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Management/Leadership/Strategic Planning/Recruitment/Training and Development/Project Management/Corporate Responsibility

√IPENZ 49/01 Rise of the superfirm.

Shuster, Laurie A.. Civil Engineering, Volume 81 Issue 8, Pages 60-63.

An overview of company mergers and acquisitions in architecture, engineering and construction. AMEC PLC., W.S. Atkins PLC, AECOM Ltd., and URS Corp are mentioned.

√IPENZ 49/02 Going global.

Parson, Bronwen. Canadian Consulting Engineer, Volume 52 Issue 2 (March/April 2011) Pages 31-34. The article discusses views of consulting engineering firm executives on the globalization of the industry in Canada.

√IPENZ 49/03 The New psychology of strategic leadership.

Gavetti, Giovanni. Harvard Business Review, Volume 89 Issue 7/8 (July/August 2011) Pages 118-125.

Firms in an industry typically cluster around a few strategic positions, and the intense competition on those occupied "mountaintops" makes it hard for firms to gain attractive returns. Superior opportunities lie on unoccupied mountaintops. Yet because those opportunities are "cognitively distant"-far from the status quo- strategists have trouble recognizing and acting on them. Competition, therefore, is weak. Most managers are trained to analyze economic forces when they want to identify new opportunities. But that approach usually won't uncover the kinds of ideas that overturn the status quo. Recent research on human cognition suggests that leaders would do better to use associative thinking to spot, act on, and legitimize distant opportunities. They should learn to make analogies with businesses in other industries, for example. For example, Charles Merrill launched an extraordinarily successful business when he reimagined banking as a "financial supermarket." This article explores ways to jump-start associational thinking- and to bring stakeholders along on the journey.



√IPENZ 49/04 A question of leadership: What does effective leadership look like in a virtual work environment, and can web-based leadership operate the same way that face-to-face leadership does?

Erskine, Laura. Leadership in Action, Volume 28 Issue 6 (January/February 2009) Pages 12-13.

√IPENZ 49/05 Fostering learner mobility between engineering education and a twenty first century workplace.

Abu-aisheh, Akram; Grant, Lynroy. International Journal of Interactive Mobile Technologies, Volume 4 Issue 2 (2011) Pages 4-8.

√IPENZ 49/06 **Can instruction in engineering ethics change students' feelings about professional responsibility?**

Hashemian, G. and Loui, M. C. Science & Engineering Ethics, Volume 16, Issue 1 (March 2010) Pages 201-215.

√IPENZ 49/07 **Moving forward.**

Jones, Jenny. Civil Engineering, Volume 81 Issue 6 (June 2011) Pages 54-59.
A dozen engineers who were among those featured in an earlier 2002 Civil Engineering article provide updates on their careers and give their views on their professional today.

√IPENZ 49/08 **Business writing: Presenting ideas with force and clarity.**

Tindal, D. CMA Management, Volume 85, Issue 1 (March 2011) Pages 18-38.

√IPENZ 49/09 **Fighting failure with the internet.**

Caryer Cook, Valerie G.; Ali, Ahad. Industrial Engineer: IE, Volume 43 Issue 6 (June 2011) Pages 31-36.

The article explores the advantages of a Web-based collaborative method to facilitate failure mode and effects analysis (FMEA) process and the aspects to consider in the construction of a team in an organization. The FMEA requires the assembly of a team in an isolated environment to brainstorm and discuss candidate items. It offers flexibility of time and location for meetings, ability to involve external entities in the process, and improve the quality of team members. Before assembling the team, it is required to develop a website and consider the level of familiarity each member has with the product or process being evaluated.

√IPENZ 49/10 **Designing and implementing a performance measurement system.**

Gosselin, M. CMA Management, Volume 84, Issue 7 (November 2010) Pages 14-18.

√IPENZ 49/11 **The paradox of excellence.**

DeLong, Thomas J.; DeLong, Sara. Harvard Business Review, Volume 89 Issue 6 (June 2011) Pages 119-123.

Why is it that so many smart, ambitious professionals are less productive and satisfied than they could be? Thomas DeLong, an academic and consultant to executives, and Sara DeLong, a psychiatrist, argue that it's often because they're afraid to demonstrate any sign of weakness. They're reluctant to ask important questions or try new approaches that push them outside their comfort zones. For high achievers, looking stupid or incompetent is anathema. So they stick to the tasks they're good at, even while the rest of the organization may be passing them by. In short, they'd rather do the wrong thing well than do the right thing poorly. They get stuck in this unproductive and unfulfilling pattern and can't break free. Of course, leaders in organizations bear some of the blame for this type of play-it-safe mind-set. They don't always want to hear that a person is struggling, nor do they necessarily reward risk taking, even though they might pay lip service to innovative initiative. The authors outline several steps that individuals can take to shake off fear and paralysis, including looking at past negative experiences from somebody else's point of view and seeking out safe ways to allow themselves to become vulnerable. INSET: The Curse of Being a High Achiever.

√IPENZ 49/12 **Financial incentives and advanced construction procurement systems.**

By: Rose, Timothy M.; Manley, Karen. Project Management Journal, Volume 41 Issue 1(March 2010) Pages 40-50.

This article reviews a successful project in the Australian construction industry.

√IPENZ 49/13 **Engineer s Notebook – A Design Assessment Tool.**

By: Kelley, Todd R. Technology & Engineering Teacher, Volume 70 Issue 7,(April 2011) Pages 30-35.

√IPENZ 49/14 **Smart people smart ideas and the right environment drive innovation.**

Barrett, Craig. Research Technology Management Volume 53 Issue 1(January/February 2010) Pages 40-43.

R%D in difficult times. Interview with Craig Barrett, recently retired chairman of Intel.

√IPENZ 49/15 **A smarter way to network.**

Cross, Rob; Thomas, Robert. Harvard Business Review, Volume 89 Issue 7/8 (July/August 2011) Pages 149-153.

The adage "It's not what you know, it's who you know" is true. The right social network can have a huge impact on your success. But many people have misguided ideas about what makes a network strong: They believe the key is having a large circle filled with high-powered contacts. That's not the right approach, say Cross, of UVA's McIntire School of Commerce, and Thomas, of the Accenture Institute for High Performance. The authors, who have spent years researching how organizations can capitalize on employees' social networks, have seen that the happiest, highest-performing executives have a different kind of network: select but diverse, made up of high-quality relationships with people who come from varying spheres and from up and down the corporate ladder. Effective networks typically range in size from 12 to 18 people. They help managers learn, make decisions with less bias, and grow personally. Cross and Thomas have found that they include six critical kinds of connections: people who provide information, ideas, or expertise; formally and informally powerful people, who offer mentoring and political support; people who give developmental feedback; people who lend personal support; people who increase your sense of purpose or worth; and people who promote work/life balance. Moreover, the best kind of connections are "energizers"-positive, trustworthy individuals who enjoy other people and always see opportunities, even in challenging situations. If your network doesn't look like this, you can follow a four-step process to improve it. You'll need to identify who your connections are and what they offer you, back away from redundant and energy draining connections, fill holes in your network with the right kind of people, and work to make the most of your contacts. Do this, and in due course, you'll have a network that steers the best opportunities, ideas, and talent your way. INSET: Are You Networking Impaired?.

√IPENZ 49/16 **Linked in or lose out.**

Breitbarth, Wayne. Quality Progress, Volume 44 Issue 7 (July 2011) Pages 18-22.

The article reviews the business-related social network website LinkedIn,

√IPENZ 49/17 **Categorizing risks in seven large projects—Which risks do the projects focus on?**
By: Krane, Hans Petter; Rolstadås, Asbjørn; Olsson, Nils O. E.. Project Management Journal, Volume 41 Issue 1 (March 2011) Pages 81-86.

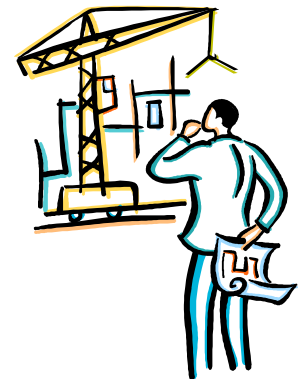
√IPENZ 49/18 **The role of HR in achieving a sustainability culture.**
Liebowitz, Jay. Journal of Sustainable Development, Volume3 Issue 4 (2010) Pages 50-57

IPENZ 49/19 **Green management: principles and examples.**
Kurland, N. B. and Zell, D. Organizational Dynamics, Volume 40, Issue 1 (January-March 2011) Pages 49-56.

√IPENZ 49/20 **Project management and green buildings: Lessons from the rating systems.**
Wu, P. and Low, S. P. Journal of Professional Issues in Engineering Education & Practice, Volume 136, Issue 2 (April 2010) Pages 64-70.

Technical Aspects of Engineering

√IPENZ 49/21 **Humber Bridge main cable dehumidification and acoustic monitoring - The world's largest retrofitted systems.**
Cocksedge, C. P. E.; Bulmer, M. J.; Hill, P. G.; Cooper, J. R.. Bridge Structures, Volume 7 Issue 2/3 (2011) Pages 103-114,



√IPENZ 49/22 **Seismic evaluation of the Confederation Bridge.**
Lan Lin; Naumoski, Nove; Saatcioglu, Murat; Foo, Simon. Canadian Journal of Civil Engineering, Volume 37 Issue 6 (June 2010) Pages 821-833.

√IPENZ 49/23 **An innovative energy storage bridge.** Wong, C.. Bridge Structures, Volume7 Issue 2/3 (2011) Pages 55-64.
The innovation is to turn bridges into energy storage units in addition to their usual function.

√IPENZ 49/24 **Comparison of AASHTO LRFD and ASD specifications for structural design of cantilever abutments and retaining walls.**
By: Esposito, Steven; Najm, Husam. Bridge Structures, Volume 6 Issue 3/4 (September 2010) Pages 129-138.

√IPENZ 49/25 **London's olympic stadium designed to be dismantled.**

Reid, Robert L. Civil Engineering, Volume 81 Issue 5 (May2011) Pages 14-17.

√IPENZ 49/26 **Serviceability design factors for wind-sensitive structures.**

Pozos-Estrada A; Hong H.P.;Galsworthy, J.K. Canadian journal of civil engineering, Volume 37 Issue 5 (May2010) Pages 728-738.

√IPENZ 49/27 **Identifying loading and response mechanisms from ten years of performance monitoring of a tall building.**

Brownjohn, James M. W.; Tso-Chien Pan. Journal of Performance of Constructed Facilities, Volume 22 Issue 1 (January/February 2008) Pages 24-34.

√IPENZ 49/28 **Reduced stiffness buckling analysis of aboveground storage tanks with thickness changes.**

Jaca, Rossana C.; Godoy, Luis A.; Croll, James G. A. Advances in Structural Engineering, Volume 14 Issue 3 (June 2011) Pages 475-487.

√IPENZ 49/29 **Seepage analysis under dams with vertical sheet pile using Schwarz-Christoffel transformation.**

Abdulrahman; Mardini, Jack. International Journal of Geotechnical Engineering, (Volume 4 Issue 4, (October2010) Pages 537-547.

√IPENZ 49/30 **Fish passage assessment of an advanced hydropower turbine and conventional turbine using blade-strike modeling.**

Zhiqun Deng; Carlson, Thomas J.; Dauble, Dennis D.; Ploskey, Gene R. Energies, Volume 4 Issue 1, (January 2011) Pages 57-67.

√IPENZ 49/31 **Electrocoagulation in wastewater treatment.**

Butler, Erick; Hung, Yung-Tse; Yeh, Ruth Yu-Li; Al Ahmad, Mohammed Suleiman. Water Volume 3 Issue 2 (June 2011) Pages 495-525.

√IPENZ 49/32 **Sewage sludge treatment by a continuous microwave enhanced advanced oxidation process.**

Yu, Y.; Chan, W.I.; Lo, I.W.; Liao, P.H.; Lo, K.V.. Canadian Journal of Civil Engineering, Volume 37 Issue 5 (May 2010) Pages 796-804.

√IPENZ 49/33 **Sustainable and innovative solutions for sewage sludge management.**

Spinosa, Ludovico et al. Water, Volume 3 Issue 2 (June 2011) Pages 702-717

√IPENZ 49/34 **Heterogeneous construction and demolition waste as raw material for the production of lightweight aggregates.**

Schnell, Alexander; Mueller, Anette. Proceedings of the International Conference on Waste Technology & Management (2011) Pages 134-140.

√IPENZ 49/35 **Influence of recycled concrete aggregates on specific gravity and absorption rates of mixes.**

Ayan, Vahid; Nasr Azadani, Seyed Masoud; Limbachiya, Mukesh C.. Proceedings of the International Conference on Waste Technology & Management (2011) Pages 155-166.

√IPENZ 49/36 **Characterization of compost-like outputs from mechanical biological treatment of municipal solid waste.**

By: Donovan, Sally M.; Bateson, Thomas; Gronow, Jan R.; Voulvoulis, Nikolaos. Journal of the Air & Waste Management Association, Volume 60 Issue 6 (June 2010) Pages 694-701.

√IPENZ 49/37 **Assessment of the effectiveness of an industrial unit of mechanical–biological treatment of municipal solid waste.**

Bayard, R.; de Araújo Morais, J.; Ducom, G.; Achour, F.; Rouez, M.; Gourdon, R.. Journal of Hazardous Materials, Volume 175 Issue 1-3 (March 2010) Pages 23-32.

√IPENZ 49/38 **Material Recycling Vs. Tire-Derived Fuel Combustion for Scrap Tire Treatment: Comparative Attributional and Consequential Life Cycle Assessments.**

By: Feraldi, Rebe; Huff, Melissa; Cashman, Sarah. Proceedings of the International Conference on Waste Technology & Management (2011) Pages 177-186.

√IPENZ 49/39 **Acid mine discharge - Challenges met in a hydro power project.**

Sharma, Pankaj; Vyas, Sameer; Sharma, S. N.; Mahure, N. V.; Rustagi, Anil; Sivakumar, N.; Ratnam, Murari. International Journal of Environmental Sciences, Volume 1 Issue 6 (April 2011) Pages 1274-1282

√IPENZ 49/40 **Flexible heat exchanger networks**

Seham A EL-Temtamy, Eman M Gabr. Chemical Engineering, Volume 118, Issue 4 (April 2011) Pages 32-38.

√IPENZ 49/41 **New analytical and numerical solutions for the short-term analysis of vertical ground heat exchangers.**

Saqib Javed, Johan Claesson. ASHRAE Transactions, Volume 117 Part 1 (2011) Pages 3-12.



√IPENZ 49/42 **Building integrated concentrating photovoltaics: A review.**

Chemisana, D. Renewable and Sustainable Energy Reviews, Volume 15, Issue 1 (January 2011) Pages 603-611.

√IPENZ 49/43 **A MAS integrated into Home Automation system, for the resolution of power management problem in smart homes.**

Hussein Joumaa, St'ephane Ploix, Shadi Abras, Gr'egory De Oliveira. Energy Procedia, Volume 6, Impact of Integrated Clean Energy on the Future of the Mediterranean Environment?,(2011) Pages 786-794

√IPENZ 49/44 **Potential of a hybrid wind-diesel-compressed air system for nordic remote Canadian areas.**

H. Ibrahim, R. Younes, A. Ilinca, D. Ramdenee, M. Dimitrova, J. Perron, M. Adegnon, D. Boulay, C. Arbez, , Energy Procedia, Volume 6, Impact of Integrated Clean Energy on the Future of the Mediterranean Environment?,(2011) Pages 795-804.

√IPENZ 49/45 **The water footprint of hydroelectricity: a methodological comparison from a case study in New Zealand.**

Indika Herath, Markus Deurer, David Horne, Ranvir Singh, Brent Clothier. Journal of Cleaner Production, Volume 19, Issue 14, (September 2011) Pages 1582-1589.

√IPENZ 49/46 **Ultracapacitor technologies and application in hybrid and electric vehicles.**

Burke, Andrew. International Journal of Energy Research, Volume 34 Issue 2 (February 2010) Pages 133-151.

√IPENZ 49/47 **Electric and hydrogen consumption analysis in plug-in road vehicles.**

Ribau, João P.; Silva, Carla M.; Farias, Tiago L. International Journal of Energy & Environment Issue 2 (2010) Pages 199-220.

√IPENZ 49/48 **The value of plug-In hybrid electric vehicles as grid resources.**

Sioshansi, Ramteen; Denholm, Paul. Energy Journal, Volume 31 Issue 3 (2010) Pages 1-23,

√IPENZ 49/49 **Indirect fuel use change (IFUC) and the lifecycle environmental impact of biofuel policies.**

Rajagopal, D., Hochman, G. and Zilberman, D. Energy Policy, Volume 39, Issue 1 (January 2011) Pages 228-233.

Special focus topic Reliability Centred Maintenance

√IPENZ 49/50 **RCM analysis of process equipment: A Case study on heat exchangers.**
Majid, M. A. A.; Muhammad, M.; Yem, N. I. Y.. Journal of Applied Sciences, Volume 11 Issue 1 (2011)
Pages 2058-2062.

√IPENZ 49/51 **Building a reliability centered lubrication program.**
Johnson, Mike. Tribology & Lubrication Technology, Volume 67 Issue 6
(June 2011) Pages 35-42.

√IPENZ 49/52 **Asset reliability practices in the reliability centered maintenance world.**
Brown, Dan. Management Quarterly, Volume 51 Issue 4 (Winter 2010)
Pages 48-53.

√IPENZ 49/53 **Effective implementation of reliability centered maintenance.**
Nabhan, M. Bassam. AIP Conference Proceedings, Volume 1239 Issue 1 (2011) Pages 88-95.

√IPENZ 49/54 **Reliability-centered maintenance improves equipment health.**
Paul D Tomlison. Mining Engineering, Volume 61, Issue 12 (December 2009) Pages 41-

√IPENZ 49/55 **A reliability-centred maintenance strategy based on maintenance-free operating period philosophy and total lifetime operating cost analysis**
J Long, R A Sheno, W Jiang. Proceedings of the Institution of Mechanical Engineers, Volume 223
Issue G6 (September 2009) Pages 711-

√IPENZ 49/56 **Reliability analysis in electrical distribution system considering preventive maintenance applications on circuit breakers.**
Fotuhi-Firuzabad, Mahmud; Afshar, Saeed. Proceedings of World Academy of Science: Engineering &
Technology, Volume 49 (February 2009) Pages 741-745.

√IPENZ 49/58 **Reliability-centered maintenance methodology and application: A Case study.**
Afeiy, Islam H. Communications & Network, Volume 2 Issue 4 (November 2010) Pages 863-873.

√IPENZ 49/59 **Integrating Six-Sigma with other reliability improvement methods in equipment reliability and maintenance applications.**
Salman T. Al-Mishari; Saad Suliman. Journal of Quality in Maintenance Engineering, Volume 14 Issue
1 (March 2008) Pages 59-70.



√IPENZ 49/60 Reasoning in reliability-centred maintenance based on a Dempster-Shafer approach.

U K Rakowsky, U Gocht. Proceedings of the Institution of Mechanical Engineers Volume 222, Issue 04 (December 2008) Pages 605-

√IPENZ 49/61 Reliability-based optimal maintenance scheduling by considering maintenance effect to reduce cost.

Tao Zhang; Nakamura, Masatoshi. Quality & Reliability Engineering International, Volume21 Issue 2 (March 2005) Pages 203-220.

√IPENZ 49/62 A Reliability-based approach to transmission maintenance planning and its application in BC Hydro system.

Wenyuan Li; Korczynski, Jerry. IEEE Transactions on Power Delivery, Volume 19 Issue 1 (January 2004) Pages 303-309,

√IPENZ 49/63 Reliability-centered maintenance : A Case study.

Wilmeth, Randall G.; Usrey, Michael W.. Engineering Management Journal, Dec2000, Volume12 Issue 4 (December 2000) Pages 25-

SPECIAL TOPICS IN PREVIOUS IPENZ ENGINEERING UPDATES

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| Life cycle assessment (LCA) | Flood risk management |
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| Compressed air: Pt 2 Energy storage | Noise-pollution measurement and control |
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