

PURDUE SCHOOL OF ENGINEERING AND TECHNOLOGY, IUPUI
Faculty Senate Meeting Minutes
FS01-8
May 14, 2002

Approved September 17, 2002

Representatives in attendance: Maurice Bluestein, Jie Chen, Stanley Chien, Barbara Christe, Daphene Cyr (attending for Liz Coles), Mohamed El-Sharkawy, Cliff Goodwin, Laura Lucas, Razi Nalim, Ramana Pidaparti, Ken Reid, Ken Rennels (attending for Keith Kovach), Maher Rizkalla (attending for Akhouri Sinha), Joy Starks, Dave Williamson, Charlie Yokomoto.

Guests: William Conrad, Hazim El-Mounayri, Nancy Lamm, Marvin Needler, Nasser Paydar, Harriet Wilkins and Oner Yurtseven.

Senate President, Mohamed El-Sharkawy, called the meeting to order at 11:05 a.m.

The agenda was adopted after changing the order of the committee reports under agenda item number six. The Nomination Committee reported first. The minutes of the April 9, 2002 meeting were approved.

Dean Yurtseven presented the Administration Report (*Attachment I*). A record number of guests attended the 28th Annual Honors Convocation on April 12. Scholarships from our industry partners, totaling over \$100K, were distributed to students.

Our School awarded 561 degrees during the 33rd Commencement ceremonies on May 12. Dean Yurtseven commented on the age similarities of the candidates who earned AS, BS and MS degrees.

The school formally announced the first endowed faculty chair position in school history on April 22. The Guidant Corporation Foundation will contribute \$1.7M for the endowed chair in biomedical engineering. The School received a \$100K check that day to place in a foundation account, where it will accrue 5-7% interest. We will use the interest to hire a biomedical engineering faculty member.

Dean Yurtseven announced that Professor Akhouri Sinha would retire at the end of June 2002. Professor Sinha gave 24 years of service to the school in research, teaching and administration. In addition, he was the Dean's research mentor.

Dean Paydar presented the list of May and August 2002 graduates for senate approval. A motion was made and carried to approve the May and August graduates subject to meeting graduation requirements.

Reports from Standing Committees

Nomination Committee

Bill Conrad, Committee Chair, announced the election results of the 2002-03 faculty senate (*Attachment II*). The faculty selected Mohammed El-Sharkawy as the 2002-03 Faculty Senate President. Ed Berbari and Dave Williamson were voted Unit Representatives to the IUPUI Faculty Council. Senate representatives voted for chairs of the following committees: Faculty Affairs, Grievance Board, Nominations, Resources Policy, Educational Policy, Constitution and Bylaws, Student Affairs and Budgetary Affairs. Conrad announced the names of the new committee chairs. A motion was made and passed to destroy the ballots.

Faculty Affairs Committee

Marvin Needler, chair, presented to the Senate for approval, a final draft of the Student Evaluation form. Needler stated that one of the goals was to reduce the number of questions. The form also includes a section for Instructor Supplied Statements in order to tailor the form for individual use. This new form follows the structure of the West Lafayette student evaluation form. Since the testing center needs the form this summer in order for the School to implement in the fall, Needler requested the committee to take action today if possible.

The Senate discussed using the average of the Instructor Effectiveness section and the result of question 12 in the Faculty Promotion and Tenure forms and the Faculty Annual Reports. It was suggested that the Faculty Affairs Committee and the Unit Promotion and Tenure Committee review this issue. Harriet Wilkins suggested that the senate separate the two items. The senate would first vote on the use of the new form and then take action on the second item, use of instructor effectiveness and overall evaluation, separately for the faculty annual report and promotion and tenure. The senate voted and accepted to use the Student Evaluation form for the fall 2002 semester. Ken Rennels made a motion to refer the recommendation to review the use of the average instructor effectiveness ratings and the result of question 12 (overall instructor) for the faculty annual report and promotion and tenure forms, to the Faculty Affairs Committee and the Unit Promotion and Tenure Board. Ken Reid made a second to the motion and the senate accepted the recommendation.

Graduate Education Committee

Hasan Akay, committee chair, presented to the senate for information purposes, two proposals that were approved by Purdue West Lafayette. The first proposal presented was the five-year dual degree program for BS in Physics and an MS in Mechanical Engineering. Akay added that the committee recommends similar programs in the future for Mechanical Engineering and Electrical and Computer Engineering. The senate recommended that the committee closely examine the curriculum to ensure that students will qualify to take the professional license exam. Akay agreed to review the curriculum.

Akay stated that students commit to the program at an early stage—sophomore/junior year. If students do not earn at least a 3.0 GPA in their senior year, they terminate the MS option and continue to complete the BS option. Transfer students are treated like all other students through the graduate committee.

The second proposal, a new number for ME 546:CAD/CAM, was also presented for information purposes. West Lafayette approved the new course number in place of the former tentative number.

Educational Policy Committee

Committee Chair Nancy Lamm, presented for Senate approval, the following proposed policy for Dual Admission to Technology and a proposed policy for Dual Admission to Engineering.

Proposed Policy for Dual Admission to Technology

1. Admit all students who graduate with Academic Honors (regardless of SAT score).
2. Admit students who do not have an Academic Honors diploma if the following conditions are satisfied:
 - a. Completion of Core 40 with grades of C or above in all mathematics classes and no more than 2 grades below C- in other classes.
 - b. Class rank in upper 50% OR minimum SAT scores of 500 math and 450 verbal or minimum ACT scores of 21 math and 18 English.

Proposed Policy for Dual Admission to Engineering:

Admit students who meet the following requirements:

1. Class rank in the upper half of high school graduating class.
2. Completion of Core 40 including chemistry and 4 years of math including trigonometry or pre-calculus.
3. Minimum SAT scores of 520 math and 480 verbal or ACT scores of 22 math and 20 English.

Lamm explained that Dean Paydar recommended that the committee review the current policy. The committee reviewed and asked for input on the current policy with Mike Donahue, Director of Admissions. Concerns were raised regarding the loss of direct admits of adults to technology programs. Lamm stated that no other schools on campus have separate policies for non-traditional students. University College is responsible for serving adult students. The Senate voted and approved the new dual admission policies. The vote included one vote against the new policies and one abstention.

Nancy Lamm also presented for Senate approval, the following new course requests:

1. ME 414 – Thermal-Fluid Systems Design (3 cr.)
P: ME 262, ME 310

C: ME 314

Application of basic heat transfer and fluid flow concepts to design of thermal-fluid systems. Emphasis on design theory and methodology. Design experience in thermal-fluid area such as piping systems, heat exchangers, HVAC, and energy systems. Design projects are selected from industrial applications and conducted by teams.

2. TCM 395 – Independent Study in Technical Communications (1-3 cr.)

P: Consent of Instructor

Individualized project approved by instructor consenting to direct it and by program coordinator. Credit varies with scope of the project. May be repeated for a total of 4 credit hours.

3. TCM 420 – Field Experience in Technical Communication (1-3 cr.)

P: Consent of Instructor.

Full or part-time work experience in technical communications, supervised by a qualified professional in the cooperating organization and a faculty advisor.

Requires periodic written and oral reports and final comprehensive written and oral reports on work experience and assigned readings. Credit varies with scope of project. May be repeated for a total of 4 credit hours.

The Senate approved the new course requests.

Nancy Lamm also presented for Senate approval, the following course changes:

CPT 303 - Communication Security and Network Controls (3 cr.)

New course description:

P: CPT 307 or CPT 341 or EET 284. Exploration of current encryption, hardware, software, and managerial controls needed to operate a data communication network in a safe and secure manner. Emphasis is on security attacks, malicious programs, authentication, availability and legal and ethical issues.

ME 262 – Mechanical Design I (3 cr.) Class 2, Lab 2

New course description:

P: ME 197 and ME 270. C: ME 274

Basic concepts of the design process. Design case studies. Mechanism synthesis for motion. Applications from the area of linkage and mechanism design. Design projects focus on design for motion. Design documentation and communication. Implementation and use of computer tools in solving design problems and projects. Hands-on experience with mechanisms in laboratory.

ME 372 – Mechanical Design II (4 cr.) Class 3, Lab 2.

New course description:

P: ME 262, ME 272, ME 274.

Kinematic and dynamic analysis of linkages and mechanical systems. Analytical and graphical approaches to analysis. Vector loop and relative velocity/acceleration solutions. Design and analysis of cams and gears. Static and dynamic balancing. Design for strength of various machine components. Reliability principles. Design documentation and communication. Laboratory experiments on mechanical design and strength.

ME 462

New title and description:

ME 462- Capstone Design (4 cr.) Class 3.

P: ME 344 and ME 372. C: ME 414.

Introduction to the concurrent engineering design process. Emphasis on the application of the design process. Mechanical Engineering as well as multidisciplinary design projects performed by student teams. Lectures are supplemented by guest speakers.

CPT 288 - Using a Database Management System (3 cr.)

New prerequisites:

P: CPT 106 or EET 103, CPT 115, and CPT 120 or EET 105

CPT 402 - Design and Implementation of Local Area Networks (3 cr.)

New prerequisites: P: CPT 307 or CPT 341 or EET 284.

CPT 440 – Communication Network Design (3 cr.)

New prerequisites: P: CPT 307 or CPT 341 or EET 284.

New course title and description:

TCM 499 – Issues in Technical Communication (1 – 3 cr.)

Topics of current and specialized interest for technical communicators. Hours and subject matter arranged by staff. May be repeated for up to 6 credit hours.

New course number:

ME 344 – Introduction to Engineering Materials

(No change in course description or prerequisites)

ME 450

New title: Computer-Aided Engineering Analysis

The Senate approved the course changes.

Budgetary Affairs Committee

Hasan Akay, Budgetary Affairs Committee Chair at the University level, reported for Rich Pfile, Budgetary Affairs Committee Chair for the Faculty Senate. Akay stated that the committee is responsible for reviewing the use of the reallocation funds. The committee recommended using these funds for student welfare, campus-related activities, library infrastructure and new faculty. Akay reported that the University in increasing tuition by 9%. Three percent will be used to fund retention and part time lecturer

conversions. The University is also charging beginning students a \$750 fee. This fee will be prorated for part time students. The University expects to generate \$1.7M per year from the fees. The University Budgetary Affairs committee will decide on the use of the \$750 fees. Ideas include civic engagement, scholarly activities and scholarship areas. Faculty salary increases for the 2002-03 fiscal year are 3.5%. There is also an extra .5% for high performers.

The University budget was cut by 2.66% and as a result, the units' budgets were reduced by .39%. Due to the budget cuts, our School experienced a \$42,000 shortage. A further University budget reduction of .5% resulted in a total shortage of \$50,000 for the School. This shortage will be covered by not filling vacant staff positions, which includes the Associate Dean for Research position.

The Budgetary Affairs Committee met with Dean Yurtseven and Pat Fox on April 26 to review the final status of the budget. It was noted that the School is in good financial shape with good reserve funds. The committee also submitted options to the Dean's office regarding the use of cash funds. Recommendations included using the funds for part time faculty, visiting faculty, lab equipment expenses and renovation expenses.

Constitution and Bylaws Committee

Harriet Wilkins, Chair, reported that the committee has suggested a procedure to clarify who is a member of the "Faculty" as defined in Article I, A of the Constitution. As prescribed in 1,C the Dean should provide a list of those with academic appointments in the School. The Committee suggests that the Dean give this list to the Senate and the departments each fall. If departments wish to recommend that others should be included on the Faculty list, they can recommend them to the Senate. As provided in I, A, the Senate may then recommend Faculty membership for such persons; the entire Faculty must vote on the Senate's recommendation. Wilkins stated that this procedure is designed to implement the Constitution, not to change it.

Reports of Representatives

IUPUI Faculty Council

Representatives to the IUPUI Faculty Council are Marvin Needler, David Williamson, and Charlie Yokomoto.

In the interest of time, Marvin Needler referred the Senate to the faculty council website at www.iupui.edu/~fcouncil to view the minutes from the last meeting. Ken Rennels added that the campus calendar has been approved through 2020.

Announcements

Maurice Bluestein announced the arrival of Jamie Workman's new baby girl. Jade Olivia Germann was born on May 13 at 10:36pm weighing 7lbs 15 oz.

After announcements, the meeting adjourned at 12:55 pm.

Attachment I

Dean's Report for May 14, 2002 Faculty Senate Meeting

Honors Convocation

Our 28th Annual Honors Convocation was held on April 12 at Ritz-Charles and it was another success as over 350 guests attended. We recognized 97 students and several faculty members and staff for their academic and service accomplishments. Our business and industry partners gave us more than \$100K of scholarships and award to be given out to our students.

Commencement

The 33rd IUPUI Commencement took place on Sunday, May 12. In the morning, our masters students, their mentors, and graduate programs faculty participated in the hooding ceremony. In the afternoon, the School Post Commencement followed the main IUPUI ceremony. This year, we awarded 219 AS degrees, 250 BS degrees in technology, 58 BS degrees in engineering, and 34 masters degrees, giving us the total of 561 degrees. In addition we have awarded 50 certificates bearing our school's name. Statistics about the graduating class of 2001-02 is interesting. The average age of our graduates at the AS level is 29.2, at the BS level 29.5, and at the MS level, it is 29.8. Out of our 561 graduates, 148 or 26% are women, 36 or 6.4% are non-resident students and 110 or 19% are from minority groups.

We had a special guest for our post commencement exercise. Dr. Paul MacCready, father of the human-powered flight, addressed our graduates. In 1999, he was selected as one of the most influential persons of the 20th century by Time magazine. His design work and inventions during the past four decades spanned the range of avionics, transportation, and alternative energy areas.

Guidant Foundation Endowed Chair

The Guidant Corporation Foundation endowed a faculty chair position in biomedical engineering area and the total contribution by Guidant Foundation will be \$1.7M to be paid by June 2004. The formal announcement took place on April 22 and we celebrated the events with the friends of the school. This is first ever such chair in the school history.

Faculty News

Maurice Bluestein was promoted to full professor rank. Dave Williamson, Eugenia Fernandez, and Ken Reid received their tenure and they were all promoted to the rank of associate professor.

Brian King received \$3,000 Grant-In-Aid of Research support from IUPUI for his project, "A Cryptographic C Software Library."

Joy Stark received \$5,000 from the Indiana Department of Education, Business Division for Tech Camp this summer where many high school teachers will be coming to IUPUI to improve their information technology skills.

The second issue of School's research and scholarship newsletter, *Ingeniator*, came out last week. It highlights the research and scholarship activities of eight of our faculty members. Extra copies are available for distribution.

Professor Akhouri Sinha will retire at the end of June 2002 after 24 years of distinguished record of research, teaching, and administration in our school. We will miss him

Student News

Our senior electrical and computer engineering student, Albert Singh, has been selected as the IUPUI's male student of the year.

Interior design students shined again through their displayed work at the Design Show on April 14 that attracted many visitors.

Our graduate student, Berrak Alpaslan, won a second place in the graduate division of AIAA central regional student conference with her paper, "Pressure Gain Analysis of Detonation Wave Rotor."

Our students, Aaron Townsend and Chadana Kakani each received \$3,000 Community Service Scholarship from the IUPUI center for Service Learning.

Ten students from the department of Electrical and Computer Engineering were the founding members of the electrical engineering honorary society, Eta Kappa Nu, chapter at IUPUI. The induction ceremony took place on May 11 and Dr. Paul MacCready was at hand to address the students and parents.

Our Formula Lightning Electric Car was fourth in the race held on Sunday, May 5 at Winchester Speedway. Ohio State was again a winner.

TASC Alumni Gathering

About twenty women students studied electrical engineering as a second degree in a group project sponsored by the National Science Foundation in 1981-83. Our school held a 20th year anniversary celebration weekend for the group during May 3-5 at Indianapolis. Nine alumni showed up with several electrical engineering faculty members joining them to celebrate their reunion.

Spirit of Philanthropy Luncheon

Our school joined the rest of IUPUI to recognize persons and organizations that made significant philanthropic contributions to the university on April 25. We expressed our appreciation to *diversified* Systems, represented by its president Stan Bentley and Mike Winter who helped us set up the CyberLab at VIFI last year.

Attachment II

**Committee Members, Representatives and Officers
2002 – 2003 School Year**

Faculty Senate Representatives:

| | | |
|------|-------------------------------|--------------------------|
| ECET | Ken Reid | Term Expires Spring 2003 |
| | Elaine Cooney | Term Expires Spring 2004 |
| | Alternate – Rich Pfile | |
| MET | Sally Frettinger-Devor | Term Expires Spring 2003 |
| | Keith Kovach | Term Expires Spring 2004 |
| | Alternate - | |
| OLS | Cliff Goodwin | Term Expires Spring 2004 |
| | Alternate - | |
| CPT | Ali Jafari | Term Expires Spring 2003 |
| | Joy Starks | Term Expires Spring 2003 |
| | Bill Watson | Term Expires Spring 2004 |
| | Alternate - | |
| CNT | Laura Lucas | Term Expires Spring 2003 |
| | Daphene Cyr | Term Expires Spring 2004 |
| | Alternate - | |
| ECE | Charlie Yokomoto | Term Expires Spring 2003 |
| | M. El-Sharkawy | Term Expires Spring 2004 |
| | Maher Rizkala | Term Expires Spring 2004 |
| | Alternate – Stanley Chien | |
| ME | Ramona Pidaparti | Term Expires Spring 2003 |
| | Andrew Hsu | Term Expires Spring 2004 |
| | Razi Nalim | Term Expires Spring 2004 |
| | Alternate – Hazim El-Mounayri | |

Faculty Affairs Committee (chair indicated with a *):

| | | |
|-------|-------------------|--------------------------|
| *ECET | Marv Needler | Term Expires Spring 2003 |
| OLS | Cliff Goodwin | Term Expires Spring 2003 |
| CNT | Daphene Cyr | Term Expires Spring 2003 |
| CPT | Ali Jafari | Term Expires Spring 2004 |
| ECE | Brian King | Term Expires Spring 2004 |
| ME | Hasan Akay | Term Expires Spring 2004 |
| MET | Maurice Bluestein | Term Expires Spring 2004 |

Grievance Board (chair indicated with a *):

| | | |
|-------|-----------------|--------------------------|
| MET | Bob Tharp | Term Expires Spring 2003 |
| CNT | Ron Botner | Term Expires Spring 2003 |
| CPT | Bob Orr | Term Expires Spring 2003 |
| *ECET | Rich Pfile | Term Expires Spring 2004 |
| ECE | Zina Ben Miled | Term Expires Spring 2004 |
| ME | Dare Afolabi | Term Expires Spring 2004 |
| OLS | Stephen Hundley | Term Expires Spring 2004 |

Nominations Committee (chair indicated with a *):

| | | |
|------|-------------------|--------------------------|
| CNT | Laura Lucas | Term Expires Spring 2003 |
| CPT | Joy Starks | Term Expires Spring 2003 |
| ECE | John Schild | Term Expires Spring 2003 |
| ECET | Ken Reid | Term Expires Spring 2004 |
| *MET | Doug Acheson | Term Expires Spring 2004 |
| ME | Hazim El-Mounayri | Term Expires Spring 2004 |
| OLS | Rob Wolter | Term Expires Spring 2004 |

Resources Policy Committee (chair indicated with a *):

| | | |
|------|----------------|--------------------------|
| CPT | Ed Sullivan | Term Expires Spring 2003 |
| *ME | Akin Ecer | Term Expires Spring 2003 |
| ECE | M. El-Sharkawy | Term Expires Spring 2003 |
| ECET | Elaine Cooney | Term Expires Spring 2004 |
| MET | Jack Zecher | Term Expires Spring 2004 |
| CNT | Chul Kim | Term Expires Spring 2004 |
| OLS | Cliff Goodwin | Term Expires Spring 2004 |

Educational Policy Committee (chair indicated with a *):

| | | |
|------|-------------------|--------------------------|
| ECET | Barbara Christe | Term Expires Spring 2003 |
| MET | Jamie Workman | Term Expires Spring 2003 |
| CNT | Laura Lucas | Term Expires Spring 2003 |
| CPT | Dave Williamson | Term Expires Spring 2004 |
| *ECE | Ed Berbari | Term Expires Spring 2004 |
| ME | Hazim El-Mounayri | Term Expires Spring 2004 |

School Wide Elected Committees for the 2002 – 2003 School Year

President of Senate:

ECE Mohamed El-Sharkawy Term Expires Spring 2003

Unit Representative to Purdue Intercampus Faculty Council:

Nasser Paydar

Unit Representative to IUPUI Faculty Council:

CPT Dave Williamson Term Expires Spring 2003

BME Ed Berbari Term Expires Spring 2004

Constitution & Bylaws Committee (chair indicated with a *):

MET Bob Tharp Term Expires Spring 2003

ECE Charlie Yokomoto Term Expires Spring 2003

*OLS Harriet Wilkins Term Expires Spring 2004

ME Dare Afolabai Term Expires Spring 2004

Graduate Education Committee (chair indicated with a *):

Elected by the Faculty:

MET Ken Rennels Term Expires Spring 2003

CPT Ed Sullivan Term Expires Spring 2004

Elected by the graduate degree granting departments:

ME Jie Chen Term Expires Spring 2003

ME Andrew Hsu Term Expires Spring 2004

ECE Yaobin Chen Term Expires Spring 2004

ECE M. Rizkalla Term Expires Spring 2003

BME John Schild Term Expires Spring 2003

Unit Promotion & Tenure Board:

CPT Bob Orr Term Expires Spring 2003

BME Ed Berbari Term Expires Spring 2003

ME Hassan Akay Term Expires Spring 2004

ECET Rich Pfile Term Expires Spring 2004

Student Affairs Committee (chair indicated with a *):

ECET Barbara Christie Term Expires Spring 2003

CPT Jerome Clark Term Expires Spring 2003

ECE Dongsoo Kim Term Expires Spring 2003

*ME Nancy Lamm Term Expires Spring 2003

Budgetary Affairs Committee (chair indicated with a *):

ECE Yaobin Chen Term Expires Spring 2003

CNT Erdogan Sener Term Expires Spring 2003

*ME Hasan Akay Term Expires Spring 2004

ECET Bill Conrad Term Expires Spring 2004