June 5, 2012

**Upcoming MEETINGS**

**Monday, June 11, 18, & 25; July 2**
EAS Gold Mine Mtg., CIVL 2201 (10:30am)

**Wednesday, June 13**
EAS Staff Mtg., CIVL 2201 (1:00pm)

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**EAS PRESENTATION**

West, T.R. & Farny, N. (EAS Grad. student) attended the 63rd Annual Highway Geology Symposium, May 7-10, 2012 in Redding, CA. They co-authored a paper published in the Proceedings of the conference entitled, "Field Methods of Measuring Discontinuities for Rock Slope Stability Analysis on Price Mountain Virginia." Dr. West also attended the annual Steering Committee of the organization, the governing board that sponsors the meetings held in a different location each year. In 2013 the meeting will be held in New Hampshire.

Prof. Laura Pyrak-Nolte gave a presentation entitled "Imaging Particle Swarms in Fractures with Miscible and Immiscible Fluids" at the 4th International Conference on Porous Media & Annual Meeting of the International Society for Porous Meeting held May 14-16, 2012 at Purdue University. Purdue graduate students Eric Boomsma & Christopher Petrovitch also gave presentations entitled, "Particle Swarms in Fractures with Uniform, Converging or Diverging Apertures" and "Hydromechanical Scaling of Field and Laboratory Single Fractures", respectively.

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**EAS PUBLICATION**


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**NASA Goddard Space Center Visit**

This photo was taken at NASA Goddard Space flight Center when Harshvardhan visited the week of May 21st. The people in the photo along with the names of their faculty advisers and degree earned at Purdue are: (L to R) Michael Bosilovich (Ph.D. 1997, Sun); Mariya Petrenko (Ph.D. 2012, Harshvardhan); Prof. Harshvardhan; Richard Cullather (M.S. 1993, Harshvardhan); Jiun-Dar Chern (Ph.D. 1994, Sun).

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**Amy’s Lab Safety Newsletter (REM)**

Lab Cleanouts, Radiological & Environmental Management (REM) at Purdue University.
(See attached)

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**INSIGHT Spring 2012**

Purdue’s CoS publication now online at: https://www.science.purdue.edu/insights/Spring2012/

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**PURDUE UNIVERSITY (GPRI) INCENTIVE AWARD OPPORTUNITY**

The Purdue University Global Policy Research Institute (GPRI) requests the submission of policy briefs that address pressing policy issues that are global in scope yet the response could be multi-country, national, or regional. Policy briefs that pass a merit review and are acceptable for publication will be given an incentive award, posted on GPRI’s e-Pubs website, and sent to relevant interested parties. (For more information see the attached.)
REQUEST FOR NOMINATIONS – DISTINGUISHED DISSERTATION AWARD

The Graduate School is seeking nominations for the Council of Graduate Schools – Distinguished Dissertation Award. Nominations are to be submitted (electronically) to the Graduate School by 5 p.m. July 13, 2012 to lmason@purdue.edu. The two fields of competition this year include Mathematics, Physical Sciences and Engineering and the Social Sciences. The Graduate School will select one nomination in each area to go forward as the Purdue nomination. Additional information about the award can be found at the CGS website (http://www.cgsnet.org/awards-0).

Nominations: Each regular member institution of the Council of Graduate Schools may nominate one person in the field of Mathematics, Physical Sciences and Engineering and one person in the field of Social Sciences. The effective date of degree award, or the completion of doctoral degree requirements and dissertation, must fall in the period of July 1, 2010 to June 30, 2012, inclusive, for each nominee selected.

Mathematics, Physical Sciences and Engineering: Fields considered include, although not all-inclusive: mathematics, statistics, computer sciences, data processing, systems analysis, chemistry, earth sciences, physics, geology, meteorology, astronomy, metallurgy, geophysics, pharmaceutical chemistry; aeronautical, architectural, biomedical, ceramic, chemical, civil, and electrical engineering sciences; environmental health engineering; geological, mechanical, mining, nuclear, and petroleum engineering.

Award: The CGS/UMI Distinguished Dissertation Award, consisting of an honorarium of $2,000 and a certificate of citation, will be presented at the annual meeting of the Council of Graduate Schools, December 5-8, in Washington, D.C. Reasonable travel expenses of the recipients will be paid. Only the winner and the graduate dean from the nominating university will be notified prior to December 6.

For more information see (see attached) or contact Dr. Linda Mason, Associate Dean of the Graduate School and Professor of Entomology at 765-494-0245 or lmason@purdue.edu

FELLOWSHIP FOR MS/MA OR PhD & ALUMNI – Summer 2012

Now Accepting Applications for MS/MA or PhD Graduates and recent Alumni in Engineering, Physical Sciences, or Public Policy.

Application closes midnight EDT, Sunday, June 17, 2012 – visit http://www.orise.orau.gov/ccpt/ to get started NOW!

Opportunity in Washington, D.C. to contribute to a multilateral initiative to promote industrial efficiency in major economies through the Clean Energy Ministerial (www.cleanenergyministerial.org). The Fellowship position would involve frequent interactions with International counterparts and some international travel.

Prior industrial efficiency experience and demonstrated project management skills are both required. Preferred qualifications include international experience and prior work in energy and/or climate change policy. Familiarity with energy management is also desirable. Stipends range from $50,000 to $100,000 depending on academic level, skills and experience. Additional allowances for medical insurance or transportation may be provided.

Questions? E-mail Oak Ridge Institute for Science and Education (ORISE) at ccpt.fellowship@orise.orau.gov

JUNE BIRTHDAYS!!!

Saad Haq 1
Melissa Guinn 5
Jennifer Haase 18
IMPORTANT NOTICE ABOUT THIS NEWSLETTER

This newsletter is used as the primary information source for current and upcoming events, announcements, awards, grant opportunities, and other happenings in our department and around campus. Active links to additional information will be provided as needed. Individual email announcements will no longer be sent unless the content is time-sensitive. We will continue to include our publications, presentations and other recent news items as well. Those using paper copies of the newsletter should go to our newsletter archive on the EAS website at www.purdue.edu/eas/ and Click on News to access active links as needed. Material for inclusion in the newsletter should be submitted to Wanitta Thompson (thompsow@purdue.edu) by Friday noon of each week for inclusion in the Monday issue. If it is in the newsletter, we assume you know about it and no other reminders are needed.

For answers to common technology questions and the latest updates from the EAS Technology Support staff, please visit http://www.purdue.edu/eas/info_tech/index.php.

Also, as an additional resource for information about departmental events, seminars, deadlines, etc., see our departmental calendar at http://calendar.science.purdue.edu/eas/seminars.
Welcome to Summertime at Purdue!

While for you the summer season can mean more time for research on campus, for REM it means that the EPA is coming soon. Usually, the EPA comes to inspect Purdue during the summer months. So make sure all your containers are labeled and closed! And don’t forget about proper HPLC waste collection procedures. Due to previous violations, the EPA has already informed us that they’ll be looking for better compliance this year with HPLC waste. We definitely don’t want to get a fine.

Lab Cleanouts: Frequently Asked Questions

Summertime at Purdue also means it’s time for some of you to clean out your lab spaces. Here are the answers to your most frequently asked questions when it comes to cleaning out your lab. *Hint:* These tips work for routine waste pickups too!

**When are cleanouts necessary?**

Well, there could be several circumstances:

- Construction and remodeling projects
- Faculty members coming and going at Purdue
- And last but not least, it is possible a lab has just been abandoned.

Regardless of the reason, these labs need to have all their chemicals removed.

**How do I even start to think about cleaning out these chemicals?** Lab cleanouts can be a long process, so start planning! Make decisions soon about who is going to manage the cleanout and who will be doing the work.

**What if radioisotopes were used in the lab?**

Contact Sharon Rudolph (49-47969) or Zach Tribbett (49-41478) of REM’s Radiation Safety Group to ensure proper Nuclear Regulatory Commission decommissioning procedures are followed. This must be done before the cleanout process can start.

**Can anyone clean out a lab?**

Ideally, the graduate students or PI should be in charge of the lab cleanout. But if that’s not possible, someone who is familiar with the lab’s hazards, like a lab manager or a building deputy, would be a good option. The department could also opt to hire undergraduate students as long as they are under direct supervision. In other words, a secretary is probably not the best choice. And remember, if you will be working in the lab, you must have the proper training to handle chemicals. REM can’t do the work for you, but we will be happy to provide any necessary training and advice. Once you’ve been trained, the clean out process can start.

**Can’t REM just come and pick up these chemicals?**

*No!* All of the chemicals must be submitted to REM on a [Hazardous Materials Pickup Request Form](#).

**How often should I submit pickup requests?** Submit these forms frequently, no more than 50-100 items per pickup. And make sure you fill out the form completely. We will not be able to pick up your waste if we don’t know where it is. Our technicians are on campus picking up chemical waste 40 hours per week. It’s no problem for them to come back to your lab numerous times to pick up chemicals. If you submit frequently, we can actually clear out the chemicals faster!
**On a Lighter Side...**

**THE FUME HOOD:** Where does it go??

*Intended use: containment and extraction of hazardous fumes
Actual use: a really expensive storage closet*

- **Ever wonder where it all goes?**
- **Chemicals casually laying about:** Will kill you instantly, Slow and agonizing death, Two chemicals that should never ever be that close together, No idea.
- **(What is this anyway?)** A trap door?
- **Rambles of a mad man**
  - Layers of crud
  - “research”
  - It spins by itself, Magic!
- **The hot plate/ stirrer:** abused more than the undergrad interns.

**“Piled Higher and Deeper”**
by Jorge Cham

[www.phdcomics.com](http://www.phdcomics.com)

*Looks like this hood could use some cleaning!*

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Do you have a lab safety question or issue you’d like Amy to address in this newsletter? Let her know!

E-mail atheivag@purdue.edu; Phone 49-69359

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**Should I just put the chemicals in a box for the technicians to pick up?**
No, please don’t! A better idea is to clear a designated space on a bench or table for chemicals that need to be picked up. Line up the chemicals on the bench so the first item matches Item #1 on the pickup form.

**How should chemical mixtures be labeled?**
If the chemical waste is a mixture, REM provides orange tags for free. Please provide as much information as possible and list the waste constituents in a percentage format on the tags. The constituents should total 100%. Don’t use any formulas or abbreviations and remember to list any trace items.

Do chemicals in the original manufacturer’s container need an orange label? No! The original label is sufficient if it is legible. However, if you know of another lab that could utilize some of your usable chemicals, you could arrange for others to come and pick out items they might need. *Note:* This is not a required procedure and based only upon your discretion.

**What about unknown chemicals?**
It’s a good idea to have a specific area where you can set aside all unknown chemicals until the end of the cleanout process. Label these unknown items with an orange Hazardous Waste tag and then submit them just like you would any other chemical on a Hazardous Materials pick-up request as “Unknown Solid” or “Unknown Liquid.”

**Do you take...?**
We take anything that has chemicals. This includes soaps and cleaning products. We do **not** take empty containers.

Got another question about lab cleanouts? Ask Amy! E-mail her at atheivag@purdue.edu or call at 49-69359.
Request for Policy Briefs

Purdue Global Policy Research Institute
Purdue University
West Lafayette, IN 47906

[Application Forms Due – June 18, 2012]
[Applications Reviewed – July 2, 2012]
[Final Issue Briefs Due – October 1, 2012]

Purpose

The Purdue University Global Policy Research Institute (GPRI) requests the submission of policy briefs that address pressing public policy issues that are global in scope yet the response could be multi-country, national, or regional. Policy briefs that pass a merit review and are acceptable for publication will be given an incentive award, posted on GPRI’s e-Pubs website, and sent to relevant interested parties (e.g. Congressional staff, agency policy analysts, or S&T journalists).

Policy Briefs Defined

GPRI will present incentive awards for two types of policy briefs: (1) Policy Education Briefs (PEBs) and (2) Research-Informed Policy Briefs (RIBs), which are related to GPRI’s mission and theme areas (see Review Criteria below). These are described below:

• Policy Education Briefs (PEBS)

These are brief papers (up to 4000 words), that (1) pose a challenging global issue, (2) identify viable alternatives for solving/mitigating/or adapting to the issue and (3) describing both positive and negative consequences to each alternative based on rigorous research, analysis or data synthesis. The explication of the issue, alternatives, and consequences should be unbiased and avoid dealing with beliefs or values. They should not attempt to reach a conclusion or a favored option. Ideally, the analyses of consequences will consider salient technical, social, and economic factors. Ethics and legal issues may also enter in but might be better treated in separate, supplementary or complementary papers.

Primary uses of policy education briefs are (1) to address the interests of policy makers, policy analysts, thought leaders and policy implementers (such as government and private sector officials), (2) provide valuable input for Congressional testimonies and briefings, and (3) serve as input to science writers and journalists for op-Ed pieces, news reports, media interviews, and other such purposes.

• Research-Informed Policy Briefs (RIBS)

These briefs are intended to call attention to policy issues that emanate from research and have significant potential public import or interest. They are brief papers (up to 4000 words) that inform, clarify, increase understanding of, or reduce uncertainty about a policy issue based on original research or rigorous interpretation, analysis or synthesis of prior published data or research findings. They may address opportunities, barriers, risks, uncertainty or threats important to policy development and may be a precursor to or compliment/supplement a policy education brief (PEB). Ideally, they would increase public visibility of Purdue’s attention to policy issues and the quality of our faculty and research. The format of these briefs differs from that of policy education briefs (PEBS) in that it consists initially of a summary representation of the
research findings and concludes with a summary explication of the salient policy implications.

These briefs are intended to inform policy makers or implementers (such as government and private sector officials), policy analysts, science writers, media reporters or the public at large, especially those affected by the issue(s) presented.

Format

Policy briefs should be written in "jargon-free", easily readable style for non-experts. They should be newsworthy and suitable for (1) use by journalists and other media outlets, (2) listing on the GPRI website and other internet outlets, (3) e-publications issued by the Purdue Libraries, (4) and public presentations, to include Congressional testimony and briefings to government officials. These briefs should not disclose unprotected intellectual properties or proprietary information that may lead to a patent, copyright, or grant.

Assistance

GPRI will provide assistance through expert editing and review. The Institute will also assist in finding public outlets and for presentation. All briefs will be listed on the GPRI web site and issued as an open-source e-publication on the Internet.

Eligibility

The principal author (PI) of a policy brief must be a faculty member from Purdue, West Lafayette. One additional co-author may include a faculty member from Purdue, West Lafayette, or regional campuses, a staff member, post doc or graduate student. Co-authors from different colleges/disciplines are especially encouraged.

Incentive Awards

The principal author for each successfully reviewed brief will be awarded $2,000. One additional co-author will receive $2,000 if an approved faculty member, and $1,000 if a non-faculty member. A maximum of $5,000 will be awarded for policy briefs with three or more co-authors. These incentive award grants are intended to support policy brief development activities that could lead to opportunities for publication or presentation at GPRI-sponsored events in Washington D.C. or Indianapolis or for other purposes specified above.

Application and Submission Process

**Application:** The deadline for receipt of award applications is **5:00 p.m. E.T., Monday, June 18.** Applications should be sent as a single PDF file attachment to an e-mail message addressed to Angela Phillips Diaz at apdiaz@purdue.edu, GPRI Managing Director. Please use the attached form that includes:

- Proposal Title
- Name and affiliation of participants in the project
- Brief description (no more than one page) describing the problem being addressed, the related pressing policy issue, the multi-disciplinary dimensions of the initiative, targets of interested parties of whom the information contained in the brief would be beneficial, potential outcomes and impacts of the brief, and alignment of the initiative with GPRI’s mission.
• **Policy Brief Details:** The deadline for receipt of briefs will be *5:00 p.m. E.T., October 1, 2012.* Issue briefs should be submitted as a single Word file attachment addressed to Angela Phillips Diaz at [apdiaz@purdue.edu](mailto:apdiaz@purdue.edu).

• **Required outline:**

  *Cover Page*

  *Face page,* including:

  - Policy Brief Title
  - Principal Author and co-authors

  *The Policy Brief* is limited to no more than 4000 words pages, and should be formatted as follows: single-spaced, one-inch margins, and no smaller than 11 font

  *References*

  For authors who seek assistance, we can recommend a template or format, advice, or editorial/writing assistance.

**Proposal Review Criteria (all criteria apply to both briefs unless specifically designated)**

**Technical Criteria:**

- Demonstrated alignment with GPRI goals by addressing an important global policy issue that has high potential outcomes or impacts (required).
- The policy brief is based on a publication(s) or pending publication(s) or specific research and/or analysis specific to the brief (required).

**General Criteria:**

- **Quality:** Must meet high standards of scholarship.
- **Interdisciplinary approach:** Must consider implications with a holistic approach, to include technical, social, and economic factors, as appropriate.
- **Scope:** Must be consistent with the mission of GPRI, which includes connecting Purdue researchers with citizens, policy makers, and members of the media and informing decision-makers with objective research findings in any of GPRI’s seven major areas of focus.
- **Focus Areas and examples:**
  - Agriculture: crop development, food security, and safety
  - Economy: global commerce and development
  - Energy Systems: alternative sources, delivery and efficiencies
  - Environment: climate change, sustainability/water, air, arable land
  - Health: health care engineering, disease and drug research
  - Security: defense, space, and cyber technology
  - Society and Leadership: family, governance and leadership issues

- **Potential Impact:** **Must show promise** of informing policy or decision makers of viable options for addressing important global policy issues or research findings that inform public policy issues.
• **Deliverables:** All publications and materials produced with the funding must acknowledge GPRI, and electronic copies (or summaries, in the case of publications where copyright would otherwise prevent a full copy) must be delivered to GPRI for possible linking to the GPRI e-Pubs website.

**Contact Information**

Questions about proposal submission should be directed to Angela Phillips Diaz at apdiaz@purdue.edu.
Proposal Title: ________________________________________________________________

Policy Education Brief

Research-informed Policy Brief

Names and Departments of Authors: ____________________________________________

__________________________________________________________________________

Brief Description (no more than one page) Describing the Problem Being Addressed:
Field of Competition: Mathematics, Physical Sciences and Engineering

2012 CGS/ProQuest Distinguished Dissertation Award

Instructions for Nominations

Nominations: Each regular member institution of the Council of Graduate Schools may nominate one person in the field of mathematics, physical sciences and engineering. The effective date of degree award, or the completion of doctoral degree requirements and dissertation, must lie in the period of July 1, 2010 to June 30, 2012, inclusive, for each nominee selected. Such degree award or completion is to be confirmed by the institution’s graduate dean or other administrative officer responsible for doctoral degree programs.

Materials: Each nominee must prepare an abstract (not to exceed 10 pages) of his or her dissertation, typed double-spaced on 8-1/2” x 11” white paper. In addition, appendices containing nontextual material, such as charts or tables, may be included. The pages should be numbered, and each should bear the name of the nominee. Letters from three referees selected by the nominee, evaluating the significance and quality of his or her dissertation work, are to be included in the nomination materials. One of these letters is to be from the nominee’s dissertation supervisor, another from a member of the nominee’s dissertation committee, and the third from a person of the nominee’s choice. The nominee may also choose to include a brief CV. The institution’s graduate dean or equivalent institutional officer should send the following electronically in a single PDF to the Award Committee: abstract, any appendices, and the letters of reference.

Nomination Form. The nomination form may be accessed on the CGS website and must be done if your nominee is the one chosen by the graduate school

Deadline: All materials are to be submitted to the Graduate School by 5 pm July 13.

Award: Two CGS/ProQuest Distinguished Dissertation Awards, each consisting of an honorarium of $2,000 and a certificate of citation, will be presented at the annual meeting of the Council of Graduate Schools, December 5-8, 2012 in Washington, DC. Reasonable travel expenses of the recipients will be paid. Only the winners and the graduate deans from the nominating schools will be notified prior to December 6.

Criteria: The Council of Graduate Schools will name an Award Committee whose members have established records in the disciplinary areas under consideration. At their discretion, additional consultation may be sought. The nominated dissertations should represent original work making an unusually significant contribution to the disciplines. Both methodological and substantive quality will be judged. The following list, although not all-inclusive, illustrates the field considered as Mathematics, Physical Sciences and Engineering: mathematics, statistics, computer sciences, data processing, systems analysis, chemistry, earth sciences, physics, geology, meteorology, astronomy, metallurgy, geophysics, pharmaceutical chemistry; aeronautical, architectural, biomedical, ceramic, chemical, civil, and electrical engineering sciences; environmental health engineering; geological, mechanical, mining, nuclear, and petroleum engineering. (For purposes of this competition, engineering technologies are not included.).