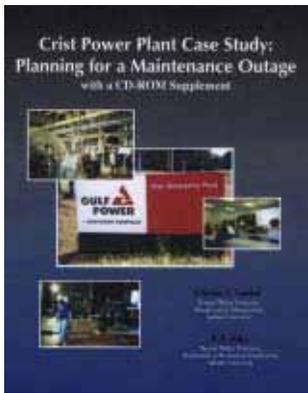


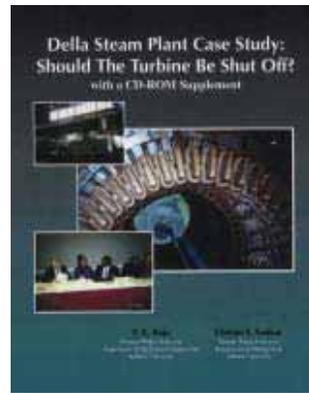
BRINGING REAL-WORLD ISSUES INTO ENGINEERING CLASSROOMS: TITLES



Crist Power Plant Case Study

Shall we plan for a maintenance outage?

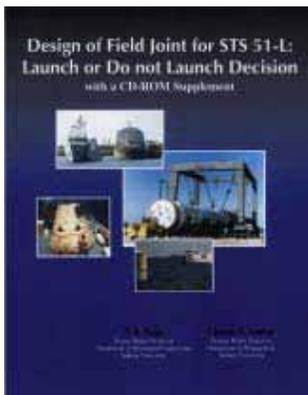
This is a fun and challenging real world case study where students work with an expert system to refine their decision, choosing among multiple alternatives for maintaining a turbine-generator at a power plant. Walk into this exciting case study where you get a "hands-on" experience with the expert system and become the plant manager working to solve the \$2 million problem.



Della Steam Plant Case Study

What Should Sam Do: Stop or Restart The Turbine?

The case study examines the problem of a turbine-generator unit in a power plant which is vibrating heavily and shaking the building. Two engineers have recommended conflicting solutions, and the plant manager must make a decision that could cost the company millions of dollars.

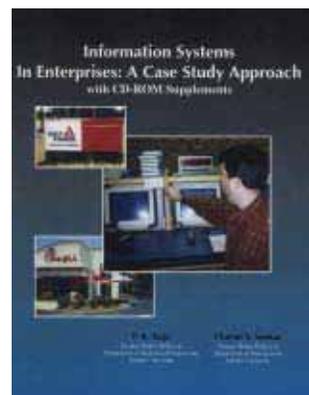


Design of Field Joint for STS 51-L: Launch Decision

Should NASA launch the Challenger Space Shuttle??

This case study shows the events leading to the decision to launch the space shuttle, STS 51-L.

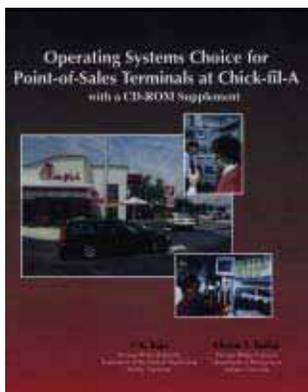
The case study and CD-ROM describe the events and illustrate the technical details discussed in the case study.



Integrating Practice, Theory, and Design for Engineers:

A Case Study Approach
Presents three exciting case studies drawn from real-world engineering practice

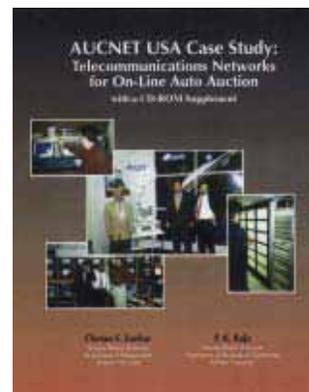
This title is geared toward teaching engineering students practice, theory, and design in an integrated manner, inspiring students to think critically, work in teams, and solve real-world problems.



Chick-fil-A Case Study

How long would you wait in line?

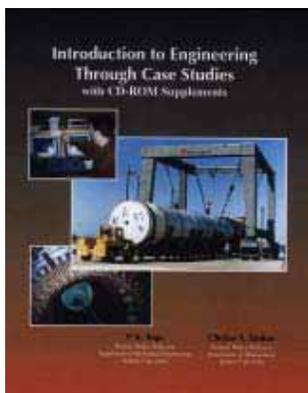
This case study illustrates the decision faced by Chick-fil-A as it moves from its current Point-of-Sale system to a choice between two new operating systems, one based on Windows NT and the other on Windows CE. Since the Chick-fil-A chain operates over 700 corporate owned stores, this changeover had about a \$3.29 million investment impact stemming from the difference in prices between implementing various POS systems.



AUCNET USA Case Study

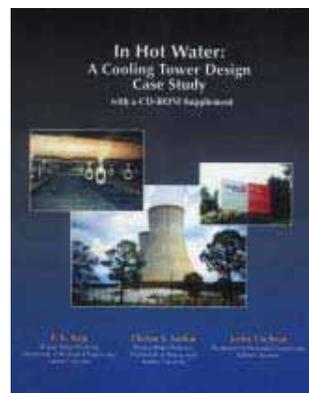
What Should the Company do to Survive?

This is an exciting and interesting case study that describes the network design choices facing the top management of an on-line auto auction company. Become an entrepreneur as you make difficult choices for this small company. Discuss the alternatives of using satellites or internet networks for the auto auction.



Introduction to Engineering Through Case Studies

This case study includes three case studies that bring real-world into the classrooms. The case studies and accompanying CD-ROMs show that good decisions require that engineers and managers become involved in understanding unfamiliar technologies and strike a balance between technical, financial, and business issues. In addition, it relates how the principles of sciences and mathematics are critical in solving real-world problems.

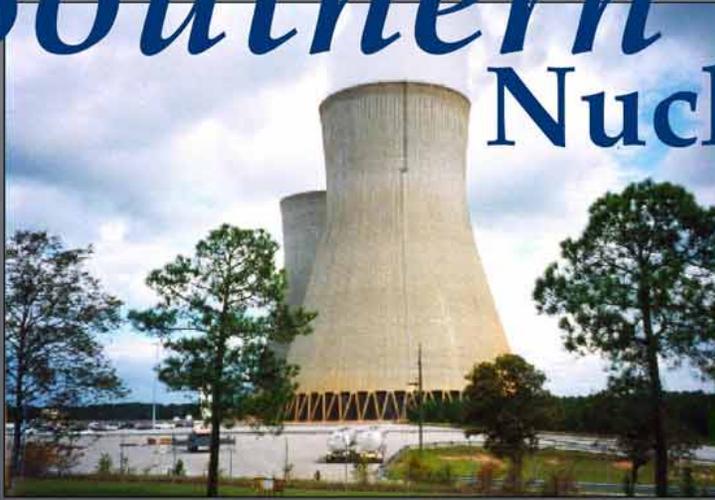


In Hot Water: A Cooling Tower Case Study

At Vogtle, plant manager Robert Moye and engineers, Patrick Conley and Kerry Walton, were faced with two alternative methods for improving the performance of their counterflow natural draft cooling tower. The source of the tower underperformance seemed to be the water distribution across the tower's area. The managers and engineers were at the decision point: they could either revert to the configuration that was known to produce a tower efficiency of 91% or modify the tower based on John Cooper's new recommendation.

Corporate Sponsor

Southern Nuclear



Journal of SMET Education: Innovations and Research

P.O. Box 4001

Auburn, AL 36831-4001

U.S. Postage
PAID
Permit No. 77
Montgomery, AL