



News in Brief

February 2007

Development Focus:

Grand challenges for engineering

The US National Academy of Engineering has convened a committee of leading technical thinkers to create a list of the grand challenges and opportunities for engineering facing those born at the dawn of this new century. According to an NAE press release, this blue-ribbon committee will then look at research and innovation – either already being explored or which should be considered – that might help address aspects of each challenge. Input is being sought from a wide range of sources, ranging from experts in science and engineering to the broader general public. Details on this NSF funded project can be found at its web site. (See <http://www.engineeringchallenges.org>)ⁱ

Comment by G Seydack:

Namibia Vision 2030 envisages the establishment of a Commission for Research, Science and Technology. Compare the above to the envisaged Namibian approach. Should not the Namibian private sector, particularly engineering and science professionals, initiate a think-tank, instead of waiting for Government to take the initiative?

Solomon Islands First indigenous bio-diesel fuel launched

The Solomon Islands has launched its first home-grown bio-fuel product during September 2006 with the aim of countering rising fuel import costs. The new fuel, developed by Solomon Tropical Products, consists of 80% coconut oil and 20% chemical ingredients. The new fuel will retail for US\$ 5.50 per litre in the country, compared to US\$ 7 per litre for traditional diesel fuel.ⁱⁱ

Comment by G Seydack:

And we thought that fuel is expensive in Namibia! Perhaps it is because of our still relatively cheap fuel that we are lagging behind in the exploitation of alternative fuel sources. The following article shows that scope exists for new solutions:

“A joint Brazil-UK task force is finalizing plans to produce sugar cane-derived ethanol in Southern Africa, in an attempt to tackle climate change. The move forms part of attempts by the two countries to diversify ethanol production in order to lower costs and increase availability. It is also expected that the development of new potential ethanol suppliers, alongside Brazil, will increase global industry's confidence in the new fuel source which currently accounts for 40% of non-diesel fuel consumption in Brazil.”ⁱⁱ

Some time ago, EPA circulated an invitation to attend a presentation by GreenTower Ltd on its proposed solar energy power generating plant. You may have noticed that the proposed solution provides both for water desalination and an extensive area for agricultural production. Could this be an opportunity for Namibia to produce, in addition to the solar generated electricity, sugar cane in sufficient quantities for ethanol production?

The following article is of interest regarding its potential effect on aggravating the shortage of engineering skills in Southern Africa.

Southern Africa: AfDB pledges US\$ 1 bn for SADC infrastructure

Infrastructure projects within the Southern Africa Development Community (SADC) are to be prioritized by the African Development Bank (AfDB), with the allocation of US\$ 1 bn in funding. The new focus on the region is to encompass the development of energy facilities, telecommunications and roads across the region, according to AfDB President Donald Kaberuka.ⁱⁱ

International Journal of Technology and Globalization

The final issue of IJTG for 2006 is a special issue edited by Calestous Juma on Science and Innovation in Africa: New Strategies for Economic Growth. Thirteen papers cover topics including strategic options for Africa in the global knowledge economy, achieving productivity-led growth, higher education in economic transformation, innovation for development and poverty reduction, governing technology and economic growth, institutional innovation, and industrial migration. (See <http://www.inderscience.com>)ⁱ

RedR - International Humanitarian Expertise in Development and Relief

Established in 1980 in London, RedR-IHE is a specialist NGO with strong links to the engineering sector. Its core focus involves the provision of skilled professionals to humanitarian and disaster relief efforts across the World. Originally focusing on the civil engineering sector, RedR has expanded its activities to support the varied needs of development programmes. These include the provision not just of engineers, but also of volunteer professionals for health care, learning support and capacity building programmes. The organisation is also active in the provision of specialist training services for development workers. These training sessions are specifically tailored to the changing face of international development.

For engineers interested in development issues, RedR training can be a valuable resource. The courses, which cover a wide variety of topics and programmes, offer an opportunity for professionals to develop their skill sets and to explore the realities of the sector in depth. Further information on RedR, its activities and the training courses on offer can be found at: www.redr.org/.ⁱⁱ

Engineering Education:

New report emphasizes increased relevance of liberal education

The Association of American Colleges and Universities issued a report based on a survey of what business leaders want from college graduates. "College Learning for the New Global Century" first listed skills that employers want colleges to emphasize more: 82% of employers, for example, are called for more emphasis on "concepts and developments in science and technology." Other results: 73% for more "more effective oral and written communication"; 72% more "understanding global issues and their impact"; 70%, more "ability to locate, organize and evaluate information from multiple sources"; 60% more "understanding the role of the United States and the world". (See <http://insidehighed.com/news/2007/01/11/aacu>)ⁱ

Comment by G Seydack:

Did you notice how highly ranked other education imperatives are, in comparison to the scientific and technological requirements? Engineers are called upon to provide scientific and technological solutions for development, but to be able to do so, goes much further than just possessing the basic tools of the profession. The message is clear: "Have an in-depth understanding of the world we live in, on the basis of this knowledge and scientific and technological tools be able to conceptualise appropriate solutions for development, and then be able to communicate these effectively." Employers who still believe that "an engineer, is an engineer, is an engineer ...", merely because s/he possesses a college or university certificate as proof of having acquired the necessary basic scientific and technological tools, and who believe that any further education of such an engineer need only focus on the latter's immediate job requirements, need to rethink this more carefully.

Reality TV show for engineering education

A new half-hour weekly television program, "Design Squad", will use the formula of reality television to introduce children and families to engineering design processes. As described in an article by Jason Laday in the January IEEE *The Institute*, the show is being produced by WGBH Boston in partnership with the sponsors of US National Engineers Week. The show will feature two competing teams of high school students plucked from real life and follow their progress as they design, build and test fun yet practical machines such as an automatic pancake maker and a motorized wagon. Chosen through

audition the eight contestants have minimal engineering experience, though for many working with technology is an after-school hobby. The show premieres on Public Broadcasting Service stations during E-week, 18-24 February 2007. (See <http://www.theinstitute.iee.org>)ⁱ

Comment by G Seydack:

The above provides food for thought for future Young Engineers' Competitions, or an initiative supplementary to these.

EPA News:

EPA's Young Engineers Construction Project: Bridge Building Competition

In order to promote engineering as a career the EPA has been hosting the Bridge Building Competition for many years, a competition that has become ever so popular amongst Namibia's senior secondary schools offering Mathematics and Physical Science. This year's competition is scheduled for a Saturday in mid June at the Technical High School (HTS) in Academia, Windhoek. The exact date will be announced closer to the time. Your support is most welcome.

EPA Golf Day

The annual EPA Golf Day is scheduled to take place on Thursday 30 August 2007 at the Windhoek Golf and Country Club. This is one of our regular events to bring together engineers, architects, quantity surveyors, builders and suppliers. Golfers and non-golfers are most welcome to enjoy a day of fun and laughter. Invitations and rules will be distributed to all closer to the time, but meanwhile you may want to diarise the date.

EPA Council for 2006 / 2007

President:	Mr. Günter Seydack	Vice-President:	Mr. Jürgen Hennes
Past President:	Mrs. Sophia Tekie	Honorary Secretary:	Mr. Fritz Jeske
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Secretary:	Mrs. Ricki Wilson		

Information required

The EPA is currently hard at work developing our own web site, and we urgently need EPA members' help to obtain some historical information. In particular, we'd be most grateful for the following:

- Copies of "The Namibian Engineer", volumes 1 to 4
- Copies of AGM minutes before 1999
- Names of the following EPA Council members as from establishment in 1978 until 1994: President, Vice-President, Hon. Secretary, Hon. Treasurer
- Information and photos of Young Engineers' Construction Projects since 1990
- Information and photos of the Shell / EPA Environmental Management Award in 1991, 1993, 1994, 1996 and 1998
- Any documents and photos on the history and achievements of the EPA.

We shall gladly collect and return information material. Please contact either the EPA Secretary (tel/fax: 061-223009) or Günter Seydack, cell 081-127 6180.

Advertisements

EPA members are welcome to place advertisements in the "EPA News in Brief". Small ads containing up to 20 words will be charged at N\$25.00. For larger advertisements contact the EPA office for a quotation.

For Sale:

ArcView GIS software, v.3, complete, with dongle. To make an offer, please contact G Seydack, 081-1276180.

Please support "News in Brief" by e-mailing information, contributions and advertisements to: epa@africaonline.com.na.

Acknowledgements:

ⁱ International Engineering Education Digest, January 2007, © 2007 World Expertise LLC

ⁱⁱ Commonwealth Engineers' Council Newsletter, Oct. 2006, Issue 2