

# IEEE Canada Annual Student Congress

September 12-14, 2008  
Mississauga, ON,  
Delta Airport West Hotel

***Babak Beheshti***  
***IEEE SAC Chair***

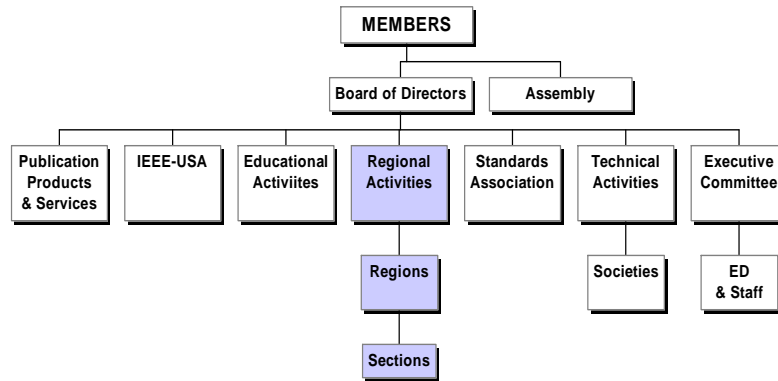


## What is IEEE?

- More than 365,000 members in over 150 countries, almost 40 percent of whom are from outside the United States.
- Over 68,000 student members.
- More than 27,000 society affiliates.
- 307 sections.
- 1,446 chapters.
- More than 1,300 student branches in 80 countries.
- Over 300 student branch chapters.
- More than 147 affinity groups.
- 39 societies and 3 technical councils.
- As of Jan.2005, there were more than 1.1 million documents in the IEEE/IEE Electronic Library.
- The IEEE publishes a total of 128 transactions, journals and magazines.
- The IEEE sponsors more than 300 conferences each year.
- The IEEE Standards Association has more than 8,350 individual and almost 60 corporate members.



# IEEE Org Chart



# MGA STUDENTS COMMITTEE



## MGA STUDENT ACTIVITIES COMMITTEE FUNCTIONS

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- SAC IS THE STUDENTS COMMITTEE OF THE MEMBER AND GEOGRAPHIC ACTIVITIES BOARD (MGA).
- SAC'S CONSTITUENTS ARE UNDERGRADUATE AND GRADUATE STUDENTS WHO HAVE INTEREST IN IEEE DESIGNATED FIELDS - ENGINEERING, COMPUTER SCIENCE AND INFORMATION TECHNOLOGY, PHYSICAL SCIENCES, BIOLOGICAL AND MEDICAL SCIENCES, MATHEMATICS, TECHNICAL COMMUNICATIONS, EDUCATION, MANAGEMENT, LAW AND POLICY.
- SAC PROVIDES RECOMMENDATIONS TO MGA ON OVERALL POLICY AND PROCEDURES REGARDING THE IEEE STUDENT PROGRAM, STUDENT SERVICES AND ACTIVITIES AND STUDENT MEMBERS.



## MGA STUDENTS COMMITTEE FUNCTIONS

- SAC STRIVES TO IMPROVE THE QUALITY OF STUDENT MEMBERSHIP.
- SAC STRIVES TO MAKE STUDENTS AWARE OF RESPONSIBILITIES OF THE ENGINEERING PROFESSION.
- SAC STRIVES TO REPRESENT THE INTERESTS AND CONCERNS OF STUDENTS WORLDWIDE.
- SAC STRIVES TO PROMOTE THE IMPORTANCE OF NETWORKING AND RELATIONSHIP BUILDING
- SAC STRIVES TO INCREASE SYNERGY BETWEEN SAC AND OTHER IEEE UNITS.
- SAC STRIVES TO FOSTER STUDENT BRANCH DEVELOPMENT.
- SAC STRIVES TO PROVIDE EFFICIENT COMMUNICATIONS BETWEEN IEEE AND STUDENT MEMBERS.



# MGA STUDENTS COMMITTEE COMPOSITION

- SAC CHAIR, VICE CHAIR, PAST CHAIR
- FROM EACH OF THE 10 REGIONS - "Our link to the students"
  - 10 REGIONAL STUDENT REPRESENTATIVES - RSR
  - 10 REGIONAL STUDENT ACTIVITIES CHAIR - RSAC
- REPRESENTATIVES - "to remind us of the big world out there"
  - UP TO SIX INDUSTRY REPRESENTATIVES
  - STUDENT PROFESSIONAL AWARENESS REPRESENTATIVE
  - BRANCH CHAPTER REPRESENTATIVE
  - BRANCH CHAPTER STUDENT REPRESENTATIVE
  - IEEE POTENTIALS EDITOR & STUDENT EDITOR
  - TECHNICAL ACTIVITIES BOARD REPRESENTATIVE
  - IEEE-USA SPAC COMMITTEE CHAIR
  - GOLD COMMITTEE REPRESENTATIVE
- IEEE STAFF - "amazing people that make us look good & allow us to accomplish great things"
  - MGA SECRETARY (ex officio)
  - MANAGER STUDENT SERVICES (serves as secretary, no vote)



# MGA STUDENT ACTIVITIES COMMITTEE

- MEMBERSHIP REQUIREMENTS
  - IEEE MEMBER OF STUDENT, GRADUATE STUDENT MEMBER, MEMBER, SENIOR MEMBER OR FELLOW GRADE
- APPOINTMENTS, ELECTIONS AND TERMS OF OFFICE
  - COMMITTEE MEMBERS - ONE YEAR TERM WITH REAPPOINTMENT PERMISSABLE
  - COMMITTEE CHAIR - ONE YEAR TERM WITH REAPPOINTMENT PERMISSABLE FOR UP TO TWO ADDITIONAL ONE YEAR TERMS
  - OTHER MEMBERS - AD-HOC BASIS BY APPOINTMENT OF COMMITTEE CHAIR FOR IN CONNECTION WITH SPECIFIC PROJECTS
- MEETINGS
  - OCCURS AT THE CALL OF THE CHAIR
  - INTERIM MEETINGS & BUSINESS VIA ELECTRONIC MAIL AND TELECONFERENCE
  - QUORUM IS MAJORITY OF VOTING MEMBERS
  - VOTING BY MAJORITY VOTE WITH CHAIR AS TIE BREAKER



# MGA STUDENT ACTIVITIES COMMITTEE COMPOSITION

- COMMITTEES/SUB-COMMITTEES/AD HOC COMMITTEE CHAIRS

- COMMITTEE CHAIR MUST BE A MEMBER OF THE SAC
- APPOINTED BY SAC CHAIR

- COMMITTEES/SUB-COMMITTEES/AD HOC COMMITTEES

- REGIONAL STUDENT REPRESENTATIVE (RSR) STEERING SUBCOMMITTEE
- REGIONAL STUDENT ACTIVITIES CHAIR (RSAC) STEERING SUBCOMMITTEE
- AWARDS & RECOGNITION SUBCOMMITTEE
- BRANCH LEADERSHIP TRAINING SUBCOMMITTEE
- STUDENT PROFESSIONAL AWARENESS ACTIVITIES SUBCOMMITTEE
- POTENTIALS MAGAZINE SUBCOMMITTEE
- ELECTRONIC COMMUNICATIONS SUBCOMMITTEE



# MGA STUDENTS COMMITTEE MEMBERS

CHAIR

BABAK BEHESHTI

VICE CHAIR

MARKO DELIMAR

PAST CHAIR

JIM RIESS

STANDING COMMITTEES

CHAIR

- RSR STEERING

ELIZABETH JOHNSTON

- RSAC STEERING

MARTIN BASTIAANSI

- COMMUNICATIONS

RICARDO VARELA

- POTENTIALS

SUZANNE RIVIORE

- AWARDS & RECOGNITION  
BRANCH LEADERSHIP TRAINING

ELIZABETH JOHNSTON  
ANU GOKHALE

-STUDENT PROFESSIONAL AWARENESS

CO-CHAIRS MARKO DELIMAR

-

JOHN PASERBA



# MGA STUDENTS COMMITTEE MEMBERS

## RSAC STEERING COMMITTEE

REGION 1 - BABAK BEHESTI      REGION 2 - SHREEKANTH MANDAYAM  
REGION 3 - ERIC ACKERMAN      REGION 4 - ANU GOKHALE  
REGION 5 - FRANCIS GROSZ      REGION 6 - RAHIM KHOIE  
REGION 7 - JANET BRADLEY      REGION 8 - MARTIN BASTIAANS  
REGION 9 - ANTONIO DORIA      REGION 10 - MINI THOMAS

## RSR STEERING COMMITTEE

REGION 1 - ELIONORA VIDOLOVA      REGION 2 - JOSEPH LOPEZ, III  
REGION 3 - RAVI TODI      REGION 4 - DAVID MATTHEWS  
REGION 5 - ENRIQUE GRANJA      REGION 6 - ELIZABETH JOHNSTON  
REGION 7 - RANDY GLENN      REGION 8 - MICHAEL GLOEGL  
REGION 9 - JONATHON TAVIRA      REGION 10 - GOPAL BALAKRISHNAN



# MGA STUDENTS COMMITTEE MEMBERS

## ADHOC COMMITTEE CHAIRS

-SAC/GOLD TRANSITION      MEGHA JOSHI  
-STRATEGIC PLANNING      JIM RIESS  
-BRANCH COUNSELOR SUPPORT      MINI THOMAS  
-IEEE GLOBALIZATION      SALOMON HERRERA

## INDUSTRIAL REPRESENTATIVES

R. BARNETT ADLER  
PETER MAUZEY  
JOHN PASERBA  
RAVI TODI

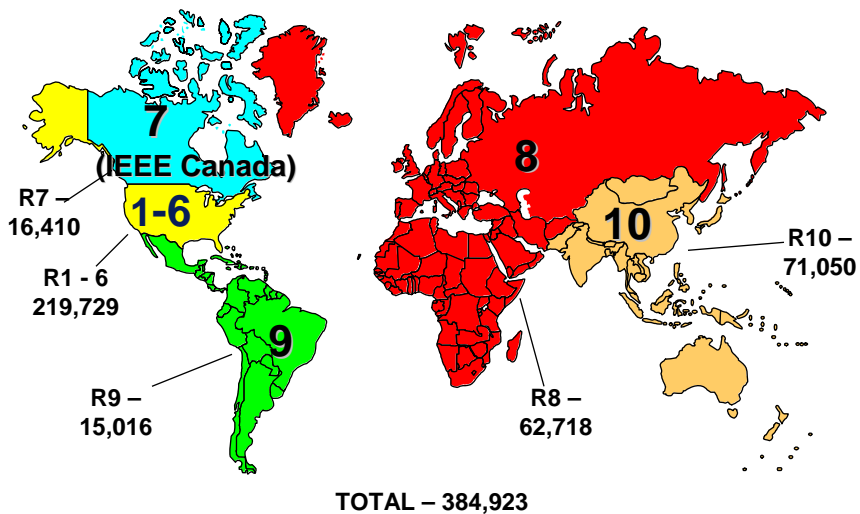
## IEEE STAFF

CECELIA JANKOWSKI  
LAURA DURRETT



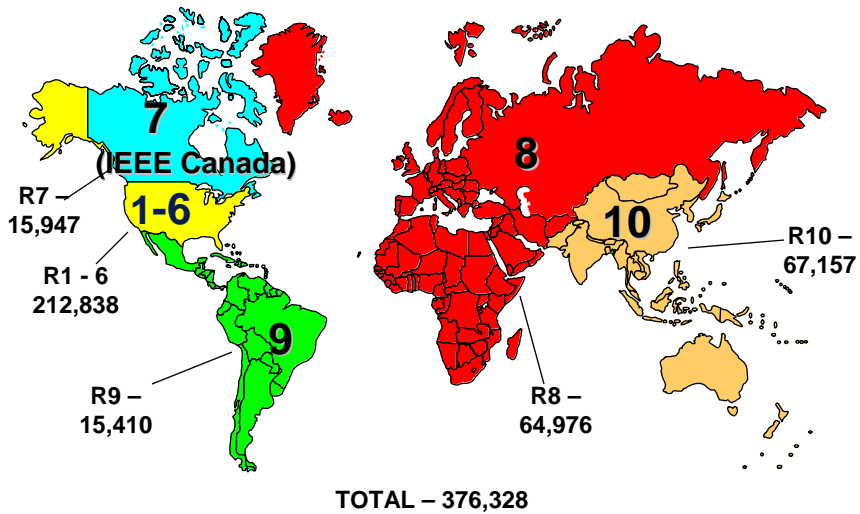
# IEEE Membership By Regions

January 2007

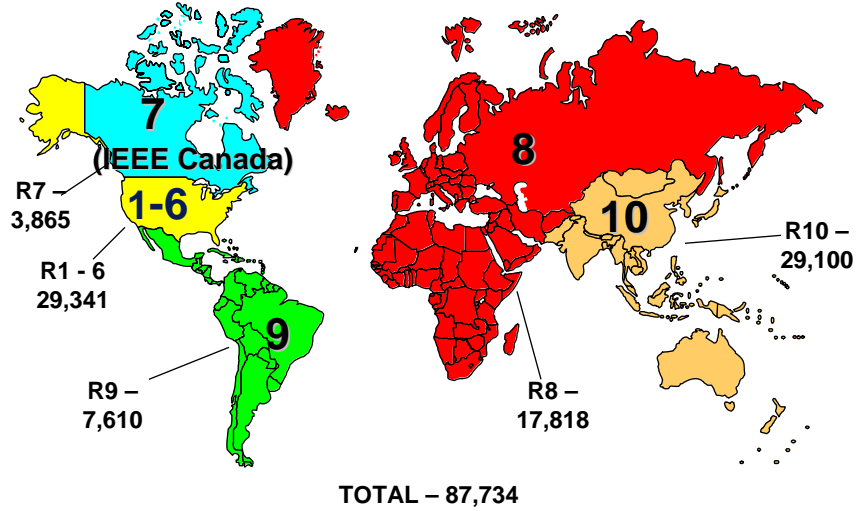


# IEEE Membership By Regions

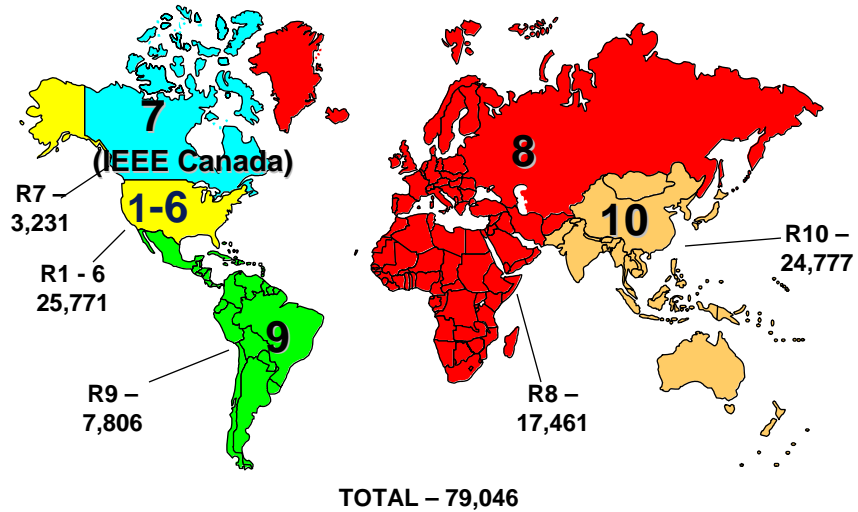
December 2007



## IEEE Student Membership By Regions January 2007



## IEEE Student Membership By Regions December 2007





# GRADUATE STUDENT MEMBER



# GRADUATE STUDENT MEMBER

- New graduate student member (GSM) grade completed August 2007.
- GSMs to continue to pay student dues rate.
- Able to vote in IEEE elections in 2006 and 2007.
- Eligible to hold volunteer positions in IEEE sections, chapters, and the affinity groups.



## GRADUATE STUDENT MEMBER

- Must have earned a bachelor's (or equivalent) degree from an accredited institution in a program within the IEEE's designated fields of interest.
- Must be registered graduate student in regular graduate course of study in one of IEEE fields and carry at least half of a full-time academic program.



## GRADUATE STUDENT MEMBER

- Student and graduate student member grades can be held for a combined total of eight years.
- After graduation or upon reaching eight-year limit, graduate student members will be elevated automatically to member grade.



[www.ieee.org/students](http://www.ieee.org/students)

Click on

“Scholarships, Awards,  
Contests and Grants”



DARREL CHONG STUDENT  
ACTIVITY AWARD



## DARREL CHONG STUDENT ACTIVITY AWARD

- Conducted by IEEE Student Activities Committee
- Changes the student branch mindset from being number-driven to being value-driven.
- Improve quality of activities .



## DARREL CHONG STUDENT ACTIVITY AWARD

- Foster sharing of knowledge among student branches.
- Encourage and motivate student branches to innovate and implement meaningful ideas.
- Each student branch may enter as many activities as they want.



## DARREL CHONG STUDENT ACTIVITY AWARD

- Student branches submit deSAC rription of organized activity.
- Award status of platinum, gold, silver, bronze or unrated.
- No limit in number of winners.
- Allows same activity to be elevated to higher medal based on future improvements in subsequent years.



## DARREL CHONG STUDENT ACTIVITY AWARD

- Deadline is September 30.
- Judging criteria includes the Concept (0-20 pts), Implementation (0-20 pts), Repeatability (0-15 pts), and Results and Outcome (0-45 pts).



# IEEE XTREME 24 HOUR PROGRAMMING CONTEST



# IEEE XTREME 24 HOUR PROGRAMMING CONTEST

- Goals:
  - Give branches a new interesting and fun activity, while promoting interaction between Section, SB and University in both local and global SAC ale.
  - Increase the number of activities aimed at computer programming fans in IEEE.
  - Be different from other competitions (like TopCoder or ACM's) and from other IEEE activities



## IEEE XTREME 24 HOUR PROGRAMMING CONTEST

- IEEE Xtreme is a worldwide contest in which teams of student members, supported by a Student Branch and proctored by an IEEE Member, compete in a 24-hour time span against each other to solve a set of programming problems



## IEEE XTREME 24 HOUR PROGRAMMING CONTEST

- Teams will be formed by up to 3 student members (StM or GSMs)
- Student Branches will host the event for their local team, with support of their local Sections and Universities
- Each of these places where competition is hosted (ranging from private residences or SB offices to College labs) is called a Venue



## IEEE XTREME 24 HOUR PROGRAMMING CONTEST

- The problems will be proposed and judged by the **Contest Committee**, a panel of experts from both Academia and Industry
- An **Organization Committee** formed by IEEE volunteers will take care of the management part of the contest (like enrollment or problem submission)



## IEEE XTREME 24 HOUR PROGRAMMING CONTEST

- Teams should submit their problem solutions electronically using a contest management page
- Each submission gets a timestamp (extra points for early submission)
  - Infrastructure should be put in place to solve possible bottlenecks (use distributed submission)





## IEEE XTREME 24 HOUR PROGRAMMING CONTEST

- Winning teams will receive prizes and plaques, both for them and their SAC hools (as we're using their collaboration)
- The recognition ceremony should probably be organized as part of a Region / Section event, and with collaboration from the Region / Section SAC, if possible
- Our suggestion is that a funny prize is worth more than money (take into account the nature of the contest)
- We can easily extend the contest format to include in-person finals if at any time we want to do so



## IEEE STUDENT ENTRPRISE AWARD



## IEEE STUDENT ENTRPRISE AWARD

- Objective is to provide opportunities for IEEE Student Members to enhance professional development skills by developing collaborative projects related to engineering and technology.
- Projects ideas range from robotics and system design to programs to benefit the community.



## IEEE STUDENT ENTRPRISE AWARD

- This program is supported by the IEEE MGA Student Activities Committee.
- Proposals are evaluated by the awards & recognition subcommittee of MGA SAC.
- Judges carefully consider proposals and score them on established criteria.



## IEEE STUDENT ENTRPRISE AWARD

- Six awards valued up to \$1500 each are available annually.
- Deadline for proposals is November 15.



## REGIONAL EXEMPLARY STUDENT BRANCH AWARD



## REGIONAL EXEMPLARY STUDENT BRANCH AWARD

- Public recognition of exemplary IEEE student branch operations.
- Must be nominated by an officer of the branch.
- Awards are presented to nominated branches meeting 6 required items and at least 12 elective items of documentation indicated on the nomination form.



## MGA LARRY K. WILSON REGIONAL STUDENT ACTIVITIES AWARD



## MGA LARRY K. WILSON REGIONAL STUDENT ACTIVITIES AWARD

- In memory of Dr. Wilson who strongly supported student activities.
- One award per Region for students that are most responsible for an extraordinary accomplishment associated with student activities.



## MGA LARRY K. WILSON REGIONAL STUDENT ACTIVITIES AWARD

- Designed to reward a particular event or product of IEEE activities.
- May be nominated by a Branch Counselor, Section Chair or Section SAC Chair.
- Nominees must be student members at the time of the accomplishment.



# STUDENT PAPER CONTEST



# STUDENT PAPER CONTEST

- Offers Undergraduates an opportunity to exercise and improve both written and verbal communication skills.
- No student should be discouraged from entering the contest due to false requirement of technical sophistication.
- An entrant may collaborate with additional students.



## STUDENT PAPER CONTEST

- Papers cover technical, engineering, management, or societal aspects.
- Written presentation evaluation includes form (0-70 pts) and for subject matter (0-40 pts).
- Oral presentation evaluation includes form (0-60 pts) and subject matter (0-30 pts)



## STUDENT BRANCH WEB SITE CONTEST



## STUDENT BRANCH WEB SITE CONTEST

- Each Student Branch may enter only one Web Site regardless of the number of Branch Chapters.
- For the international contest, a Region that has more than 10 and less than 20 entries may submit 2 entries in the finals. A Region that has 20 or more entries may submit 3 entries in the finals.



## STUDENT BRANCH WEB SITE CONTEST

Judging criteria include:

- Content (0-30 points)
- Navigability (0-25 points)
- Originality (0-15 points)
- Overall Presentation (0-15 points)
- Portability (0-10 points)
- Load Time (0-5 points)





# MICROMOUSE CONTEST



# MICROMOUSE CONTEST

- Objective is to build a robot to negotiate a specified maze in the shortest time.
- The maze is comprised of 16 X 16 multiples of 18 cm X 18 cm unit square with walls that are 5 cm high.
- The micromouse robot shall not exceed 25 cm in length and 25 cm in width.
- The micromouse is to travel from the start square to the destination square.



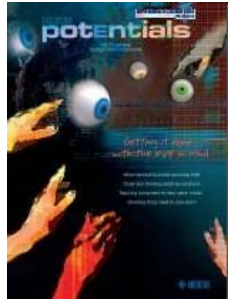
# ETHICS CONTEST



# ETHICS CONTEST

- Designed to provide experience in applying ethical concepts to situations that might arise in the workplace.
- A case study posing an ethical dilemma is given to teams.
- After three hours, teams explain to a panel of judges how the case should be handled ethically.





## POTENTIALS



## POTENTIALS

- IEEE Publication dedicated primarily for students.
- R8-R10 Students can subscribe to the print version for US\$5.
- All members, including students, have online access through IEEE Xplore.
- Visit <http://www.ieee.org/potentials> for author guidelines.



# Thank You

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