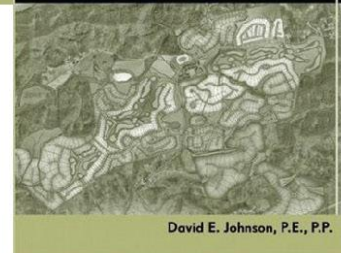
instructor on real estate development topics. He is a professional

engineer in five states, a registered professional planner in New

Jersey, and a Broker/Realtor® in North Carolina.

FUNDAMENTALS of Land Development

A Real-World Guide to Profitable
Large-Scale Development



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

[Course Home](#)

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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

Course Home

[Course Schedule & Module Descriptions](#)

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[Instructor](#)

[Registration Information](#)

Other Online Certification Programs

Contact

Kevin Curry

Program Manager
KU Continuing Education
1515 Saint Andrews Drive
Lawrence, KS 66047

☎ 785-864-7861

✉ kgcurry@ku.edu

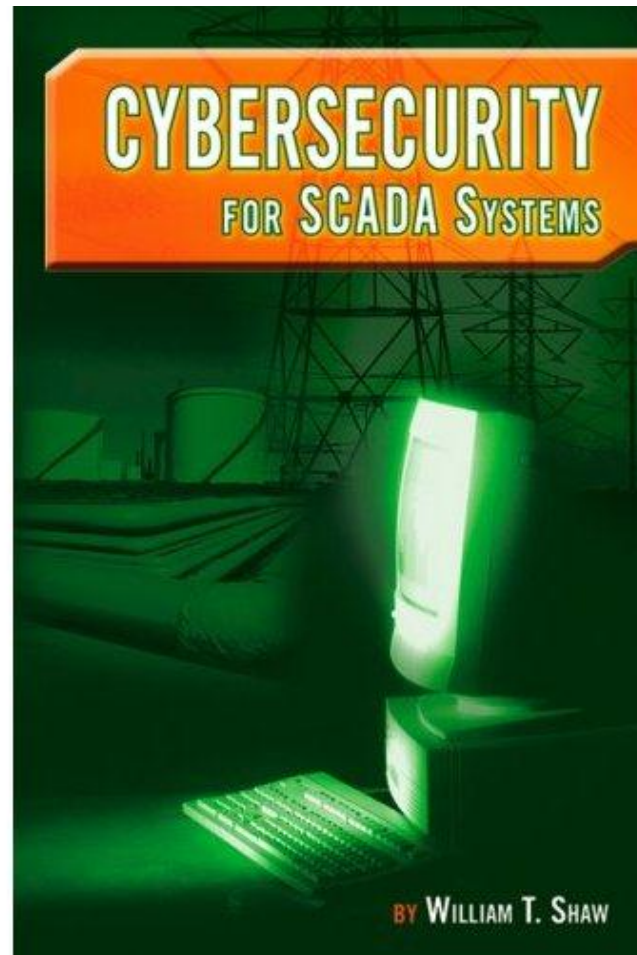
The online certificate program in The Basics of Shutdowns, Turnarounds and Outages consists of three modules covering the five phases of the process. This program has been designed for heavy maintenance environments including refineries, power plants, chemical plants, mines, large factories and other 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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