

GEST DIGEST

VOLUME 6, ISSUE 6

SEPTEMBER/OCTOBER 2002

Health Benefits Open Enrollment

November 12, 2002 - December 6, 2002



Health Benefits Open Enrollment for calendar year 2003 is scheduled for the period of November 12, 2002 - December 6, 2002. This is a voluntary open enrollment period, meaning that current enrollees who wish to continue the same benefits with the same providers for 2003 do not need to take any action to continue coverage (except for Flexible Spending

Accounts). Your benefit packets were distributed at the GSFC GEST Office in building 28.

Health Benefits Open Enrollment Events

There will be a **Health Benefits Fair** on 11/21 from 12 to 2 p.m. in the University Center Ballroom at the main campus of UMBC.

Open Enrollment Informational Sessions on 11/19 and 11/25 at 12:30 p.m. in the University Center Ballroom Lounge.

For additional information regarding Open Enrollment, the Benefits Fair, or the Informational Sessions, please contact the Human Resources Department at x52337 or visit

<http://novell1.umbc.edu/hr/Benefits/index.html>

Personal Leave Days

Please take your personal leave days prior to **December 31, 2002**. If not taken, you will lose them.

GEST Visiting Scientists

Seminar Series

Sept. 17, 2002 - 3:30 pm - 6:00 pm
AOK Library 767/Lobby

Oct. 15, 2002 - 4:00 pm - 6:00 pm
The Commons - Skylight Room

Nov. 19, 2002 - 4:00 pm - 6:00 pm
The Commons - Skylight Room

Dec. 17, 2002 - 4:00 pm - 6:00 pm
The Commons - Skylight Room

Jan. 21, 2003 - 4:00 pm - 6:00 pm
AOK Library 767/Lobby

Feb. 18, 2003 - 4:00 pm - 6:00 pm
AOK Library 767/Lobby

Mar. 18, 2003 - 4:00 pm - 6:00 pm
AOK Library 767/Lobby

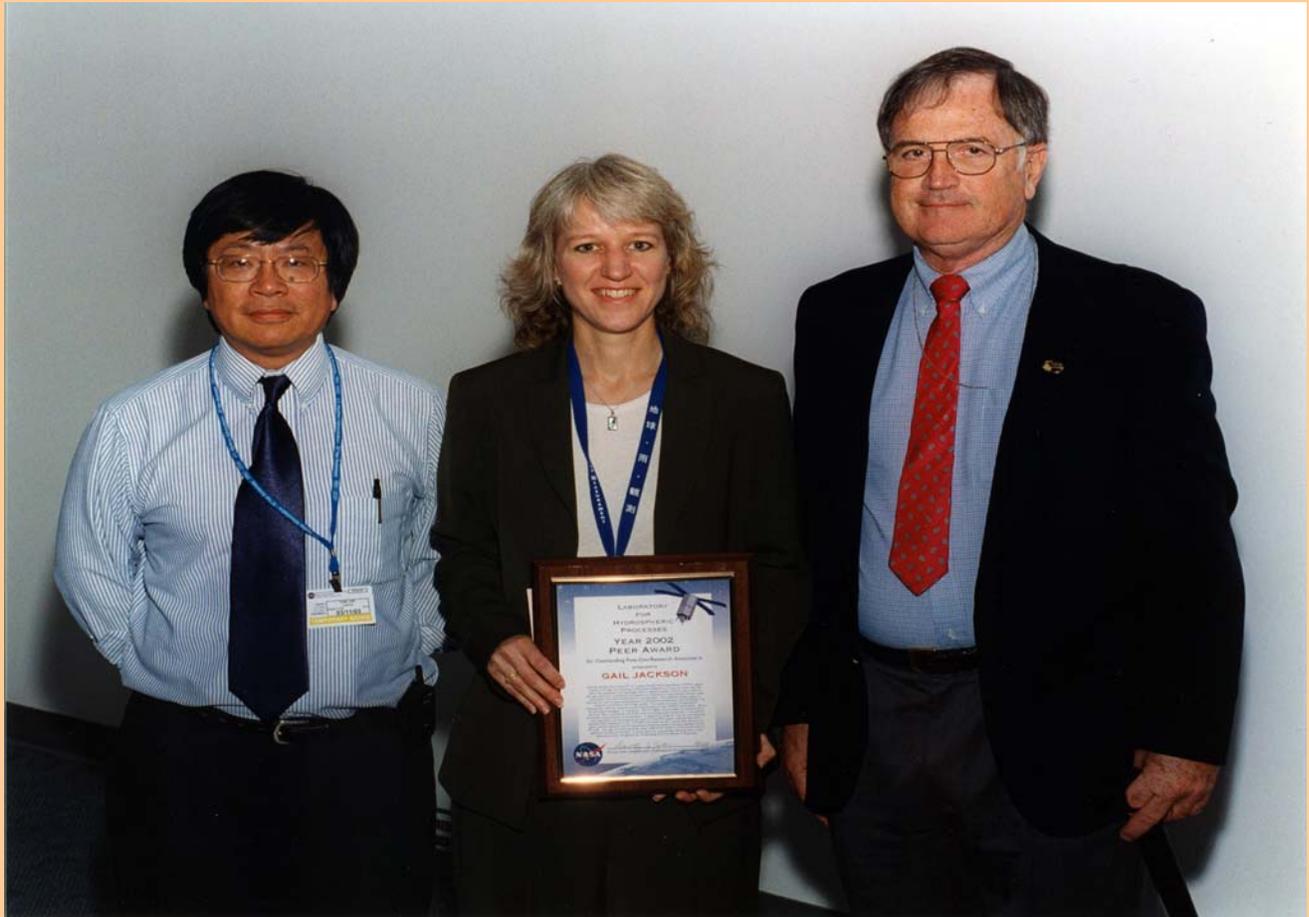
Apr. 15, 2003 - 4:00 pm - 6:00 pm
The Commons - Skylight Room

May 20, 2003 - 4:00 pm - 6:00 pm
AOK Library 767/Lobby

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CONGRATULATIONS



**Dr. Gail Skofronick Jackson receives Code 970's
Award for Outstanding Post-Doc Research Associate
CY 2001**

The award selection was made by a vote of her peers and presented at one of Code 970's seminars

"Frozen Hydrometers and High Frequency Brightness Temperatures"

Presented by Dr. Gail Skofronick Jackson

Pictured from left to right: Dr. Tom Low, Associate Director, GEST, Dr. Gail Skofronick Jackson, Associate Research Scientist, GEST, and Dr. Bill Barnes, Associate Chief, Laboratory for Hydrospheric Processes, GSFC.

BOOK SIGNING CEREMONY

Figure 1. Dr. C. K. Gatebe presenting NASA Earth Science Enterprise Education material to Prof. F. L. Karani, Deputy Vice-Chancellor Academic Affairs in a ceremony held at the University of Nairobi on August 22, 2002. Witnessing the books ceremony are (L-R) Prof. F. W. O. Aduol, Principal, College of Architecture and Engineering, S. Mathangani, University Librarian, Mr. D. M. Maina, Director, Institute of Nuclear Science (Picture by Mrs. Speranza W. Kironji)



Figure 1. Dr. C. K. Gatebe presenting NASA Earth Science Enterprise Education material to Prof. F. L. Karani, Deputy Vice-Chancellor Academic Affairs in a ceremony held at the University of Nairobi on August 22, 2002. Witnessing the books ceremony are (L-R) Prof. F. W. O. Aduol, Principal, College of Architecture and Engineering, S. Mathangani, University Librarian, Mr. D. M. Maina, Director, Institute of Nuclear Science (Picture by Mrs. Speranza W. Kironji)

In the following sections, I briefly describe the formal lectures, and ends with highlights of visits with some key persons.

a. Institute of Nuclear Science (INS) Lecture

I gave my first lecture to faculty and students of INS on July 24. I opened by reviewing my past research work (aerosols studies at Mt. Kenya) and present (radiation measurements with Cloud Absorption Radiometer (CAR)). I then went through important dates in the history of space exploration, followed by remote sensing definitions, and objectives of Earth Science Enterprise with special emphasis on Terra mission. I then showed the following animation sequence:

- Launch of the Terra satellite on the Atlas-Centaur rocket, its deployment and its movement in orbit around the Earth
- Data swath pattern from the Terra instruments: ASTER, CERES, MODIS, MISR and MOPITT
- ASTER images (San Francisco Bay region; 3-dimensional views of the

Continued from page 3:

Three Sisters volcanoes in the cascade mountains of west central Oregon and Baringer Meteorite Crater of the Arizona desert; view of Mount St. Helens-Stereo, fly, and zoom.

W E L C O M E
TO ALL OUR NEW GEST FACULTY AND STAFF



GEST would like to welcome the following new faculty and staff Members.

- | | |
|---------------------|----------|
| Dr. James Coakley | Code 913 |
| Dr. Peter Colarco | Code 916 |
| Dr. Daniel Laughlin | Code 900 |
| Dr. Dan Lubin | Code 916 |



NEW ARRIVALS



Congratulations to Dr. ChiaoJiao Sun and her husband Machiel Vanderstelt on the birth of their baby boy, Daniel Jonathan Vanderstelt, born November 9, 2002 - 5 lb. 4 oz (2.393 kg), 18.75 inches (47.5 cm). Little Daniel arrived 6 weeks ahead of time, but is doing fine.

GEST EMPLOYMENT OPPORTUNITIES

GEST 923-37-170 - VIIRS Validation Techniques

A Research Associate position is available to work on validation techniques for land surface products and algorithms for the Visible and Infrared Imaging Radiometer Suite (VIIRS). VIIRS is a MODIS-like sensor to fly on the National Polar Orbiting Operational Satellite System (NPOESS) and the NPOESS Preparatory Project (NPP; launch: ~2005). MODIS data will be used as a surrogate for VIIRS data together with field, aircraft, and satellite data from SAFARI-2000, LBA and EOS Core Sites. We seek a motivated individual capable of producing results publishable in refereed journals. Participants may wish to propose for upcoming NASA missions and other programs.

Requirements:

Ph.D. in remote sensing, Earth science or related field, experience with vegetation bidirectional reflectance models, spatial data analysis, and moderate resolution (e.g., MODIS, AVHRR, POLDER) satellite data, and excellent C/C++, IDL or Fortran programming skills. Experience with fine resolution satellite data (e.g., IKONOS, Landsat) and HDF-EOS, and knowledge of radiative transfer and vegetation process models, is desirable but not required. Previous applicants need not reapply.

Note:

Applicants should identify the position by number on a cover letter which includes home address and visa status, if any, and submit it together with a complete curriculum vitae, including the names, addresses, and telephone numbers of three references, to L. Anathia Brooks, GEST Center, Code 900.1, Goddard Space Flight Center, Greenbelt, MD 20771. Email applications will not be accepted. Applications are requested prior to November 22, 2002, although the position remains open until filled.

OTHER IMPORTANT DATES

5TH of each month

Monthly time sheets due into GEST Office

Jan. W2 received at home by Jan 31

Feb. GEST Annual Report input due to Faculty Group Spokesperson

Mar. UMBC Faculty Annual Report (FAR) due

Apr. Deadline for filing Federal and State tax returns April 15th.

May GEST Quarterly Faculty Meeting May 21st.

June UMBC Fiscal year closes June 30th. All expense forms due in by early June

July GEST Annual Research Program Plan distributed (ARPP)

Aug. No health insurance taken out of pay one cycle

Sept. Consulting Report due to Nancy
Labor Day Holiday September 2, 2002
GEST Faculty Quarterly Meeting Schedule - Sept. 19, 2002 - UMBC
NASA Fiscal Year ends Sept. 30

Oct. Faculty Meeting Columbus Day Holiday - October 14, 2002

Nov. Veterans Holiday - November 11, 2002

Open enrollment for Health Plans - November 12 –December 6, 2002.

Thanksgiving - November 27, 2002

Dec. All non-US citizens must file new Citizenship Status Form and W4

Christmas
GEST Faculty Quarterly Meeting Schedule Dec. 18, 2002 UMBC
Moving expenses this year taxed final paycheck of year

REMINDERS

December Quarterly Meeting

Please plan to attend the December Faculty Quarterly Meeting - 12/18 @ 8:30 a.m. - Tech Center. We will also have a small celebration to **kick off** the Holiday Season. This is also a good time to wish your colleagues a Happy New Year.

Travel

Please don't forget to complete a Request for Travel form each time you travel. This includes trips that are being funded by outside sources. This is to ensure that as a UMBC employee you are covered for liability insurance should you have an accident on the trip. Having prior travel approval also ensures smoother processing should the need arise to claim Workman's Compensation (another area of protection for you should an accident occur while you're traveling).

Time Sheets

These forms are available electronically by contacting Nancy Flowers at flowers@umbc.edu. At the end of each calendar month you should print out the completed form, sign it, and bring the form to the GEST Office in Building 28, Room W223, or PROMPT MAIL it to the same address, Code 900.1. These forms will be used to track your leave, and ensure that your pay is correct. It is therefore, essential that these be turned in by the fifth working day of the subsequent month.

Expense Reimbursements

The traveler may copy an expense statement to claim reimbursement and forward the completed copy, along with a **blank signed** expense statement to the UMBC GEST office. Contact Nancy Flowers at the UMBC GEST office (410 455-8899) to verify if signed forms are on hand. If travel was for an extended period, i.e., more than 7 days, more than one blank, signed expense statement should be submitted with the original receipts. Blank expense statements may be acquired from the GEST office at Goddard or the UMBC GEST office.

All Travel Requests, Time Sheets and Expense Reimbursements are to be submitted to Nancy Flowers at: flowers@umbc.edu.

GEST Website

Please don't forget to check out our (GEST) website at: <http://gest.umbc.edu>.

GEST Faculty Quarterly Meetings

September 19, 2002

December 18, 2002

February 19, 2003

May 21, 2003

GEST Council Meetings

December 17, 2002 1:00 pm – 3:00 pm
Technology Center - 3.009

January 21, 2003 1:00 pm – 3:00 pm
Technology Center - 3.009

February 18, 2003 1:00 pm – 3:00 pm
Technology Center - 3.009

March 18, 2003 1:00 pm – 3:00 pm
Technology Center - 3.009

April 15, 2003 1:00 pm – 3:00 pm
Technology Center - 3.009

May 20, 2003 1:00 pm – 3:00 pm
Technology Center - 3.009

TIPS FOR SUCCESS



SLEEP AT LEAST 8 HOURS A DAY

PUBLICATIONS & SEMINARS

PUBLICATIONS

C.K. Gatebe

C. K. Gatebe, M.D. King, S. Platnick, G. T. Arnold, E.F., Vermote, and B. Schmid (2002). Airborne Spectral Measurements of Surface-Atmosphere anisotropy for Several Surfaces and Ecosystem over Southern Africa, JCG (in press).

SEMINARS

James Coakley

GEST Visiting Scientist Seminar, "Man-made Haze, Clouds, and Climate Change" - October 15 at UMBC, Baltimore, MD.

Susan Hobban/Daniel Laughlin

Robotics Exercise Report - 10.24.2002

Susan Hoban, Daniel Laughlin and Karol Hennessey ran a 45-minute workshop on principles of robotics for the Cooperative Satellite Learning Program's (CSLP) student conference at Goddard Space Flight Center, October 24, 2002. Two groups of four students participated in a simulation of the process of running a mission to explore Mars with a robot. The exercise was designed to teach participants about the principles that govern the process of operating a robot and potential difficulties that may be encountered during a remote mission, such as the upcoming 2003 rover mission to Mars. After a short overview presentation, the students were divided into teams. One student acted as the robot and was blindfolded for the duration of the "mission," one student mapped the landing zone, and the remaining two team members tested the robot in an environment dubbed "Arizona" for the exercise. After a trial period to familiarize themselves with the capacity and limitations of their robots in Arizona, the mission to Mars was launched

The teams were moved to separate offices where they could see their robots on Mars via webcam. The teams wrote program sequences using a prescribed vocabulary on index cards to be executed by the robot. Runners from each team "uploaded" the command sequences to their robots in a mock Martian landscape. The runners read the command sequence to the blindfolded robots, and the robots repeated the instructions. If "handshaking" was successful, the robot executed the sequence. If the robot made a mistake, the facilitator stepped in and placed the robot in "safe-hold" and the team had to upload a new command sequence. If the robot made a mistake, the facilitator stepped in and placed the robot in "safe-hold" and the team had to upload a new command sequence. The teams competed to maneuver their robots to a predetermined location to collect a sample (Mars Bars). The winning team got to eat the samples.

This activity serves as an example of how technology can be integrated into a lesson to enrich an educational experience, rather than simply using the internet as a delivery mechanism for traditionally paper-based activities. The exercise was based on constructivist educational theory providing for hands-on and problem-based learning. Working collaboratively, the teams had to solve problems as they discovered them on the road to completing their overall task. "It was exciting to see the kids problem solving" according to Don Robinson-Boonstra from the CSLP group. One teacher said, "The exercise clearly encouraged team building and problem solving." The students and their teachers enjoyed and appreciated the activity. Hoban, Laughlin, and Hennessey have been asked to run the same program for teachers with CSLP in January, 2003. Plans are underway to develop an online competition for elementary school students based on this activity.

SEMINARS CONTINUED

Charles Gatebe

J. L. Privette, M. Mukulabai, C. Gatebe and C. Schaaf Evaluation of the MODIS BRDF/Albedo Products over Zamabia Using Aircraft and Tower-based Measurements. SAFARI 2000 Synthesis Workshop, University of Virginia, Charlottesville, Oct. 7-11, 2002

C.K. Gatebe, M.D. King, S. Platnick, G.T. Arnold, E.F. Vermote and B. Schmid, POSTER: Airborne Multi-Spectral Measurements of Surface-Atmosphere Anisotropy for Several Surfaces and Ecosystem over Southern, SAFARI 2000 Synthesis Workshop, University of Virginia, Charlottesville, Oct. 7-11, 2002.

C.K. Gatebe, M.D. King, S. Platnick, G.T. Arnold, E.F. Vermote and B. Schmid, POSTER: Airborne Multi-Spectral Measurements of Surface-Atmosphere Anisotropy for Several Surfaces and Ecosystem over Southern, Africa, MODIS Workshop on Land Surface Radiation Budget Variables and Snow and Ice Products, Boston University Oct. 21-22, 2002.

C.K. Gatebe - CEOS/WGCV/Land Product Validation Workshop on Albedo held at Boston University on October 22-24, 2002.

Jon Gottschalck

MODIS Land Surface Variables Workshop in Boston, MA, October 21-22, 2002.

Judit Pap

Chaired the "Solar Variability and Climate Change" symposium, sponsored by COSPAR D2.3/3.3 commissions and by SCOSTEP, ISCS, IAMAS, NASA, NSF and ESA - Houston, TX between Oct 10-12. The 2.5 days meeting was very successful, with approximately 100 attendees each day.

Yihua Wu

GRC Conference on BIOGENIC HYDROCARBONS & THE ATMOSPHERE and the BVOC Emissions Workshop in England from 9/2-9/12.

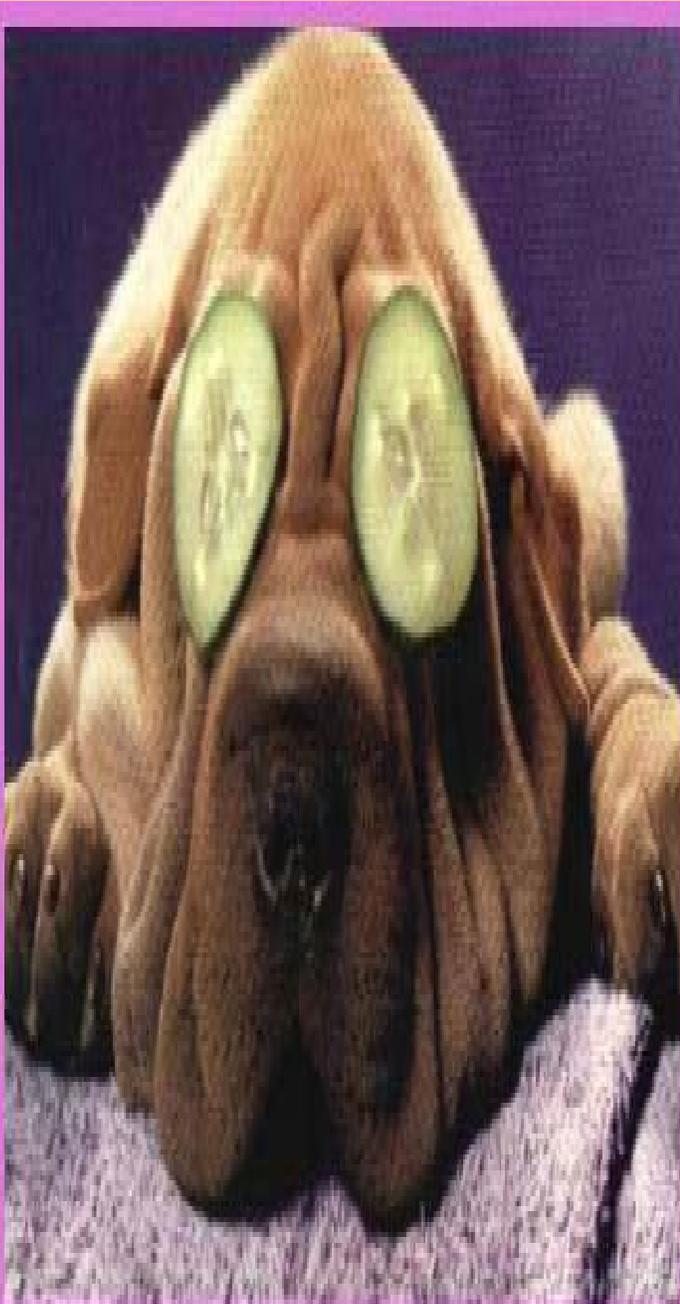
Xiwu Zhan

X. Zhan attended NASA's AMSR_E Science and Validation team meeting in Santa Rosa, California and gave a presentation on "Soil moisture data assimilation" on Sept. 9-10, 2002.

X. Zhan attended SPIE's Third International Asia-Pacific Environmental Remote Sensing Symposium 2002 "Remote Sensing of the Atmosphere, Ocean, Environment, and Space" to give an invited presentation titled "Monitoring the hydrologic and vegetation dynamics of semi-arid and arid land with field-measurement, satellite remote sensing, and land surface modeling" in Hangzhou, China on Oct. 24-27, 2002.

X. Zhan was invited to chair two sessions for the conference of "Ecosystem Dynamics, Ecosystem-Society Interactions, and Remote Sensing Applications for Semi-arid and Arid Land" of the SPIE's Third International Asia-Pacific Environmental Remote Sensing Symposium 2002 held in Hangzhou, China on Oct. 24-27, 2002. The two sessions are "Session 6: Application of Remote Sensing Technology in Arid and Semi-Arid Ecosystem II" and "Session 7: Climate Change and Water Resources Management I."

TIPS: How To Be Successful



PAMPER YOURSELF, TAKE CARE OF YOUR BODY

GODDARD EARTH SCIENCES AND TECHNOLOGY CENTER



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WE'RE ON THE WEB AT
[HTTP://GEST.UMBC.EDU/](http://gest.umbc.edu/)

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NEWSLETTER TO

roscoe@umbc.edu

prior to the 15th of each month