UPCOMING EAPS MEETINGS

SPRING FACULTY MEETING SCHEDULE

April 14, 2015
3:00 - 4:30 PM
HAMP 3201

EAPS DISTINGUISHED SCIENCE ALUMNI AWARD RECEPTION

April 17, 2015
HAMP 2201

EAPS ANNUAL AWARDS BANQUET

April 20, 2015
5:30-9:00 PM
Ross-Ade Pavilion

EAPS ALUMNI ADVISORY BOARD MEETING

April 21, 2015
HAMP 2201

SPRING 2015 FINAL EXAMS

May 4th - 9th, 2015

COLLEGE OF SCIENCE COMMENCEMENT DATE

May 17, 2015
2:30 PM
Elliott Hall of Music

PUBLICATIONS


EAPS COLLOQUIA

Andrew Bunger
Dept. of Civil and Env. Engineering
Univ. of Pittsburgh

“Geosciences Inspiring Engineering: What Dyke Swarms Teach us about Hydraulic Fracturing”
Thursday, April 16, 2015
3:30 PM
HAMP 1252

Shawn Maxwell
President and CTO Itasca IMaGE

“What Have We Learned About Fracturing Shales After 15 Years Of Microseismic Mapping?”
Thursday, April 30, 2015
3:30 PM
HAMP 1252

EAPS NEWS

CONGRATULATIONS TO WEN-YIH SUN

Dr. Sun has been appointed as the University Chair Professor at National Central University, Chung-Li, Taiwan

PURDUE’S TWITTER RESEARCH HELPS EMERGENCY RESPONSE TIME

WEST LAFAYETTE, Ind. (WLFI) — On Thursday, Purdue students were researching ways to help emergency personnel respond to storm damage more quickly by using Twitter.

It is a project in the Great Issues course offered by the university. The class looks at the connection between natural hazards and society.

Earth Science Professor Tim Filley said students are using Twitter to find trends in a particular geographic area.

“As the storm moves through the Midwest, what the students are doing is they’re looking at a specific geographic region where a storm is coming,” said Filley. “They’re looking at the perception that community has for that hazard.”

Filley said they use SMART software, or Social Media Analytical and Reporting Toolkit. The SMART system was developed at Purdue and it is helping students look for social media trends before, during and after a storm.
“So, we can see what people are tweeting, while a big storm potentially is going on,” said Nathan Barrett. “So, that first responders would know where to go and especially what was needed.”

The software would help emergency personnel know where to put most of their resources. Student Chandler Sonafrank said social media, like Twitter, is a great tool to find out information quickly.

“Almost everyone has a cellular device that can take a photo and snap it or tweet it to all of their followers, all of their friends,” said Sonafrank.

Fulley said their research will help understand how different communities respond to disasters. He said the main goal of the project is to help the public prepare for storms and help communities recover quickly during an emergency. Fulley believes this technology will be utilized more in the future.

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KUDOS TO PROF GRANGER AND HIS FELLOW TEAM MEMBERS ON THIS DISCOVERY!

In 2003, Granger estimated a hominid skeleton known as “Little Foot,” found 21 years ago in a cave in South Africa, was about 4 million years old. But his method of dating the remains was widely questioned by the scientific community.

"There was quite a bit of controversy around the first age we published," said the Purdue University professor of earth, atmospheric and planetary sciences.

A new process, however, confirms with little doubt the remains are about 3.7 million years old, which is several hundred thousand years older than "Lucy," a skeleton found in Ethiopia believed to be among the oldest early ancestors to humans.

Granger published his research Wednesday on the journal Nature’s website. Purdue professor Marc Caffee and scientists from universities in South Africa, France and Canada co-authored the report.

"This represents a long-standing problem that has been bugging me for years and years," Granger said in a phone interview Thursday. "But we haven’t had the technology required to answer the question until just this year."

To read the full article, please click here:  
http://goo.gl/iCBa4p

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NEW EAPS FACULTY

EAPS would like to welcome our new faculty in the atmospheric sciences who will be joining the Dept. in the 2015-16 academic year!

Dr. Daniel Chavas
Dr. Robin Tanamachi
Dr. Daniel Dawson
THE 2015 Undergraduate Research and Poster Symposium
April 14, 2015

The 2015 Undergraduate Research and Poster Symposium will be held from 1:00 to 5:00 p.m. **Tuesday, April 14** in the Purdue Memorial Union North and South Ballrooms.

The symposium will showcase the research of over 200 undergraduate students representing eight colleges and schools and is free and open to the public. Best wishes to EAPS participants!

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**INAUGURAL GREEN CAREER FAIR**

Purdue University Student Sustainability Council’s 1st Annual Green Career Fair

Bureau of Labor Statistics 2011 Green Technologies and Practices Survey reported almost 75% of business establishments use at least one green technology or practice. Purdue’s Student Sustainability Council is hosting Purdue’s Inaugural Green Career Fair to open doors to these businesses with green careers. Open to students of ALL majors.

*Wednesday April 15th* form 1:00pm - 4:00pm in the Armstrong Atrium

For more information visit: [http://purduegreencareerfair.weebly.com/](http://purduegreencareerfair.weebly.com/) or myCCO

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**FALL AND SUMMER 2015 REGISTRATION**

Undergraduate students will start to register for Purdue fall and summer 2015 classes beginning **March 24, 2015**. Registration “weeks” are based on current semester classifications and will continue through **April 25**. Open registration (open to all) will begin **April 27**.

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**INTERDISCIPLINARY RESEARCH EXPERIENCE**

DURI - Fall, Spring, Summer

**WHAT ARE THE BENEFITS?**

* Engage in cutting edge interdisciplinary projects at Discovery Park
* Gain valuable skills and knowledge for a possible career in research
* Receive a scholarship each participating term

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**HOW DO YOU QUALIFY?**

* Must be at least a sophomore
* Minimum 3.0 GPA

**HOW DO YOU APPLY?**

* For more information go to: [www.purdue.edu/dp/learningcenter](http://www.purdue.edu/dp/learningcenter)

* Login through the DURI page to apply for any of these programs at: [www.purdue.edu/dp/duri](http://www.purdue.edu/dp/duri)

If you have any questions, please contact: AMY CHILDRESS 765.496.3590 | childres@purdue.edu

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**PURDUE UNIVERSITY GEOLOGICAL SOCIETY (PUGS)**

PUGS is participating in this year’s Relay for Life to raise money and awareness for the American Cancer Society; their goal is **$1,000**. Almost all of us have been touched by cancer in some way, so they’ve decided to make a difference by raising money and walking in our campus American Cancer Society Relay For Life event.

At the event, their team will take turns walking around the track to raise money and awareness to help the American Cancer Society in the world’s largest movement to end cancer.

Their team is taking action to help finish the fight and prove that our generation is making a difference. Please join their team or make a donation. Saving lives from cancer starts with one team, one participant, and one dollar at a time.

You can find more information here: [http://goo.gl/LbO813](http://goo.gl/LbO813)

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**CAREERWISE TRAINING PROGRAM**

The CareerWISE laboratory would like to introduce you to the newly expanded CareerWISE resilience training program. CareerWISE is an evidence-based and freely available online resource that assists women in science and engineering fields to progress through their PhD programs and prepare for future career environments. Developed at Arizona State University with the generous support of the National Science Foundation, the program is the first of its kind - an online, anytime coach customized for women pursuing PhDs in STEM fields.

Since its first release with a 2010 press conference at NSF, CareerWISE has been used by tens of thousands of individuals in over 130 countries. Its effectiveness in strengthening resilience, self-efficacy, problem solving, and interpersonal communication skills, all linked to persistence in education and careers, has been demonstrated in key studies, including nationwide randomized controlled trials.
Some details and benefits to students using the CareerWISE resource:

• Develops specific skills related to self-understanding, personal and interpersonal problem solving, and communication.

• Highlights skills in the context of four common concerns: strengthening working relationships with advisors, juggling academic and personal commitments, navigating a climate that can be unfriendly to women and managing delays and setbacks that are common in the course of pursuing research.

• Offers interactive, live actor-based simulations to practice interpersonal communication skills for Active Listening, Self-Expression, and Receiving and Responding to Feedback.

• Features over 180 Her Story video clips from interviews with women who have successfully navigated the hurdles of graduate school in a variety of STEM fields.

They invite you to familiarize yourself with the CareerWISE resource and recommend it to your students in your program. Attached is a recent news column that features CareerWISE and a brief guide that highlights popular sections of the resource. Please help them share the CareerWISE resource by forwarding this email to your students.

The CareerWISE team welcomes your questions and comments. You can reach us at careerwise@asu.edu or find them on Facebook.

SUMMER DATA SCIENCE FELLOWSHIP OPPORTUNITY

Program: The Data Incubator is an intensive 7 week fellowship that prepares masters, PhDs, and postdocs in STEM + social science fields seeking industry careers as data scientists. The program is free for fellows and supported by sponsorships from dozens of employers across multiple industries. In response to the overwhelming interest in our earlier sessions, we will be holding another fellowship.

Locations: There will be both an in-person (in NYC, DC, SF) and online section of the fellowship. There is a common application for both the online and in-person sections.

Dates: All sections will be from June 1, 2015 to July 17, 2015.

Application Link: [http://goo.gl/PEFosC](http://goo.gl/PEFosC)

Who should apply: Anyone within one year of graduating from a masters or PhD program or who has already obtained a masters or PhD is welcome to apply.

Applications from international students are welcome. Everyone else is encouraged to sign-up for a future session.

For additional information, checkout our blog, Venture Beat article, or Harvard Business Review piece.

EMPLOYMENT OPPORTUNITY – ASSISTANT TO THE MSL MAHLI PI

Malin Space Science Systems, Inc. is looking for a high-energy individual to serve as Assistant to the Principal Investigator for the Mars Hand Lens Imager (MAHLI) camera aboard the Curiosity Mars rover. It is highly desirable that our candidate be available to begin working in May/June 2015 timeframe at our facility in San Diego, CA. Duties for the position will include working with MAHLI data, working with the MSL team to plan activities, creating image products, etc. (see attached job ad for details). This entry-level position requires a bachelor’s degree in a related field of science.

OTHER

FACULTY FORUM ON CORPORATE PARTNERSHIPS

This forum is being conducted by E. Dan Hirleman, Purdue $BIG (B’s Chief Corporate and Global Partnerships Officer, to discuss enhancing Industry/Corporate Partnerships. A brief description of the landscape and of an emerging initiative to strengthen our partnerships will be provided. The primary purpose will be to gather faculty members $BIG (B feedback to forge that initiative most effectively by ensuring the broadest possible faculty participation.

Forums will be held as follows:

April 16, Lawson Computer Science Building (LWSN), Rm 1145, 9:00 a.m. – 10:00 a.m.
April 17, Lilly Hall of Life Sciences (LILY), Rm 3102, 2:30 p.m. – 3:30 p.m.
April 22, Rawls Hall (RAWL), Rm 1086, 11:30 a.m. – 12:30 p.m.

Please contact Linda Higbee, Administrative Assistant, Corporate and Global Partnerships at 49095 or e-mail lhigbee@purdue.edu with questions.

NEW POSITIONS AT CIMMS (COOPERATIVE INSTITUTE FOR MESOSCALE METEOROLOGICAL STUDIES) IN NORMAN, OKLAHOMA

1) Warning Research Associate / Research Scientist
2) Research Associate (Mesoscale Meteorologist) at the Storm Prediction Center
3) Hazardous Weather Testbed R2O Liaison at the Storm Prediction Center

For more information about these positions and how to apply, please see attachments to this newsletter.
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 EAPS 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 Fallon McQuern (fmcquern@purdue.edu) by 5:00pm on Thursday 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 EAPS 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, etc., see our departmental calendar at http://calendar.science.purdue.edu/eas/seminars.
Abstract: Hydraulic fracturing has an extensive history of successful applications including quarrying/mining (since the 1890s), gas and oil extraction (since 1949), and Enhanced Geothermal Systems ("EGS", since the early 1970s). With perhaps only one notable exception, the Barnett Shale in Texas, this experience points to a mechanical system that tends to favor localization of fracture growth to one or two dominant hydraulic fractures rather than propagation of many simultaneous branches. This is in spite of 4 decades of attempts to generate complex networks of hydraulic fractures for EGS applications and more than a decade of efforts to generate Barnett-like networks of hydraulic fractures in other shale gas reservoirs. Man-made hydraulic fractures seem highly prone to localization. On the other hand, there are more than 400 known examples of giant dyke swarms on Earth, Venus, and Mars. These stunning features are comprised of hundreds to thousands of subparallel to radiating dykes that originate from a common source region and that appear to have grown concurrently. So, in contrast to man-made systems, these natural systems of fluid (magma)-driven cracks appear to favor swarming dynamics rather than localization.

In this presentation I will tell the story of a recent research effort aimed at finding the ingredients required for swarming behavior to occur in systems of fluid-driven cracks such as dykes and hydraulic fractures. I will show that the missing ingredient has been a basic understanding of the attractive force in these systems, that is, why fluid-driven cracks would have any mechanical impetus to grow near one another in the first place. By showing how this key element of the system depends on geometry and the relative importance of viscous energy dissipation in the context of the energy balance of the system, engineers are now able to draw inspiration from the naturally-occurring dyke swarms in order to design more effective hydraulic fracturing treatments.

Dr. Andrew Bunger is an Assistant Professor in the University of Pittsburgh's Department of Civil and Environmental Engineering. He joined the University of Pittsburgh in 2013 after spending 10 years in Melbourne, Australia working in the Geomechanics Group within the Commonwealth Scientific and Industrial Research Organization (CSIRO). His research interests include the mechanics of hydraulic fractures, coupled fluid-shale interaction, and the emplacement dynamics of magma-driven dykes and sills. He holds a PhD in Geological Engineering from the University of Minnesota.
What Have We Learned About Fracturing Shales After 15 Years Of Microseismic Mapping?

Thursday, April 30
3:30 PM – 4:30 PM
HAMP Bldg Room 1252
Refreshments at 3:00 in HAMP Rm 2201
Open to the Public

Abstract: Hydraulic fracturing is a key enabling technology for the development of unconventional reservoirs, and microseismic monitoring has grown into a common imaging technology over the last 15 years as the key method to image the hydraulic fracture network. The presentation will describe some of the common observations made from microseismic imaging in different settings, in particular the role of the reservoir geology on the fracture network geometry. The presentation will be a practical examination of the role of microseismicity in improving engineering design of the hydraulic fracture operations and monitoring for environmental concerns associated with shallow fracture growth and induced seismicity.

Dr. Shawn Maxwell is President and Chief Technology Officer for Itasca IMaGE (Integrated Microseismic and Geomechanical Evaluation) based in Calgary. Previously he was Chief Geophysicist and Microseismic Advisor for Schlumberger, led microseismic development at Pinnacle Technologies (Halliburton) and ESG, and served as a Lecturer at Keele University in England. Shawn was awarded a Ph.D. specializing in microseismology from Queen’s University in Kingston, Canada.

Dr. Maxwell has published numerous technical articles and serves on various microseismic focused committees and workshops around the world. In 2013, he was a Distinguished Lecturer for the Society of Petroleum Engineering (SPE). In 2014, he was the Society of Exploration Geophysicists (SEG) Distinguished Instructor for the Short Course “Microseismic Imaging of Hydraulic Fracturing: Improved Engineering of Unconventional Shale Reservoirs” and authored the first textbook on microseismic monitoring as an SEG monograph by the same title.
Employment Opportunity – Assistant to the MSL MAHLI PI

Malin Space Science Systems, Inc. is looking for a high-energy individual to serve as Assistant to the Principal Investigator for the MAHLI camera aboard the Curiosity Mars rover. It is highly desirable that our candidate be available to begin working in May/June 2015 timeframe at our facility in San Diego, CA.

Duties to assist the MAHLI PI on a daily, full time basis include, but are not limited to, the following functions:

1. Extracts information from MAHLI data to present in report format to the Mars Science Laboratory Science Team and Project personnel on an ongoing basis. Requires the ability to understand and consolidate relevant information from data into concise reports.

2. Create image products from MAHLI data for rapid distribution to the Mars Science Laboratory Science Team and Project personnel. Requires the ability to determine image scale, create image mosaics and stereopair products; to determine when and how to use software tools to enhance images for specific scientific research or general aesthetic purposes.

3. Creates, maintains and updates spreadsheets for classifying entire catalog of MAHLI images. Requires that ability to identify/determine which images fit into the defined classifications.

4. Assists the MAHLI PI and team with special science data analysis and research projects, as requested.

5. Compile data descriptive information (written material) for MAHLI data products to be archived with the NASA Planetary Data System (PDS). In connection with this function, collaborates and/or creates captions for images.

This entry-level position requires a bachelor’s degree in a related field of science; geology/geoscience background is a plus. Must be a proficient user of MS Office and Adobe Photoshop. Excellent communication skills, both written and oral a must. Ability to communicate effectively with a wide variety of multi-cultural science team members. Also, ability to multi-task and handle stressful deadlines required. Working a changing, non-traditional schedule is sometimes required.

Desirable skills include experience and interest in space/geoscience/astronomy camera calibration (radiometric, geometric). Also desirable is experience and interest in camera models, 3D models/topography from stereo/multiple images, relevant research and software/tools experience.

If you’re looking for a once-in-a-lifetime opportunity to be associated with Mars exploration, please visit our web page, www.msss.com and submit your cover letter and Resume for consideration. Come for the challenge, stay for the adventure!!
Warning Research Associate / Research Scientist

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma is currently seeking a research associate to collaborate with scientists in the National Severe Storms Laboratory’s (NSSL) Warning Research Division on the development of scientific applications and applied research that assists forecasters in the warning decision-making process for severe weather events. Initial duties will include processing and analysis of the Multi-Year Reanalysis of Remotely Sensed Storms (MYRORSS) data set, which contains radar and environmental characteristics of thunderstorms from 2000-present.

The duties of this position are:

1) Developing and/or testing new single radar and multi-sensor techniques for quality control, automated severe storm identification and classification, and remote sensing-centric storm climatologies;
2) Acquire and apply expertise in severe local storms and the warning-decision-making process;
3) Participate in applied research experiments in the Hazardous Weather Testbed’s Experimental Warning Program;
4) Attend meetings and professional conferences to present research results and interact with collaborators and users; formally publish results when appropriate;
5) Review technical and professional publications and attend seminars to stay abreast of current developments in meteorological and remote sensing science.

The minimum qualifications for the position are:

1) A Masters or Ph.D. Degree in Meteorology, Atmospheric Science, or related area;
2) Experience with scientific programming on UNIX/Linux using a high level language (e.g. C++, Java, Python);
3) Background in radar meteorology and radar analysis
4) Experience with statistical methods or software (e.g., R) for data analysis and visualization
5) Interest in new radar algorithm development for severe storm detection and diagnosis
6) Ability to communicate scientific research through conference presentations, formal publications and technical documents

Applicants should identify expertise with any of the following areas: Severe Local Storms; Statistics; Warning Decision Making; Weather Radar; Visualization; Computer Programming. Good oral and written communication skills are needed for the position. Please indicate experience with Linux (or UNIX) operating systems, programming skills (including web-based and mobile applications) and Geographic Information Systems.

Normal working hours will be observed except for occasional irregular hours during data collection, warning/forecast experiments or workshops conducted at remote sites. Incumbents will receive training and gain expertise in the latest radar and other remote sensing technology and warning decision-making.

Supervision will be provided by CIMMS staff. Technical oversight will be provided by CIMMS staff, NSSL scientists, and NSSL management. Works under general supervision but is expected to determine action to be taken in handling all but unusual situations. Incumbents in this position are not expected to supervise other employees, but may serve as leaders of technical teams.

The beginning salary will be dependent on experience, with University benefits. Information on benefits may be found at http://www.hr.ou.edu/employment/WorkingatOU.asp. The position is expected to begin May 2015.

To apply for the position, please forward your resume, cover letter and list of three references to:

Tracy Reinke
Executive Director, Finance and Operations
University of Oklahoma CIMMS
120 David L. Boren Blvd., Suite 2100
Norman, OK 73072-7304

treinke@ou.edu
ATTN: Warning

The University of Oklahoma is an equal opportunity/Affirmative Action employer.
Research Associate (Mesoscale Meteorologist) at the Storm Prediction Center

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at The University of Oklahoma (OU) is currently looking for a Research Associate to provide scientific and meteorological expertise, and technical support for the development of advanced mesoscale hazardous weather analysis and prediction techniques. A key focus will be development and enhancements to lightning and fire weather forecasting guidance, including prediction of lightning density and dry thunderstorm events, utilizing observational and Numerical Weather Prediction (NWP) model data. The position will be based at the Storm Prediction Center (SPC) in Norman, OK within the National Weather Center (NWC), a highly collaborative forecasting, research and academic environment containing a number of NOAA and OU organizations. The incumbent will work directly with development meteorologists and operational forecasters at the SPC, and will have opportunities to interact with NOAA and academic scientists within the NWC, as well as scientists and forecasters in the lightning, fire weather, and severe storm communities.

The principal duties of this position are:

1. Provide scientific and technical expertise in the development, testing, evaluation, and transition to NWS operations of innovative tools and technologies designed to improve the prediction of hazardous mesoscale phenomena, focusing on thunderstorms, lightning, fire weather, and severe thunderstorms.

2. Assist in the development of a unified and consistent convective storm analysis and forecasting system that will serve as a foundational component for multiple service dimensions across the NWS and larger weather enterprise.

3. As appropriate, contribute to Hazardous Weather Testbed experiments to test and evaluate guidance and products central to SPC core mission requirements of hazardous mesoscale weather.

4. As needed, represent CIMMS/SPC by contributing to scientific publications and attending off-site conferences, workshops, symposia and hazardous-weather-related outreach events.

5. Perform related duties as assigned.

The minimum qualifications for the position are:
1. A Master’s or PhD Degree in Meteorology, Atmospheric Science or related area.

2. Emphasis will be placed on applicants with knowledge and experience in areas of thunderstorms, lightning, fire weather, severe storms meteorology, numerical weather prediction models/ensemble systems including convection-allowing models, and application of statistical techniques including creation of probabilistic hazard information.

Applicants should identify experience in software development including programming and scripting languages, web page development, graphic design/visualization, and Linux (UNIX).
environments including AWIPS2/N-AWIPS systems. Excellent oral and written communication skills are highly desired.

Normal working hours will be observed except for occasional irregular hours during data collection, warning/forecast experiments or workshops conducted at remote sites. General supervision will be provided by CIMMS staff with technical oversight provided by SPC management. The incumbent works under general supervision but is expected to work independently and determine action to be taken in handling all but unusual situations. This is a non-supervisory position, although the incumbent may serve as a leader of technical teams. The salary for this position will be based on education, experience, skills, and knowledge.

Information on University benefits may be found at:

http://www.hr.ou.edu/employment/WorkingatOU.asp.

To apply for the position, please forward your resume, cover letter and list of three references to:

Tracy Reinke, Executive Director, Finance and Operations
University of Oklahoma CIMMS
120 David L. Boren Blvd., Suite 2100
Norman, OK 73072-7304
treinke@ou.edu
Attn: Lightning/Fire

The University of Oklahoma is an Equal Opportunity/Affirmative Action employer.
Hazardous Weather Testbed R2O Liaison at the Storm Prediction Center

The Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at The University of Oklahoma (OU) is currently looking for a Research Scientist to provide leadership, scientific and meteorological expertise, and technical support for the NOAA Hazardous Weather Testbed (HWT), which is jointly organized by the NWS/Storm Prediction Center (SPC), OAR/National Severe Storms Laboratory (NSSL), and the NWS Norman Weather Forecast Office (OUN). The position will be based at the SPC in Norman, OK, within the National Weather Center (NWC), a highly collaborative environment containing a number of NOAA and OU organizations. The incumbent will serve as a Research-to-Operations (R2O) liaison within the HWT, interacting with externally funded researchers, HWT staff, NOAA scientists and forecasters, and the GOES-R Proving Ground Liaison to facilitate the transition of new science and technology to NWS forecast and warning operations for hazardous convective weather.

The principal duties of this position are:

1. Coordinate and facilitate effective execution of external investigator-led funded projects in a manner that complements existing HWT test and evaluation activities;
   a. Coordinate with project Principal Investigators (PIs), HWT staff, and SPC/NWS forecasters to ensure timelines and test metrics (including objective and subjective) for successful outcomes are followed, and that proper documentation, training, and instructions are developed for the tools and products associated with each project;
   b. Manage collaborative processes through identification of HWT technical and operational focal points within SPC, NSSL, and OUN as appropriate, to form effective working groups for each funded project and to determine optimal periods to incorporate projects into HWT test and evaluation activities;
   c. Coordinate project access to HWT IT infrastructure (hardware/software, networking, data flow, etc.) to facilitate test and evaluation activities while ensuring compliance with NOAA and NWS IT security requirements;
   d. Provide technical expertise and support to enable project testing and evaluation;
   e. Provide oversight for submission of semi-annual progress reports and final reports at project conclusion; assist in the assessment of project reviews including levels of demonstrated progress; provide input on possible project modifications, recommendations for continued funding for multi-year projects, and potential for operational implementation of new tools and products.

2. Assist with the planning, coordination, technical support, and execution of internally-led (SPC, NSSL, OUN) HWT experiments and projects to ensure successful, effective, and compatible testing and evaluation activities;
3. Perform independent, operationally relevant research and/or development inspired by and consistent with the goals of the HWT and SPC;
4. As needed, represent the HWT effort by contributing to formal scientific publications, and/or attending off-site conferences, symposia and hazardous-weather-related outreach events;
5. As appropriate, develop synergy and shared accomplishments with other NOAA Testbeds located at the NWS/Aviation Weather Center in Kansas City, MO and the NWS/Weather Prediction Center in College Park, MD.
6. Perform related duties as assigned.

The minimum qualifications for the position are:
1. A PhD Degree in Meteorology, Atmospheric Science or related area and at least one year experience in operational meteorology or applied research.
2. Emphasis will be placed on applicants with considerable experience in areas of severe storms meteorology including operational forecasts and warnings, radar and/or satellite meteorology and their application to hazardous weather diagnosis and prediction, convection-allowing numerical models/ensemble prediction systems, and creation/dissemination of probabilistic hazard information. Preference will be given to applicants with a background of working in NOAA Testbeds.

The position requires excellent oral and written communication skills and a strong ability to work in a collaborative team environment. Knowledge and experience in software development including programming and scripting languages, web page development, graphic design/visualization, and Linux (UNIX) environments including AWIPS2/N-AWIPS systems are highly desirable.

Normal working hours will be observed except for occasional irregular hours during data collection, warning/forecast experiments or workshops conducted at remote sites. The incumbent will receive training and gain an understanding of warning and forecasting decision-making.

General supervision will be provided by CIMMS staff with technical oversight provided by SPC management. The incumbent works under general supervision but is expected to work independently and determine action to be taken in handling all but unusual situations. This is a non-supervisory position, although the incumbent is expected to serve as a leader of scientific or technical experiments, groups, or teams; therefore strong teamwork and leadership skills are necessary. The salary for this position is very competitive and will be based on education, experience, skills, and knowledge. Information on University benefits may be found at:

http://www.hr.ou.edu/employment/WorkingatOU.asp.

To apply for the position, please forward your resume, cover letter and list of three references to:

Tracy Reinke, Executive Director, Finance and Operations
University of Oklahoma CIMMS
120 David L. Boren Blvd., Suite 2100
Norman, OK 73072-7304

treinke@ou.edu

Attn: HWT R2O

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