

**School of Engineering, Technology, and Computer Science
Division of Organizational Leadership and Supervision**

ANNUAL ACCOMPLISHMENT AND PLANNING REPORT

May 24, 2004

Part One: Annual Report for Calendar Year 2003

A. ETCS/OLS Mission and Vision

ETCS School Mission:

The Indiana-Purdue Fort Wayne School of Engineering, Technology, and Computer Science's mission is to be an increasingly valuable technological resource for its students, serving society as an integral limb of a unique, comprehensive university with vigorous regional ties and a growing national reputation. Within the broader mission of the university, the School of Engineering, Technology, and Computer Science, in preparing technicians, technologists, computer professionals, and engineers, has the mission to provide opportunities to its students for the development of fundamental skills, knowledge, and professional attitude. Embodied in this mission, the faculty of the School of Engineering, Technology, and Computer Science have adopted the following goals, keeping in mind that the students bear the major responsibility for learning. Within each specific scholarly discipline in the School of Engineering, Technology, and Computer Science:

ETCS Goals:

1. Students will master a curriculum having current technical content and relevance that will prepare them for productive, professional careers within the academic, industrial, and governmental sectors of society as well as for post-graduate education.
2. Students will develop presentation skills, in both written and oral forms, to effectively communicate within their specialty field.
3. Students will be able to integrate analytical theory and practice into effective design concepts.
4. Students will master the utilization of computers and technical software.
5. Students will be exposed to a spirit of professionalism and social responsibility.

OLS Mission:

The mission of OLS is to integrate theory and practical application in developing leaders for roles in the dynamic organizational environment of the 21st century.

OLS Vision:

This goal is accomplished through an interdisciplinary curriculum that emphasizes an understanding of people, groups, and the global community within an organizational framework. The OLS faculty will enhance the development of students' creativity and competence in the administration of human resource systems, team design and facilitation, and the influencing processes that define leadership.

The OLS faculty will contribute knowledge to the field by engaging in scholarly activity.

The OLS faculty will provide programs, resources, and expertise on leadership and human resource issues to organizations in northeast Indiana.

B. School Goals and Accomplishments, Calendar Year 2003

University Strategic Goals	School Goals	List of 2003 Activities and Accomplishments	Bottom Line (#'s) (Show at least two years of data)
<p>Provide innovative, relevant, and rigorous academic programs</p>	<p>School of ETCS Launch new degree and certificate programs Continuously improve curricula Maintain ABET accreditation of programs Strengthen quality of faculty (including LTLs) Expand involvement of industrial advisory boards Establish new centers of excellence Expand industrial learning experiences Increase interdisciplinary learning opportunities</p>	<p>SCHOOL of ETCS:</p> <ul style="list-style-type: none"> • Proposals for MS programs in Engineering, OLS, and Technology: under varying stages of development • ABET/TAC accreditation efforts underway for all programs • Enhanced roles for Industrial Advocates Boards [IABs] in program development and evaluation • Explored new cross-disciplinary learning experiences with SBMS and other units • Initiated new bimonthly Faculty-Staff Forums with Dean to enhance communication and share ideas across units <p>CAET:</p> <ol style="list-style-type: none"> 1. BS, Interior Design pre-proposal 2. a. New course proposals b. Develop new outcomes-based continuous improvement assessment plan 3. a. Technology plan to satisfy TC2K TAC/ABET criteria for 2004 visit b. Preparation for TAC/ABET visit 2005 4. a. Hire for existing lines b. Hire for newly approved lines in ID 5. a. Regular meetings 6. Completed program review <p>COMPUTER SCIENCE: Obtain AET accreditation in CS Revitalize CS Professional Advisory Board Develop a senior Design/project course</p> <p>ECET:</p> <ol style="list-style-type: none"> 1. Prepare faculty and staff for 2004 ABET program review to maintain national recognition 2. Expand Industrial Advisory Committee membership to include networking & information related industries 3. Approval of a new B.S. CPET degree by ICHE <p>ENGINEERING: Strengthen the curricula by changing the math requirements and developing new technical elective courses.</p>	<p>SCHOOL of ETCS:</p> <ul style="list-style-type: none"> • Submission and approval of all MS proposals • Accreditation of all programs • Level and scope of participation of IAB members in program development and delivery • Institutionalization of effective cross-disciplinary learning experiences • Level of participation and impact of Forum gatherings <p>CAET:</p> <ol style="list-style-type: none"> 1. Approved 2. a. GIS b. Reviewed by faculty, being finalized 3. a. Being developed along with assessment plan b. Course assessments for both semesters, an surveys performed 4. a. Sami Tannous, CNET b. Suining Ding, ID 5. ARET and ID were the only 2 committees that met <p>COMPUTER SCIENCE: In progress – completion expected summer 2004 Board now meets quarterly and has 17 professionals representing a variety of FW industries Approval currently in progress at ETCS level</p> <p>ECET: Five out of seven faculty received assessment training from either ABET or Rose Hulman sponsored assessment workshops. In addition, the ECET Assessment committee members and all faculty are actively participating in regular assessment activities. One additional committee member was added, and the Chair and faculty still working on increasing IAC committee membership. The B.S. CPET degree was approved by ICHE in October 2003.</p> <p>ENGINEERING: 100% passing rate in the national Fundamental of Engineering Exam for both electrical and mechanical engineering students who took the exam.</p>

		<p>New Programs: Computer Engineering Civil Engineering Graduate Program</p> <p>ABET compliant syllabi were developed for all courses. Rubrics to measure the outcomes of the programs were established.</p> <p>To provide students with experience in teamwork and multi-disciplinary projects, new course (ECE/ME 280) and new lab (ECE/ME 281) have been developed.</p> <p>MFT: Maintained contacts with local engineers through professional societies and informed them of teaching opportunities.</p> <p>Informed the Industrial Advisory Committee on current curriculum content and plans for changes. Received input from the advisors on the relevance of current course work and proposals. Sought input for additional curriculum changes that are needed.</p> <p>Faculty members evaluated current computer software for various courses, and selected software that enhances learning.</p> <p>Specified equipment needed to upgrade the following labs: Quality, Fluid Power, Instrumentation, Advanced Metrology & Ergonomics.</p> <p>Increased number of co-op students by promoting the program to students and industry.</p> <p>Searched for new tenure-track faculty member</p> <p>OLS: Developed proposal for master's program (currently under review)</p> <p>Offered an honors course and continued to offer General Education courses; OLS courses to be utilized in MS in Technology, BS in Interior Design</p>	<p>New Programs: <ul style="list-style-type: none"> • Approved by the Indiana Commission of Higher Education • Pre-proposal has been developed and submitted • In the final stages of polishing the pre-proposal </p> <p>Both programs are accredited.</p> <p>New course and lab were offered for the first time in the Fall 2003 semester.</p> <p>MFT: New highly qualified tenure track faculty hired to replace Dr. Ed Messal who retired. Six associate faculty retained.</p> <p>Met with IAC on May 3, 2002. Curriculum revised to reflect changing TAC/ABET criteria. Worked on new assessment and continuous improvement plan to conform with TAC/ABET accreditation. A number of courses revised and upgraded. A new course on Advanced Metrology was taught as an independent study in fall 2003.</p> <p>Purchased GE Fanuc 21 upgrade/machine license for PC-Turn and Mill. Upgraded cad to Rev. 14 of Solid Edge. Renewed COSMOS, Edge CAM, and Extend + manufacturing software licenses. Purchased new Roboware software for robotics lab.</p> <p>Purchased Digital Micrometers and Calipers for Quality Lab. Additional equipment specifications in progress</p> <p>22 co-op enrollments in 2002. 25 co-op enrollments in 2003.</p> <p>13 applications received, none qualified; search to be extended and description of position to be reviewed</p> <p>OLS: Proposal has been approved by IPFW & School of Technology (WL); Offered first new grad course fall 2003, seven faculty received graduate faculty status through WL</p> <p>These offerings account for over 2,000 credit hours/year</p>
<p>Create an exceptional campus environment for a diverse community of learners</p>	<p>School of ETCS</p> <ul style="list-style-type: none"> • Enhance recruitment of high performance students • Increase retention and 	<p>SCHOOL of ETCS:</p> <ul style="list-style-type: none"> • Established new Student Advisory Boards for School and in those departments where none existed • Addressed concerns and issues of students through web-based 'Question' box connected to Dean's email 	<p>SCHOOL of ETCS:</p> <p>Impact of Student Advisory Boards on student satisfaction and curricular offerings</p> <p>Level of participation and impact of student web-based communications with ETCS administration</p>

	<p>graduation rates</p> <ul style="list-style-type: none"> Support student professional and service organizations Assess needs and effects of credit distance learning courses Increase enrollment of exceptional HS graduates and minority students 	<p>system and through new bimonthly Student Forums with Dean</p> <ul style="list-style-type: none"> Secured approx. \$75,000 in scholarship funds <p>CAET:</p> <ol style="list-style-type: none"> Increase number of organizations and student members Encourage all faculty members to have a web presence Integrate as part of marketing plan. Use Outreach Director, Director of Student Services, freshman engineering faculty and ECET diversity faculty member to create a recruitment plan General education Increase student majors Increase retention rates <p>COMPUTER SCIENCE:</p> <ul style="list-style-type: none"> Create CS Student Advisory Board Support student organizations for CS and IS <p>ECET:</p> <p>All instructor will have a personal IPFW Web page. All syllabi will be available on the Web beginning F'03. All instructors will use Web assistance for their courses.</p> <p>ENGINEERING:</p> <p>The department was exceptionally supportive of the IPFW ASME, IEEE, SAE, and SWE student's branches. Presented information regarding engineering at Middle School Career Day Continuous support of the Society for Woman Engineers</p> <p>MFT:</p> <ul style="list-style-type: none"> Supported student branches of appropriate professional engineering organizations. Encouraged students to join such organizations and take leadership rolls. Encouraged participation in local meetings, field trips, and contests. <p>OLS:</p> <p>Presented information regarding OLS at the 2003 Summer Youth Program Participated in the HR Games at West Lafayette OLS faculty team attended the IPFW Diversity Institute.</p>	<p>Impact of scholarship funds on recruitment, retention and graduation rates</p> <p>CAET:</p> <ol style="list-style-type: none"> ASID , student members Four faculty Fall 2002 -263 Fall 2003 - 243 2002 CNET majors 21 2003 CNET majors 13 <p>COMPUTER SCIENCE:</p> <ul style="list-style-type: none"> Board contains about 20 students and has now held two meetings. Comp. Info. Assoc. <ul style="list-style-type: none"> sponsored talk on Ada Lovelace by Prof. P. Henderson, Butler U. Created mobile Linux distribution as a fundraiser. <p>ECET:</p> <p>All faculty members have their personal IPFW Web pages. 85% of ECET course syllabi are available on the Web. 85% of instructors use Web assistance for their courses.</p> <p>ENGINEERING:</p> <ul style="list-style-type: none"> Increased the number of participating students. Eleven ASME students participated at a regional student's design competition. One student finished second in the ASME Region IV oral presentation competition. SAE has raised \$7,660 for the Mini-Baja. Ultimately will be measured by the number of students enrolled <p>MFT:</p> <p>The student chapters participated in the National Engineers Week, visited Steel Dynamics plant, a local design competition and regional design and oral competition. SAE Mini-Baja intercollegiate design competition. SWE attended national conference in Birmingham AL and assisted at the Lego League Robotic Competition</p> <p>OLS:</p> <p>Two teams (6 students) participated. Ongoing project to assess student learning goal regarding diversity</p>
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		Proposal was written for funding diversity initiative	
Promote the scholarly and creative achievements of faculty, students, and staff	<p>School of ETCS</p> <p>Increase number of successful grant proposals for external support</p> <p>Increase number of refereed journal publications</p> <p>Increase student participation in research</p> <p>Increase service learning opportunities</p> <p>Strengthen and expand centers of excellence and collaborative opportunities</p> <p>Increase Co-op and internship opportunities</p> <p>Improve capstone experiences</p>	<p>SCHOOL of ETCS:</p> <ul style="list-style-type: none"> Proposed new position of ETCS/OLS Associate Dean for Research and External Support Developed new School-based office for supporting research and scholarship Provided one-year memberships in ASEE for new faculty and those with expired memberships <p>CAET:</p> <ol style="list-style-type: none"> Increase number and value of external grants Encourage mini-grant participation for undergraduate research and symposium participation Two funded grants for CBE Increase dollar value of scholarships awarded <p>COMPUTER SCIENCE:</p> <p>Create facility for software research and development</p> <p>Increase faculty and student attendance at research conferences</p> <p>ECET:</p> <p>Pursue external equipment, software, and funding grants and donations</p> <p>ENGINEERING:</p> <p>Very successful electrical and mechanical engineering design projects.</p>	<p>SCHOOL of ETCS:</p> <p>Established new Associate Dean position in January 2004</p> <p>Launched new office in May 2004</p> <p>Funded seven (7) memberships in ASEE during 2003-04</p> <p>CAET:</p> <ol style="list-style-type: none"> 7 grants, \$14,924 5 funded grants 20 students, \$26,800 Productivity/research faculty = 21 (productivity includes publications, proceedings, presentations) <p>COMPUTER SCIENCE:</p> <p>Planning for move to ETCS building is underway, but it is not clear what research space will be available.</p> <p>Selected for Pilot project to student usage of tablet PC's (with Nursing)</p> <p>Conferences Attended</p> <ul style="list-style-type: none"> E. Udoh, Data Mining Conf., Research Triangle Park, NC B. Kim, Int'l Conf on Knowledge Engineering, Int'l Conf. On Computation Science and Applications Three students attended a student research conference at Urbana-Champaign Sedlmeyer, R. Purdue instructional Computing Services conf. <p>ECET:</p> <p>The ECET department received the following equipment grants/donation in 2003:</p> <ul style="list-style-type: none"> Altera's NEOS System on a chip development system donation, \$1600.00 Xilinx's Digilab development system donation, \$2134. Analog Devices Inc., 2 Digital Signal Processing development systems donation, \$745. Microchip Inc. parts donation, \$850. International Truck equipment grant/donation of \$8500 for purchasing National Instruments ELVIS hardware. Tom Gust (former owner of a Radio Shack franchise) equipment donation \$5,000. IBM Rational Rose Enterprise Edition software/license donation, \$180,345. IBM Rational RealTime development software/license donation \$186,460. <p>ENGINEERING:</p> <p>Satisfying ABET criteria. The department re-accreditation visit will be in the Fall 2005.</p>

		<p>Several industrial sponsored projects. Multidisciplinary projects.</p> <p>\$84,366 from external grants. \$21,000 in IPFW Summer Research Grants. Four additional grant proposals were submitted (pending).</p> <p>Numerous journal and proceedings publications</p> <p>Book reviews, journals as well as conferences papers refereeing, awards, and membership in professional societies committees or boards</p> <p>MFT: Encouraged and financially supported faculty publications and participation in conferences and workshops.</p> <p>Recruited students to participate in student chapters of professional engineering organizations. Supported display of student projects at the annual SME Manufacturing Show.</p> <p>OLS: Formed committee to work on a leadership event/week. May serve as important activity for a center.</p> <p>Received internal grants for travel/research and commitment from AAUW and Jr. League for funding of the leadership camp)</p> <p>Two OLS students participated in IPFW Research and Creative Endeavor Symposium. One student participated in the research. Paper competition at the Center for Creative Leadership</p>	<p>Number of grants received. Amount of money obtained. Number of proposals submitted.</p> <p>MFT: 2 conference publications. 14 conferences and workshops attended. 4 faculty involved in industrial consulting. 8 papers reviewed.</p> <p>Student chapter organizations are: ASME with 39 student members, SME with 24 student members, SAE with 13 student members, and SWE with 19 student members.</p> <p>OLS: Will conduct research-based practitioner symposium in fall 2004.</p> <p>\$6,132 committed for leadership camp, \$4375 in-kind donations U Overseas Conference Fund – \$2,500; IPFW travel & research funds – \$1300</p> <p>Presented research awards to Nichols & Dietrich (undergrads) at graduation ceremonies</p>
<p>Advance the quality of life in Fort Wayne and the surrounding region</p>	<p>School of ETCS</p> <ul style="list-style-type: none"> • Support outreach activities • Increase service learning activities • Strengthen research and consultation for local organizations 	<p>SCHOOL of ETCS:</p> <ul style="list-style-type: none"> • Expanded number and scope of community-wide outreach programs coordinated by Outreach Director <p>CAET:</p> <ol style="list-style-type: none"> 1. Increase participation and funding opportunities 2. Encourage participation in service learning opportunities 3. Increase number of senior project- industry interactions and establish new contacts in professional community 4. Two funded projects 5. Increase number of offerings <p>COMPUTER SCIENCE: Develop the SPICE program for talented HS students</p>	<p>SCHOOL of ETCS:</p> <ul style="list-style-type: none"> • Impact of programs on K-12 students pursuing careers in STEM • Impact of outreach programs on IPFW recruitment efforts • Number of students and teachers participating in programs <p>CAET:</p> <ol style="list-style-type: none"> 1. Funding from Director of Outreach. 5 faculty participated in outreach. 2. 2 service learning projects in class 4. 5 projects 5. 2 Cad offerings <p>COMPUTER SCIENCE:</p>

		<p>Engage in consulting / research activity</p> <p>ENGINEERING: Numerous events that were led by engineering faculty.</p> <p>MFT: Participated in industrial consulting, continuing education courses, and service on community boards.</p> <p>OLS: Offered OLS 280 on-line each semester</p> <p>Program development stage for leadership camp for middle school girls . Conducted a variety of non-credit continuing education classes for Waterfield (diversity training) and on-campus</p> <p>Continued health care utilization research conducted for the City of Auburn</p> <p>Gathered information for newsletter</p> <p>Incorporated a service learning project in OLS 324</p>	<p>First offered in 2003 with 6 students</p> <ul style="list-style-type: none"> • Creation with Cont. Ed. Of Software Engineering Cert. • R. Sedlmeyer with Dept. of Nursing on clinical data gathering • Java short course for teachers under discussion with FWCS <p>ENGINEERING:</p> <ul style="list-style-type: none"> • Math and Science Camp. • First Lego League. • Middle School Career Day. <p>MFT: See detailed listing of faculty involvement in community & professional activities elsewhere in this report.</p> <p>OLS: Increased off-campus/distance offerings by 25% over 2002</p> <p>First camp to be offered in 2004</p> <p>10 sessions: Waterfield 3 sessions of the Management Certificate program, Supervisory Leadership Development Series</p> <p>First newsletter will be published in 2004</p> <p>20 students presented desktop publishing projects designed for local organizations</p>
<p>Pursue the continuous improvement of university operations</p>	<p>School of ETCS</p> <ul style="list-style-type: none"> • Improve ETCS/OLS support operations and utilization of facilities • Enhance and expand marketing efforts • Increase external funding and other support 	<p>SCHOOL of ETCS:</p> <ul style="list-style-type: none"> • Coordinated move of CS operations and offices into ET building, while enhancing functional operations through shared use of specific facilities and the development of a new Student Success Center and Collaboratory to be ready for operation in August 2004. • Marketing team is developing new brand identity and materials to integrate with university plan • Developing coordinated corporate and foundation development campaign for ETCS/OLS • Modified technical support policies and administration • Developed enhanced and more interactive web pages <p>CAET:</p> <ol style="list-style-type: none"> 1. Marketing team will develop an initial plan to integrate with university plan 2. Identify specific projects for donations 3. Actively participate 	<p>SCHOOL of ETCS:</p> <ul style="list-style-type: none"> • Efficient and effective space utilization of new facilities • Level and scope of collaboration across units • Development of new educational initiatives and learning experiences • Impact of marketing efforts on ETCS/OLS academic reputation, recruitment, retention, and alumni engagement • Level of external support and funding • Satisfaction by faculty, staff and students with ETCS/OLS support services • Efficiency and effectiveness of support services • Satisfaction of external and internal audiences with interactions with ETCS/OLS through web presence <p>CAET:</p> <ol style="list-style-type: none"> 1. No active marketing directly and no fundraising 2. Dept faculty member chaired renovation effort and dept had rep. on committee.

		<p>COMPUTER SCIENCE: Convert department assessment surveys to on-line form</p> <p>ECET:</p> <ul style="list-style-type: none"> • Curriculum revision and development • Obtain authorization to fill the position left vacant by the retirement of Professor Detraz • Submit annual assessment report <p>ENGINEERING: Increase enrollment: Approved the engineering part of the transfer program with Vincennes University. Worked on a 3/2 program with the Physics Department at Indiana University South Bend</p> <p>OLS: Developed specifications for a lab and presented to Dean</p> <p>Involved in the creation of an OLS slide used to promote program at Rave Theatre. Faculty research promoted through media</p> <p>Sent brochure asking for updated Information on alums</p>	<p>COMPUTER SCIENCE: Not completed</p> <p>R. Sedlmeyer, Presented 12-week seminar on Java and web application development to IPFW IT developers.</p> <p>ECET:</p> <ul style="list-style-type: none"> • Revised electronics minor/outside field course requirements for Music department; submitted a proposal for minor in Business for BS EET Networking Option program. • Not successful. One year visiting position was approved for 2003-2004. • Submitted an annual ECET assessment report that fulfills the TAC/ABET assessment requirements, and it was reviewed by the University Assessment Committee with good comments. <p>ENGINEERING: Ultimately will be measured by the number of students transferred.</p> <p>OLS: No marketing studies done on impact</p> <p>B. Gilbreath's research was highlighted in <i>Journal-Gazette & News-Sentinel</i></p> <p>Received information from approx. 45 alums. Plan to solicit for money in 2004.</p>
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C. Scholarly/Creative Activity
(See Appendix A)

D. Community/Professional Involvement
(See Appendix B)

Part Two: Goals and Objectives for 2004-2005

**University Goals from the 2001 Strategic Plan
School Goals Specific Tasks/ Objectives for next year
Bottom Line Measures of Progress and Targets (if applicable)**

University Strategic Goals	School Goals for 2004-05	Specific Tasks and Objectives For 2004-05	Bottom Line Targets (as compared to this year)
<p>Provide innovative, relevant, and rigorous academic programs</p>	<p>School of ETCS Continue to launch new degree and certificate programs Continuously improve curricula Maintain ABET accreditation of all programs Strengthen quality of faculty (including LTLs) Expand involvement of industrial advisory boards Establish new centers of excellence Expand industrial learning experiences Increase interdisciplinary learning opportunities Secure external funding for educational initiatives and facilities</p> <p>CAET: 1. Final approval and implementation of revised BS CNET program 2. Implement new continuous improvement outcomes based assessment plan for all programs. 3. Successful TAC/ABET visit this fall. 4. Maintain regular contact with advisory committees and develop membership criteria and guidelines. 5. Develop new courses</p>	<p>School of ETCS:</p> <ul style="list-style-type: none"> • Strengthen regular (bimonthly) ETCS/OLS Faculty-Staff Forums to explore opportunities and enhance communication within ETCS/OLS • Initiate semiannual faculty-staff retreats to develop improved teaching, research and service operations; provide web-based updates on all actions taken • Secure ABET accreditation of all programs • Establish MS programs in Engineering, OLS, and Technology • Establish BS in Interior Design • Develop general hiring guidelines and practices for all units to ensure successful recruitment of highly qualified faculty candidates (including LTLs or associate faculty) • Regular meetings by the Dean with LTLs (at least once per semester) • Develop 'best practice' course books for every course in all programs, incorporating materials from past instructors for use by new full-time and associate faculty • Provide supportive environment (including physical climate) for associate faculty – e.g., dedicated office suite and library adjacent to faculty/staff lounge • Develop and assess role of industrial advisory boards [IABs] throughout all programs, and expand as appropriate • Provide more industrial field learning experiences for students inked directly to classroom coursework – view entire regional community as teaching and research labs • Launch new cross-disciplinary learning initiatives (FYE, Entrepreneurship, Gen-Ed, etc.) • Seek external funding for educational initiatives <p>CAET: 1. Submit proposal 2. Assessment committee meets regularly with recommendations 3. Visit with positive recommendation 4. Meet 4 advisory groups at least 2 times per year. Consider and/or implement</p>	<p>School of ETCS:</p> <ul style="list-style-type: none"> • Attendance and level of participation in forums • Attendance and level of participation in retreats • Quality of recommendations from forums and retreats • Accreditation of all programs • Launch of all MS programs • Hiring of highly qualified full-time and associate faculty • Impact of Dean's meetings with associate faculty on delivery of curricula • Impact of 'best practices' course books on quality of curricular offerings • Establishment of first-rate and effective facilities for associate faculty • Impact of IABs on programs • Scope and quality of learning experiences in field • Number and impact of cross-disciplinary learning opportunities • Level of external funding for educational initiatives <p>CAET: 2. At least 2 times per year 4. Meet objectives</p>

	<p>COMPUTER SCIENCE: Offer excellent instructional and education opportunities</p> <p>ECET: 1. Offer new B.S CPET degree programs to meet the needs of regional industry</p> <p>2. ABET accreditation review</p> <p>ENGINEERING: ABET accredited Computer, Electrical and Mechanical Engineering programs</p> <p>Strengthen the Freshman Engineering program</p> <p>Strengthen the Electrical Engineering program</p> <p>MFT:</p> <ul style="list-style-type: none"> Maintain a current and relevant curriculum through consultation with local industry leaders. Maintain TAC/ABET accreditation Find and keep qualified full-time and associate faculty. Provide course work that uses current computer software for the enhancement of student learning and future ability to use such tools in the industrial setting. Maintain well equipped modern laboratories with up to date equipment. Continue to provide Co-op opportunities for students. Hire additional IET faculty for graphics area. <p>OLS: Implement a master's</p>	<p>recommendations. Approve guidance document.</p> <p>5. New course approval.</p> <p>COMPUTER SCIENCE: Finish the accreditation project in Computer Science.</p> <p>Complete the move to the ETCS building</p> <p>ECET: Begin to offer BS CPET degree New faculty hires Form an Industrial Advisory Committee for the CPET program Involve faculty and staff to prepare a successful 2004 TAC/ABET program review</p> <p>ENGINEERING: Prepare for the ABET visit that will take place in the Fall 2005</p> <p>Hire a tenure-track assistant professor whose primary mission will be to strengthen the freshman engineering program.</p> <p>Hire a tenure-track assistant professor in the areas of electromagnetic and microwave</p> <p>MFT: Inform the Industrial Advisory Committee on current curriculum content and plans for changes. Receive input from the advisors on the relevance of current course work and proposals. Seek input for additional curriculum changes that are needed Recruit and hire qualified faculty to replace retiring professor. Maintain contacts with local engineers thru professional societies and inform them of teaching opportunities. Faculty members will evaluate current computer software for various courses, and select software that enhances learning thru homework usage without significantly reducing time spent on course fundamentals. Specify needed equipment to upgrade the following labs: Quality, Fluid Power, Instrumentation, Advanced Metrology, & Ergonomics. Increase number of co-op students by promoting the program to students and industry. Seek authorization for position, recruit and hire.</p> <p>OLS: Offer 3 graduate courses in 2004. Develop a brochure to market the program. Complete the approval process by F' 2004.</p>	<p>COMPUTER SCIENCE: Obtain "3 years and a report" accreditation status.</p> <p>Be ready for operations for Fall 2004 as of August 15.</p> <p>ECET: Offer at least 2 new courses per year New position advertised and hired Form the IAC committee and meet at least once this year Receive 6 year accreditation</p> <p>ENGINEERING: Assessment of eight of the eleven programs outcomes in all courses Ultimately ABET accreditation of the Computer, Electrical and Mechanical Engineering programs. Attract and retain students Ultimately ABET accreditation of the Electrical Engineering program.</p> <p>MFT: Meet annually with Industrial Advisory committee. Implement the department assessment and continuous improvement plan Changes in curriculum. Success of search Number of associate faculty recruited and retained each year Number of software packages evaluated and selected for use. Equipment specified, funded and ordered. Number of co-op students Success of search.</p> <p>OLS: Enroll at least 8-10 students/grad class. Admit 5-10 students to program by fall semester 2005.</p>
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	<p>program in OLS by 2005.</p> <p>Complete assessment plan for diversity goal.</p>	<p>Faculty team attend assessment conference in spring/summer 2004.</p> <p>Complete plan by early fall; begin preliminary assessment.</p>	<p>Assessment report for 2004 will include initial assessment data.</p>
<p>Create an exceptional campus environment for a diverse community of learners</p>	<p>School of ETCS</p> <ul style="list-style-type: none"> Enhance recruitment of high performance students Increase retention and graduation rates Support student professional and service organizations Assess needs and effects of credit distance learning courses Increase enrollment of exceptional HS graduates and minority students <p>CAET:</p> <ol style="list-style-type: none"> Support student service and professional organizations. Encourage faculty participation in web assisted instruction and course information display. Maintain enrollment levels for entering freshman. Increase retention <p>COMPUTER SCIENCE: Enable student professional growth</p> <p>ECET:</p> <ol style="list-style-type: none"> Offer more options for a diverse community of learners Assess needs and devise plans to meet the needs of new economy 	<p>School of ETCS:</p> <ul style="list-style-type: none"> Initiate regular (bimonthly) ETCS/OLS Faculty-Staff Forums Hold semiannual faculty-staff retreats Expand marketing and outreach efforts Provide funding, space, and staff support for student organizations Establish ETCS/OLS Student Success Center (Students Services, Advising, Tutoring, etc.) Assess opportunities for better integration of distance learning coursework into curricula and launch of new distance learning programs Expand and target outreach and scholarship efforts to increase student diversity Develop extended partnerships and roles for alumni and practicing professionals Enhance effectiveness and interactive level of all programs' web pages <p>CAET:</p> <ol style="list-style-type: none"> Continue high level of ASID. Investigate start up of 1 other student group. Increase faculty usage of WebVista and/or personal website Freshman enrollment numbers Devise a more formal FYI and begin to investigate sophomore to junior retention issues <p>COMPUTER SCIENCE: Expand activities of student organizations.</p> <p>Implement the new CS courses</p> <p>ECET:</p> <ol style="list-style-type: none"> Review and revise 5 certificate programs for outreach purposes: <ul style="list-style-type: none"> Advanced Microprocessor Certificate Computer Networking Certificate Electronics Communications certificate Computer Controlled Certificate Power Electronics Certificate Consultation with industry, employers and alumni 	<p>School of ETCS:</p> <p>Attendance and level of participation in forums</p> <p>Attendance and level of participation in retreats</p> <p>Scope and distribution of marketing and outreach activities</p> <p>Increase in enrollment levels</p> <p>Increase in retention and graduation rates</p> <p>Impact of Student Success Center and associated activities</p> <p>Number and level of participation of alumni and practicing professionals in programs</p> <p>Number of visitors to enriched web sites and type of feedback</p> <p>CAET:</p> <ol style="list-style-type: none"> Increase student membership All faculty Maintain numbers Junior enrollment increase, increase participation in FYI <p>COMPUTER SCIENCE: Obtain facilities for CIA and ACM in the ETCS building.</p> <p>Be ready to offer the courses in Fall 2005</p> <p>ECET:</p> <ol style="list-style-type: none"> Revise all certificates for outcome-based assessment <ol style="list-style-type: none"> Focus and advertise the certificates for outreach purposes, and expect to increase the ECET credit hours by 2%. Conduct a survey in June and devise a plan for implementation. We expect to increase ECET credit hours by 1%.

	<p>ENGINEERING: Support students organizations relevant to the department mission</p> <p>Increase the number of minority students in the engineering programs</p> <p>MFT: Provide opportunities for students to participate in professional engineering organizations.</p> <p>OLS: Integrate diversity component across the OLS curriculum</p>	<p>ENGINEERING: Continue to support student chapters of ASME, IEEE, SAE, and SWE. Submit a proposal for student activities laboratory. Participation at regional competitions.</p> <p>Present information regarding engineering at Middle School Carrier Day</p> <p>Continue to support the Society for Woman Engineers</p> <p>MFT: Support student branches of appropriate professional engineering organizations. Encourage students to join such organizations and take leadership rolls. Encourage participation in local meetings, field trips, and contests.</p> <p>OLS: Curriculum review of current treatment of diversity in OLS courses</p>	<p>ENGINEERING: Assign a room for student organizations.</p> <p>Participation at the Mini-Baja competition</p> <p>Increase the number of minority students</p> <p>MFT: Number of students participating.</p> <p>OLS: Updated list of how and where diversity is being taught in the OLS curriculum. Plans will be generated to determine necessary changes.</p>
<p>Promote the scholarly and creative achievements of faculty, students, and staff</p>	<p>School of ETCS</p> <p>Increase number of successful grant proposals for external support</p> <p>Increase number of refereed journal publications</p> <p>Increase student participation in research</p> <p>Increase service learning opportunities</p> <p>Strengthen and expand centers of excellence and collaborative opportunities</p> <p>Increase Co-op and internship opportunities</p> <p>Improve capstone experiences</p>	<p>School of ETCS:</p> <ul style="list-style-type: none"> • Establish new ETCS/OLS Office for Research Support Services • Provide incentive grants (release time) for faculty to prepare external grant proposals • Secure designation of IPFW as host site for 2006 ASEE IL/IN Sectional Conference • Increase number of ETCS/OLS faculty who serve as NSF reviewers • Increase number of refereed journal articles • Increase level of participation in national and regional conferences • Increase number of successful external grant proposals • Provide faculty with workshops and training in proposal writing and grantsmanship • Work directly with faculty to form teams that collaborate with corporate research groups • Craft opportunities for student coursework directly linked to research • Support and secure funding for service learning projects • Reward and recognize faculty, staff and students for research activity • Launch new System Engineering Center • Explore additional concepts for centers of excellence • Develop increased scholarship opportunities directly coupled with corporate internships/co-op • Expand research activities of faculty • Ensure that capstone experiences are coupled to real-world, cross-disciplinary projects and themes 	<p>School of ETCS:</p> <ul style="list-style-type: none"> • ETCS/OLS Office for Research Support Services is fully operational • Launch faculty incentive grant program (release time) • Designation as host site for ASEE 2006 IL/IN Sectional Conference • Number of faculty who serve as NSF reviewers • Number of journal publications • Number of grant proposals • Level of external grant funding • Number of faculty participating in workshops and training • Number and scope of faculty research teams • Number and scope of cross-disciplinary research and academic projects • Number of students participating in research • Level of funding for service learning projects • Establishment of Systems Engineering Center • Proposals for additional centers of excellence • Number of internships and level of scholarship opportunities • Hire new research-oriented faculty • Number of capstone projects linked directly to industrial and community themes • Number and impact of full-time and associated faculty teams in research and teaching efforts

	<p>CAET: 1. Grant proposals for external support 2. Encourage student research participation 3. Increase activity in CBE 4. Scholarships</p> <p>COMPUTER SCIENCE: Increase faculty and student research activity</p> <p>ECET: 1. Submit grant proposals for external funding 2. Student research participation 3. Faculty presentation and publication</p> <p>ENGINEERING: Increase the number of grants awarded to engineering faculty Promote the scholarly and creative achievements of faculty</p> <p>MFT: Promote faculty development in creative endeavor, continuous education and industrial involvement.</p>	<ul style="list-style-type: none"> • Link full-time and associate faculty in research and educational efforts <p>CAET: 1. Submit proposals 2. Increase number of students in service learning and thru CBE 3. Increase number of projects and dollar value 4. Increase scholarship value given to students</p> <p>COMPUTER SCIENCE: Bring faculty and staff to stable numbers.</p> <p>ECET: 1. Increase the number and dollar amount of external funding 2. Allocate department mini-grant to support student research activities 3. Allocate resource support for research initiative and paper presentation</p> <p>ENGINEERING: Submit more proposals Continue to publish in prestigious journals and to present at recognized conferences Continue to review books. Continue to referee for journals as well as conferences. Continue to serve on national committees related to the mission of the department Highlight accomplishments of faculty of the department</p> <p>MFT: Encourage and financially support faculty publications and participation in conferences and workshops. Encourage and support independent study courses for special projects</p>	<p>CAET: 1. Increase number 2 2. Increase number of service learning opportunities 3. Increase from 5 projects and \$14,000 4. Increase from \$26,000</p> <p>COMPUTER SCIENCE: Hiring of two new faculty with start-up research and technical support.</p> <p>ECET: 1a. Equipment/software gift and donations - \$15,000 1b. External grants/contracts - \$20,000 2a. Set aside \$2,000 mini-grants for student research, for 4 student research grants 2b. Number of students participating in undergraduate research symposium 3a. Set aside \$2,000 in mini-grants for faculty research support; and full funding support for one paper presentation per faculty (\$1,000) 3b. Number of faculty research projects 3c. Number of faculty presentation</p> <p>ENGINEERING: Number of grants received. Amount of money obtained. Number of proposals submitted. Number of journal and proceedings publications Level of service to the profession Featured faculty will have a two-page description posted on the department webpage and bulletin board.</p> <p>MFT: Number of publications, presentations, conferences attended, workshops attended, and industrial consulting. Number of special projects.</p>
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	<p>Promote special projects with students</p> <p>Encourage participation in professional engineering organizations.</p> <p>OLS: Conduct a leadership event/week in fall 2004.</p> <p>Write grants to gain additional funding for leadership camp</p> <p>Secure external funding for at least one faculty research project</p> <p>Generate at least 3 news releases based on OLS activities & research</p>	<p>Recruit students to join and be active in student chapters of professional engineering organizations. Encourage and support display of student projects at the annual SME Manufacturing Show.</p> <p>OLS: Plan/schedule events. Assess effectiveness.</p> <p>Find potential funding sources, write grants after first camp is completed.</p> <p>Provide support through OLS & ORES Work with University Relations</p>	<p>Number of students joining student chapters and the activity of the organization. Number of students displaying at SME show</p> <p>OLS: #s of individuals attending event</p> <p>Secure at least \$5,000 for 2005 leadership camp.</p> <p>Dollar amount (target - \$10,000)</p> <p>Number of contacts</p>
<p>Advance the quality of life in Fort Wayne and the surrounding region</p>	<p>School of ETCS</p> <ul style="list-style-type: none"> • Support outreach activities • Increase service learning activities • Strengthen research and consultation for local organizations • Increase distance education linkages and offerings <p>CAET:</p> <ol style="list-style-type: none"> 1. Support outreach activities 2. Increase service learning activities 3. Increase CBE activity 4. Distance education and continuing education offerings 5. Safety Center proposal <p>COMPUTER SCIENCE: Play a role of resource and technical leadership</p> <p>ECET:</p> <ol style="list-style-type: none"> 1. Support outreach activities 2. Increase support and opportunities for service learning 	<p>School of ETCS:</p> <ul style="list-style-type: none"> • Expand and strengthen Office of Outreach • Develop stronger linkages to alumni • Develop additional partnerships with industry, government, and community groups • Increase number and scope of cross-disciplinary collaborations throughout university and beyond • Expand distance education offerings <p>CAET:</p> <ol style="list-style-type: none"> 1. Increase number of faculty that participate 2. Increase number of service learning projects 3. Number and dollar value 4. Number of offerings 5. Submit proposal <p>COMPUTER SCIENCE: Expand SPICE</p> <p>ECET:</p> <ol style="list-style-type: none"> 1. Increase the number of scholarships for ECET students 2. Increase number of industry sponsored senior project 	<p>School of ETCS:</p> <ul style="list-style-type: none"> • Increase funding for outreach activities • Establish student and teacher scholarships linked to outreach events • Increase number of participants in outreach activities, including alumni • Launch new alumni newsletter • Increase in number of partnerships with industry • Implementation of new cross-disciplinary research, academic, and service-learning projects • Increase number of distance learning courses and programs <p>CAET:</p> <ol style="list-style-type: none"> 1. 5 faculty past year 2. Increase from 2 3. Increase from 5 and \$14,000 4. Up from 2 CAD 5. Proposal approval <p>COMPUTER SCIENCE: Attract 10 students representing at least 5 different high schools.</p> <p>ECET:</p> <ol style="list-style-type: none"> 1. Number of scholarships 2. Number of industry sponsored projects

	<p>3. Create center of excellence in Advance Electronic and Computer Applications</p> <p>ENGINEERING: Continue to support the outreach activities</p> <p>Enhance the communications with the alumni</p> <p>MFT: Serve the needs of students, industry and government in northeastern Indiana.</p> <p>OLS: Increase off-campus/distance offerings by 25%</p> <p>Conduct first annual leadership camp for middle school girls in 2004</p> <p>Develop an annual OLS alumni newsletter</p> <p>Develop an alumni event for OLS</p>	<p>3. Prepare preliminary proposal for Center of Excellence in Advanced Electronic and Computer Applications</p> <p>ENGINEERING: Participate at the various ETCS outreach programs</p> <p>Highlight the accomplishments of graduates of the department</p> <p>MFT: Industrial Consulting, Continuing Education courses, and service on community boards</p> <p>OLS: Offer portions of courses on-line (i.e., OLS 475). Offer OLS 252 in Kendallville for first time</p> <p>Complete marketing efforts for camp Develop measures to assess effectiveness of camp</p> <p>Newsletter to be published in spring 2004</p> <p>Resurrect an OLS alumni council Hold an event by fall 2004</p>	<p>3. A proposal</p> <p>ENGINEERING: Number of events</p> <p>Featured graduate will have a two-page description posted on the department webpage and bulletin board. Also, used in dept'l newsletter.</p> <p>MFT: Level of participation</p> <p>OLS: Target: 8-10 students enrolled in course at Kendallville</p> <p>Target # of girls attending camp: 40</p> <p>Number of alumni attending event/getting involved (target – 5/council, 30 alums at event)</p>
<p>Pursue the continuous improvement of university operations</p>	<p>School of ETCS</p> <ul style="list-style-type: none"> Improve ETCS/OLS support operations and utilization of facilities Enhance and expand marketing efforts Increase external funding and other support <p>CAET: Participate in ET building renovation.</p> <p>COMPUTER SCIENCE: Improve feedback about the CS and IS programs</p>	<p>School of ETCS:</p> <p>Initiate regular (bimonthly) ETCS/OLS Faculty-Staff Forums</p> <p>Hold semiannual faculty-staff retreats</p> <p>Establish Student Advisory Boards for all units</p> <p>Form broad ETCS/OLS team to develop marketing strategy and materials</p> <p>Develop specific projects for donations, including Student Success Center and Collaboratory</p> <p>Refine administrative and operational elements within School</p> <p>Develop evaluation system for all internal operations to ensure quality of service</p> <p>CAET: In new areas as specified by fall semester</p> <p>COMPUTER SCIENCE: Expand activities of the Professional and Student Advisory Boards</p>	<p>School of ETCS:</p> <p>Attendance and level of participation in forums</p> <p>Attendance and level of participation in retreats</p> <p>Distribute ETCS/OLS marketing materials, posters, etc.</p> <p>Host effective Open Houses and other outreach events</p> <p>Secure funding for special projects and implement plans</p> <p>Implement refined operational elements and broad-based evaluation system</p> <p>CAET: Accomplish move effectively</p> <p>COMPUTER SCIENCE: Make 2 substantial changes demonstrably based on PAB and SAB feedback.</p>

	<p>ECET: Pursue the continuous improvement of the ECET department</p> <p>ENGINEERING: Increase the visibility of the department</p> <p>Increase the interaction between department and its Industrial Advisory Committee</p> <p>OLS: Begin soliciting funds for a team learning lab</p> <p>Increase giving to OLS by 25%</p>	<p>ECET: Pursue program revision and development: improving students' problem solving and programming, and project management skills.</p> <p>Approval of Minor in BS EET Networking option (entrepreneur program)</p> <p>Increase co-op activities</p> <p>ENGINEERING: Work on a marketing brochure</p> <p>Schedule meetings</p> <p>OLS: Work with Dean and Associate Dean to secure funding (submit plans/drawings and create proposal to present to businesses)</p> <p>Write letter to potential donors asking for scholarship money; include giving information in alumni newsletter</p>	<p>ECET: Develop and offer a new course ECET/CPET 299 Problem Solving with MATLAB</p> <p>Develop and offer a special Visual Basic course CPET 114</p> <p>Develop and offer a CPET/ECET 3xx Project Management course</p> <p>Develop and offer a CPET 490/491 Capstone Courses for new BS CPET degree.</p> <p>Prepare to offer the minor in Fall 2005</p> <p>Work with Co-op office and local industries to ensure 5% more students enrolled in co-op program</p> <p>ENGINEERING: Number of majors and enrollment figures</p> <p>More frequent and focused meetings</p> <p>OLS: Secure \$50,000 to fund a portion of a lab</p> <p>Secure at least \$2,000 in donations</p>
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Part Three: Resource Issues

School Goals/Objectives requiring additional funding	Funding Request: Faculty, Staff, S&E, Equipment	Cost	Funding Sources: Replacement, New Funding, Reallocation, External Funding	Comments
CAET Maintain and enhance programs	CAET: 25 computers – upgrade ET 241 Cad Lab LCD projector; VCR, DVD, CD player, Scanner, Color Printer, Lab equipment . Lease 4 data Collectors and GPS equip. Safety lab	\$37,500 \$47,000 5,000/yr 15,000	New funding New funding New funding New funding	
COMPUTER SCIENCE Maintain and enhance programs	COMPUTER SCIENCE 40 PCs and associated furniture, equipment Start-up funds for new faculty	 \$5000/fac	New funding New funding	Part of move to the ET(CS) building
ECET 1. Maintaining normal program growth and excellence in teaching retirement of Professor (Detraz in 2002)	ECET A tenure-track faculty position required to teach many unfilled day-time courses to increase retention. A tenure-track faculty position required for Fall 2005	\$53,000 \$54,000	New funding New funding	ECET: Too many credit hours taught by Limited Term Lecturers. A replacement position is urgently needed before TAC/ABET accreditation review in F' 2004.
2. Implementation of the new BS CPET program to align with IPFW mission	S&E Electrical and electronics equipment	\$10,000 \$18,480	New funding	50% of new and transferred ECET students are enrolled in this BS CPET program and/or BS EET Networking Option and there is only one-full time faculty staffing this new B.S. CPET program. This program is also in urgent need to recruit a faculty to teach advanced courses. Not able to meet the TAC/ABET criteria.
3. Increasing support for faculty and student scholarly activities, recruitment and outreach	Printed circuit board machine, telecomm. Training system, torquemeter	\$35,986		S & E: \$2K for student research, \$5K for Faculty research and presentations, \$1,500 for scholarships, \$1,500 for industry co-sponsored senior projects.
Enhanced ECET labs with renovation of ETCS building and lab relocation	Computer hardware & software replacement 1 tenure-track position	\$15,000/yr \$60,000		
Update lab equipment for communication, machine and fabrication courses	1 tenure-track position	\$60,000	New funding	
Continuous lab improvement				
ENGINEERING: Strengthen EE Program	ENGINEERING: Hire 2-3 tenure-track faculty during 2005-09	\$180,000	New funding and replace visiting professor	Continue search in 2004-05
Strengthen Freshman	Hire 1-2 tenure-track faculty during 2006-07	\$140,000	New funding and replace visiting	Successful search; new hire in 2004.

Engineering Program			associate professor	
Launch civil engineering program	Hire 1-2 faculty during 2006-09	\$140,000	New funding	Pre-proposal to be resubmitted in 2004.
Launch graduate program	Coordinator – faculty assignment with 1/2 – time release	\$10,000	New funding	Pre-proposal to be submitted in 2004
Upgrade labs	Equipment	\$50,000	Continue funding	
Increase Faculty professional development opportunities	Travel, workshops	\$10,000 increase	New funding	
Assessment	Student assistance with data	\$2,000	New funding	IPFW assessment funds
MFT: Ensure high-quality and vibrant faculty	MFT Hire 1 tenure-track faculty to replace retiring faculty member (Don Schmidt)	\$55,000	Replacement of ½ time retired faculty.	Expertise in thermodynamics, HVAC, fluid dynamics and engineering mechanics needed.
Maintain well-equipped and modern labs	Upgrade equipment: quality, fluid power, instrumentation, ergonomics, advanced metrology labs; replace obsolete computers in CAMD lab.	\$106,500	State technology funds	Must satisfy ABET/TAC requirements to maintain accreditation
New courses in manufacturing and computer graphics	Hire new tenure-track faculty in IET	\$55,000	Replacement of faculty lost in 2001	
OLS: Launch MS in OLS program	OLS: Tenure-track faculty position, marketing, S&E increase	\$80,000	New Funding	See Proposal for MSOLS
Maintain Leadership Camp	Marketing, instructor honorariums, S&E	\$7,000	Grants, in-kind donations	
Develop team learning lab	Construction, equipment	\$200,000	Corporate funds	Approximate cost estimate based on conversations with G. Justice

Appendix A

1. Scholarly/Creative Activity Performed, Published, or Presented during Calendar 2003.

A. Department of CAET

Proceedings, manuals, supplementary materials, presentations, and book reviews

- Devine, David P., "The Ethical Reward", presented at the 2003 American Society of Civil Engineers Annual Convention and Exposition, Nashville, TN. Paper awarded Daniel W. Mead Prize, ASCE national/international award as best paper.
- Kubik, M., and Ding, S., "Engineering, Technology & Computer Science Building, Exhibited: User participatory Design Results."
- Marshal, D.J. "Transformation by Design: An Indiana Sophomore's Exposure to Rome", Proceedings of the 2004 Annual ASEE Conference and Exposition, Nashville, TN.
- Marshall, D.J., " Ft. Wayne Firefighters Memorial", City of Ft. Wayne Firefighters Union
- Marshall, D.J., " Ft. Wayne Firefighters Historical Museum", City of Ft. Wayne Fire Department
- Unsell, C. Wayne, "Tracking K-12 Students After Participation in Outreach Programs", Frontiers in Education National Conference Proceedings, Boulder, CO, November 2003.
- Unsell, C. Wayne, "Center for the Built Environment: A Center of Excellence for Engineering Technology and Community Interaction." Proceedings of the 2003 American Society for Engineering Education Annual Conference and Exposition. Nashville, TN, June 2003
- Unsell, C. Wayne, "Director of Outreach Programs: An Industry Funded Position for the School of Engineering, Technology, and Computer Science." Proceedings of the 2003 Conference on Industry and Education Collaboration. Tuscon, AZ, January 2003

Technical reports

- Kendall, R.C., "AllOne – Putting It All Together: Government Policy, Worker Technology Productivity, and the Best Interests of All the People", Book 1 of 3, 3 chapters.
- Unsell, C. Wayne, Technical Report for Engineering Resources, Inc., "Evaluation of Steel Bracing for Potential Heat Damage".
- Unsell, C. Wayne, Technical Report for EPCO, Inc., "Tension, Side Pull, and Edge Pull, for Various Size and Grade of Bow Eyes".
- Unsell, C. Wayne, Technical Report for New Millennium, Inc, "Lateral Loading on Various Configurations of Truss Supports".
- Unsell, C. Wayne, Perma-Column, Inc., "Strength Comparison of Perma Column and Standard Reinforced Nail Laminated Columns".

B. Department of CS:

Book chapters

- Kim, B. Experimental Evaluation of Query fingerprinting with Embedded Search Term Markers, Lecture Notes in Computer Science, Springer-Verlag Vol 2668 (2003)

Journal Publications

- Kim, B., Enhancement of the Diamond Film Characteristics by Increasing the Cyclic Modulation time Interval of CH4 Flow, (with S-H Kim) New diamond and Carbon Technology Vol. 13, No. 6, (2003)
- Kim, B., An Empirical Investigation of E-commerce Application Development Effectiveness, (with A. Huang and M. Wang) Journal of Strategic E-commerce, Vol. 1, No 1 (2003)
- Petruska, G. Saturated Chain Partitions (with Hamburger and Sali) Studia Math. Sci. Hung. (2003)
- Sedlmeyer, R. Web Application to Record and Analyze the Clinical Experiences of Nursing Students (with Meyer, Carlson, Modlin) Journal of Computers Informatics Nursing (2003)

Proceedings, manuals, supplementary materials, presentations, and book reviews

Kim, Astrograph for Exploring Discussion Forums, Proc. Int'l conference on Information and Knowledge Engineering (2003)

Sedlmeyer, R. Essential Clinical Behaviors Systems, U. of Illinois Chicago Nursing Education Institute.
Sedlmeyer, R. Teaching, Learning and Technology 2003: Reaching new Frontiers, Purdue Instructional Computing Services

1. Department of ECET

Patent

Broberg and Predina (ITT- Aerospace/Communications): "Tuned Open Loop Switched to Closed Loop Method for Rapid Point-to-Point Movement of a Periodic Motion Control System.", U.S. Patent awarded; European Patent Pending.

Proceedings, manuals, supplementary materials, presentations, and book reviews

Broberg presented "Relationships between Student Learning Styles and Methods of Presentation for Engineering Technology Students," 2003 ASEE Annual Conference Proceedings, Nashville, TN, June 2003

Broberg presented "Student Learning Styles and Web Classes," at the Teaching Online in Higher Education (TOHE) Online Conference, presented online Dec. 03

Broberg, facilitator, with Jeanette Clausen and Doug Townsend of "Teaching Via Lecture: A Workshop on Best Practices" 19 attendees, Sep 03.

Broberg, Co-presenter, with Jeanette Clausen, of CELT Summer Grants for Instructional Development Workshop, 3 attendees, Nov. 03

Lin presented "Reassessing Capstone Courses for Supporting TC2K Program Accreditation," 2003 ASEE Annual Conference Proceedings, Nashville, TN, June 2003.

Steffen presented "Using Samba instead of Windows in Local Area Networking," 2003 ASEE Annual Conference in Nashville, Tennessee

Broberg, "EET107/CPET101/EET101 Lab Manual", 76 pages sold in Follett's and EET107/CPET101/EET101 Lab Manual/Solution Manual", 58 pages. Both used by other ECET faculty in ECET 107, and CPET101 during Spring 2003.

Broberg, "EET 152/EET207 Lab Manual", 105 pages sold in Follett's and "EET 152/EET207 Lab Manual/Solution Manual", over 100 pages. Both used by other ECET faculty in ECET 152 and ECET 207 both Spring and Fall 2003.

Broberg, author the PowerPoint slides for Chapters 24-31 of "Circuit Analysis Theory and Practice", Robbins & Miller, Thomson-Delmar Learning. Also reviewed and corrected PowerPoint slides for chapters 1-23 of this textbook.

Broberg, author of PowerPoint lectures and CD's for ECET 205 and ECET 302 for AY 2003-04.

Broberg, author of ECET/CS 114 courseware CDs, containing the lectures, at the bookstore. All audio lectures were made using PowerPoint and Impatica and streamed via the web. Quizzes were taken via the web and assignments were submitted via WebCT.

Lin, a work book - ECET 264 C Programming Language with Applications, <http://www.etc.ipfw.edu/~lin/>.

Lin, a Web-based work book - CPET 499 Web Engineering and Design, <http://www.etc.ipfw.edu/~lin/>.

Broberg reviewed "Modeling & Control of Dynamic Systems (1st draft)", Thomson-Delmar Learning

Broberg reviewed "Lab Manual for Modeling & Control of Dynamic Systems", Thomson-Delmar Learning

Broberg reviewed "Operational Amplifiers and Linear Integrated Circuits" by Coughlin and Driscoll, Prentice-Hall

Broberg reviewed "Embedded C Programming and the Microchip PIC (1st draft), Thomson-Delmar Learning

Broberg reviewed "Advanced AC Electronics, solution manual by Jacob, Thomson-Delmar Learning

Broberg reviewed "Intro to PIC 18: Software and Hardware Interfacing", Thomson-Delmar Learning

Broberg reviewed Sample Chapter of New Text-"Fundamentals of Control Systems Engineering,

Continuous and Discrete", Thomson-Delmar Learning

Laverghetta reviewed three books for Artech House

Presentations

- Steffen, "Using Samba instead of Windows in Local Area Networking," 2003 ASEE Annual Conference in Nashville, Tennessee, http://www.asee.org/conferences/caps/document/2003-1700_Final.pdf
- Broberg and Lin, "Relationships between Student Learning Styles and Methods of Presentation for Engineering Technology Students," 2003 ASEE Annual Conference Proceedings, Nashville, TN, June 2003, http://www.asee.org/conferences/caps/document/2003-693_Final.pdf.
- Lin and Broberg, "Reassessing Capstone Courses for Supporting TC2K Program Accreditation," 2003 ASEE Annual Conference Proceedings, Nashville, TN, June 2003

Department of ENGR

Book

- Voland, G., *Engineering by Design*, Second Edition, Upper Saddle River, NJ: Prentice Hall/Pearson Education (2004).

Journal Publications

- Abu-Mulaweh, H. I., "Measurements of Laminar Mixed Convection Flow Adjacent to an Inclined Surface with Uniform Wall Heat Flux," *International Journal of Thermal Sciences*, Vol. 42, No. 1, pp. 53-58, 2003.
- Abu-Mulaweh, H. I., "A Review of Research on Laminar Mixed Convection Flow Over Backward- and Forward-Facing Steps," *International Journal of Thermal Sciences*, Vol. 42, Vol. 9, pp. 897-909, 2003.
- Abu-Mulaweh, H. I., "Experimental Investigation of the Influence of Buoyancy on Turbulent Flow Adjacent to a Horizontal Plate Induced by a Trip Wire," *International Journal of Thermal Sciences*, Vol. 42, No. 11, pp. 1013-1020, 2003.
- Abu-Mulaweh, H. I., "Experimental Comparison between Heat Transfer Enhancement Methods in Heat Exchangers," *The International Journal of Mechanical Engineering Education*, Vol. 31, No. 2, pp. 160-167, 2003.
- Abu-Mulaweh, H. I., and Njock Libii, J., "Integration of Boiling Experiments in the Undergraduate Heat Transfer Laboratory," *The International Journal of Mechanical Engineering Education*, Vol. 31, No. 3, pp. 269-279, 2003.
- Abu-Mulaweh, H. I., "The Need of Capstone Senior Design Projects for Outside Support," *World Transactions on Engineering and Technology Education*, Vol. 2, No. 3, pp. 431-434, 2003.
- Njock Libii, J., "Mechanics of the Slow Draining of a Tank under Gravity," *American Journal of Physics*, Vol. 71 (11), pp. 1204-1207, November 2003.
- Pomalaza-Raez, C. A., and Groff, B. H., "Retention 101: Where Robots Go...Students Follow," *Journal of Engineering Education*, 2003.
- Younis, N. T., "Designing an Optical Force Transducer," *Optical Engineering*, Vol. 42, No. 1, pp. 151-158, 2003.
- Zhao, J. and Sadeghi, F., "Analysis of EHL Circular Contact Shut Down," *ASME Journal of Tribology*, 125, pp. 76-90, 2003.

Proceedings, manuals, supplementary materials, presentations, and book reviews

- Abu-Mulaweh, H. I., Armaly, B. F., and Chen, T. S., "Measurements of Turbulent Mixed Convection Flow over a Vertical Forward-Facing Step," ASME Proceedings of the Summer National Heat Transfer Conference, CD-ROM, Las Vegas, Nevada, 2003.
- Abu-Mulaweh, H. I., "Integration a Design of Experiment in the Heat Transfer Laboratory," ASEE 2003 Annual Conference, June 22-25, CD-ROM, Session 1426, Nashville, Tennessee.
- Abu-Mulaweh, H. I., "Portable Experimental Apparatus for Demonstrating Heat Recovery Concepts," ASEE 2003 Annual Conference, June 22-25, CD-ROM, Session 3233, Nashville, Tennessee.
- Abu-Mulaweh, H. I., "The Need of Capstone Senior Design Projects for Outside Support," ASEE 2003 Annual Conference, June 22-25, CD-ROM, Session 1526, Nashville, Tennessee.
- Chattopadhyay, S., "Fatigue Crack Initiation in Pressure Vessels Using a Distance Parameter," PVP-Vol. 469, Design and Analysis of Pressure Vessels and Piping: Implementation of ASME B31,

- Fatigue, ASME Section VIII, and Buckling Analyses, pp. 133-139, ASME PVP Conference, Cleveland Ohio, July 20-24, 2003.
- Du, X., "Designing Efficient Routing Protocol for Mobil Ad Hoc Networks," The Central States University Research Conference, Argonne National Lab, October 2003.
- Kang, B., "Stability of a Spinning Rotor Subjected to Distributed Traction," Proceedings of ASME International Mechanical Engineering Congress & Exposition, IMECE2003-42424 CD-ROM, Washington D.C., pp. 16-21, November, 2003.
- Mueller, D. W. Jr., "Introducing the Finite Element Method to Mechanical Engineering Students Using MATLAB," Proceedings of the 2003 American Society for Engineering Education Annual Conference & Exposition, Session 3566, Nashville, Tennessee.
- Oloomi, H. and Shafai, B., "Weight Selection in Mixed Sensitivity Robust Control for Improving the Sinusoidal Tracking Performance," Proceedings of the IEEE Conference on Decision and Control (CDC), pp. 300-305, Maui, Hawaii, 2003.
- Shafai, B. and Oloomi, H., "Output Derivative Estimation and Disturbance Attenuation Using PI Observer with Application to a Class of Non-linear Systems," IEEE Southeastern Symposium on System Theory (SSST), pp. 196-200, Morgantown, West Virginia, 2003.
- Oloomi, H. and Shafai, B., "Realization Theory for Two-Time-Scale Systems," American Control Conference (ACC), pp. 4476-4481, Denver, Colorado, 2003.
- Pomalaza-Raez, C. A., "Media Access and Routing Protocols for Power Constrained Ad Hoc Networks," Keynote Speech, URSI/IEEE XXVIII Convention on Radio Science & IV Finnish Wireless Communication Workshop, University of Oulu, Finland, October 2003.
- Thompson, E. A., Acierto, J., and Chavis A., "Integration of Data Acquisition Hardware into an Undergraduate Senior Design Project," Proceedings of the 33rd ASEE/IEEE Frontiers in Education Conference, Boulder, CO, November 5-8, 2003.
- Thompson, E. A., "Increasing the Support Network of Female Engineering Students through Society of Woman Engineers Activities," ASEE 2003 Annual Conference, June 22-25, CD-ROM, Nashville, Tennessee.
- Younis, N. T., "Establishing and Assessing Educational Objectives for Engineering Programs," ASEE 2003 Annual Conference, June 22-25, CD-ROM, Nashville, Tennessee.
- Younis, N. T., "Stress Analysis Experiments for Mechanical Engineering Students," ASEE 2003 Annual Conference, June 22-25, CD-ROM, Nashville, Tennessee.
- Kang, B., Book review: *C Programming for Scientist and Engineers (four chapters)* by Reddy, R., and Ziegler, C., Prentice Hall.
- Mueller, D., Book review: reviewed chapters from *Heat Transfer: A Practical Approach* 2nd edition by Cengel, Y. A., McGraw-Hill.

Awards

- Abu-Mulaweh, H. I., College Science Teacher of the Year, Sigma Xi – the Scientific Research Society, IPFW.
- Thompson, E. A., Excellence in Service Award, ETCS, IPFW.

E. Department of MFT:

Proceedings, manuals, supplementary materials, presentations, and book reviews

- Liang, Zhongming, "Using Co-Op Reviews as Assessment Tools" Proceedings of the 2003 ASEE FIE Conference, Boulder, CO, November 2003.
- Narang, Ramesh V., "A New Model for Assessment and Continuous Improvement", Proceedings of the 2003 American Society for Engineering Education Annual Conference, June 2003.

F. Division of OLS:

Book chapter

- Gilbreath, J.B. (in press). Creating healthy organizations: The supervisor's role. In *The International Review of Industrial and Organizational Psychology* (edited by Cooper & Robertson).

Journal Publications

- Pomalaza-Raez, C.A. & Groff, B.H. (2003). Retention 101: Where robots go. . . Students follow. *ASEE Journal of Engineering Education*.
- Hite, L.M. & McDonald, K.S. (2003). Career aspirations of non-managerial women: Adjustment and adaptation. *Journal of Career Development* 29(4), 221-235.
- Hite, L.M. (in press). Black and white women managers: Access to opportunity. *Human Resource Development Quarterly* 15(2).
- Montesino, M. U. (2003). Leadership/followership similarities between people in a developed and a developing country: The case of Dominicans in NYC and Dominicans on the island. *Journal of Leadership and Organizational Studies* 10(1), 82-92.
- Montesino, M.U. (2003). Entendiendo la democracia loboral en America Latina (Understanding workplace democracy in Latin America). *ADOARH Magazine* 2(6), 12-14.
- Smith, J.T. (2003). Lego in the classroom: Using building materials to build understanding. *Review of Business and Economics*, 1: 233-237.
- Smith, J.T. (2003). Playing for keeps: Results of a study on retaining volunteers over time. *Journal of Nonprofit Management*, 7, 14-22.
- Smith, J.T. (in press). Tell us what you really want. *Journal of Volunteer Administration*.
- Von Bergen, C.W., Mawer, W.T. & Sherr, M.A. (2003). Recent developments in mandatory dispute resolution agreements. *Southern Law Journal* 13(2).

Proceedings, manuals, supplementary materials, presentations, and book reviews

- Smith, J.T. (2003). Puree or paella: Determining culture of identification, Proceedings abstracts from the International Conference on Advances in Management, 165-166.

Presentations

- Hite, L.M. (2003). Gender and ethnicity: The experiences of Hispanic managers and professionals. Presentation for the third interdisciplinary Gender, Work, and Organization Conference in Staffordshire, England (refereed).
- Hite, L.M. & Mansour-Cole, D. (2003). Campfire reflections: Catharsis and camaraderie. Presentation for the Organizational Behavior Teaching Society Conference, Springfield, MA (refereed).
- McDonald, K.S. & Mansour-Cole, D. (2003). Conceptualizing and humanizing organizational change: A nontraditional model building exercise. . . Presentation for the Organizational Behavior Teaching Society Conference, Springfield, MA (refereed).
- Montesino, M.U. (2003). Factors that help/hinder workplace democracy in Latin America. Presentation for the Third International Conference of the Iberoamerican Academy of Management, Sao Paulo, Brazil (refereed).
- Montesino, M.U. (2003). Human solidarity and community development. Presentation for the Guatapanal Community Foundation, New York City (invited keynote).
- Montesino, M.U. (2003). National culture and participation at work: A Latin American view. Presentation for the Third Annual Indiana Latina/o Student Leadership Conference, Indiana University.
- Sherr, M. & Babovich, W.M. (2003). Protecting intellectual property in the new millennium. Presentation for The Learning Conference, Institute of Education, University of London.
- Sherr, M. & VonBergen, C.W. (2003). Recent developments in mandatory dispute. Presentation for the Southern Academy of Legal Studies in Business, Houston, TX.
- Turnheim Smith, J & Liao-Troth, M. (2003). Psychological contracts in the nonprofit sector: A meta-analysis. Presentation for the ARNOVA Conference, Denver, Colorado (refereed).
- Turnheim Smith, J. (2003). Tell us what you really want. Presentation for the International Conference of Volunteer Administrators, Cincinnati, OH.

Awards

- Mansour-Cole, D. inducted into FACET, Class of 2003
- Montesino, M. Community Advisory Council's Service-to-Students award, IPFW.
- Montesino, M. public recognition from Fort Wayne Mayor Graham Richards for work with the Hispanic community in Allen County.

2. Summary Number of Scholarly Presentations and Publications: 68

Includes 1 book, 2 book chapters, 1 patent, and 23 journal publications..

3. Grants/contracts.

Total Funded ETCS/OLS (External, Internal, Gifts in Kind): \$ 742,663

Total Funded ETCS/OLS (Cash): \$ 113,833

A. Department of CAET: \$14,924

1. Unsell, Engineering Resources, Inc., \$625, " Evaluation of Steel Bracing for Potential Heat Damage".
2. Unsell, Ft. Wayne - Allen County Economic Development Alliance, \$7,500, " U.S. 30 Corridor Study in Allen County".
3. Unsell, Brown, EPCO, Inc., \$1,400, " Tension, Side Pull, and Edge Pull, for Various Size and Grade of Bow Eyes"
4. Unsell, Brown, New Millineum, Inc, \$1000, "Lateral Loading on Various Configurations of Truss Supports"
5. Unsell, Brown, Perma Column, Inc., \$1,743, "Strength Comparison of Perma Column and Standard Reinforced Nail Laminated Columns"
6. Devine, David, American Association of State Highway Transportation Officials, AASHTO Reference Books , \$356
7. Devine, David, ExCEEEd Fellowship, \$2,300, teaching fellowship for one week at West Point

B. Department of CS

None

C. Department of ECET: \$613,289

1. Steffen received a 2004 IPFW Summer Faculty Grant in the amount of \$7000.00 to study secure communications with a Personal Data Assistant (PDA)
2. Goodmann received an IPFW summer research grant, entitled "Rapid Prototyping of Digital Signal Processing Applications and Algorithms in Real Time Using DirectX and Windows" in 2003.
The following grant proposals were submitted
3. Paul Lin, Co-investigator, a National Institute of Health (NIH) grant proposal entitled "Increasing Childhood Immunization Compliance," submitted with Principal Investigator Dr. Koichiro Otani, Public and Environmental Affairs, IPFW, and two other co-investigators, Dr. McMahan and Ms. Crouse, from the Department of Health, Fort Wayne, submitted Total requested grant is \$96,000 for two years.
4. Broberg, Co-Principal Investigator NSF Grant "Instrumentation and Facility for Interdisciplinary Teamwork", submitted Dec 03 with Carlos Pomalaza Raez and Hossein Oloomi (Engr) and Jeff Nowak (Educ).
5. Steffen submitted \$75,000.00 proposal to Cisco for data communication equipment to be used in the further development of the network security course
6. Steffen received a scholarship granted by the National Security Agency (NSA) in covering room, board and tuition to attend Information Assurance Education Graduate Certificate Program at Purdue University sponsored by the Center for Education and Research in Information Assurance and Security (CERIAS).

Other Software and Equipment Grants/Donations

8. During 2003, the ECET department received software and equipment donation valued at greater than \$396,000 for use in EET and CPET courses.
9. Hack received a donation of Altera's NEOS System on a Chip development system. The value of this donation was \$1600.00
10. Hack received a donation of Xilinx's Digilab development system. The value of this donation was \$2134.

11. Goodmann received a donation of 2 Digital Signal Processing development systems from Analog Devices, Inc. These are valued at \$745, and will be used in EET-357 and EET-231, Fall, 2003.
12. Broberg received \$850 equivalent in donations from Microchip Inc: 30 16F877 chips (\$350), 10 18F452 chips (\$200), and 60 PIC16F87X Data Sheet Manuals (\$300). Used in ECET 205.
13. Broberg received \$8500 from International Truck to purchase National Instruments ELVIS hardware for use in teaching LabView in ECET 365.
14. Broberg received over \$10,000 worth of equipment donations from Tom Gust (former owner of a Radio Shack franchise) \$5000+ for 2002 in Dec 02 and \$5000+ for 2003 in Jan 03.
15. Lin continued to receive Rational Rose Enterprise Edition software/license donation from Rational Software Inc, for used from October 2002 to October 2003. It included 30 copies of floating license and 2 license of node locked license. The single floating license price of Rose Enterprise is \$6,115 and subtotal worth of 30 copies is \$180,345. The single node locked price is \$3495 and the subtotal worth of 2 copies is \$7,990. The total value of the Rational Rose software donation is about \$186,460.
16. Lin received Rational RealTime development software/license donation from Rational Software Inc, for used from October 2002 to October 2003. It included 30 copies of floating license and 2 license of node locked license on October 10, 2002. The single floating license price of Rose Enterprise is \$6,115 and subtotal worth of 30 copies is \$180,345. The single node locked price is \$3495 and the subtotal worth of 2 copies is \$7,990. The total value of the Rational Rose software donation is about \$186,460.

D. Department of ENGR: \$105,366

1. Abu-Mulaweh, H. I. , Experimental Apparatus for Demonstrating Air Conditioning Processes, American Society of Heating, Refrigerating and Air Conditioning Engineers, (\$4,990)
2. Cain, S., Geiger ADP Detector LADAR Simulation, ITT/ACD, (\$5,384)
3. Cain, S., 3-D LADAR Image Simulation, OptiMetrics, (\$9,992)
4. Kang, B., IPFW 2003 Summer Faculty Research Grant (\$7,000)
5. Pomalaza-Raez, C. A., 2003 First Lego League State Competition, ITT Aerospace and Communications Division, (\$14,000)
6. Pomalaza-Raez, C. A., Nokia-Fulbright Fellowship, (\$50,000)
7. Thompson, E. A., Purdue Research Foundation 2003 Summer Research Grant (\$7,000)
8. Zhao, J., IPFW 2003 Summer Faculty Research Grant (\$7,000)

Proposals:

1. Abu-Mulaweh, H. I. and Mueller, D. W. Jr., Acquisition of a Three-Component Laser Doppler Velocimeter System for Research and Education, NSF, (\$204,300)
2. Mueller, D. W. Jr. and Abu-Mulaweh, H. I., Integration of the Design-Build-Test Concept into the Undergraduate Thermal Science Curriculum, NSF, (\$63,654)
3. Pomalaza-Raez, C., Broberg, H, Oloomi, H., Nowak, J., Instrumentation and Facility for Interdisciplinary Teamwork, NSF, (\$195,238)
4. Drummond, C., Duchovic, R.J., Kim, B., Thompson, E. A. and Vasquez, D. A. (\$1,052,863)

E. Department of MFT

None

F. Division of OLS: \$9,084

- Groff & Mansour-Cole, American Association of University Women Trust, Fort Wayne, Leadership Camp for Girls, \$1,482.
- Groff, IPFW mini-research grant, OLS 280: Microcomputer Software Applications, \$352.
- Hite, IU Overseas Conference Fund grant to present paper at the Gender, Work, and Organization Conference in Staffordshire, England, (\$600) and the IPFW Overseas Conference Fund for the same conference (\$400).
- McDonald, Junior League of Fort Wayne, Leadership Camp for Girls, \$4,650 (\$4,375 in-kind donations).

Montesino, IU Overseas Conference Fund grant to present paper at the Third International Conference of the Iberoamerican Academy of Management, Sao Paulo, Brazil (\$600) and the IPFW Overseas Conference Fund for the same conference.

Sherr, IU Overseas Conference Fund grant to present paper at the Learning Conference, University of London, \$600.

Smith, IU Overseas Conference Fund grant to present paper at the International Conference on Advances in Management, Seoul, South Korea (\$700) and the IPFW Overseas Conference Fund for the same conference (\$400).

4. Bibliography of notable student accomplishments.

A. Department of CAET

1. Tim Hawk was invited to and attended International Masonry Institute's Masonry Camp on Swan Island Maine in the summer of 2003.
2. Five CAET Dept. students presented class project work at the April 2003 CAGERS meeting held at the Coliseum.
3. ID students designed and presented to Mark Pope concepts for a refurbished Royal Dons Room
4. ARET Student presentations for International Masonry Institute, Chicago, IL

B. Department of CS

1. Johnson, Philip (student) with Kim, B. Visualization of Topical Transitions in Full length Text Documents, Proc. 14th Midwest Artificial intelligence and Cognitive Science Conference, (2003)

C. Department of ENGR

Sponsored design projects: 2002-2003

Enhancing the Heat Transfer Characteristics of Tooling Used in the Production of Plastic Bottle Caps

Sponsor: JB Tool, Die and Engineering, Fort Wayne

Advisor: D. W. Mueller

Automatic Silicon Dispenser

Sponsor: Taylor Made Glass

Advisor: J. Njock Libii

Increasing the Capability of a Geothermal Heating-Air Conditioning Test Lab

Sponsor: WaterFurnace International, Inc.

Advisors: H. I. Abu-Mulaweh and H. Oloomi

Sponsored design projects: 2003-2004

Wireless Controlled Robot

Sponsor: ITT Aerospace/Communications

Advisor: E. A. Thompson

Charge-Air-Cooler Hose Test Station

Sponsor: International Truck and Engine Corporation

Advisor: D. W. Mueller

Trac-lok Differential Case Poka Yoke

Sponsor: Dana Corporation-Syracuse, Indiana

Advisor: J. Zhao

2004 SAE Mini Baja® SAE Frame Design

Sponsor: IPFW Society of Automotive Engineers

Advisor: B. Kang

2004 SAE Mini Baja® Power Train Design

Sponsor: IPFW Society of Automotive Engineers
Advisor: B. Kang

Portable Experimental Setup for demonstrating Air Conditioning Processes
Sponsor: American Society of Heating, Refrigerating and Air Conditioning Engineers
Advisors: H. I. Abu-Mulaweh and H. Oloomi

Sample of student organizations' activities and sponsored events:

ASME

Advisor: N. T. Younis

1. Aug. 28 - Meeting
2. Sept. 15-19 - ENGR 101 class recruiting
3. Sept. 24 - Group Meeting
4. Sept. 26-27 - RSLs, Student Seminar
5. Oct. 20 - ASME Representatives visit, group meeting and brainstorming session
6. Nov. 12 - Officers meeting to prepare for Steel Dynamics (SDI) Tour
7. Nov. 19 - Group Meeting to prepare for SDI Tour
8. Nov. 21 - SDI Tour
9. January - all members meeting, three design comp meetings
10. February – engineers' week, unique vehicle display (press release), local design competition w/ high school invited (press release), three design comp meetings
11. March - four design comp meetings RSC, regional design and oral competition and Charles T. Main, Purdue Alumni speech at Shriners Temple (ASME recruitment)
12. April/May - all members meeting, complaint session, officer elections, cars bash.

IEEE

Advisors: S. Cain and A. Chatterjea

1. The officers have set up committees and have organized monthly meetings in advance. These monthly meetings have pre-set agendas so that all the necessary topics are covered.
2. The officers have worked with other student organization/s like Student Organization Leadership Development (SOLD) in developing a membership drive for next semester.
3. With the approval from the dean of engineering and in conjunction with CASA a new tutoring service for electrical engineering students is scheduled to be offered in spring 2004.
4. A professional web page has been designed and implemented at <http://www.students.ipfw.edu/~ieee>.
5. To increase membership, IEEE officers were busy developing a membership drive in conjunction with Student Organization Leadership Development (SOLD).
6. Officers have lectured to the freshman engineering classes to invite students to IEEE.
7. The members and officers have volunteered their time to work at the First Lego Competition.
8. A plan is underway on helping or being a part of the robot exhibition during Engineers Week for next year.
9. To raise money for this organization various planning (like LAN tournament) is in progress.
10. In the last meeting, emphasis on the need for being close with ASME and investigating how IEEE and ASME can give and receive help from each other. Members are planning to do that in spring 2004.

SAE

Advisor: B. Kang

1. Elected new officers (president: Damon Dilworth, vice president: Annita Arispe, Secretary: Mike Shively, Treasurer: Jason Wilkinson)
2. Formed IPFW SAE Mini-Baja team for 2004 competition
3. Raised funds for Mini-Baja vehicle (raised \$7,360 so far)
4. Designed Mini-Baja vehicle to be built and tested in the following semester
5. Mailed out IPFW SAE newsletter to the donators
6. The number of current members: 15

SWE

Advisor: E. A. Thompson

1. February 19, 2003 - Engineers Week High School Career Day
2. March 4, 2003 - Careers in Engineering day for middle schoolers
3. April 4, 2003 - Plant tour ITT
4. May 13, 2003 - Dinner meeting and election of new officers
5. August 12, 2003 - Picnic at pavilion on IPFW campus
6. September 12, 2003 - Opportunity Banquet, Walb Union ballroom
7. October 9-11, 2003 - SWE National Conference in Birmingham, AL
8. November 12, 2003 - Pizza with guest speaker Michelle Wegscheid of International Truck
9. December 13, 2003 - Lego League Robotic Competition

Division of OLS

OLS major, Dirk Novak, was awarded the first David Swinehart Scholarship (May 2003).

Student presentations at the IPFW Undergraduate Student Research and Creative Endeavor Symposium, April 2003:

Dietrich, K. "Beyond advising and leading: The perception of being mentored" (faculty mentor: D. Mansour-Cole)

Nichols, B. "Student-campus fit: What students need, and what they get" (faculty mentor: B. Gilbreath)

Two teams of students competed in the SHRM Area III HR Games, West Lafayette, IN, March 2003, (19 teams from 11 universities). Faculty advisor: M. Sherr.

Appendix B

1. Community/Professional Involvement

Department of CAET

Academic –Community Collaborative Projects

1. Marshall, Kubik, Participated in two-day design charrette to investigate the possibilities of renovating the Valspar plant as a educational institution for the FourD Education Foundation
2. Unsell, "The Bridges of Allen County", Holland Elementary School, Toyota Tapestry Grant, \$10,000, collaborator.
3. Franke Service learning project in CET 108, Route Surveying and Design, with Mary E. Frank, Uriel Castillo, and Nana A. Opoku during the Fall Semester 2003. Electronic Topographic survey (along with the location of lease lines, per lease information supplied) of the American Red Cross of Northeast Indiana site located at 1212 East California Road in Fort Wayne, Indiana. The survey formed a component in redesigning the Red Cross of the future in our community@.

Faculty Civic Involvement

1. Marshall, Special projects director for the "Kids Draw Architecture" calendar sponsored by AIA Fort Wayne as part of the downtown Fourth of July celebration.
2. Marshall, Five separate presentations on "Castles" for NE Indiana schools in conjunction with FAME and the International Youth Arts Festival
3. Unsell, Trainer, Disaster Action Team, Single Family Services, NE Indiana American Red Cross
4. Kubik, International Friendship Gardens, Michigan City, Indiana, pavilion site selection consultation

B. Department of CS

Academic –Community Collaborative Projects

1. Software Engineering Certificate program created with Cont. Ed. For Raytheon [continued in 2003]
2. Investigation of use of tablet PC's for recording of clinical data for Nursing students. [continued in 2003]

Faculty Civic Involvement

1. Erbach: Rotary Club of Fort Wayne, Chair, Int'l Youth Exchange Committee, Member, Ambassadorial Graduate Fellowships Committee

C. Department of ECET

Academic –Community Collaborative Projects

Maintaining an articulation agreement with Ivy Tech State College Fort Wayne -Electronic Technology and Computer Information Systems programs

Broberg and Lin worked with Mr. Dipak Gjandi, President of Global Systems Inc., in Fort Wayne regarding part-time positions for ETCS students, arranged 6 students for interview, 2 hired, December 2003.

Lin worked with Terry Vandale, General Manager of Precision Die Company, in Fort Wayne regarding part-time positions for ECET students, arranged 3 students for interview, 1 hired, December 2003.

Lin worked with Mr. Dave Bryson, HR Manager of GE Industrial System regarding summer internship positions

Broberg worked with Mr. Mike Newell, Manager of ITT Aerospace on summer internships.

Faculty Civic Involvement

1. Broberg, Chair, Citizen Engineer Committee and IPFW liaison for the Engineer's Week Committee for Northeast Indiana (9th year), Feb. 2003.
2. Broberg served as MathCounts Judge and presented Awards for Northeast Indiana region MathCounts (<http://mathcounts.org/>) competition. 11 Middle Schools and 63 students participated, at IP FW, Feb. 03
3. Laverghetta, Regional Science Fair Judge
4. Laverghetta, Judge for Pulan Sampat Memorial Undergraduate Research Award
5. Laverghetta participated in the DeKalb County Leadership Development Program
6. Laverghetta involved with an outside individual in the research project that is an emergency vehicle alarm system. This project is recognized by the Department of Justice.
7. Lin is Northeast Indiana region coordinator/representative of a national pre-engineering and engineering technology program called Project Lead The Way (www.pltw.purdue.edu) organized by Dr. Mike Ohair.
8. Lin, Co-organizer of the "Project Lead the Way Conference for Middle and High School at IPFW," held on November 11, 2003, at IPFW; as worked with Dave Wilkinson, Indiana Department of Education, Carol Dostal, the School of ETCS Outreach Director.

D. Department of MFT

1. Donald J. Schmidt is President of the Fort Wayne City Council, serves on the Board of Directors for the Allen County Solid Waste District, Fort Wayne Community Trust Fund, Common Ground Mediation Service, and Materials Processing Inc. He is a Better Business Bureau senior arbitrator, host of the "Council Call-in" monthly television show and a member of the Fort Wayne business forum.
2. G. Allen Pugh is an advisor to the Northeast Indiana Innovation Center, advisor on the successful Fort Wayne Allen County Development Alliance Kamaya expansion project.

E. Division of OLS

Faculty Civic Involvement

Gilbreath, participatory action research project regarding health care utilization, City of Auburn

Hite, team of facilitators for the State of Black Fort Wayne Forum, a United Way initiative

Mansour-Cole, keynote speaker for the annual retreat of the Northeast Indiana Association of Volunteer Administrators. Council trainer and delegate for the Limberlost Council, Girl Scouts of the USA.

McDonald, board member and secretary, Fort Wayne Education Foundation. Member of the Ivy Tech State College Paralegal Program Advisory Committee. Junior Achievement Consultant for Leo Elementary.

Montesino, board member of the Hispanic Leadership Coalition of Northeast Indiana, volunteer as Spanish interpreter for the Earned Income Tax Credit Outreach Initiative of the Internal Revenue Service and the Office of Mayor Graham Richard, also serve as Spanish interpreter for parent-teacher conferences at Fairfield Elementary School.

Sherr, Volunteer Lawyers Program, Fort Wayne; personnel committee for United Way of Fort Wayne; co-chair conference on World Affairs for Rotary International, Fort Wayne Downtown Club.

Smith, grant making committee, Junior League of Fort Wayne; class president, Dartmouth College, Class of 1986.

2. List of faculty professional involvement (officer, conference organizer, etc.)

A. Department of CAET:

1. Unsell, Treasurer, Anthony Wayne Chapter of Indiana Society of Professional Engineers, 1993-Present.
2. Unsell, Steering Committee Co-Chair, Indiana Small Aircraft Transportation System (SATS) Lab Consortium, 2003.
3. Unsell, Member, Northeast Indiana National Engineers Week Committee, 1990-Present.
4. Unsell, CoChair, High Bridge Design Contest, 1991-Present.
5. Unsell, Co-chair, Science Central Middle School Bridge Design Contest, 2000-Present
6. Unsell, Regional Coordinator, NE Indiana Regional Future City Competition, 2001-Present.
7. Unsell, Chair, Professional Engineers in Education Practice Division, Indiana Society of Professional Engineers
8. Unsell, Nominated Alternate Commissioner, TAC/ABET for NSPE

9. Unsell, NE Region Scholarship Chair, Indiana Society of Professional Engineers
10. Marshall, President, AIA Fort Wayne. American Institute of Architects
11. Marshall, Review of four Papers for the 2003 ASEE National Conference
12. Marshall, Session Moderator for "International Section" at the 2003 ASEE National Conference
13. Devine, D.P., TAC ABET Program Evaluator training, Nashville, TN.
14. Devine, D.P., Summer Internship Program at Krakow University of Technology, Krakow, Poland
15. Devine, Secretary, Indiana Section, American Society of Civil Engineers

B. Department of CS

1. Erbach: Assoc. editor, Journal of Informatics Research and Education
2. Erbach: Proceedings reviewer, Admin. Studies Assoc. of Canada
3. Erbach: Reviewer, College Journal of Mathematics

Department of ECET:

TAC/ABET Evaluator

- Broberg, TAC/ABET (IEEE representative) evaluator, visit to Penn State, Harrisburg, PA, November 9-1, 03. Fourteen colleges and universities visited during period 89-03
- Lin, certified TAC/ABET (IEEE representative) evaluator, October 2003.

Professional Offices Held

- Broberg, Chair-Elect (two year term, then two years as chair) of the Electrical and Computer Engineering Technology Department Heads Association (ECETDHA) (46 paid, member departments as of Dec 03).
- Broberg, Asst. Vice-Chair of Programs for ETD (Term is June 04-June 06): "Responsible for the peer review process of papers submitted for the ETD program for the ASEE Annual Conference. "Encourages moderators and speakers to submit their papers for review and publication in the Conference Proceedings and maintains and updates list of paper reviewers. Also assists the Vice-Chair for Programs as assigned." Over 250 papers submitted for ASEE 04.
- Lin, Program Chair of Information Systems Division (ISD) of the American Society for Engineering Education (ASEE), working on a feasibility study on establishing a new Journal of Computer and Information Technology, June 2002 – present.
- Lin, Board Member, Information Systems Division (ISD) of the American Society for Engineering Education (ASEE), June 2002 – present.
- Steffen, Faculty Advisor Phi Kappa Theta.
- Steffen, Faculty Advisor Tau Alpha Pi.

Paper Session/Technical Presentation Organizer/Moderators

- Broberg, Moderator: 2003 ASEE Annual Conference Session #3547 "Promoting ET thru K-12 Projects" and Co-Moderator of Session #3548 "ET Design Projects," June 2003.
- Lin organized 5 paper sessions, reviewed and final approval of papers for ASEE 2003 Annual Conference.

Coordinator and Proctor of FIE and PE Exams for the State of Indiana

- Broberg, Coordinator and Proctor (for the State of Indiana) for the Fundamentals of Engineering (FE) exam and for the Professional Engineer's (PE) Exam for Northeast Indiana. (11th year), April 2003.

1. Broberg, reviewed papers for ASEE Annual Conference, June 03
 - 4 papers for Information Technology Division
 - 6 papers for Engineering Technology Division
 - 2 papers for Instrumentation Division
2. Laverghetta reviewed
 - 2 papers for the Frontiers In Education Conference and 2 papers for the Journal of Engineering Education
3. Lin reviewed
 - 28 papers for ASEE Information System Division, 2003 ASEE Conference
 - 3 papers for ASEE Instrumentation Division, 2003 ASEE Conference

- Papers for the IEEE International Electric Machines and Drives Conference which was held in Madison, WI June 1-4, 2003.
- 4. Steffen reviewed
5 papers for ASEE Information System Division, 2003 ASEE Conference

D. Department of ENGR

Refereeing of Journal Papers

1. Abu-Mulaweh, H. I,
International Journal of Mechanical Engineering Education
International Journal of Thermal Sciences
2. Chattopadhyay, S.
• *Journal of Pressure Vessels Technology*
3. Du., X.,
• *Journal of Network and System Management*
4. Kang, B.
• *ASME Journal of Vibration and Acoustics*
• *ASME Journal of Tribology.*
5. Mueller, D. W. Jr.
AIAA Journal of Thermophysics and Heat Transfer
6. Oloomi, H.
IEEE Transactions for Automatic Control
7. Zhao, J.
• *ASME Journal of Tribology*

Refereeing of Conference Papers

1. Abu-Mulaweh, H., *ASEE Annual Conference.*
2. Kang, B., *International Mechanical Engineering Congress & Exposition, Washington, D.C., 16-21 November 2003.*
3. Mueller, D. W. Jr., *AIAA Conference, ASEE Annual Conference*
4. Oloomi, H., *the 2004 American Control Conference.*
5. Pomalaza-Raez, C., *URSI/IEEE XXVIII Convention of Radio Science & IV Finnish Wireless Communication Conference, October 16-17, 2003.*
6. Younis, N., *ASEE Annual Conference*

Membership in professional societies, committees or boards

1. Abu-Mulaweh, H.,
ASME Heat Transfer Division K-12 Committee on Aerospace Heat Transfer
ASEE Division of Experimentation and Laboratory Oriented Studies (DELOS): Treasurer.
2. Chatterjea, A.
• National Council of Examiners for Engineering and Surveying Group (NCEES), working member.
3. Mueller, D.
• *AIAA Thermophysics Technical Committee (awards sub-committee)*
4. Njock Libii, J.
• NCA Accreditation
5. Voland, G.
• International Editorial Advisory Board, *Journal of SMET Education: Innovations and Research*
• Advisory Board, ELMO Project, Northeastern University.

E. Department of MFT

Faculty professional involvement:

- Barry Dupen is Secretary, Fort Wayne Chapter of ASM International, a member of SAE International and ASEE.

- Wilson Liang is a licensed Professional Engineer, TAC/ABET program evaluator; a member of SME, DECUS, ASME, ASEE, and ASEE campus representative. He is an engineering consultant at DePuy Orthopaedics, Inc. and Cooper Standard.
- Ramesh V. Narang is the Faculty advisor for SME, a member of ASEE, IIE, Fort Wayne Engineers Club, a reviewer for the Computer and Industrial Engineering Journal, the Journal of Engineering Technology, and the International Journal of Modern Engineering. He presented a lecture on “Gage Capability” at the American Society of Quality, Fort Wayne Chapter in January 2003.
- Kenneth Perry is a licensed Professional Engineer and a member of ASME, SME, ASEE, and former chair of the Anthony Wayne chapter of the Indiana Society of Professional Engineers. He is also the chair of the MFT department.
- G. Allen Pugh is a member of ASQ, ACM/SigGraph, SCS (senior member), IIE (senior member), ASEE, and is on the editorial board of Computers and Industrial Engineering Journal. He also conducts beta testing of simulation software for Imagine That Inc.

Reviewing and other professional activities:

- Fourteen conferences and workshops attended
- Eight papers reviewed for conference proceedings.

F. Division of OLS

Gilbreath, reviewer for the Academy of Management conference.

Hite, journal reviewer (*Human Resource Development Quarterly & Journal of Management Education*), reviewer for the Academy of Resource Development conference and the Organizational Behavior Teaching Conference.

Mansour-Cole, reviewer for the Academy of Management conference and the Organizational Behavior Teaching Conference.

McDonald, served on two Academy of Human Resource Development Committees (Cutting Edge Committee and Integrity and Ethics Committee), journal reviewer (*Human Resource Development Quarterly*), reviewer for the Academy of HRD conference and the Organizational Behavior Teaching Conference.

Montesino, member of the Advisory Board of the Fort Wayne Area Chapter of the American Society for Training and Development, journal reviewer (*Human Resource Development Quarterly & Human Resource Development International*).

Sherr, case reviewer, National Conference for Society For Case Research, Allen County Bar Association (Disciplinary Committee) and Indiana Bar Association (Labor Committee and Dispute Resolution Committee).

Smith, Human Resources Track Co-chair, International Conference on Advances in Management, journal reviewer (*Nonprofit and Voluntary Sector Quarterly*) and reviewer for Academy of Management conference and Association of Researchers on Nonprofit Organizations and Voluntary Action conference.

Faculty also are involved in numerous service activities on-campus as well.