



Division of Nuclear Chemistry and Technology
American Chemical Society

DNCT WWW Home Page – <http://www.cofc.edu/~nuclear>

NEWSLETTER
April 2008

Newsletter Editor: Lætitia Delmau
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FROM THE CHAIR – Roy Lacey

As most of you already know, the Symposia at the Spring meeting in New Orleans was a success. Naturally, this was primarily due to the invaluable efforts of the Syposia organizers. Consequently, I would like to express my sincere appreciation to them and the many speakers and attendees who participated in this first rate program.

The division is especially grateful to those of you who came out in full force to Honor of Romualdo de Souza for winning the Glenn T. Seaborg Award for Nuclear Chemistry. I attended the award ceremony with Romualdo and can attest to the fact that he was a very happy camper.

The Philadelphia meeting is a few months away. However, I am very pleased to let you know that the program for this meeting has benefited from the tremendous good will of many of you who continue to work overtime.

Therefore, on behalf of the symposia organizing teams, I would like to invite your participation in the Fall national meeting. Several symposia covering a diverse range of subjects are currently planned as follow

Chair, 2008

Program Chair, 2008

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Chair-Elect, 2008

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Vice-Chair, 2008

Program Chair, 2010

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Treasurer, 2008-2010

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Councilor

STEVEN W. YATES, 2008-2010

yates@uky.edu

Alternate Councilor

JEFF C. BRYAN, 2006-2008

Division Councilor Emeritus

ELLIOT S. PIERCE

Members-at-Large, Executive Committee

ALICE C. MIGNEREY, 2006-2008

DAVID MORISSEY, 2007-2009

Philadelphia, PA, August 17-21, 2008

i) 21st Century Radiochemistry Opportunities: A Symposium Highlighting Nuclear Science Workforce Needs, Organizer: Mark A. Stoyer, N Division, Lawrence Livermore National Laboratory, L-414, Livermore, CA 94550

ii) Frontiers of Nuclear Chemistry Research: A Graduate Student Research Symposium, Organizers: Abigail Bickley, Department of Chemistry, Michigan State University, National Superconducting Cyclotron Laboratory, 1 Cyclotron, East Lansing, MI 48824-1321; Jiangyong Jia, Department of Chemistry, State University of New York at Stony Brook, Stony Brook, NY 11794-3400; Alice C. Mignerey, Department of Chemistry and Biochemistry, University of Maryland, College Park, MD 20742; J. David Robertson, Department of Chemistry and Research Reactor Center, University of Missouri, Columbia, MO 65211; H. Nitsche, University of California, Berkeley, Department of Chemistry, and Lawrence Berkeley National Laboratory, Nuclear Science Division, 1 Cyclotron Road, MS 70R0319, Berkeley, CA 94720-8169; Roy Lacey, Department of Chemistry, State University of New York at Stony Brook, Stony Brook, NY 11794-3400; Romualdo T. de Souza, Department of Chemistry and IUCF, Indiana University, 800 E. Kirkwood Ave., Room C230A, Bloomington, IN 47405-7102; W. Udo Schröder, Department of Chemistry, University of Rochester, 500 Wilson Blvd, Rochester, NY 14627; Sherry Yennello, Department of Chemistry and Cyclotron Institute, Texas A&M University, 3366 TAMUS, College station, TX 77845

iii) Probe Development in Molecular Imaging and Therapy Cosponsored with the Division of Inorganic Chemistry, Organizers: Alan B. Packard, Division of Nuclear Medicine and Department of Radiology, Children's Hospital Boston/Harvard Medical School, 300 Longwood Ave, Boston, MA

02115; Karn Sorasaene, Department of Chemistry and Biochemistry, California State University, Fullerton, Fullerton, CA 92834-6866

iv) Probe Development in Molecular Imaging and Therapy (Poster symposium) Organizers: Alan B. Packard, Division of Nuclear Medicine and Department of Radiology, Children's Hospital Boston/Harvard Medical School, 300 Longwood Ave, Boston, MA 02115; Karn Sorasaene, Department of Chemistry and Biochemistry, California State University, Fullerton, Fullerton, CA 92834-6866

v) Research Related to the Environmental Management Mission of the Department of Energy Organizers: Gary P. Halada, Materials Science and Engineering, State University of New York at Stony Brook, Stony Brook, NY 11794-2275; Sue B. Clark, Chemistry Department, Washington State University, Pullman, WA 99164; Jeff Gillow, ARCADIS U.S., Inc, 630 Plaza Drive, Suite 100, Highlands Ranch, CO 80129; Dev Chidambaram, Environmental Sciences Department, Brookhaven National Laboratory, Bldg. 490A, Upton, NY 11973-5000

vi) Symposium Marking the 25th Anniversary of the Nuclear Chemistry Summer Schools, Organizer: W. Frank Kinard, Department of Chemistry and Biochemistry, College of Charleston, 58 Coming Street Room 310, Charleston, SC 29424

vii) Symposium to Honor the Scientific Career of John M. Alexander, Organizers: Roy Lacey, Department of Chemistry, State University of New York at Stony Brook, Stony Brook, NY 11794-3400; Jiangyong Jia, Department of Chemistry, State University of New York at Stony Brook, Stony Brook, NY 11794-3400; Joseph B. Natowitz, Department of Chemistry and Cyclotron

Institute, Texas A&M University, College Station, TX 77843

Please do not hesitate to contact one or more of the symposia co-chairs to express your willingness to participate or contribute in some way. We would be especially grateful if you can encourage your students to attend. To assist with student participation, we intend to make available a number of travel grants for the meeting.

Once again, we look forward to your advice, help and especially your participation in the upcoming Fall meeting.

Salt Lake City, UT, March 22-26, 2009

Atom-at-a-time chemistry symposium
organized by Roger Henderson (LLNL)

Symposia with more details to come
Nuclear forensics symposium possibly in
conjunction with Analytical and SST
divisions
RIB symposium
Awards symposium

Washington, DC, August 16-20, 2009

Symposia (might possibly be moved to
spring):
NIF/Fusion
GENP/fission
Nuclear reactions

Please do not forget to send Mark Stoyer
(Program Chair 2009) your suggestions for
the 2009 Spring and Fall meetings and Silvia
Jurisson (Program Chair 2010) for the 2010
Spring and Fall meetings.

MEETING ANNOUNCEMENT

From Dave Robertson

The American Nuclear Society's Biology and Medicine and the Isotope and Radiation Divisions are co-sponsoring an embedded topical, "Isotopes for Medicine and Industry," as part of the ANS June 2008 Annual Meeting at Disneyland Resort in Anaheim, California.

This topical is being organized to provide a forum for discussions about the continuing rapid growth of radioisotopes for medical diagnostics and therapeutics, industrial, environmental, and power applications. Inherent to this topical meeting will be discussions of associated production and supply issues, as well as manpower education and training needs to support the current and future isotope community. Technical tracks for the topical include:

Track 1: Applications in Nuclear Medicine -
Diagnostics Track 2: Reactor Production of
Medical Isotopes Track 3: Isotopes in
Environmental, Industrial, and Nuclear
Power Applications Track 4: Applications in
Nuclear Medicine - Therapeutics Track 5:
Reactor Production of Research and
Industrial Isotopes Track 6: Cyclotron
Production of Biomedical Tracers Track 7:
Radiochemistry Track 8: High Energy
Accelerator / Cyclotron Production of
Isotopes Track 9: Distribution and
Transportation Issues Track 10: Production
and Applications of Alpha Emitters Track
11: R&D and Standards Needs for Future
Applications in Industry Track 12:
Manpower and Education

The Call for Papers and information about
the Embedded Topical, as well as the Annual
Meeting, can be found at
<http://www.ans.org/meetings> . The deadline
for abstract submissions is February 8, 2008.

For additional information or questions
about the Topical, contact Conference Chair
Wynn A Volkert (University of Missouri,
Columbia; VolkertW@health.missouri.edu) or
Technical Program Chair Ralph Butler

(Director, University of Missouri Research Reactor; (ButlerRa@missouri.edu).

COUNCILOR'S REPORT

From Steve Yates

Councilors: Steven W. Yates and Elliot S. Pierce (Emeritus)

Alternate Councilor: Jeff C. Bryan

The following summary is provided by the Office of the Secretary and General Counsel on key actions of the ACS Council and Board of Directors at the 2008 spring national meeting.

ACTIONS OF THE COUNCIL

Election Results

- The Committee on Nominations and Elections presented to the Council the following nominees for selection as candidates for President-Elect, 2009: Thomas J. Barton, R. Stephen Berry, Joseph S. Francisco, and Josef Michl. By written ballot, the Council selected Joseph S. Francisco and Josef Michl as candidates for 2009 President-Elect. These two candidates will stand for election in the Fall National Election.
- The Committee on Nominations and Elections announced the results of the election to select candidates from the list of nominees to represent District III and District VI on the Board of Directors for the term 2009-2011. Nominees for District III included: Pat N. Confalone, Alan B. Cooper, Catherine C. Fenselau, and Judith A. Summers-Gates. Nominees for District VI included Bonnie A. Charpentier, Gary D. Christian, David M. Dooley, and Dennis L. Lichtenberger. By mail ballot, the Councilors from these districts selected Pat N. Confalone and Alan B. Cooper as District III candidates; and as District VI candidates, Bonnie A. Charpentier and Dennis L.

Lichtenberger. Ballots will be mailed on or before October 10 to all members in District III and District VI for election of a Director from each District.

Candidates for Directors-at-Large

- The Committee on Nominations and Elections announced the selection of the following candidates for Directors-at-Large for a 2009-2011 term: William F. Carroll, Jr., Richard L. Deming, Thomas R. Gilbert, and Marinda Li Wu. The election of two Directors-at-Large will be conducted in the fall. Ballots will be mailed to the Council on or before October 10.

Petitions

(For Action)

- The Council received three amendments to the ACS Bylaws (Petitions) for action: the Petition on Election Procedures for President-Elect and District Director, the Petition on Election Procedures 2006, Part 2, and the Petition on Membership Categories and Requirements.
 - The Council VOTED to approve the Petition on Election Procedures for President Elect and District Director. This petition seeks to make the balloting procedure more uniform and to avoid the complications and expense of run-off elections.
 - The Council engaged in a lively debate on the Petition on Election Procedures 2006, Part 2, and entertained two motions: a motion to recommit and a motion for a recorded voted. Both motions failed. The Council ultimately VOTED by a show of hands to approve the Petition on Election Procedures 2006, Part 2. This

petition standardizes election processes for President-Elect and all Director positions based on percentages of voting members, and increases the number of required signatures.

- The Council also debated the merits of the Petition on Membership Categories and Requirements and ultimately VOTED to approve this petition via a recorded vote. This petition broadens qualifications for membership and creates a new category of student membership. The Board of Directors will vote within 90 days on whether to ratify the approved petitions. The Petition on Membership Categories and Requirements contains changes to the ACS Constitution, and not just the Bylaws. Therefore, these changes must be approved by ACS members in the fall to be valid.

(For Consideration)

- The Council received one petition for consideration: the Petition on Society Affiliate Dues. This petition sets Society Affiliate dues equal to the (full) membership dues, and not subject to any of the discounts otherwise applicable to membership dues. Action is expected on the petition at the fall national meeting.

(Withdrawn)

- The Petition on Local Section and Division Election Procedures was withdrawn. This petition offers resolutions for handling tie votes in Councilor or Alternate Councilor elections in a local section or division.

2009 Member Dues

- The Council VOTED to set the member dues for 2009 at the fully escalated rate of \$140. This rate is established pursuant to an inflation-adjustment formula in the ACS Constitution and Bylaws.

The Society's Finances

- The Society ended 2007 with a net from operations of \$9.6 million, which was \$2.2 million favorable to the approved budget. This was based on total revenues of \$444.2 million and total expenses of \$434.6 million. The Society ended the year in full compliance with the Board established financial guidelines.

Attendance Report

- As of April 9, 2008, the ACS spring national meeting had attracted 13,302 registrants as follows: Regular attendees 6,681; Students 4,659; Exhibitors 1,156; Exposition only 374; and Guests 432.

Revision of the Division Funding Formula

- After considerable discussion, the Council VOTED to recommit the revised division funding formula, as presented by the Divisional Activities Committee, to the committee for further action at the fall national meeting.

Local Section Name Change

- The Council VOTED to change the name of the University of Kansas Local Section to the Wakarusa Valley Local Section. Although many of the section's members work for the University of Kansas, supporters said that the geographically and occupationally diverse interests of the members would be much better represented under the name Wakarusa Valley Local Section.

Member Statistics

- At the close of 2007, Society membership totaled 160,052, despite a net loss of 439 members at the end of the year. Also, 2007 recorded the second highest number of new applications – 16,533.

Academic Professional Guidelines

- The Council VOTED to approve the Academic Professional Guidelines as submitted by the Committee on Economic and Professional Affairs. These guidelines apply to those members of the academic community whose job function impacts directly or indirectly on scientists practicing the profession of chemistry.

ACTIONS OF THE BOARD OF DIRECTORS

Committees Actions

- The Board received reports from the Committees on Grants and Awards, Public Affairs and Public Relations, Professional and Member Relations, and Budget and Finance. On the recommendation of these committees, the Board took the following actions:
 - As presented by the Committee on Grants and Awards, the Board received a report on the screened list of candidates for the 2009 Priestley Medal, Volunteer Service Award and Parsons Award. The Board agreed to announce the winners of these three awards after its June meeting.
 - On the recommendation of the Committee on Public Affairs and Public Relations, the Board VOTED to approve the tagline “Chemistry for Life” as the central theme of the Communications

Strategic Plan and for use on appropriate Society materials.

- On the recommendation of the Committee on Professional and Member Relations, the Board VOTED to adopt the ACS Diversity Partners Program – a three-year pilot program designed to broaden participation in the chemical sciences among diverse and traditionally underrepresented groups.
- On the recommendation of the Committee on Budget and Finance, the Board VOTED to support having the Committee on Education (SOCED) pursue the US hosting of the International Chemistry Olympiad in 2012.

Activities of the Board's Task Forces

- The Board of Directors received status reports from two of its task forces: the International Strategy Implementation Task Force, and the New Ventures Task Force. The International Strategy Implementation Task Force is charged with implementing the recently approved Society International Strategy, and the New Ventures Task Force reviews new mission-related business opportunities.
- The Board also received updates from two Society initiatives: the Web Presence Initiative and the ACS Leadership Development System (LDS). The newly re-invented ACS website launched September 30, 2007, and features a unifying global navigation and dramatically improved user experience. The LDS offers a comprehensive leadership curriculum that provides practical courses for managing one's career and tools to more effectively lead ACS volunteer initiatives.

Strategic Mega Challenges

- The Board of Directors recently agreed to devote a significant portion of its meeting to deliberation of strategic mega challenges of importance to chemistry and the American Chemical Society. At this meeting, the Board reviewed its committee infrastructure and VOTED to amend its Regulations to reclassify all Board committees as either Standing or Special Committees. As a follow-up, the Board of Directors met with the Committee on Committees to engage in further discussions on the overall enhancement of ACS committees.
- The Board also spent considerable time deliberating the strategic mega issue – Global Scientific Challenges. In general, global scientific challenges are those areas of concern where chemistry can make a substantial contribution in improving people's lives. The Board plans to complete its discussions on this topic at the June meeting.

Compensation of Society Staff

- On the recommendation of the Committee on Executive Compensation, the Board VOTED to approve several actions relative to compensation for the Society's Executive staff. The compensation of the Society's executive staff receives regular review from the Board.

The Executive Director/CEO Report

- The Executive Director/CEO, along with several of her direct reports, updated the Board on the following items: Policy issues for a newly revised IRS Form 990 and the activities of Chemical Abstracts Service, the Publications Division, and the Society's General Counsel.

Joint Board/Nominations and Elections Luncheon

- Following its regular meeting, the Board of Directors, at the invitation of the Committee on Nominations and Elections, met to enhance their mutual understanding of each other's needs and processes.

SUMMER SCHOOL

From Paul Mantica:

2007 top student awards

Ben Farah of Northwestern University (BNL) and Beth Long of Tennessee Technological University (SJSU) were the 2006 Nuclear and Radiochemistry Summer School Outstanding Student Awardees. Both Ben and Beth attended the ACS National Meeting in New Orleans and were recognized for their accomplishments at the DNCT Business Meeting.





Selection of 2008 Class

We received more than 65 applications for the 2008 Summer School program. A committee comprised of Susan Lever (U. Missouri - Columbia), Kim Thomas (LANL), Mark Stoyer (LLNL) and Chris McGrath (INEL) reviewed the applications and provided a ranked ordering of students. The list of participating students is given below:

Brookhaven National Lab

Birhanu, Nathan (University of Missouri - St. Louis), Bruss, Don (Oregon State University), Clemens, McKenzie (Alfred University (NY)), Dugger, Jason (University of New Mexico), Gantz, Erin (Carnegie Mellon University (PA)), Kim, Mitch (University of Washington), Knapp, Nathan (Oregon State University), McLaughlin, Mark (University of Notre Dame (IN)), Mustain, Angie (Auburn University (AL)), Posch, Mikey (Willamette College (OR)), Spector, Julie (Brown University (RI)), Wagdy, Karima (Northwestern University (IL))

San Jose State University

Bobbitt, Scotty (University of Arkansas), Chao, Alexander (Georgia Institute of Technology), Cumming, Robin (Mills College

(CA)), DeGraffenreid, Anthony (Truman State University (MO)), Despotopulos, John (University of Oregon), Durgan, Andrew (Gonzaga University (WA)), Ebert, Emily (Brown University (RI)), Farrell, Jeff (Washington and Jefferson College (PA)), Mandia, Jeremy (United States Naval Academy (MD)), Meyer, Tim (University of Arkansas), O'Dell, Tyler (Lake Superior State University (MI)), Sharp, Nick (University of Missouri)

The 2008 Summer Schools will begin Monday, June 16 and run through Friday, July 25. Herb Silber and Rich Ferrieri will continue their roles as Site Directors at SJSU and BNL, respectively.

Any questions regarding the Summer School program should be directed to:

Paul Mantica

National Director, ACS Nuclear and Radiochemistry Summer Schools

Michigan State University

East Lansing, MI 48824

Phone 517-333-6456

FAX 517-353-5967

email mantica@msu.edu

ANNOUNCEMENTS

From Donovan Porterfield:

Membership in the Division

For those wanting to suggest Division membership to a colleague or student there is a revised membership form available on the Division web page (top right hand corner). As a reminder, Affiliate Members of the Division don't require ACS membership. The cost of Division membership is especially attractive for graduate student members of the ACS at only \$10.

SERMACS and WRM 2008

Programming of interest to Division members is planned for two Fall 2008 regional meetings. Please check the listed web sites for further information and abstract deadlines.

ACS Western Regional Meeting

<http://membership.acs.org/w/WRM2008>

Las Vegas, NV - September 24-27, 2008 (Wed-Sat)

- Forensics, Nuclear, Homeland Security
- Nuclear Fuel Cycle Chemistry
- Radionuclides, Speciation, Fate, Transport

ACS Southeastern Regional Meeting

<http://www.sermacs2008.org/>

Nashville, TN - November 12-15, 2008 (Wed-Sat)

- Radiochemical Separations in Nuclear, Environmental, and Medicinal Chemistry; organized by Glenn Fugate (SRNL) and Dale Ensor (Tenn. Tech Univ.)

POSITIONS OFFERED

Position#1

We are posting a student intern position and I just wanted to forward the posting to you to see if you had any students that might be interested. It is for an undergraduate or graduate student and they will be paid for travel expenses to come out for the summer.

If you know of anyone who is interested, feel free to have them contact me for more information. They can also visit www.sandia.gov to see the position.

Kathleen C. Holt-Larese
Radiological Consequence Management
Sandia National Laboratories
PO Box 5800 MS 0779
Albuquerque, NM 87185-0779
(505) 284-4655
(505) 844-2348 FAX
kcholt@sandia.gov

A student intern is sought to support efforts to characterize the adsorption of trace metals

and radionuclide surrogates by soils and rocks in support of environmental assessments. Job includes sample preparation, assisting in batch sorption experiments, mineralogical analyses (particle size analysis, SEM or optical microscope), pH, surface area and conductivity measurements, and assisting in chemical analysis by atomic adsorption and ion chromatography.

Required: Technical coursework including labs and courses in chemistry, geochemistry, civil engineering or related fields. Willingness to obtain required safety, quality assurance and technical training needed to work in Sandia Labs. Ability to work independently after training in required techniques to provide data needed by project.

Desired: Previous chemical laboratory experience in analysis of minerals and water samples including at least 2 of the above techniques.

Position#2

Post-doctoral position at Oak Ridge National Laboratory in actinides/lanthanides separation. Mass-spectrometry/ICP/IC/ESMS will be used and experience with these techniques is a plus. US citizenship required. Contact Lætitia Delmau, delmaulh@ornl.gov
Ph: 865 576 2093

ISEC

International Solvent Extraction Conference:
ISEC 2008

“Solvent Extraction – Fundamentals to
Industrial Applications”
Tucson, Arizona, USA, 15-19 September
2008

North American industry has employed major solvent-extraction processes to support a wide range of operations including but not limited to chemical, metallurgical and
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nuclear applications. In recognition of these activities, ISEC 1977 and ISEC 1984 were hosted in Toronto, Canada and Denver, Colorado, USA.

After 24 years, it is fitting that the experts in solvent-extraction reconvene once again on this continent for the 18th International Solvent Extraction Conference, to be held in Tucson, Arizona from September 15 to 19, 2008. ISEC is the premier meeting of solvent extraction experts, bringing together scientists, engineers, operators and vendors from around the globe. The ISEC 2008 program will emphasize fundamentals to industrial applications of solvent extraction, particularly how this broad spectrum of activities is interconnected and has led to the implementation of novel processes.

Technical Sessions

Five plenary sessions will highlight topics of broad interest and current importance. A featured topic of this ISEC will be SX applications in nuclear fuel cycles.

The program will include both oral and poster presentations, with sessions anticipated in the following areas:

- Fundamentals: including interfacial phenomena; solution chemistry; thermodynamics; kinetics; molecular modeling and dynamics; chemical recognition; spectroscopy; and X-ray and neutron scattering. Chair: Gérard Cote. Co-chair: Susana Ortiz

- Novel Reagents, Materials, and Techniques: including nanotechnology; ionic liquids; supercritical extraction; aqueous biphasic systems; micellar systems; liquid membranes; polymer inclusion membranes; solvent impregnated resins; solid-phase extractants; hollow fibers; synthesis; phase transfer catalysis; and advances in extractants, diluents, and modifiers. Chair: Peter A. Tasker. Co-chair: David Robinson

- Nuclear Fuel Reprocessing: including actinide/lanthanide separation; developments in UREX, PUREX, TRUEX, DIAMEX, and other processes; fission product separation; new extractants and aqueous reagents; selective stripping; actinide purification; solvent cleanup; radiation effects; reprocessing-specific flowsheet development and equipment design. Chair: Terry A. Todd. Co-chair: Pascal Baron

- Hydrometallurgy and Metals Extraction: including Cu, Mn, Co, Ni, Zn, Mo, V, and other metals; non-nuclear applications of uranium; precious metals; lanthanides; synergistic systems; flow-sheet development and pilot-plant studies; plant experience and commissioning; and environmental aspects. Chair: Kathryn C. Sole, Co-chair: Michael J. Virnig.

- Analytical and Preparative Applications: including, but not limited to, on-line monitoring; environmental monitoring; preconcentration; extraction chromatography/ solvent-impregnated resins; centrifugal partition chromatography; extractive scintillators; membrane electrodes; and ITES. Chair: Mark L. Dietz, Co-chair: E. Philip Horwitz.

- Biotechnology, Pharmaceuticals, Life-Science Products, and Organic Products. Chair: T. Alan Hatton.

- Process Chemistry and Engineering: including process economics, flowsheet development; process and equipment simulation and modeling; equipment engineering and design; plant experience; cruds, emulsions, entrainment, and coalescence phenomena; instrumentation, on-line analysis, process control, and automation. Chair: Gordon M. Ritcey, Co-chair: Peter M. Cole.

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CONTACT DETAILS: For further information please visit the ISEC 2008 website: www.isec2008.org or contact: Dawn M. Long, Administrative Secretary, Syracuse University at: isec2008@ecs.syr.edu
Please note these important dates: Early-bird Registration: 15 July 2008, Final Registration: 31 August 2008