Education Activities Sub-Committee (EASC) report

Sub-Committee chair: Bakr Hassan
The subcommittee is supported by Eva Lang and Fotini-Niovi Pavlidou

Pre-University Activities: (Eva Lang, Bakr Hassan)

- Liaison with Student Activities Committee (SAC)
  - Advertise programs to Student leaders (Email, web, SBC, etc.)
  - Integration into new webspace ongoing
  - Identify program partners

- Make Section leaders aware of programs and support for Pre-University Activities

- Provide inputs towards IEEE's newest grade (work in progress): Junior Membership.

  Background:

  At the last IEEE Board Series (Nov. 2010): "IEEE President-Elect Kam provided a report on the involvement of pre-university students in IEEE activities, including the possible offering of formal IEEE membership to high school students, as well as an outline for a plan for pre-university IEEE Junior Membership. MGA and EAB were instructed to present at the February 2011 Board meeting specific plans for implementation and priorities for the junior membership project." (Minutes from the Board Meeting)

  Collaboration with IEEE EAB staff on setting up a webpage for the new members and investigating programs, benefits and activities for this age group.

  Member benefits will include an online e-Zine (monthly).

- Support and empower Pre-University Activities all over the Region

  - TISP Saudi Arabia (20-22 April 2011) successful implementation about 200 IEEE volunteers and school teachers were trained. A follow up training (TISP presentation) to certify 60 teachers was done May 24-25 2011. School teachers will be training other school teachers in September 2011. The Ministry of Education in Saudi Arabia will be evaluating this project with the help of IEEE EAB.
  - TISP Scotland (14-15 March 2011)
  - TISP remains active in South Africa. EAB will do a follow-up on activities in Zambia (TISP held in Zambia in Sept. 2010). In the pipeline is a proposal for a TISP in Uganda in 2012.
  - Following from Zambia, attendees from Tunisia have also hosted TISP presentations (March 2011) there; EAB has provided a rebate for material costs for the activity. The event is held in cooperation with IEEE entities, including the IEEE Tunisia Section.

- Ongoing discussion with EPICS High Nigeria
- Supported an IEEE EPICS project in Belgium (the impact of the initiative in this case will also be favourably received by Senegal, West Africa).

- EPICS High activities in Southern and Eastern Africa

Country	Project title	Project leader or co-leader	Approved Grant	University/Academic Institute
Namibia	Mobile Science lab for High School in Rural Area	Prof. Zacchaeus Oyedokun	US $ 5,625	Polytechnic of Namibia
South Africa	Photovoltaic Powered study lamp incorporating an AM/FM radio and mobile phone charger	Dr Edward Chikuni	US $ 5,000	University of KwaZulu Natal (UKZN)
Uganda*	Kyambogo University And Agha Khan Poverty Reduction And Enviromental Conservation Through Solar Powered Solutions	Lwanga Herbert	US $ 5,000	Kyambogo University (KYU)
Zambia	Digital Teaching Units	Dr Hastings Ma Libati	US $4,935	Copperbelt University (CBU)
Zambia	OpenBTS (Open Base Transceiver Station) implementation in Chikankata	Mpaisha Phiri	US $ 5,000	University of Zambia (UNZA)
South Africa	Air-quality microsensors for Earth Observations	Johan Venter	US $ 9,300	University of Pretoria (UP)

*The group in Uganda has produced an impressive brochure on IEEE's EPICS programme.

To apply for EPICS grants, please follow:
http://www.ieee.org/education_careers/education/preuniversity/epics_high.html
Source of EPICS grants: IEEE New Initiatives Committee (NIC) – facilitated via the Preuniversity Education Coordinating Committee (PECC), a standing committee of the Educational Activities Board (EAB).

EPICS support includes interaction with Nana-Ampofo Ampofo-Anti and Saurabh Sinha, who are members of the IEEE EPICS (international) committee.

A presentation on the global status of EPICS:
http://www.ieee.org.za/EA/EPICS/EPICS_New_Initiative_Quarterly_Status_Report_2011_v2.ppt
Images from Region 8 included here.

Relating to this programme, two peer-reviewed conference articles have been accepted for publication (IEEE Xplore):

● K. R. Dandekar, S. Sinha, N-A. Ampofo-Anti, "IEEE-Based Implementation of Engineering Projects in Community Service," under consideration for publication: Proceedings of IEEE Global Humanitarian Technology Conference (GHTC), 30 Oct.-1 Nov., Seattle.

Download:
http://www.ieee.org.za/EA/EPICS/GHTC/EPICS_in_IEEE_v3.pdf
(*pre-acceptance* copy)

● D.T. Oyedokun, N-A. Ampofo-Anti, and S. Sinha, "Hybrid Renewable Energy Used to Power Computer Laboratory: A Project by University of Cape Town IEEE Student Branch," under consideration for publication: Proceedings of IEEE Global Humanitarian Technology Conference (GHTC), 30 Oct.-1 Nov., Seattle.

Download:
http://www.ieee.org.za/EA/EPICS/GHTC/UCT_IEEE_SB_Paper_v9.doc
(*pre-acceptance* copy)

It is likely that Kapil Dandekar (NIC proposal P.I.) will present the papers on behalf of the team. IEEE EAB is also compiling an exhibit for presentation at this conference, which will receive several images from IEEE Region 8.

- Partner with other IEEE pre-university programmes, including mentoring programmes such as IEEE Student-Teacher and Research Engineer/Scientist (STAR). While STAR is an IEEE WiE initiative, it is seen as a preuniversity activity and globally coordinated by staff of IEEE Educational Activities.

- Identifying potential partners (SBs, Sections, areas)
    - Survey to student and educational leaders
    - Overview on successful outreach activities

- Tying IEEE Pre-University Activities with existing programs
    - European Social Fund programs
    - MINT Reach-out programs (Germany)

- Translating TryEngineering (www.tryengineering.org) to other languages: TryEngineering is a resource for students, their parents, their teachers and their school counselors. This is a portal about engineering and engineering careers, and it is hoped that it will help young people understand better what engineering means, and how an engineering career can be made part of their future. Other portals include: TryNano.org and upcoming initiative: TryComputing.org. IEEE Region 8

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volunteers are engaged in the roll-out and advancement of these portals, adding to the transnationality of IEEE as an organization.

TryEngineering was translated to seven languages. This year, it is being translated into Arabic. Saudi Aramco is providing the funding and IEEE Educational Activities Board (EAB) is providing the logistic support. The Arabic translation is expected to be finished by September 2011 (60% is already translated).

Interaction with global level PECC:

Liz Burd, IEEE's Chair (Pre-university Education Coordinating Committee (PECC)), was invited to the previous R8 Committee Meeting held in London. Discussions on how to break the programs on global level down to Region 8 were conducted.

Continuing Education (CE) (Fotini-Niovi Pavlidou)

● Checked for the availability of volunteers in every section for CE (post-university education) and created the following site: http://newton.ee.auth.gr/cef.ieee/
● Contact to section chairs plus volunteers to inform on the CE initiative and requests a single point of contact for CE.
● Created a mailing list of the group for easy and frequent communication.
● Established a permanent forum on continuing education activities in Region 8 through a web site with blog or discussion forum (http://newton.ee.auth.gr/cef.ieee/)
● Opened a dialogue on CE activities and highlight good practices
● Email list of volunteers for direct contact
● Regular communication with Steve Welch and Jill Bagley, IEEE Staff for Continuing Education. Further communication will be established at the Section's Congress: we request interested parties to visit the booth for "Educational Activities."
● An invited talk will be arranged with IEEE standards personnel in Greece or the broader Balkan area. It will be broadcasted online (planned for September).
● A workshop to promote the IEEE eLearning library will be organized in Greece. It will be hosted elsewhere via a webinar (planned for September).

Accreditation Activities: (Bakr Hassan)

With regards to accreditation activities, the Region 8 EASC works with IEEE Committee on Global Accreditation Activities (CGAA), a standing committee of the Accreditation Policy Council (APC), IEEE Educational Activities Board (EAB):

Project#1: Accreditation of Computing Programs in South Africa

Meeting summary (adopted from CGAA Meeting of 1 March 2011):

Sinha presented the context of the South African accreditation agency, Engineering Council of South Africa (ECSA), where he mentioned that ECSA currently addresses accreditation requirements in the fields of Engineering and Technology, but is in-view of expanding the approach to include accreditation of certain computing programmes. Sinha also noted a recent ABET accreditation for an informatics programme at the

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University of Pretoria. The Computer Society Chapter of the IEEE South Africa Section, started dialogue during and after a 2010 visit by Kam (in his role as IEEE president-elect), towards considering bringing the accreditation notion relating to Computing towards ECSA and/or alternative bodies in the South Africa. The mentioned chapter is co-working with other organizations, including SAICIST, BITF, etc.

Project#2: Southern & Eastern Africa

Meeting summary (adopted from CGAA Meeting of 1 March 2011):
Eastern/Southern Africa. Saurabh Sinha reported that a workshop about collaboration among relevant academic and professional organizations in eastern and southern Africa took place on 21 May 2011, Manzini, Swaziland. Some eight (8) engineering councils/bodies partook at the meeting: an overall vision for long-term accreditation (incl. mutual recognition was established). A concept paper is being developed to survey the status of accreditation for engineering, computing and technology programmes. The IEEE Board of Directors supported Ad-Hoc on Africa Activities was represented by the Chair of the Ghana Section.

Project#3: Gulf & Jordan

- First face-to-face meeting – 8 Oct. 2010, Region 8 meeting in Prague

    – Review of the current quality assurance mechanisms

    – Discussion of accrediting body feasibility

- GCC ABET (2003)

- Teleconference – 5 Feb. 2011

    – Position statement and a letter that shows the benefits of establishing this accreditation body.

    – Complementary role with different objectives to existing local bodies

    Meeting summary (adopted from CGAA Meeting of 1 March 2011):
    A position paper outlining the potential goals, operating structure, and activities of a Gulf Region accrediting organization is has been completed. The paper, and a draft cover letter, were intended for use by work group members in discussions with officials from existing government-affiliated accrediting organizations in the region. The paper was already sent to some accreditation officials in the region.

    – Feedback is awaited from the concept paper and a working group is being put together (under leadership of Bakr Hassan).

Cooperation with other IEEE organization:

EASC is cooperating closely with the IEEE Educational Activities Board (EAB), the IEEE Education Society and others.

EAB Awards:

The EASC is already promoting IEEE EAB Awards 2011 (http://www.ieee.org/eab-awards). The deadline is typically end of Apr. (2012). In an outstanding performance, the IEEE South Africa Section has achieved 3 out of 10 EAB awards:

● Recipient of IEEE Educational Activities Board Pre-University Education
Donovan Duffield, an Educator - St Alban's College, Pretoria, South Africa

● Recipient of IEEE Educational Activities Board Meritorious Achievement Award in Accreditation Activities
Rod Harker, Volunteer of the Engineering Council of South Africa (ECSA), South Africa

● Recipient of IEEE Educational Activities Section Professional Development Award
Excellent Sithole, Volunteer & Chair of Educational Activities, a standing committee of the IEEE South Africa Section

Region 8 EASC encourages Sections to prepare nominations in advance for these awards for the 2012 global awards ceremony (EAB).

General communication:

 Refer to the latest edition of the Region 8 newsletter and Region 8 Website
(Technical activities ⇨ Educational activities)