The Educational Activities Board and Region 8

A Presentation for the Region 8 Committee

Moshe Kam,
VP for Educational Activities

14 April 2007

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What is the objective of this talk?

- **Discuss specific activities of EAB that Region 8 can participate-in/ develop/ use**

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Meeting the Growing Demand For Engineers and Their Educators 2010 - 2020 International Summit

Munich, Germany

9 - 11 November 2007

Arthur Winston, General Chair

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Objectives and Participants

- **An international conference on the growing demand for engineers and their educators**
  - and about actions required to meet that demand for engineers and their educators in the period 2010-2020

- **Participants**
  - Invited representatives from industry, government, and academia
  - Authors of papers and posters

  - Focus on decision makers and policy makers who can steer the educational system at both pre-university and university levels

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Desired Outcome

- **A road map: here is what we need to do to address the key two constituencies**
    - **"engineering" and "education"**

- **Best practices: here is what seems to have worked**

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How did Region 8 participate so far?

- **Planning Committee**
  - **Gerald Anleitner (R8)**
  - **Victor Fouad Hanna (R8)**
  - **Dave Janosz (Educator – R1)**
  - **Moshe Kam (EAB – R2)**
  - **Fanny Klett (R8)**
  - **Andreas Luxa (R8)**
  - **Rolf Remshardt (R8)**
  - **Rupert Rompel (VDE)**
  - **Michael Schanz (VDE)**
  - **Bill Sparkman (Educator – R6)**
  - **Charles Turner (R8)**
  - **Douglas Gorham (IEEE Staff)**
  - **Jessica Czeczuga (IEEE Staff)**

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How did Region 8 participate so far?

- **Identified themes and topics**

- **Identified speakers and participants**

- **Provided contacts to Industry and the EU**

- **Helped with cooperation with VDE**

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How can Region 8 be of further help?

- ## Promote the event

- ## Encourage decision makers to participate
  - ### and contribute papers, when appropriate

- ## Consider financial sponsorship
  - ### A motion is on the agenda of R8

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CALL FOR ACTION

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Women in the Engineering School

IEEE Discovery Based Projects

for First Year Students of Electrical Engineering, Computer Engineering, and Computer Science

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The problem…

- **In most countries women are under-represented in the engineering student body**

- **While women made significant progress in Medicine and Law they have not increased their participation in Engineering to the same degree**

- **The dropout rate of women from engineering programs is high**

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IEEE Discovery Based Projects

for First Year Students of Electrical Engineering, Computer Engineering, and Computer Science

- **A new program, intended to develop and distribute projects that educators of Electrical and Computer Engineering (ECE) and Computer Science (CS) can use in the first-year classroom**

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Desired Projects

- **High quality, hands-on, team-based projects that focus on real-world problems**
  - **Solutions can be shown to benefit society**

- **Projects should allow students to discover the importance of contemporary ECE/CS problems and elicit excitement about creative solutions**

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How R8 can be involved

- **Help EAB promote the program**
  - **Flyers are available**

- **Inform education chairs and chairs of university programs that the program has been launched**

- **Arrange teleconferences with interested parties**
  - **An EAB representative will always be glad to be on the line**

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Recognition of Leaders in Education

EAB has a successful awards program
www.ieee.org/education

- **Accreditation Activities**

- **Continuing Education**

- **Informal Education**
-
- **Pre-University**

- **Major Educational Innovation**

- **Meritorious Service**

- **Employer Professional Development**

- **Society/Council/Section Professional Development**
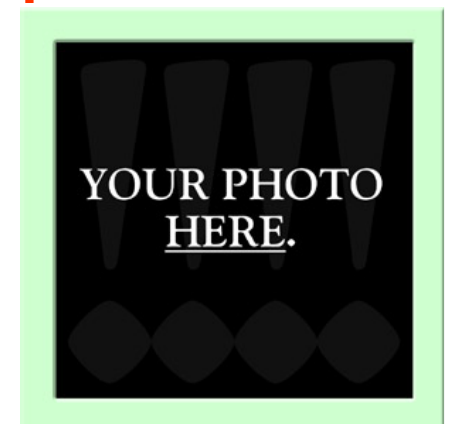
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Region 8 and the EAB awards…

- **In the last few years there are almost no nominations from Region 8**
  - **While the number of nominations from all other Regions have gone up**

- **Possible explanations:**
  - **Region 8 does not care about education awards**
  - **Region 8 lags other regions in educational excellence – the talent is simply not in Region 8**
  - **Region 8 is deficient in getting organized to prepare nominations for awards**
- **Which one is it?**

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CALL FOR ACTION

- **Please send in Region 8's nominations**

YOUR PHOTO HERE.

The Teacher in Service Program

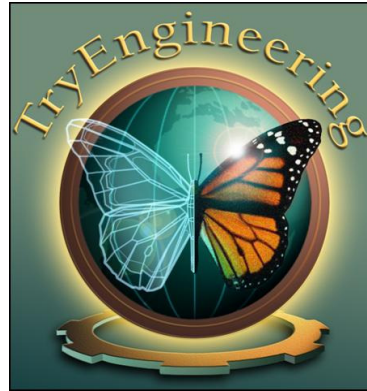## "Engineering in the Classroom"

Training sessions

- **A full-scale TISP training for volunteers**

- **Open to all Sections in a Region or an Area**
  - **All expenses are paid by IEEE-EAB**

- **We are looking for volunteers who will follow up and take the activities to the schools**

CALL FOR ACTION

- **Now is the time to plan a TISP event in Region 8 in 2008**

- **The event needs to be planned at least a year in advance by a fully engaged volunteer committee**

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On Line Portal

TryEngineering.org

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Most recently…

- **New countries were just added to the school search; currently:**
  - **Australia, Brazil, Canada, France, Germany, India, Japan, Korea, Malaysia, Mexico, New Zealand, Pakistan, UK, USA, South Africa**

- **Versions in additional languages are in preparation**
  - **Spanish, French, Japanese, Russian, German, Chinese**

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How Region 8 can assist…

- **Suggest engineers and students for interviews that will be featured on the site**

- **Get student branches to send stories to the monthly newsletter**
  - **short essays on student life and perspectives**

- **Review the Spanish, French, German, Russian and English versions of the site and help us with terms and region-specific material**

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Accreditation

Key Activities

- **Providing help to accrediting bodies in formation**

  - **Including training of evaluators**

- **Providing help to groups that want to start new accrediting bodies**

- **Education about accreditation**

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How R8 can be involved

- **Help with the inventory of accreditation agencies and new accrediting bodies**

- **Inform the membership that IEEE seeks involvement in local accreditation**
  - **This is true even is "it is all done by the government"**

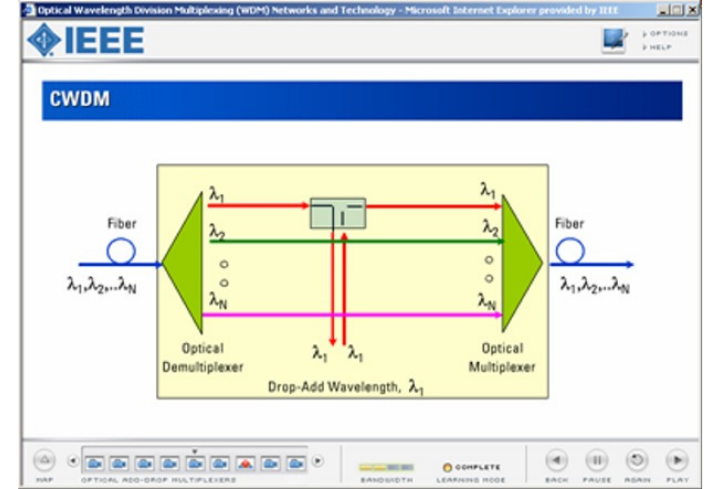- **Work with EAB to establish presence of IEEE Sections in local accrediting bodies**

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Continuing Education

Expert Now IEEE

- **The best of IEEE's educational content delivered in one-hour long online learning modules**
  - **50 modules are included in the current version**
  - **By the end of 2007 we will have at least 75**

- **The latest information on emerging technologies and seminal works**
  - **presented at the best of IEEE's conference tutorials, short courses and workshops**

Expert Now IEEE news

- **"Free samples" are available to the membership**
    - Three courses currently available on www.ieee.org/education

- **The whole library is available for subscription to the membership**   *A Member Benefit*
    - One course at a time
    - At a considerable discount

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How can Region 8 get involved

- **Review the available modules and titles**
  - **Provide feedback**

- **Use modules in Section and Chapter meetings**
  - **Module is projected with Q/A and comments by a local expert**
  - **Successful pilot run in Singapore**

Free in 2007

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AN ACTION ITEM FOR R8 EDUCATION CHAIR AND COMMITTEE

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Summary of Calls for Action

Area	Action
Munich Summit	Promote and participate
Hands-on projects/WIE	Promote and participate
Awards	Prepare Nominations
TISP	Venues for 2008 in R8
TryEngineering	Help with region-specific versions
Accreditation	Identify opportunities for IEEE participation
Expert Now	Use in Section and Chapter activities

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Thank You