PURDUE SCHOOL OF ENGINEERING AND TECHNOLOGY
Faculty Senate Minutes
May 11, 2010

Representatives in Attendance: Doug Acheson, Karen Alfrey, Sohel Anwar, Mark Bannatyne, Ed Berbari, Debra Burns, Jie Chen, Rongrong Chen, EJ Choe, Elaine Cooney, Jan Cowan, Eliza Du, David Goodman (alternate), Cliff Goodwin, Tom Ho, Connie Justice, Sarah Koskie (alternate), Feng Li (alternate), Roberta Lindsey, Emily McLaughlin, Peter Orono, Ken Rennels, John Schild, Erdogan Sener, Richard Walker (alternate),

Guests: Stephen Hundley, Marj Rush-Hovde, Dean Yurtseven

Presiding: Ken Rennels, Faculty Senate President

Meeting began at 11:05 a.m.

Ken Rennels asked everyone to look at the agenda for the meeting. Ed Berbari requested IUPUI Faculty Council report to be moved up on agenda since he needed to leave the meeting early. Ken Rennels advised IUPUI Faculty Council report could be given earlier, and agenda was approved with this change.

Ken Rennels asked everyone to look at the minutes from the April 2010 meeting. Copies of the minutes are not distributed at the meeting, but can be found at G:\COMMON\Senate documents in addition to being distributed to all faculty via the E&T Faculty email at least one week prior to each Faculty Senate meeting. A motion was made to accept the April 2010 minutes; all approved.

Administrative Report

Dr. Yurtseven advised Faculty Senate of the following:

Academic Programs:

Student credit hours are 15.7% ahead of last year for fall 2010 and the headcount is up by 9.6% for our school. Dr. Yurtseven advised the campus is up also in credit hours – retention rates have improved at IUPUI, more students are staying in school and we have a record number of applicants and students being admitted; expecting between 500-800 new students coming to campus. This increase will put pressure on our classes, especially introductory level classes and classes that other majors take from our school. Stephen Hundley is working with department chairs to make sure we have enough capacity in existing classes, to make sure we are offering enough sections, courses, etc.

The Energy Engineering BS is not on the report because the Indiana Commission on Higher Education has not approved this yet. We hope that the item will be on the ICHE agenda of the June 11, 2010 meeting.

Grants and Contracts:

Dr. Yurtseven advised the total grants and contracts for 2009-10 exceed $8.793M as of the end of April. The total for all of last year was $7.2M.

Hiroki Yokota (BME): NASA, New Research Award, 4/1/10-3/31-13, ICR: $105,195, Total: $300,000.

Razi Nalim (ME): Rolls Royce, Continuing Competitive Research Award, 1/1/10-12/321/10, ICR: $23,934, Total: $118,227.

Jie Chen (ME): NIH, Non-competing Research Award, 4/5/10-3/31/11, ICR: $94,428, Total: $292,428.

Faculty News:

Dr. Yurtseven noted Lauren Christopher's induction into the Consumer Electronics Hall of Fame, which is a big honor; before coming to IUPUI she was a top level manager at Thomson Electronics, then went back to school to get her Ph.D. and joined IUPUI.

Nancy Evans (CILT) received 2010 Curriculum Enhancement Grant ($5K) from the IUPUI Center for Teaching and Learning.

Eliza Du (ECE) received Release Time for Research Grant ($10K) for her proposal.

Razi Nalim (ME) received Release Time for Research Grant ($10K) for his proposal.

Scott Deal (MAT) received IUPUI Arts and Humanities Grant ($14,923) for his proposal.

Scott Deal (MAT) received IUPUI Conference Fund ($1,500) for his proposal.

Andrew Hsu (ME) received IUPUI Conference Fund ($1,500) for his proposal.

Dong Xie (BME) submitted invention disclosure to the IU Office of Technology Commercialization.

Huanmei Wu (CILT) and Indra Das submitted software disclosure and invention disclosure to the IU Office of Technology Commercialization.

Maher Rizkalla (ECE) and Jasmin Radadia submitted software disclosure.

Maher Rizkalla (ECE), An Feng, and Francis Bowen submitted invention disclosure.

Lauren Christopher (ECE) was inducted into Consumer Electronics Hall of Fame with 149 other luminaries such as Steve Jobs, Vladimir Zworykin, and Amar Bose, among others.

Eugenia Fernandez (CILT) was selected to be part of the "Women Creating Excellence at IUPUI: An Online Exhibit" at IUPUI.

Events:

There were a number of events.

The Department of Music and Arts Technology hosted the Intermedia Festival on April 23-25 at the Indianapolis Marion County Public Library and IUPUI Information and Communication Technology Complex. The festival was meant to be a one-time event, but there is pressure for this successful event to be held yearly.

The 2010 Chancellor's Academic Honors Convocation took place on April 16, which is an annual event. Kellen Knowles (BME), 3.983 GPA, was nominated from our school and received the Chancellor's

Scholar Award and Ed Berbari was also recognized as one of the Chancellor's Professor Awards. IUPUI had 3 honored this year for the Chancellor Professor Award.

Our junior student, Justin Penix (MET) won the 2010 (53rd) Purdue Grand Prix. This is the second time that IUPUI has dominated the race. President Cordova acknowledged this win during the commencement ceremonies.

Honors Convocation took place on April 23, 2010 at the Crown Plaza Hotel and we recognized a large number of students; recognized many staff and faculty also. The school gave $353K in scholarships and awards. The Distinguished Alumnus Award went to David Mills (BS-CIT, 1999).The faculty and staffs that were recognized are noted on Dr. Yurtseven's report.

IUPUI Spirit of Philanthropy Luncheon was held on April 22, 2010. The school recognized John Hayes (BS, Construction Technology, 1976) who was unable to attend due to illness. John is CEO of a large construction company in Kentucky.

Butler University Commencement took place on May 8, 2010. We had an informal dinner for these graduates a few days prior to the ceremony. We had ten Engineering Dual Degree Program Graduates.

IUPUI Commencement took place on May 9, 2010. The event was well attended. Dr. William M. Plater received an honorary Doctor of Humane Letters from Purdue University. Our school recognized Dr. Plater at our post commencement ceremony and Dr. Plater was our speaker. Dr. Plater's remarks will be attached to the Faculty Senate minutes of this meeting. Specific degree information can be found in Dr. Yurtseven's report.

Science and Engineering Laboratory Building (SELB):

This project is on the Higher Education agenda on Friday, May 14th, from there will go to the State for approval; in the meantime IU is interviewing companies for the design and architecture stage (end of June).

Budget:

No news at this time, governor has not come back to ask for additional funding; somewhat good news at this time. May income from the state was higher than expected.

For further details of the Dean's Report see Attachment 1.

Associate Dean's Report

Stephen Hundley presented the following report. The Associate Dean Report can also be found under Attachment 2 at the end of this report.

The numbers in terms of enrollments and applications are up considerably from this time last year. In comparison with IUPUI we are consistent with or much better than the rest of the campus and we are increasing the number of students who are returning to school and those attending IUPUI for the first time. The campus is calling this a "Student Surge." We need to rethink how we will manage the increase in students. Between the hours of 10:00 a.m. - 2:00 p.m. there is no campus space available this fall, will need to look into early morning, 7:30 a.m. starts, or between 2:00-5:45 p.m. Hundley encouraged faculty to think about non peak times, online and hybrid offerings, late start, or 8 week offerings. The campus

also resigned their contract with the Carmel location (parking challenges at this location). Greenwood and Park 100 have some space available also.

Hundley advised a group met regarding space issues recently, will meet again May 25th…look at spring semester, also want to look at upcoming summer and fall semesters. Hundley is challenging and encouraging departments to look at upcoming summer and fall semesters so we can proactively look at space and help students figure out their course layout. Campus needs to make better use of the summer semesters, especially summer 2; students want the campus to be year round.

ABET work is continuing, final reports are due in June.

The Minor in Interior Design and the Honor's Minor in Leadership cleared the Academic Policies and Procedures Committee approval and will now advance to Dean Sukhatme's office for final approval. Hundley congratulated Emily for the Interior Design Minor.

GREAT Environments – have done some focus groups around Oncourse and have done some additional focus groups on how students perceive their experiences with our school. This highlights what we already know, that students love IUPUI because of its big university stature, but its small personal touch feel. Some areas that attract students are the reputation of the program, ability to meet students and instructors while here in decision making mode, and they enjoy the local involvement with businesses and city of Indianapolis. Results from the focus groups will be shared once information is finalized.

Hundley noted he is currently meeting with department chairs individually to discuss what has worked well this past year, what are their needs from the Dean's office going forward, and will also be looking at what are some appropriate faculty development opportunities. Some areas of faculty development discussed this year are converting courses to hybrid and creating learning environments to help safeguard against academic misconduct. The school works with representatives from the Center for Teaching and Learning on faculty development. If you have general topic ideas please forward them to Stephen.

Hundley noted that the campus is accredited every 10 years through the regional accrediting body. Activities are underway to prepare IUPUI for the 2012 reaccreditation visit by Higher Learning Commission/North Central Association. More details will be rolled out this fall. We can help support this endeavor by maintaining our school accreditations; E&T can also contribute to PUL evaluation framework, which is IUPUI's general education framework. This is something our regional accreditor will pay special attention to during this accreditation cycle. Karen Alfrey and Elaine Cooney, and colleagues from the Undergraduate Education Committee and Assessment Committee will be sharing more information with you.

Associate Dean for Research and Graduate Programs

Dean Andrew Hsu advised he wanted to give some numbers for his last report.

Our graduate engineering program is ranked nationally, 107 in the US News and World Report. The following schools are ranked with us: Clarkson University in New York, George Washington University, Tulane in New Orleans, University of Alabama in Huntsville, and University of Maryland in Baltimore County. What is more interesting is to see who is behind us, University of Alabama Tuscaloosa, who is the flagship campus in Alabama, West Virginia University who is the flagship university in West Virginia. Dean Hsu feels this is something we should all be very proud of.

Research is at $8.793M, as of the end of April, and we have about $2M awarded that we know of. Dean Hsu believes it is safe to say that the research dollars will go up by the end of the year to around $11M.

We are currently neck to neck with School of Science and hope that we will exceed Science this year. If you look at the history of our research it was around $2M for many years, catching up to Science now. Included some information about awards by department for this year; Biomedical Engineering is #1, and ME is #2 so far.

Dean Hsu provided handouts with regards to graduate education that showed enrollment last fall at 251, used to be at 118, we have more than doubled our graduate enrollment. Part of the increase is due to the addition of Music and Arts Technology who has 51 students. The rest of the school has 200 enrolled in the graduate program.

Budgetary Affairs Committee – No Report

Computing Resources Committee (CRC) - No Report

Constitution and Bylaws Committee - No Report

Graduate Education Committee – No Report

Grievance Board – No Report

Faculty Affairs Committee

Marj Rush Hovde advised she sent out drafts of the Promotion and Tenure document. Hovde received a few comments, questioning items in red…campus guidelines show information is under teaching. There have been no other changes since the last discussion in April. Hovde advised the document was distributed to all chairs and faculty, and has received some feedback.

Faculty Senate unanimously approved the revised Promotion and Tenure document as presented.

Mark Bannatyne asked where the document will be housed. Hovde advised the P&T document will be under the school website, Faculty and Staff, Documents, and a revised template to fit the new guidelines will also be posted. Faculty now getting hired this summer and fall will follow these new guidelines.

Hovde noted that she will be passing on to next year's Faculty Affairs Committee is to work on a Faculty Handbook. The information is on the website, but need a handbook.

Faculty Senate applauded Marj and her committee for their work this year.

Nominations – No Report

Resource Policy Committee – No Report

Student Affairs Committee – No Report

Undergraduate Education Committee

Karen Alfrey advised there were two main action items. The first one is to approve three new Music and Arts Technology courses.

MUS-N 310 Music Technology I
MUS-N 320 Music Technology II

MUS-N 410 Music Technology III

Roberta Lindsey advised that MAT has two sets of sequence courses for the Bachelors in Music Technology. The first set of courses is musicianship courses and was previously approved. The second set, which starts in the junior year, is the music technology sequence comprised of three classes noted above, and culminates with a capstone that is yet to be brought forward.

The first course, MUS-N 310, is the foundation for music technology sequence, gives students a basic understanding of the hardware and software tools for creating, editing, and recording music. This does not step on anyone's toes in other departments. Because some students may eventually end up in a recording studio they need to understand how the boards work, what kind of language is used, and the basic techniques used in producing music.

The second course, MUS-N 320, looks at the history of music software and how it has evolved and gone forward from very simple into more and more interactive systems and special devices that can now take something like a computer and turn it into a musical instrument itself.

The third course, MUS-N 410, is where students will work in very specific teams with experts in the field. The department will bring in at least four specialists, which will be overseen by the department. The experts will assist the students in learning how to take all of the areas they have learned and apply them to real life situations, and create their own musical instrument, musical software, or a business plan for a new music company that they will market.

Faculty Senate unanimously approved MUS-N 310 Music Technology I, 6 credit hours; MUS-N 320 Music Technology II, 3 credit hours; MUS-N 410 Music Technology III, 3 credit hours

Karen Alfrey advised the next action item is reporting of PUL data for Engineering and Technology. Everyone has received emails regarding that starting this spring we will collect assessment data not only on the discipline specific outcomes specified by ABET, but also begin to collect data on PULs for the campus 2012 accreditation. Getting this process in place has been an arduous and political process. The way things stand now, particularly schools that are not yet familiar with the purpose and processes of assessment there has been a lot of worry that the data is meant to be used to guide decisions about individual faculty members rather than to actually guide decisions regarding programs. For this reason a number of faculty and other schools have demanded that the PUL data gathered by campus should only be reported back at the level of individual schools. All 100 level courses in the aggregate have these results; all 200 level courses in the aggregate have these results, etc. Because the School of E&T is made up of many diverse programs, reporting back all of the data for all 100 level courses across E&T is practically meaningless. In discussions with IMIR, how can we get data back that will be useful to us and supplement the data we are already gathering for our program, the Undergraduate Education Committee would like to ask Faculty Senate to endorse that IMIR be allowed to report to the school not just at the aggregate school level but at the individual program level. The committee voted unanimously to report at program rather than school level. Elaine Cooney advised the Assessment Committee had the same discussion and also requested Faculty Senate approve this request.

Alfrey noted we have a another useful pool of supplemental data that we could potentially use in useful ways to tell a better story about what it is we are doing in our programs with this data.

Ken Rennels asked if there is a reason for program level rather than course level. Alfrey noted the committee discussed this, they have reiterated that the concern is that in a department one faculty member may teach every section in a course; there is concern that data may be an issue for this reason. This may be revisited at a later date.

Stephen Hundley noted what this will mean from a pragmatic standpoint, on behalf of the school, he can work with Karen to send a note to the Institutional Review Board to write up a framework for this so they can request this from IMIR.

Debra Burns asked if there is any reason why we cannot get the raw data; Alfrey advised that UITS collects it, then data goes to IMIR, and we have to ask IMIR to send the data in certain way. If individual faculty members are willing to bring forward their data in discussions with their departments, this can still happen at the campus level.

Faculty Senate unanimously approved endorsing the policy from the Undergraduate Education Committee regarding the PUL data.

IUPUI Faculty Council

Ed Berbari reported on the following information from the IUPUI Faculty Council.

The Chancellors report included acknowledgement of Dr. Yurtseven's retirement and the President of the Faculty Council, Simon Atkinson, presented Dr. Yurtseven with the Bepko Service award. This award is given to senior administrators.

Chancellor noted the tennis center will be closed in August and torn down; NCAA will be building a new building on the site, and a new garage will also be built on this area, which should be available Fall 2011.

Enrollments and retention comments similar to others we just heard in this report.

Simon Atkinson also reported that the campus committee is looking at export control research (publication restrictions), will look at this later.

Parking update from Emily Wren, all of the new spaces from new garage will be used by advance enrollment. May not be much relief in sight. The new Wishard site will also be building a parking structure, which will be available until the new hospital is built.

Presentation from the Faculty Benefits Committee discussing a new Health Engagement Initiative which has to do with giving people financial incentives for staying healthy and is also based on salary level. The program is for employees, spouses, and domestic partners covered by IU. It is not for children.

Board of Review Committee commented there were three cases handled.

Elections recently held; Ken Rennels was elected to the Undergraduate Curriculum Advisory Committee.

Cliff Goodwin and Ed Berbari were elected to University Faculty Council

Athletics Committee Report – this committee also oversees varsity and intramural athletics. IUPUI spends very little on athletics compared to other peer universities. Some other universities charge a lot more for athletics. We have a voluntary athletics fee. Discussed variety of sanctions that were self reported by our campus; Berbari's thought that previous person was here not monitoring student's academics. Still an institutional issue, in terms of what UC is responsible for…not doing a good job of moving students into other programs in a timely manner. Student progress reports are a big issue with NCAA (Berbari is not sure this institutional weakness has been looked at).

Parking report - if you park in any garage renew your permit early, and there will be a limited number of A and B parking stickers sold this year. They will not over sell the garage permits, but will oversell the others.

For details on the above information and all other IUPUI Faculty Council meeting notes, please look at their website: www.iupui.edu/~fcouncil.

Purdue Intercampus Faculty

Mark Bannatyne advised during the last meeting the committee resolved to meet more often, and the next meeting will be September. President of Faculty Senate is taking this committee over.

Purdue Technology Senate – No Report

Purdue Faculty Senate

Mark Bannatyne advised the last meeting in West Lafayette was here a couple weeks ago, will be replaced by a School of Science representative next year. Mark always tries to ask one question so that IUPUI is reflected in their minutes. Bannatyne asked the president if she has any intentions to open an office here on campus; she advised this will not happen.

Most discussion revolves around what is happening around Purdue campus. Majority voted to keep plans of study active for years past their dissolution; if a person started this year, in fall 2010, in a course of study, and by 2011 decided it was not for them they could transfer to any other program that was active in fall 2010, and they have 6 years to do this. A student has to be continually pursuing a degree. Bannatyne advised this would be hard on advisors and faculty. Several objected to it, perpetuating plan of study after it is involved. This will not affect our campus, but remember that students who transfer from Purdue may come in with old plans of study that do not exist.

No more discussion about benefits; receive benefits as pay, may happen.

IUPUI Council of Associate Deans for Research - No Report

Assessment Committee – No Report

New Business

Ken Rennels reminded everyone that this is Dr Yurtseven's last Faculty Senate meeting. Dr. Yurtseven's retirement reception will be on Friday, June 18th, 4:00-7:00 p.m., University Place Hotel, Scholars Hall.

The last order of business is an action item from the Agenda Committee, who produced a Resolution on behalf of Dr. Yurtseven. Rennels read part of the resolution, which can be found at the end of this report, Attachment 4. Faculty Senate stood and recognized Dr. Yurtseven with applause.

Dr. Yurtseven thanked Faculty Senate and advised the Resolution was a great honor. Dr. Yurtseven advised he always believed in faculty governance and hopes the process continues. Dr. Yurtseven noted that Faculty Senate is a good school tradition, along with staff council, department meetings, student council and other advisory boards. This tradition is very significant. Dr. Yurtseven has appreciated the advice over the years from the faculty and staff and is honored to be part of the school.

Meeting ended at 12:15 p.m. The next Faculty Senate meeting will be Tuesday, September 14, 2010, 11:00 a.m. in SL 165.

Attachment 1: Administrative Report from Dr. Yurtseven

Dean's Report for May 11, 2010 Faculty Senate Meeting

Academic Programs

- The student credit hours are 15.7% ahead of last year for fall 2010 for our school and the headcount is also up by 9.0%.

Grants and Contracts

- Total grants and contracts for 2009-10 have exceeded $8.793M as of end of April. The total for all of last year was $7.2M.
- Hiroki Yokota (BME): NASA, New Research Award, Integrated Stress Response in Space, 4/1/10-3/31-13, ICR: $105,195, Total: $300,000.
- Razi Nalim (ME): Rolls Royce, Continuing Competitive Research Award, "Methods Development for Wave Rotor Combustion Design", 1/1/10-12/31/10, ICR: $23,934, Total: $118,227.
- Jie Chen (ME): NIH, Non-competing Research Award, "Evaluation of Canine Retraction Strategies", 4/5/10-3/31/11, ICR: $94,428, Total: $292,428.

Faculty News

- Nancy Evans (CILT) received 2010 Curriculum Enhancement Grant ($5K) from the IUPUI Center for Teaching and Learning.
- Eliza Du (ECE) received Release Time for Research grant ($10K) for her proposal, "Video-based Multimodal Detection of Human Deceit".
- Razi Nalim (ME) received Release Time for Research grant ($10K) for his proposal, "Vortex Mining and Ignition in Transient Confined Gas Jets for Constant-Volume Combustors".
- Scott Deal (MAT) received IUPUI Arts and Humanities Grant ($14,923) for his proposal, "Auksalaq Telematic Production".
- Scott Deal (MAT) received IUPUI Conference Fund ($1,500) for his proposal, Intermedia Festival".
- Andrew Hsu (ME) received IUPUI Conference Fund ($1,500) for his proposal, "Lugar Center Renewable Energy Forum on Biomass".
- Dong Xie (BME) submitted invention disclosure, "Synthesis and Application of an Innovative Functionalized Polymer System for a variety of Bioimplant Surface Modifications" to the IU Office of Technology Commercialization..
- Huanmei Wu (CILT) and Indra Das submitted software disclosure, "Software for Reconstructing CT Images", and invention disclosure "New Method for Reconstructing CT Images" to IU Office of Technology Commercialization.
- Maher Rizkalla (ECE) and Jasmin Radadia submitted software disclosure, "Software Model for Bidirectional Fluid Flow Monitor".
- Maher Rizkalla (ECE), An Feng, and Francis Bowen submitted invention disclosure, "Embedded System for Sensor Communication and Security".

- Lauren Christopher (ECE) was inducted into Consumer Electronics Hall of Fame with 149 other luminaries such as Steve Jobs, Vladimir Zworykin, and Amar Bose, among others.
- Eugenia Fernandez (CILT) was selected to be part of the "*Women Creating Excellence at IUPUI: An Online Exhibit*" at IUPUI.

Events

- Intermedia Festival organized by the Department of Music and Arts Technology took place during April 23-25 at the Indianapolis Marion County Public Library and IUPUI Information and Communication Technology Complex. The event included live performances, interactive installations, video screenings, and virtual reality media by over 100 musicians, dancers, and artists from North America and Europe.
- 2010 Chancellor's Academic Honors Convocation took place on April 16. Our BME student Kellen Knowles (BME) received Chancellor's Scholar Award and Ed Berbari was recognized as one of the Chancellor's Professor Award.
- Our junior student Justin Penix (MET) won the 2010 (53rd) Purdue Grand Prix second time. IUPUI also took the second place with great effort of sophomore Blake Deister (MET).
- Our 36th Annual Bepko Honors Convocation took place on April 23 at Crown Plaza Hotel with more than 420 guests attending. Our students received $353K of scholarships and awards. The Distinguished Alumnus Award went to David Mills (BS-CIT, 1999). The following faculty and staff were recognized:
    - Lucille Payton Outstanding Staff Award: Elizabeth Wager
    - Pam May Staff Spirit Award: Courtney Wooten
    - Staff Professional Development Award: Amanda O'Neill
    - Doris H. Merritt Outstanding Leadership Award: Emily McLaughlin
    - Frank E. Burley Distinguished Professor Award: Eugenia Fernandez
    - Abraham M. Max Distinguished Professor Award: Huanmei Wu
    - Outstanding teacher Award: Dan Baldwin
    - Wisner-Stoelk Outstanding Faculty Award: Peter Orono
    - Trustees Teaching Awards: Karen Alfrey, Mary Anne Frank, Hazim El-Mounayri, and Rob Wolter.
- IUPUI Spirit of Philanthropy Luncheon was held on April 22. Our school recognized John H. Hayes (BS, Construction Technology, 1976) who was unable to attend due to illness.
- At the Butler University Commencement on May 8, ten of our Engineering Dual Degree Program Graduates received their Butler University degrees.
- IUPUI Commencement took place on May 9. Our school awarded 81 AS degrees, 297 BS degrees in Technology, 14 BSBME, 24 BSCmpE, 41 BSEE, and 61 BSME degrees. At the graduate level, we awarded 7 MSBME, 32, MSECE, 17 MSME, 10 MSE, 2 MS, 23 MS in Music Technology, and 23 MS in Technology.
- Dr. William M. Plater received an honorary Doctor of Humane Letters from Purdue University. Our school recognized him at our post commencement ceremony and Dr. Plater was our speaker. His remarks will be attached to the Faculty senate minutes of this meeting.

Science and Engineering Laboratory Building

- Science and Engineering Laboratory Building (SELB) project is at the ICHE May 14, 2010 agenda for approval.

School of Engineering and Technology at IUPUI

May 9, 2010 Commencement

Remarks by William M. Plater

No matter how many times you hear it, graduation is important. It is meaningful. It is a life event . . . a ritual . . . a communal ceremony where people come together in a public place to see you pass from being one kind of person to being another. What kind of person you become now depends on you from this point forward.

Graduation marks a point of real change. You'll remember this day for the rest of your lives—not because of what I, or anyone else, says . . . but because it really is a time of change and importance. You'll remember the day largely because of family and friends who are celebrating this rite of passage with you, and because of the funny hats, the hot robes, the chaos, and the solemnity of ceremony. Or, more likely, you will recall this graduation because it is also Mother's Day, and I am eager to join with all the others who throughout the day have offered congratulations to graduating mothers and to mothers who are launching graduates into the world.

With full appreciation that what I say will only be a blur anyway, I invite you to multi-task and to let your mind drift as I am talking. Use this time to think about just what graduation means to you as a rite of passage—as a major change in the rest of your life. Ask yourself what you will do—now that the faculty have finished with you. However, I do want to offer some advice, and I'll talk about it for a few minutes before offering it up. In fact, there are only 13 words that you need to remember when I'm done. So if you'll give me the courtesy of recalling these 13 words in months and years to come, I'll forgive you if you forget the words that surround them . . . or even who spoke.

Let me begin with your degree. It is a major achievement. It certifies to others that you have a level of competency in which the faculty have confidence. They are willing to say to you—and to future employers—that you are ready to go out into the world and apply what you have learned. Their recommendation is based on your personal achievements, certainly, but the degree is also a measure of **all** of your experiences—your internships, conversations with peers, late night ruminations, research papers, team projects, the anxiety of a missed deadline. Your degree is the whole package—and it really is a big deal.

Your degree is also a benchmark against which you can measure future learning. Indeed, it is estimated that technical and scientific information doubles every two years. There is now more information (not necessarily knowledge or wisdom, I might note) generated every year than has been created in all the previous 5,000 years. For students who have focused only on the technical aspects of your chosen field, I am sorry to tell you that half of what you learned in your first year will be dated by your third year. Scary isn't it? But we know that you have learned more than information, facts, figures, data, or static formulae. We would not have awarded you a degree if all you had done was absorb, memorize, or internalize information. Instead, in your time here, you have learned how to learn and, perhaps more valuably, how to differentiate that which is enduring from that which is transitory. You have developed ways of knowing and these ways will sustain you for decades to come, even as the technology we know today changes.

As you can tell by looking at me, I've already forgotten more than I will have time to learn anew, especially at the accelerating pace of new knowledge. I envy you the excitement of knowing that every

few year, if you are paying attention to the changes that happen, you now have the skills to imagine whole new ways of practicing your profession. You can use this rapid change in information to your advantage. As one of the Silicon Valley gurus has said, the best way to predict the future is to invent it. You have the power to do just that. Viewed from the right angle, change is a tool or a means—not the harbinger of crisis or trouble.

Today, I'm a graduate too, and like you, I am at a transition point. I didn't earn my Purdue degree in the same way you did. Mine is an affirmation of a life's work of helping build IUPUI, something about which I am very proud. And it is the result of learning from experience.

Like you—with my degree in hand--it's time for me to move on, and this graduation marks a new beginning just as the word "commencement" suggests. I've already started clearing out my desk and taking mementoes down from the walls. As I looked around my emptying office this week, it reminded me of the story that I'm sure many of you have heard about the new CEO who takes up her duties and sits down at her desk for the first time. It's completely empty, but she opens the center drawer and finds three envelopes, each with a message on the outside. The top envelope says "open when you have a crisis." When she has her first crisis, she returns to her desk and opens the first one, and it simply says, "Blame your predecessor." She does, and it works. A year or two passes, and the next crisis occurs, only it's worse. Once again, she recalls the envelopes and when she has a quiet moment, opens the second. It says, in only one word, "Reorganize." Once again the advice works, and things go along smoothly until the worst crisis of them all occurs. She doesn't even wait to hear all of the details from her staff about how bad things are. Instead, she rushes immediately to the last envelope, opens it and reads the words: "Prepare three envelopes."

When I took up my duties as Executive Vice Chancellor at IUPUI nearly 24 years ago, my predecessor—a wonderful man named Howard Schaller—left me three pieces of advice, almost like the three envelopes. They helped me endure as the chief academic officer at IUPUI for nearly 20 years. They have shaped my life. His advice has served me well, and I offer it as my graduation gift to you.

The executive of the story I just told encountered crises and reacted to them in conventional ways—blaming others, reorganizing, and leaving. We see this pattern of behavior in all walks of life. But that's not the way it has to be when we are confronted by what we see—or take to be--crises.

It's true. We seem to live in an era of perpetual crisis, sometimes personal as the recession has shown us, but also global as the threat of terrorism grows. We--you and me--are graduating in an era of unprecedented change when there is always a sense of looming crisis, if we believe the media. Set aside the personal dimensions of crisis for a moment, and think about what we are all facing. The list is long, but here are three that keep me awake at night. It could be a list of 30.

First, there is the changing global order. The US has fallen to 23rd among nations in the percentage of our population with baccalaureate degrees. And we are now 19th among nations in using the Internet—something we invented. Other nations are rising more rapidly than the US, and they are becoming places of innovation, invention, and entrepreneurship that will test us in every conceivable dimension. For those who are used to America's leading the world, we need to take notice. Creativity is no longer an export of just the USA.

Next is the global recession. It has proven the extent of our economic interdependence. While the worst of the housing bubble may be over in the US, inflation is growing in China—which holds the largest share of America's debt—and as we have been watching in the news, the debt levels of Europe loom as large as our own. The situation in Greece has consequences for the US as much as for the European Union—as the stock market roller coaster this week has demonstrated. While Greece is taking

the headlines, there are several other nations on the verge of economic collapse. America will continue to be affected in very direct ways.

And then there are the challenges that require a world to solve—they are beyond the ability of a single nation no matter how powerful. Things like: Nuclear arms, hunger and poverty, climate change, energy, human rights, cyber security, pandemics, and so forth. We are watching as the BP oil spill threatens our coasts—but such disasters can just as easily spread to other nations, like drifting clouds of volcanic ash, and we need to know how to act together.

These three areas are all very real, world-altering challenges that face you—our next generation of leaders. But are they crises . . . or something else?

The degree you earned empowers you to change crisis into opportunity. You are part of a generation that has been better prepared than any other in human history to deal with complexity and uncertainty. You have tools that were unimaginable less than a generation ago. Not only is information and technical knowledge doubling every two years, but the tools are changing too. Just think about this for a moment. It took radio 38 years to have 50 million users, it took TV only 13 years to reach the same goal, but the internet did it in 4 years and Face Book in 2. Most computer scientists conservatively predict that by 2030 there will be a supercomputer that exceeds the capacity of the human brain, and the more aggressive prognosticators predict that we will reach this milestone within five years. In our own School of Engineering and Technology, faculty and students—undoubtedly some of you—have been working on intelligent transportation systems that may make driving a car as automated as flying airplanes. When machines can outthink humans, that is a real game-changer. You will have the technical tools and constantly renewing information sources necessary to face challenges of the magnitude and complexity I've mentioned.

So, the advice in my first envelop is, simply: There are no crises. Chance and opportunity favor the prepared mind. You can face this daunting, rapidly changing world with confidence and find opportunity in every challenge that comes your way—if your mind is prepared. Use your training as engineers and technologists to analyze, to research, to reflect, to synthesize, and to plan before acting. Never be coerced into believing the challenge you face is anything other than a problem to solve, an opportunity—if you can just see it from the right perspective.

The second envelope is opened when you reflect on what it means to be educated—and there is no time better than today to undertake this kind of reflection. The degree you worked so hard to earn means that you have understood the obligations of your own learning. Use your education for yourself and your family, to be sure, but also use it for the betterment of all. Act always to improve the common good. Be a globally aware and competent citizen of your own local community and actively seek a place for your community—wherever you live--in the world, not only your state and nation. Yes, you should achieve as much as you can for yourself—in income, in status, in career advancement, in the respect of peers. But the very nature of education is a social act, and it is supported in our country as a public good through tax dollars. This country's success is due more to the public benefit of education than any other single factor, and each of us who benefits from education has a duty to honor this principle and to give back to the society that has supported us.

Our university is home to the world's leading center on philanthropy. Our campus has won virtually every major national recognition for its community engagement—from a national medal awarded by President Bush two years ago to another award granted just this week by the Association of Public and Land-grant Universities. But our real distinction has come through the work students have undertaken in Indianapolis and around the world as a part of their—your—learning, often associated with service learning—for which we are also world renowned. We hope that as a graduate of IUPUI, you will be distinguished from graduates of other fine universities by your sense of doing well by doing good, by

your actually having had learning experiences that required you to think seriously and deeply about what it means to be an effective citizen in your capacity as an educated professional. When you are working ceaselessly for the betterment of all, you don't have to distract your critics by reorganizing. One of the oldest tricks of CEOs is to get subordinates or critics to ask the wrong questions so they don't have to worry about answers. But this kind of response solves nothing and neither does reorganization. It is my greatest hope for IUPUI that our graduates will transform central Indiana into one of the 50 best places in the world to live, work and learn by 2050. We can achieve this dream if you work intentionally and thoughtfully to make our community a better place. If China can become the leading global power by mid-century, let's make Indianapolis a leading global community.

So, the second envelope, when opened, reads: Never tire of doing good. Hold to a steady principle worthy of your best efforts. Accept no substitutes for doing the right thing. If you never tire of doing good, you never have to worry about what to do when a crisis arises.

The third and final envelope suggests that instead of quitting, giving up and leaving, you should follow your own heart and conscience instead of being swayed by the attitudes, criticisms, or even praise of others. If you work always according to your own standards of performance, according to your sense of a job well done, of a life well lived, you can never fail. Those who allow their lives to be directed by trying to please others will most likely fall short, and like the CEO of the story be required eventually to quit the field and prepare advice for a successor. Part of this ability for self reflection and self critique is knowing when to change directions or, in my case, when to retire.

The US Department of Labor predicts that you—if you are an average US citizen--will have had 10-14 different jobs by the time you are 38 years old. Some of you may be approaching this threshold already. The labor department also points out that not one of the 10 highest demand jobs of 2010 even existed in 2004—only six years earlier. In this kind of environment, it is essential that each of us be our own best confidante and critic—and our own best friend--relying on both our education and our values to guide us in what we do, when we do it, and how we determine our success.

So, the final envelope, and bit of advice for you as you set forth on a new career is, simply: <u>Keep your own score</u>. Don't quit. Instead, judge your success by what is of value and of importance to you.

As you walk out of this hall as a graduate, keep in mind that you have earned your diploma, that the degree you have is more than a mere accumulation of credit hours and courses, and that you are better prepared than any generation in history to create an intentional future though deliberate acts. With your help, Indianapolis will continue its pathway to becoming one of the very best cities in the world because of the character and caliber of its citizens, and the leadership of the outstanding graduates of IUPUI.

If you remember that there are no crises—but only challenges that can be turned into opportunities—if you never tire of doing good, and if you heed your own conscience and keep your own score, there is no limit to what you can achieve.

So, if you've been daydreaming, rejoin us now and just remember for the rest of your lives, you can succeed if you recall these 13 words:

There are no crises!
Never tire of doing good!
Keep your own score!

And with these 13 words, let me conclude by once again offering congratulations!

Attachment 2: Faculty Senate Report from Associate Dean for Academic Affairs and Undergraduate Programs

Faculty Senate Report from Associate Dean for Academic Affairs and Undergraduate Programs, for 5/11/10, submitted by Stephen P. Hundley, Ph.D.

- E&T by-the-numbers for fall 2010 (at point-in-cycle as of 5/9/10):
  - Total Student Credit Hours: 14,850 +15.7% vs. 2009 (+10.0% for IUPUI)
  - Total Registered Headcount: 1,312 +9.0% vs. 2009 (+8.9% for IUPUI)
  - Admitted UG Beginners: 439 +25.8% vs. 2009 (+25.8% for IUPUI)
  - UG Transfers: 116 +39.7% vs. 2009 (+22.0% for IUPUI)
  - Graduate: 60 +17.6% vs. 2009 (-8.7% for IUPUI)

- AY 10-11 "student surge" requires all departments/programs to think how they will accommodate additional sections of key and high-demand courses. Need to consider early-morning and late-afternoon (non-peak) times; online course offerings; hybrid course offerings; late-start offerings and/or 8-week offerings; and courses at off-site course locations (Greenwood; Park 100; Carmel; business/industry partners).

- E&T Scheduling Officers will meet as a large group on 5/25 to plan Spring 2011 schedule and to proactively plan Summer and Fall 2011 offerings; goal is to make better use of our scarce space resources and to identify gaps/overlaps in course schedules

- ABET work is continuing for Engineering Programs; reports submitted in June, visit this Fall

- Minor in Interior Design and the Honor's Minor in Leadership cleared Academic Policies and Procedures Committee approval; will now advance to Dean Sukhatme's office for final approval

- GREAT Environments – this semester, focus groups have been held concerning OnCourse engagement; preliminary results were shared at the 3/29 Lunch-n-Learn on Student Engagement. Additional focus groups were held with segmented students (high-ability; solid-contributors; at-risk; and Purdue House residents); report summarizing results is being prepared for incoming Dean and will also be shared with E&T faculty, staff, and administrators.

- I am meeting with Department Chairs individually to reflect on this year and plan for next year; please share with me or your Chair any issue you wish to have considered for AY 10-11. Please also let us know of the type and nature of faculty development opportunities that are needed.; some AY 10-11 faculty development opportunities already planned include:
  - Converting courses to hybrid and online delivery
  - Creating learning environments that safeguard against academic misconduct

- Activities are underway to prepare IUPUI for 2012 reaccreditation visit by Higher Learning Commission/North Central Association (regional accrediting body); more details will be rolled-out this fall; E&T can play its part by contributing to PUL Evaluation (which represents IUPUI's general education framework).

Attachment 3: E&T Undergraduate Education Committee Report

E&T Undergraduate Education Committee

Report to the Faculty Senate – 11 May 2010

MUS-N 310 Music Technology I
MUS-N 320 Music Technology II
MUS-N 410 Music Technology III

The committee voted unanimously to recommend these three courses for approval by Faculty Senate.

Reporting of PUL data for E&T

Beginning this semester, instructors will be reporting attainment of the Principles of Undergraduate Learning (PULs) in their courses on a five-year cycle. The campus is collecting this data via IMIR; however, because some faculty – particularly those in programs without an existing culture of assessment – are concerned that the results of PUL assessment will be used to evaluate the *faculty member* rather than the *program*, IMIR plans to report the results of this assessment aggregated at the school level into an average for all 100-, 200-, 300-, and 400-level courses, rather than providing data on individual courses or programs. (See "IMIR PUL Protocol and Example".)

The E&T Assessment Committee sees this PUL assessment process as a potentially valuable source of supplemental assessment data, and would be very interested in having course- and program-level data reported to us by IMIR. Therefore, we ask the Faculty Senate to endorse the reporting of program-level PUL data to the School of Engineering and Technology by IMIR, and reiterate that the data will be used to assess and guide decisions about programs, not to evaluate individual faculty members.

The committee voted unanimously to recommend to Faculty Senate that we endorse IMIR reporting of PUL data for individual programs within E&T rather than aggregated at the school level.

Attachment 4: Resolution for Dr. H. Oner Yurtseven

Purdue School of Engineering and Technology
Indiana University Purdue University Indianapolis

Resolution

H. Öner Yurtseven, Ph.D.
Dean and Professor of Electrical and Computer Engineering
Purdue School of Engineering and Technology, IUPUI

WHEREAS, H. Öner Yurtseven, Ph.D., Dean School of Engineering and Technology and Professor Electrical and Computer Engineering, is retiring on June 30, 2010 after completing outstanding service to Indiana University Purdue University Indianapolis (IUPUI) since 1977; and

WHEREAS, Dr. Yurtseven received the Bachelor of Science degree in Electrical Engineering from Middle East Technical University Turkey and a Doctor of Philosophy degree in Electrical Engineering from The Johns Hopkins University; and

WHEREAS, Dr. Yurtseven began his academic career at IUPUI in 1977 as a Visiting Assistant Professor of Electrical Engineering, becoming an Associate Professor of Electrical Engineering in 1978, and a Professor of Electrical Engineering in 1983; and

WHEREAS, Dr. Yurtseven provided excellent administrative leadership and made many lasting contributions to his department and school as the Associate Dean for Academic Affairs beginning in 1983, Chairman, Division of Engineering beginning in 1986, Associate Dean for Engineering beginning in 1989, Associate Dean for Academic Programs beginning in 1992 and Dean of the School of Engineering and Technology beginning in 1996; and

WHEREAS, Dr. Yurtseven provided excellent leadership and made many lasting contributions as the Provost, IUPUI Malaysia Program, Kuala Lumpur, Malaysia; and

WHEREAS, Dr. Yurtseven has received a number of honors and awards, including a Silver Badge of Honour in 2001 from the UNESCO International Centre for Engineering Education, an Honorary Doctorate of Engineering in 2007 from Universiti Tenaga Nasional in Malaysia, and Indiana University's John W. Ryan Award for Distinguished Contributions to International Programs and Studies in 2008.; and

WHEREAS, Dr. Yurtseven is a senior member of the Institute of Electrical and Electronics Engineers (IEEE), a member of American Society for Engineering Education (ASEE) and has served as a program evaluator for the Accreditation Board for Engineering and Technology (ABET) since 1997; and

WHEREAS, Dr. Yurtseven has been an ambassador and cartographer of the enormously successful relationship between IUPUI and Malaysia, the motivating force in creating a presence in the educational marketplace of Southeast Asia, been a tireless promoter of global connections resulting in executed articulation agreements with universities in Canada, China, France, Germany, Malaysia, Turkey and Thailand among others, resulting in significant growth of international opportunities and exchange programs for IUPUI students and faculty alike; and

WHEREAS, Dr. Yurtseven provided leadership in the expansion of engineering and technology program offerings from the School of Engineering and Technology including. Bachelor of Science degree

programs in Biomedical Engineering, Biomedical Engineering Technology, Computer Engineering, Computer Graphics Technology, Interior Design Technology, Motorsports Engineering and Music Technology, as well as a new Master of Science degree in Technology.

NOW, THEREFORE, BE RESOLVED by The Purdue School of Engineering and Technology IUPUI faculty that H. Öner Yurtseven, Ph.D. be officially recognized for his leadership and service to the school.

BE IT FURTHER RESOLVED the faculty takes great pleasure in recognizing the significant professional achievements of H. Öner Yurtseven, Ph.D., and herewith expresses its sincere gratitude for the invaluable contributions he has made to the Purdue School of Engineering and Technology IUPUI.

BE IT FURTHER RESOLVED that this resolution be included in the permanent minutes of the Purdue School of Engineering and Technology, IUPUI Faculty Senate and that copies be sent to Dr. H. Öner Yurtseven to share with his family; to Dr. Charles Bantz, Chancellor, Indiana University Purdue University Indianapolis; and to other appropriate officials of Indiana University Purdue University Indianapolis.

Approved
Purdue School of Engineering and Technology Faculty Senate
May 11, 2010