

A Liberal Perspective to the Challenge

Tackling the Human Resources Crunch in the Petroleum Sector – IEF Symposium

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April 2009

Who We Are

- + Member of the Qatar Foundation since 2004
- + Provide a Carnegie Mellon University undergraduate education in *Business Administration, Computer Science and Information Systems* in Qatar
- + We are part of the community sharing risks and rewards in addressing challenges and opportunities in Qatar and the region



Values and Vision

- + Innovate and excel
- + Transcend traditional disciplinary boundaries
- + Focus on problem-solving in hands-on education
- + Provide undergrad education informed and involved with cutting-edge research
- + Provide liberal professional education with breadth and depth
- + Educate whole person including extra-curricular experience and counseling
- + Treat individuals equally, disregarding gender, religion, or other differences
- + Serve society through technology transfer and public service
- + Self-evaluate, benchmark, and continually improve
- + Mutual respect and tolerance among faculty, staff, students, and administration

Our thoughts #1

Focus on Younger Groups

- + Pay attention to middle school-students
- + Work with school counselors
- + Meaningful programs (CS4Qatar, Botball, Case Competition)
- + Leverage university outreach activities
(Ibtikar experience)

Our thoughts #2

Tell us what you do

- + Help us understand the challenges within the value chain so we can make the education more relevant
 - + Relevance builds interest
 - + Interest enhance the perception of industry's image as a high-tech, high-charge career
 - + LNG Day, Carnegie Club
- + “Greening” our curriculum
 - + Be a sponsor to showcase CSR
 - + Be participative in our programs
 - + Challenge university to do more

Our thoughts #3

Provide More

Management/Leadership Learning

- + Broader skill set requirements faced by petroleum industry
 - + Complexity of projects
 - + Complexity of teams
- + More education need at graduates and executive level
 - + Business acumen (finance, MIS, legal, contracts, etc.)
 - + Leadership development (team collaboration, negotiation, knowledge capital)
 - + A broadly educated person

Our thoughts #4

Invest More in Research

- + More in information technology
 - + Reservoir modeling
 - + Artificial intelligence (HCI for training & simulation)
 - + Inspection and monitoring (Internal sour gas pipe inspection, leak monitoring, automatic detection/tracking human operators)
 - + Operation and maintenance (pipe assembly/disassembly, automated cleaning, painting/paint stripping)
 - + Safety and emergency response (emergency team coordination, autonomous response vehicles)
- + More in Business Research
 - + Operations research
 - + Center for Interdisciplinary Research on Teams
- + More in blue sky research because we do not know what future will look like

Qatar Experiences

- + Our experiences are positive & encouraging;
- + More structure is needed to channel energy into productive interactions;
 - + Commitment from the top
 - + Liaison is the key (knowledge, interest and influence)

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