



I love to watch the TED Talks. If you are unaware of these talks, see the Top Ten list below. In preparing this newsletter, I really got behind by watching several of the TED talks that made it to the top ten list. A few of the top ten I had previously viewed, and I use the Schools Kill Creativity talk in my entrepreneurship course to stimulate a discussion on creativity. These talks are all very addictive. I am sure you will enjoy them.

Many thanks to Joe Morgan, who helped me to take apart the large format printer and replace the drive belt. Yes, we had to take the entire device completely apart to put a new belt on it. The old belt shredded from age and use. The new belt seems to be working great. Let Joe or me know if you have any problems with the printer.

Finally, I have to comment on the news of finding the Higgs Boson. Nature has had fun with physicists as we try to understand the sub-atomic world. Our models of atoms and structures that comprise the atom have been shown to be wrong time and time, again. As physicists, we have never wanted to admit defeat, so we revise and complicate our models. The current model, called the Standard Model was developed in the 1960's. Amazingly, this model has been valid for 50 years. The Higgs Boson is necessary in the Standard Model to give mass to particles. If the Higgs Boson were not found, it would mean going back to the "drawing board" and modifying the Standard Model one more time to explain the nature of the universe. Finding the Higgs Boson is a nice pat on the back, and an indication that maybe we do understand things—in particular the subatomic components of our universe. Whatever comfort we gain from finding the Higgs Boson, there is still a "skittishness" in the physics community. It has happened before, and we know it will happen again, the light at the end of the tunnel is an on-coming train! Hence, the excitement and the caution by the physicists at CERN when announcing the Higgs Boson. Now, that we found it, if we could just "disengage" the Higgs Boson, we would be able to "beam me up, Scotty" as popularized by Star Trek.

-- Lou

#### Department News

##### **Meeting with Chemists**

Chemistry faculty members will meet at 3:30 PM on Wednesday 18 July to discuss the position in organic chemistry. It is important that all the faculty members attend. Judy Harrison from HR will discuss the selection and interview process with us.

### **National Research Council Fellowships**

The National Research Council of the National Academies sponsors a number of awards for graduate, postdoctoral and senior researchers at [participating federal laboratories and affiliated institutions](#). These awards include generous stipends ranging from \$42,000 - \$75,000 per year for recent Ph.D. recipients, and higher for additional experience. [Graduate](#) entry level stipends begin at \$30,000. These awards provide the opportunity for recipients to do independent research in some of the best-equipped and staffed laboratories in the U.S. Research opportunities are open to U.S. citizens, permanent residents, and for some of the laboratories, foreign nationals.

Detailed program information, including online applications, instructions on [how to apply](#) and a [list of participating laboratories](#), is available on the NRC Research Associateship Programs at: [www.nationalacademies.org/rap](http://www.nationalacademies.org/rap).

Questions should be directed to the NRC at 202-334-2760 (phone) or [rap@nas.edu](mailto:rap@nas.edu).

There are four annual review cycles.

Review Cycle: **November**; Opens September 1; Closes November 1

Review Cycle: **February**; Opens December 1; Closes February 1

Review Cycle: **May**; Opens March 1; Closes May 1

Review Cycle: **August**; Opens June 1; Closes August 1

Applicants should contact prospective Adviser(s) at the lab(s) prior to the application deadline to discuss their research interests and funding opportunities.

### **University News**

#### **Retirement Reception Planned for Dr. William Carr on July 23**

The College of Graduate Studies and Continuing Education cordially invites you to a retirement reception honoring Dr. William D. Carr. The reception will be held at the Houston Cole Library, 12th floor, on July 23, from 3 - 5 p.m. Dr. Carr has served as the Dean of the College of Graduate Studies and Continuing Education since joining Jacksonville State University in 1982. Prior to Jacksonville State University, Dr. Carr held the position of the Associate Executive Director for Academic Affairs with the Alabama Commission on Higher Education in Montgomery, Alabama, from 1977 - 1982. Dr. Carr holds degrees from the University of Oklahoma (B.A. in Political Science), the University of Texas at Austin (M.B.A. in Business Administration, and Florida State University (Ph.D. in Higher Education).

#### **PEEHIP On Campus July 19 for Open Enrollment Meetings**

By now, you should have received from PEEHIP, information regarding the 2012-2013 Open Enrollment period. PEEHIP will be on campus July 19th holding informational meetings to communicate plan changes, effective October 1, 2012. We strongly encourage you to attend one of the scheduled sessions. **YOU DO NOT HAVE TO RSVP TO ATTEND.**

Meetings will be held at Self Hall - Room 236 as follows:

Thursday, July 19, 2012 10:00 am, 11:00 am and 2:30 pm

If you have questions regarding the scheduled meetings or open enrollment changes, please feel free to contact the Office of Human Resources at ext. 8893 or visit HR's open enrollment page at [http://www.jsu.edu/hr/open\\_enrollment.html](http://www.jsu.edu/hr/open_enrollment.html).

## Visiting Faculty Notice

### **VISITING FACULTY PROGRAM: THE UNITED STATES AIR FORCE ACADEMY**

The Visiting Faculty Program provides visiting civilian educators from institutions of higher education to the Air Force Academy. To be eligible for the Visiting Faculty Program, visiting professors must be career employees at their home institution before beginning their Academy assignment and must return to their home institution following their Academy assignment. Applicants should possess a minimum of a Master's degree. Although a Ph.D. is not required, preference will be given to individuals possessing terminal degrees in their disciplines.

#### **Assignment Status**

Visiting faculty members will be temporarily detailed to the Federal government. They will remain employees of either their institution of higher education for most purposes. The period of assignment will normally be for 10 3/4 months (approximately ~ 6 Jul through ~ 25 May). The Dean of the Faculty may approve requests to deviate from established assignment lengths.

#### **Assignment Costs**

Visiting faculty members will continue to receive their salaries from their institution of higher education. The Air Force Academy will reimburse the institution for the salary and the employer's contribution for basic fringe benefits such as health and life insurance, retirement, and social security. Overhead costs, or costs that are normally treated as overhead costs, will not be paid to the university. The college/university will submit quarterly billings to the Academy. All billings must include copies of supporting documentation such as payroll vouchers.

#### **Point-Of-Contact:**

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## Top Ten List

### **The Top 10 TED Talks**

Source: <http://www.greatleadershipbydan.com/2010/02/brain-exercise-top-10-ted-talks.html>

For those not familiar with TED (from [the TED website](#)):

*TED is a small nonprofit devoted to Ideas Worth Spreading. It started out (in 1984) as a conference bringing together people from three worlds: Technology, Entertainment, Design. Since then its scope has become ever broader. Along with the annual TED Conference in Long Beach, California, and the TEDGlobal conference in Oxford UK, TED includes the award-winning TEDTalks video site, the Open Translation Program, the new TEDx community program, this year's TEDIndia Conference and the annual TED Prize.*

[If the links do not work, go to [www.ted.com](http://www.ted.com) and search for the speakers by name.]

1. [Johnny Lee demos Wii Remote hacks](#)

Building sophisticated educational tools out of cheap parts, Johnny Lee demos his cool Wii Remote hacks, which turn the \$40 video game controller into a digital whiteboard, a touchscreen and a head-mounted 3-D viewer.

2. [David Gallo shows underwater astonishments](#) (Incredible underwater footage!)

David Gallo shows jaw-dropping footage of amazing sea creatures, including a color-shifting cuttlefish, a perfectly camouflaged octopus, and a Times Square's worth of neon light displays from fish who live in the blackest depths of the ocean.

3. [Blaise Aguera y Arcas demos Photosynth](#)

Blaise Aguera y Arcas leads a dazzling demo of Photosynth, software that could transform the way we look at digital images. Using still photos culled from the Web, Photosynth builds breathtaking dreamscapes and lets us navigate them.

4. [Tony Robbins asks why we do what we do](#)

Tony Robbins discusses the "invisible forces" that motivate everyone's actions -- and high-fives Al Gore in the front row.

5. [Ken Robinson says schools kill creativity](#) (a lot of good lessons for trainers here too - many funny. *i.e.*, "If a man speaks his mind in a forest and no woman hears him, is he still wrong?")

Sir Ken Robinson makes an entertaining and profoundly moving case for creating an education system that nurtures (rather than undermines) creativity.

6. [Jill Bolte Taylor's stroke of insight](#) (this one is amazing!)

Jill Bolte Taylor got a research opportunity few brain scientists would wish for: She had a massive stroke, and watched as her brain functions -- motion, speech, self-awareness -- shut down one by one. An astonishing story.

7. [Arthur Benjamin does "Mathemagic"](#) (who knew math could be so much fun)

In a lively show, mathematician Arthur Benjamin races a team of calculators to figure out 3-digit squares, solves another massive mental equation and guesses a few birthdays. How does he do it? He'll tell you.

8. [Jeff Han demos his breakthrough touchscreen](#)

Jeff Han shows off a cheap, scalable multi-touch and pressure-sensitive computer screen interface that may spell the end of point-and-click.

9. [Hans Rosling shows the best stats you've ever seen](#) (talk about changing your worldview)

You've never seen data presented like this. With the drama and urgency of a sportscaster, statistics guru Hans Rosling debunks myths about the so-called "developing world."

10. [Kevin Kelly tells technology's epic story](#)

In this wide-ranging, thought-provoking talk from TEDxAmsterdam, Kevin Kelly muses on what technology means in our lives -- from its impact at the personal level to its place in the cosmos.

## Contact Details

If you have items of news or interest that you would like included in the Department of Physical and Earth Sciences newsletter, then contact **Tracy Casey** before noon on Thursdays at: [tscasey@jsu.edu](mailto:tscasey@jsu.edu) or phone (256) 782-5232.