Interview with a Professor: John Starkey

He teaches: 452, 565, & 463

Favorite Course: 565, but the other two are close

Favorite Food: Toasted Turkey Sandwich from Subway, or Mom’s Strawberry Pie

Favorite Color: Clear

Pet Peeve: The lb-mass

Favorite Sport: NASCAR

Favorite Type of Music: Contemporary Christian

Favorite Group or Singer: Far From Home (FFH)

Hobbies: He has many hobbies, but two of them are riding his off-road motorcycle with his son in Colorado, and leading a Contemporary Christian band at his church.

About His Family: He has 4 children, 3 biological and 1 he and his wife adopted when she was 11 months old. His children range in age from 3 years old to 20 years old. The oldest is a junior here at Purdue in Elementary Education. His family has a great sense of humor and enjoys camping out West together.

How Long Has He Been a Professor?: Since January of 1983, you do the math.

Why He Chose ME?: A few reasons, first, his dad was a ME professor at Ohio State. Second, he says he thinks like an engineer. And finally, since he was about 6 years old he has wanted to be a mechanical engineer.

What Made Him Want to be a Professor?: He enjoys the freedom of the schedule, summers off, and the one-on-one interaction with the students.

Where He Went to School: He earned his Bachelor’s and Master’s Degrees from Ohio State, where he had his father as a professor. He earned his Doctorate from Michigan State.

Stories From College: He and his PhD advisor ran in the Detroit Free Press Marathon, and he completed it.

His Current Research Topics: He has research in 2 different areas: vehicle dynamics, with predicting over steer and under steer, and the development of an electronically controlled continuously variable transmission.

Stories From Teaching: Last spring the fire alarm rang for 20 minutes during the final exam in his vehicle dynamics course. The students went outside, but he stayed inside with their exams and belongings and the very loud alarm.

What He Does in His Free Time: He has a shop in his barn where he does anything from home remodeling to woodworking and welding.

In His Opinion, The Most Difficult ME Course: Courses he remembers being difficult are, Thermodynamics II or anything to do with thermodynamics.
Our Advisor In The News
By: Megan Shortle

Our student section of ASME is very proud to have our advisor, Professor Gordon Pennock, published in the January issue of the Journal of Mechanical Design, published by the American Society of Mechanical Engineers. Pennock wrote the technical paper that was published, with Ofer Shai, a civil engineer in the Department of Mechanics, Materials and Systems at Tel Aviv University.

Pennock and Shai worked together to create new theorems that combine the mathematical methods of both statics and kinematics. These new theorems can be used to help create better designs for robots and buildings, among other things. The civil engineers will be able to use the duality between statics and kinematics to better design structures to withstand torques and moments caused by natural forces such as earthquakes. The mechanical engineers can use the duality to create robots that are more stable than before (one type is illustrated in the photo below).

The author of this article encourages students to read the article by the Purdue News Service; the web site is shown below. The article is very interesting and the theorems seem to have broad applications. If you are interested in the duality theorems or Professor Pennock’s work, the technical paper was to appear in January’s issue of the Journal of Mechanical Design. There is also an article on Professor Pennock and the paper at http://news.uns.purdue.edu/html4ever/2006/060111.Pennock_robots.html which is by the Purdue News Service. The information and photo for this article were found at the website shown above.


Student Activity Calendar
Weekly meetings are Mondays at 5:30 PM in ME 155

February
Feb 1 Newsletter Day, Free Orange Juice and Doughnuts in the Student and Faculty Lounges
Feb 4 Grand Prix Team, Driving Day, 10 AM, TBA
Feb 7 Impromptu Design Competition, TBA
Feb 9 Event with IIE, TBA
Feb 19-25 National Engineers Week
Feb 23 Lyondell Chemicals Presentation, 5:30 PM, ME 155
Feb 27 Halliburton Energy Services Presentation, 7:00 PM, ME 117
Feb 27 Abbott Labs Presentation, (tentative date)

March
March 1 Old Guard Early Career Engineer Essay Competition deadline
March 1 Old Guard Young Engineers Award
March 4 Spring Student Conference

Taking the FE exam??
If so...........

FE Review Manuals
(Latest Edition!)

FOR SALE
$55 each

Purchase your copy at the ASME Office, ME 258

Contact Ashwin at avaradar@purdue.edu for more information.
(This semester’s exam is on: April 22nd)
Congratulations to our NEW OFFICERS!

President: Bill Ross
Vice President: Nashley Mascarenhas
Ingersoll Rand Chair: Paul Lang
IR Sub chair: Matthew Swank
Treasurer: Jeff Becker
Fundraising Committee: Michael Minissale
Secretary: Megan Shortle
Publicity Committee: Mike Steel
Historian: Mirai Ito
Webmaster: Adam Mather
Activities Director: Anita Klimek
Social Committee: Adam Simpson
Programs Director: Chia Tan
Design Director: Donald Smith
Design Committee: Malhar Dave
ASME Relations: Ashwin Varadarajan
ASME Relations: Rahul Nayak
Grand Prix: Sarah Martin
Grand Prix: Neal Diez

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mshortle@purdue.edu
msteel@purdue.edu
amather@purdue.edu
aklimek@purdue.edu
tan23@purdue.edu
dasmit@purdue.edu
mdave@purdue.edu
avarad@purdue.edu
rnayak@purdue.edu
martin12@purdue.edu
ndiez@purdue.edu

Want to get more involved?

By: Megan Shortle

If you missed the call-out and elections, don’t worry, you can still join ASME and be involved! There are plenty of opportunities this semester to become more active in ASME. The new officers, listed above, would be happy to help you find a part of ASME you are interested in. We’re here to help. We are looking for people who want to help plan a conference we will be hosting next spring. We are also looking for students for committees and for students who just want to come to presentations and give us input on how to help other students. Here are a few ways to learn more about ASME:

- Come to one of our **WEEKLY MEETINGS**
  - Every Monday, 5:30 PM, ME 155
- Stop by our **OFFICE in ME 258**
  - If no one is there, look at the shaded times on the bulletin board and come back then
- Visit our **WEBSITE** at:
  - http://web.ics.purdue.edu/~asmepl/
- Send an **E-mail** to our President, Bill Ross at:
  - wross@purdue.edu

If you want to get involved with a specific committee or activity, you can contact the officer in charge of the committee directly using the list given above. We hope that all ME students interested come out and get involved this semester. Don’t forget, involvement looks great on your resume.

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Halliburton Energy Services Presentation

**Date:** Feb. 27th  
**Room:** ME 117  
**Time:** 7:00 pm  
**Food provided!**

**Info:** Halliburton is one of the world's largest providers of products and services to the oil and gas industries. Their products span the entire lifecycle of the production cycle.

Lyondell Chemical Presentation

**Presenter:** Kimberley Godby and Co-op students.  
**Date:** Feb. 23rd  
**Room:** ME 155  
**Time:** 5:30 pm  
**Food provided!**

**Info:** Come learn about opportunities for ME in the industry. Lyondell is a global leader in the manufacture of chemicals and polymers, building blocks for countless products that people around the world use every day.

Abbott Labs Presentation

Abbott Labs is planning on coming to present to our students this semester. The date and time have not been set yet. The presentation will hopefully take place this month. If you would like to learn more about Abbott Labs, please visit their website at: [http://www.abbott.com/](http://www.abbott.com/).

Newsletter Re-done

This is the first “re-done” issue of *Mechanica*. This semester the goal of the secretary of our student section, and the publicity committee is to make students more aware of the local ASME events as well as the national ASME news. If you have any ME news, or suggestions, please contact Megan Shortle at mshortle@purdue.edu, or Mike Steel at msteel@purdue.edu.
NEW INTERNSHIP OPPORTUNITY FOR EARLY CAREER ASME MEMBERS

ASME's Center for Leadership and Diversity is pleased to announce the creation of a new internship opportunity for early career ASME members. ECLIPSE, Early Career Leadership Intern Program to Serve Engineering, is a program designed to place early career engineers in highly visible and productive roles within the ASME organization. ASME believes that early career engineers can make significant contributions to its various units and is eager to encourage their active participation in all levels of the Society.

ECLIPSE is a competitive internship program. Applications are solicited in the December through February timeframe, with the selection of interns made in March. ECLIPSE participants are matched with a specific ASME unit for a period of one year. The interns work closely with an assigned mentor to complete one or more projects throughout the year. Internships commence at the Summer Annual Meeting (SAM) with an Early Career Leadership session. Interns also attend the IMECE in November, as well as training at the Leadership Development Conference. At the conclusion of the internship period, ECLIPSE participants are assisted in identifying opportunities for continued participation in ASME.

Participation in ECLIPSE is open to any ASME member who has served a minimum of three, but not more than 10, years in the workforce since completion of her/his engineering degree. ASME members who have previously served as Leadership Development Interns (LDIs) or Minority Leadership Program (MLP) interns are not eligible for participation in ECLIPSE, but are encouraged to serve as mentors.

Applicants should assume that they will need to attend several out of town meetings of approximately three days' duration during the internship period. The cost of attending those meeting will be partially covered by ASME in accordance with Society Policy P-4.5: reasonable transportation costs to attend pre-approved meetings are eligible for reimbursement, as are lodging and meal expenses up to a $100 per day per diem. All expense reimbursements are subject to budget limitations. ASME encourages cost sharing of these expenses with the interns' employers.

Additional information on ECLIPSE, as well as the application form, is available at www.asme.org. Select Communities/Early Careers/Mentoring. For additional information, contact Marian Heller, director of the Center for Leadership and Diversity, at hellerm@asme.org

Upcoming ASME Events

| S | L | S | T | L | G | I | K | D | F | R | T | S | A | P |
| Y | T | Y | T | G | O | C | O | M | P | A | N | I | E | S |
| F | T | E | O | M | V | O | J | J | D | O | E | O | F | F |
| V | Z | M | B | N | F | M | H | J | I | G | M | R | D | W |
| Z | M | K | B | R | D | P | H | T | M | O | E | T | C | F |
| O | S | L | A | E | T | E | A | D | P | E | V | K | B |
| U | Q | K | A | T | O | T | L | Y | R | B | L | P | H | M |
| N | K | Q | L | T | N | I | L | L | O | I | O | Y | K | X |
| X | X | N | U | E | Y | T | I | D | M | F | V | E | W | K |
| L | J | V | S | L | B | I | B | F | P | P | Z | N | I | K |
| H | U | E | V | S | F | O | U | Z | T | I | I | S | N | K |
| Z | R | T | K | W | H | N | R | L | U | G | Z | R | O | G |
| P | M | N | U | E | U | S | T | Q | Z | E | V | Z | G | F |
| M | C | F | L | N | S | V | O | S | W | S | X | Q | A | W |
| P | J | M | E | E | T | I | N | G | S | P | Y | R | K | U |

ABBOTT, COMPANIES, COMPETITIONS, DRIVING, FOOD, FREE, FUN, HALLIBURTON, IMPROMPTU, INVOLVEMENT, LYONDELL, MEETINGS, NEWSLETTER, PIZZA, PRESENTATIONS

2006 ASME Young Engineers Award Nominations Needed!

The ASME Old Guard Committee is accepting nominations for the 2006 Young Engineer Award. ASME members that have made great strides in the engineering profession, community and the work of the society and have continuous membership since becoming an ASME student member and earned a baccalaureate degree in Mechanical Engineering between the years March 1, 2000 - March 1, 2002 are eligible to apply.

The Grand Prize is $5000 including a prepaid life ASME membership. To learn more about the selection criteria and how to nominate, visit: http://staging.files.asme.org/asmeorg/Communities/EarlyCareer/8026.pdf
**Call For Nominations: ASME ABET Degree Program Evaluators**

From www.asme.org

The Center for Education is accepting nominations for ASME ABET Mechanical Engineering/Mechanical Engineering Technology and related degree program evaluators.

As a Participating Society of ABET Inc. (the Accreditation Board for Engineering and Technology), ASME is responsible for 428 degree programs in the U.S. and for establishing a diverse cadre of highly qualified and highly committed ME/MET Program Evaluators to assume the very sensitive and important role of assessing undergraduate degree programs against established criteria.

All ASME program evaluators must submit a completed nomination, be selected, participate in a training workshop, and serve as an observer on an on-campus evaluation team visit prior to being placed on the roster of "active" evaluators for a period of 5 years. Serving on an assessment team for a degree program is very professionally and personally rewarding and an important means of "giving back" to and supporting the future advancement of the engineering profession.

Qualifications:

- 10+ years professional experience in either industry, government, or academia
- ASME member in good standing
- Graduate degree a plus
- Women, minorities, and engineers working in industry or government are especially encouraged to apply

Additional information including an application form can be found at: www.asme.org/Education/CertifAccred/Become_Evaluator.cfm

Nominations should be submitted by March 30 and forwarded to: Amy Bentow, Manager, Education, ASME Three Park Avenue, New York, NY 10016. Phone: 1-212-591-7880 Email: bentowa@asme.org

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**New Community to Discuss ASME Web Site Available**

From www.asme.org

A new community called ASME Website has been formed within ASME’s Communities of Practice site for comments and feedback regarding the revamped ASME.org.

Access to the Communities of Practice site is open to members and nonmembers. To join this Community to provide your feedback, log on to www.cop.asme.org

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**ASME Connections On ASME.ORG**

From www.asme.org

At ASME Connections, meet the faces behind some of the successes so far, converse with other members at ASME’s growing Communities of Practice web forum, and learn about the new programs that are being developed by the Society at the New Initiatives link. You may also access a number of news outlets such as ASME News Online, InterComm, the quarterly news publication, and the ASME Press Room.

ASME Connections will be updated regularly. For additional information, contact Mel Torre, director, Communications at torrem@asme.org or 212 591 8157.

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**Katrina Loans Available for Eligible Students**

From www.asme.org

ASME has established a fast track student loan for mechanical engineering students who have been adversely affected by Hurricanes Katrina & Rita. Applications will be accepted on a continuous basis thru June 30, 2006.

For more information contact Maisha Phillips at (212) 591-7371 or PhillipsM@asme.org. Additional information can also be obtained by visiting the Web site at http://www.asme.org/education/enged/aid/loan.htm

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**ASME Solutions Provides The Tools For Success**

From www.asme.org

Today's new and expanding global market demands more than conventional thinking. Whatever your business, you need to build and maintain your engineering edge, with the insight and training that only comes from a leader. **ASME Solutions** is a powerful, comprehensive, and unique resource that provides industry-specific tools required for success. Through **ASME Solutions**, companies or institutions can partner with ASME to ensure a competitive edge.

Find out how to build a stronger engineering community and a better business environment. Visit http://www.asmesolutions.org
Ad
The ASME Old Guard Committee is accepting entries for an Early Career Engineer Essay Competition. All ASME members who have between 4-10 years work experience in professional practice since graduation may apply. An award of $1,000 plus a lifetime membership (valued at $2,500) will be given to the author of the winning essay. For more information, visit the Essay Competition webpage: http://www.asme.org/Communities/EarlyCareer/Early_Career_Engineer_Essay.cfm

Mechanical Advantage is accepting articles for the February 2006 issue. Mechanical Advantage is ASME's online student newsletter, which offers engineering students useful articles, program information and upcoming events and deadlines. Student submissions are highly encouraged!

For more information visit: http://www.asme.org/NewsPublicPolicy/Newsletters/Mechanical_advantage or contact Maisha Phillips, Coordinator, Student Development at phillipsm@asme.org

One Stop for ASME Member Support
From www.asme.org

Now that ASME has moved on from Continuity & Change to the Implementation phase, one of the obvious changes will be in how we support our members. Now that our field offices have been closed, member support has been consolidated in the ASME Information Central. Should you need to contact ASME with questions regarding your membership, you’ll only need to call one phone number, or send one email.

Phone: 800-843-2763
Phone: 001-800-843-2763 (Mexico)
Phone: 973-882-1170 (Outside North America)
Fax: 973-882-1717
Email: infocentral@asme.org

For a full list of contact information, please visit: http://regions.asme.org/closures

Call for Nominations: 2006 ASME Johnson & Johnson Medal
From www.asme.org

The Center for Leadership & Diversity is actively soliciting nominations for the 2006 ASME Johnson & Johnson Consumer Companies, Inc. Medal.

This medal recognizes outstanding contribution by an individual, company, government entity, school, or other organization towards developing and implementing practices, processes and programs that value and strategically manage diversity and inclusiveness. The award includes a medal, certificate and honorarium of $1,000. In addition, travel expenses of the recipient are reimbursed, in accordance with ASME Policy -4.5, to allow the recipient to attend the meeting at which the presentation of the medal is made.

The first recipient of the Medal, Dr. Joseph Bordogna, was recognized during the Honors Assembly at the 2005 Congress.

Nominations, along with a completed nominations packet, must be received no later than Feb.1, 2006. The ASME JJCCI Medal Nominations Committee will review the nominations, and a recommendation will be made to the Committee on Honors by no later than March 1, 2006.

Award applicants should be able to:

- Demonstrate alignment to the core values of ASME
- Demonstrate the effectiveness of their practices, processes and programs towards increasing the numbers of women and minorities within the multi-disciplines of mechanical engineering
- Demonstrate the impact of programs that are designed to include diverse participants and that create positive work and achievement environments for all participants.

In addition, award applicants:

- Must be a member of ASME or of a recognized engineering society;
- If an institution or organization, must have had an established program for a minimum of two years with more than 25 active participants; and,
- Must not have been involved in litigation related to discrimination or harassment within the past three years.

Additional information, as well as the nomination form itself, may be found at http://www.asme.org/honors/ms71/saa/johnson.html.
Nineteen ASME Student Sections have been awarded a total of $22,860 in grants from the Diversity Action Grant (DAG) Program. The DAG Program, supported by the Center for Leadership & Diversity, is a competitive program which awards grants ranging from $500 to $1,500 to ASME Student Sections to sponsor events which:

* Promote the inclusion of women and under-represented minorities in ASME Student Sections and in mechanical engineering;
* Inspire K-12 students to excel in science, technology, engineering and mathematics (STEM) education; and/or,
* Assist minority- and/or women-owned businesses solve engineering design problems.

ASME Student Sections receiving awards for the 2005-2006 academic year are as follows:

Baylor University; Cal Poly, San Luis Obispo; Central Washington University; Drexel University; Johns Hopkins University; Universidad del Turabo; University of California, Irvine; University of California, Riverside; University of Dayton; University of Evansville; University of Hartford; University of Illinois; University of Miami; University of New Hampshire; United States Military Academy/West Point; Virginia Commonwealth University; University of Louisville; University of Nevada, Las Vegas; Virginia Tech

The 19 proposals accepted for funding met the DAG program criteria. In addition, many included collaboration with other organizations or campus or within the community, cost sharing of associated expenses and a method for measuring the success of the project.

For additional information on the DAG Program, visit [http://www.asme.org/communities/diversities/bdo/dag.html](http://www.asme.org/communities/diversities/bdo/dag.html)

Solicitation of applications for the 2006-07 academic year will begin in September 2006. The application deadline will be Nov. 1, 2006.

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**Maze Madness:** Start at the opening on the left side and work your way in