Consulting in the Discipline:  
External Practice as a Reinforcement of Classroom Skills

by

Joseph F. Camean, P.E.
Adjunct Professor
Central Connecticut State University
School of Engineering Science & Technology

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Consultants are Subject Matter Experts
– So are Academic Faculty

CSCU / CCSU Policy Recognizes Consultation
– Full Time Faculty Compliance and Reporting

Consulting Practice Adds Experience
– and Commercial Awareness

Classrooms get Invested with Relevance
– Students are Better Prepared for Success
Academic Faculty - Expertise

• Focused on Academic Discipline
  – Fundamentals and Standards
  – Classroom Environment
  – Academic Norms
  – Student Learning Objectives

• Subject Matter Expertise
  – Free Thinker Perspective
  – Interdepartmental University
  – Technology Transfer
  – Commercial Innovation
CSCU / CCSU Policy Recognizes Consultation

• “Faculty professional activities such as consulting or engaging in a research project for a public or private entity often are useful in maintaining and enhancing the faculty member's academic scholarship and competence.”

  Excerpted from CSCU / CCSU Procedure for Reporting of Research or Consulting With Outside Public or Private Entity (adopted October 20, 2016)

• Full Time Faculty Requirements
  o Academic Dean and Provost approval required prior to engaging in outside activities.
  o Compliance form must be filed to report on activities.
Consulting Practice Adds Experience

• Research – Academic
  o Systematic Investigation
  o Open-minded Exploration and Development of General Knowledge in Field of Study
  o Self-driven pressures to advance the discipline

• Research – Commercial
  o Systematic Investigation
  o Focused on a Specific Investigation
  o External pressure to meet cost driven performance or schedule requirements.

Particle Physics

Pneumatic Transport of Solid Particles
Consulting Practice Adds Commercial Awareness

• Engineering Disciplines
  ➢ Physics
  ➢ Statics and Dynamics
  ➢ Structural, Mechanical, Electrical, Computer
  ➢ Control Algorithms

• Material Handling
  ➢ Bucket Elevators
  ➢ Conveyors
  ➢ Pneumatic Transport
  ➢ System Automation
Classrooms Invested With Relevance

• Faculty Member Professional Interaction with Industry
  o Maintaining and Enhancing Expertise
  o Interchange of knowledge – theoretical meets practical

• Faculty Led Co-Operative Education
  o Student Awareness of State-of-the Art Technology and Practices
  o Learning of What’s Old and What Needs to be New

• Student Introduction to Career Options
  o Participation in Commercial Work
  o Introduction to Applications Oriented Research
  o Free-thinking Innovation brought into the Commercial Sector
Academic + Commercial Expertise
(Restoring The Continuity)

Organization and Companies of a Connecticut Corporation that Once Employed 42,000
(Its Chief Technologist was an immigrant educated at a State University)

Industrial
+ P.F. Avery Co.
+ Metals
+ Bauer Pulp & Paper Equipment
+ Raymond (Crushing and Conveying)
+ Air Preheater
+ Tyler Screening (Industrial Wire Screens)
+ Ehrsham (Conveyors & Grain Elevators)
+ Enterprise Manufacturing
+ Resource Recovery Systems
+ Tyler Elevator
+ American Pole Structures
+ National Tank Company

Corporate Support
+ Administration
+ Kreisinger Laboratory
+ Risk Management
+ Treasury
+ Accounting
+ Information Technology
+ Human Resources

Engineering Services
+ Lummus
+ Impel
+ Maguire

Power Systems
+ Fossil
+ Nuclear
+ Services
+ Industrial Boiler

Refractories & Minerals
+ Minerals
+ Refractories
+ Cast Industrial Products
+ Building Products
+ Aluminum Building Products
+ Morgan Door Company
+ Stanley Artex
+ Georgia Kaolin
+ Pryor-Giggey
+ Transport
+ Glass
+ Hordis Bros. Glass

Instrumentation & Controls
+ Taylor Instruments
+ Process Analytics

Oil & Gas
+ Natco
+ Grey Tool
+ Beaumont Well Works
+ Vetco
+ Oil Field Engineering
+ Houston Forging

Coal Boiler
Air Preheater

Modern Building
Energy Recovery

April 20, 2018  Page 8
Thank You!