

DEPARTMENT OF TECHNOLOGY

FY22 Annual Budget Report

March 2022



**ILLINOIS STATE
UNIVERSITY**

Illinois' first public university

TED BRANOFF – CHAIRPERSON

JOSH BROWN – ASSISTANT CHAIRPERSON, GRADUATE COORDINATOR

Faculty

Matt Aldeman, PhD: *Sustain. & Renewable Energy
Troy Blunier, MS: Engineering Technology
Ted Branoff, PhD: Chairperson
Josh Brown, PhD: *Technology & Engineering Ed.
Adam Burke, MS: *Graphic Communications Tech.
Geoffrey Campbell, MS: Computer Systems Tech.
Yi-hsiang “Isaac” Chang, PhD: Tech. Management
Kevin Devine, EdD: *Engineering Technology
Sundeep Inti, PhD: Construction Management
Randy Jacobs, MS: Construction Management
Jin Ho Jo, PhD: Sustainable & Renewable Energy
Josh Katz, MS: Graphic Communications Tech.
Chris Merrill, PhD: Technology & Engineering Ed.
Jaby Mohammed, PhD: Engineering Technology
Stephen Mujeye, PhD: *Computer Systems Tech.

Borinara Park, PhD: Graduate Program
Klaus Schmidt, PhD: Graduate Program
Euysup Shim: PhD: Construction Management
Pranshoo Solanki, PhD. *Construction Management
Jeritt Williams, MS: Engineering Technology
Haiyan “Sally” Xie, PhD. Construction Management

** Program Coordinator*

Administrative Professionals & Civil Service

Ashley Berg: Academic Advisor
Jennifer Florence: Program Student Advisor
Elizabeth Gerrard: Office Manager
Alex Roehm: Laboratory Mechanic
Cindy Wert: Administrative Aide, Lead Staff

FY22 Annual Budget Report
Table of Contents

Introduction3
Department Vision, Mission and Goals3
Listing of College and University Goals3
Departmental Goal Alignment with CAST and Educate/Connect/Elevate4
Accomplishments and Productivity by University Goals.....5
Measures of Productivity19
Internal Reallocations and Reorganizations.....21

Introduction

The purpose of the Annual Budget Report is to (a) summarize our departmental support of the CAST Strategic Plan and *Educate•Connect•Elevate*, (b) indicate measures of productivity, (c) describe resource reallocations or reorganizations, (d) and provide accountability for supplemental funding. Where possible, performance measures are from quantitative data compiled by other ISU units such as Research and Sponsored Programs Office and Planning, Research and Policy Analysis.

Department Vision, Mission and Goals

Mission: *Through excellence in authentic learning, scholarship, and outreach experiences, we prepare technology-oriented professionals for an ever-changing environment. We embrace the diversity of programs within the Department of Technology, which build upon the University's strong general education foundation.*

Vision: *Leaders in applied engineering, technology management and education.*

Goal 1: Provide state-of-the-art applied learning environments for undergraduate and graduate students in high-demand disciplines.

Goal 2: Support and reward faculty and staff excellence.

Goal 3: Promote a culture of respect and inclusion among faculty, staff, and students.

Goal 4: Enhance the effectiveness of the Department by strengthening engagement.

Listing of College and University Goals

CAST Strategic Plan 2019-2024

1. Integrate relevant applied learning and technologies to provide an exemplary educational experience focusing on individual goals for both undergraduate and graduate students.
2. Foster a cohesive culture of diversity, inclusion, and equity that reaches all our students, faculty, and staff.
3. Support a workplace that facilitates and rewards faculty and staff excellence.
4. Develop and maintain productive relationships with external constituencies.

Educate • Connect • Elevate 2018-2023

1. Enhance Strength and Stability
2. Foster Innovation
3. Nurture Diversity and Inclusion
4. Enrich Engagement

Departmental Goal Alignment with CAST and Educating Illinois

DEPARTMENT OF TECHNOLOGY GOALS 2019-2024	CAST 2019-2024	EDUCATE~CONNECT~ELEVATE 2018-2023
1. Provide state-of-the-art applied learning environments for undergraduate and graduate students in high-demand disciplines.	I. Integrate relevant applied learning and technologies to provide an exemplary educational experience focusing on individual goals for both undergraduate and graduate students.	I. Enhance Strength and Stability
2. Support and reward faculty and staff excellence.	III. Support a workplace that facilitates and rewards faculty and staff excellence.	II. Foster Innovation
3. Promote a culture of respect and inclusion among faculty, staff, and students.	II. Foster a cohesive culture of diversity, inclusion, and equity that reaches all our students, faculty, and staff.	III. Nurture Diversity and Inclusion
4. Enhance the effectiveness of the Department by strengthening engagement.	IV. Develop and maintain productive relationships with external constituencies.	IV. Enrich Engagement

I. Accomplishments and Productivity for FY22 --

Progress at Achieving Illinois State University, CAST, and TEC Goals

ISU Goal 1: Enhance Strength and Stability.

CAST Goal 1: Integrate relevant applied learning and technologies to provide an exemplary educational experience focusing on individual goals for both undergraduate and graduate students.

TEC Goal 1: Provide state-of-the-art applied learning environments for undergraduate and graduate students in high-demand disciplines.

TEC Goal 1: Strategy 1. Regularly assess and evaluate all departmental functions and programs to assure continuous improvement of academic rigor, scholarship and service.

Implementation actions	FY22 Outcomes / Status
<p>1. Maintain program quality as indicated by successful program reviews and re-accreditation by discipline-specific accrediting agencies such as ACCE, ATMAE, and CAEP.</p>	<ul style="list-style-type: none"> • Computer Systems Technology (CST) and Engineering Technology (ET) were re-accredited by the Association of Technology Management and Applied Technology (ATMAE) in November 2017. • Graphic Communications Technology (GCT) had a successful ACCGC re-accreditation visit in Spring 2021. • Construction Management (CM) had a successful ACCE re-accreditation visit in Spring 2021. The faculty submitted a corrective action form in 2021 to address two weaknesses. • Technology and Engineering Education (T&EE) reaccredited by CAEP in 2019. The program was reauthorized with Distinction by ISBE in FY22. • Computer Systems Technology, Construction Management, Engineering Technology, Graphic Communications Technology, Technology & Engineering Education, and the Graduate program submitted program review documents in FY21. Faculty are working to revisit their discussions of comparator analyses (CST, CM, ET, GCT, and Graduate) and aspirational programs (CST).
<p>2. Update and implement the departmental <i>Academic Quality Assurance Program</i> for all programs and services (Deliverable: <i>Annual Assessment Report and Program Goal Reports</i>).</p>	<ul style="list-style-type: none"> • The annual assessment report is posted on the TEC website each year (About). • TEC Assistant Chair oversees data collection and the development of the annual assessment report. Each program is charged to document program improvements based upon annual assessment data. • Academic Quality Improvement Plans updated in 2012 as part of program review. Posted on University Assessment Services web site. • The UCC approved the following curriculum revisions in 2021: <ul style="list-style-type: none"> • Undergraduate Editorial Requests: <ul style="list-style-type: none"> • Displaying the correct General Education courses: Engineering Technology and Graphic Communications Technology programs. • Changes to the prerequisite language in the catalog copy to match what is allowed by the department: TEC170, TEC222, TEC223, TEC224, TEC240, TEC244, TEC260, TEC292, TEC293, TEC303, TEC313, TEC326, TEC327, TEC330, TEC354 • Graduate Program: <ul style="list-style-type: none"> • New course approved: TEC436 – Contemporary Issues in Quality Management and Analytics.

<p>3. Maintain active industry advisory committees in each program that meet at least annually to review, improve, and validate curriculum and other strategic programmatic directions.</p>	<p><i>Advisory Board Meetings Dates</i></p> <table border="1"> <thead> <tr> <th>Program</th> <th># in 2021</th> <th>Date(s) of Last Meetings</th> </tr> </thead> <tbody> <tr> <td>CST</td> <td>1</td> <td>April 30, 2021</td> </tr> <tr> <td>CM</td> <td>1</td> <td>November 5, 2021</td> </tr> <tr> <td>ET</td> <td>0</td> <td>May 17, 2019</td> </tr> <tr> <td>GCT</td> <td>1</td> <td>March 4, 2021</td> </tr> <tr> <td>SRE</td> <td>1</td> <td>April 16, 2021</td> </tr> <tr> <td>TEEd</td> <td>0</td> <td>April 24, 2019</td> </tr> <tr> <td>Grad</td> <td>1</td> <td>April 2, 2021</td> </tr> </tbody> </table>	Program	# in 2021	Date(s) of Last Meetings	CST	1	April 30, 2021	CM	1	November 5, 2021	ET	0	May 17, 2019	GCT	1	March 4, 2021	SRE	1	April 16, 2021	TEEd	0	April 24, 2019	Grad	1	April 2, 2021
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<p>4. Conduct regular classroom peer observations with probationary faculty and non-tenured track faculty (NTT) to assess teaching performance and to promote quality of instruction.</p>	<ul style="list-style-type: none"> Peer observations and follow-ups of 3 tenure-track faculty in October/November 2021. Teaching expectations and feedback from IDEA evaluations included in Assignment of Duties letters to part-time instructors. One-on-one meetings held with all full-time faculty each spring to review IDEA ratings and plans for instructional improvements, as well as plans for scholarship, service, and professional development. Conducted formal classroom observations and evaluations for four NTT faculty in the spring of 2021. 																								
<p>5. Encourage students to pursue professional certification exams (such as CISCO, Microsoft, AIC Level 1, SME, Teacher Certification, etc.).</p>	<ul style="list-style-type: none"> Computer System Technology faculty encourage students to take professional certification exams (e.g., CISCO, Microsoft, etc.). Construction Management students took the AIC Level 1 exam in the spring of 2021. All Technology & Engineering Education students are required to take two state teacher examinations and develop an EdTPA portfolio as a national assessment for licensure. As part of TEC 250, TEC 317, TEC 353, TEC 354, Graphic Communications Technology students earn certifications in Print Planning & Estimating, Color Management Fundamentals, Autodesk Maya, and Publication Design for Print & Digital Media. 																								
<p>6. Review and update as necessary DFSC Policies to provide appropriate incentives for high quality performance in teaching, research, and service.</p>	<ul style="list-style-type: none"> DFSC guidelines last revised in Fall 2018. Main revisions were to clarify promotion in rank and Example Indicators of Teaching, Scholarship, and Service Performance. 																								
<p>7. Utilize enrollment management to maintain appropriate instructional capacity and student quality.</p>	<ul style="list-style-type: none"> Target admission numbers provided to EMAS for each program. All courses are major blocked until TEC students have registered. Admission GPA is similar to other units in CAST. The Department's enrollment increased from Fall 2020 (593) to Fall 2021 (609). 																								

TEC Goal 1: Strategy 2. Recruit, retain, and recognize diverse high-quality students.

Implementation Actions	FY22 Outcomes / Status
<p>8. Annually update the departmental <i>Diversity Plan</i> to ascertain actions needed for enhancement of participation by underrepresented groups.</p>	<ul style="list-style-type: none"> Technology and Engineering Education grants target diverse schools across Illinois. T&EE students are required to complete 50 clinical hours in a diverse school setting. Departmental Diversity Plan updated annually.
<p>9. Provide funding to faculty and staff for high-impact recruitment activities.</p>	<ul style="list-style-type: none"> Recruitment events included participation in (a) ISU Open Houses, Scholars & Honors days, departmental showcases, and weekly tours for interested students, (b) selected high school career days, (c) visits from high schools, (d) articulation meetings and subsequent agreements with community colleges, and (e)

	<p>special recruitment and promotional events such as IDEA competition, TSA competitions, and Tech Day that collectively bring hundreds of students and numerous high school teachers to the Department and ISU over the course of the year.</p> <ul style="list-style-type: none"> • Periodically host University College advisors for educational tours. We hosted approximately 20 advisors on February 22, 2019 to update them on the programs and give them a tour. • Chair, Advisor, and Program Coordinators (as needed) meet regularly to review recruitment activities outlined in annual program Plans of Work. • A welcome letter was sent to all admitted students during the Fall 2021 or Spring 2022 semester. In addition, admitted students received an email regarding scholarships from the Department Chair. • During FY2018, a TEC Student Ambassador program was initiated. Program areas nominated individuals who could represent their programs and the department at events such as open houses, individual tours, and alumni events. The program continued in FY22. • The Department worked with University Marketing and Admissions in FY22 on targeted digital advertising for Graphic Communications Technology, Sustainable & Renewable Energy, and Technology & Engineering Education.
<p>10. Maintain up-to-date professional marketing materials, including a department Web site, program brochures and information sheets, and portable travel displays.</p>	<ul style="list-style-type: none"> • A major revision of the TEC website was done in 2017. • Website updated each summer and periodically as needed throughout the year. • News blog replaced mailed newsletter in December 2009. News items are created regularly to update our constituents. • Facebook and LinkedIn pages for the Department and various undergraduate programs are maintained with photos and news items. • Construction Management continued their annual newsletter and sent it to high school Technology teachers, community college administrators in construction related programs, and construction companies in Illinois. The CM program also maintains a Facebook page. • The Graphic Communications Technology program maintains Facebook, Instagram, Twitter, and LinkedIn groups with regular posts and updates. • In 2019 we worked with University Marketing & Communications to update our promotional materials for the department.
<p>11. Maintain updated articulation guidelines with Illinois community colleges.</p>	<ul style="list-style-type: none"> • Department maintains over 100 program level articulations with 22 Illinois community colleges. Guidelines updated by Coordinators as needed to accommodate curriculum changes.
<p>12. Respond to university initiatives to inform and direct students to Department of Technology programs.</p>	<ul style="list-style-type: none"> • The Department provides University College with up-to-date materials so they can properly advise students across campus about our programs. • Department advisors and Department Chair participated in Preview during the summer of 2021. • Branoff and 4 other individuals from across campus met with Admissions counselors in 2019 to discuss ways to eliminate confusion among programs on campus which have a computing focus.

<p>13. Annually award scholarships and other recognitions to high-performing students.</p>	<ul style="list-style-type: none"> • TEC Scholarship and Honors recognition was held in October 2, 2021. • 27 new or continuing students shared in over \$64,000 of departmental scholarship awards. In addition, students reported receiving over \$82,000 in external scholarships. 												
<p>14. Promote student participation in the Honors Program and other scholarly recognitions.</p>	<ul style="list-style-type: none"> • Twelve students within the Department are enrolled in the Honors program (academic good standing, a full-time student, and have completed a minimum of 60 hours with a cumulative GPA of 3.3 on a 4.0 scale). <p><i>5-year comparison of Honors Students.</i></p> <table border="1" data-bbox="716 533 1133 722"> <thead> <tr> <th>Year</th> <th>Fall Census</th> </tr> </thead> <tbody> <tr> <td>2021</td> <td>12</td> </tr> <tr> <td>2020</td> <td>18</td> </tr> <tr> <td>2019</td> <td>14</td> </tr> <tr> <td>2018</td> <td>10</td> </tr> <tr> <td>2017</td> <td>13</td> </tr> </tbody> </table>	Year	Fall Census	2021	12	2020	18	2019	14	2018	10	2017	13
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<p>15. Pursue alternate delivery of courses to meet global changes and market conditions.</p>	<ul style="list-style-type: none"> • Six undergraduate and three graduate courses were offered online during summer 2021. • The Department continued to offer an online master’s sequence to target non-traditional audiences into the graduate program. • The Fall 2021 semester consisted of a mixture of face-to-face (74), hybrid (2), and online (2) sections. The same was true for the Spring 2022 semester with a mixture of face-to-face (73), hybrid (4), and online (1) sections. 												

TEC Goal 1: Strategy 3. Recruit, retain, and recognize diverse high-quality faculty and staff.

Implementation Actions	FY22 Outcomes / Status
<p>Fill tenure track lines as permission is granted to search.</p>	<ul style="list-style-type: none"> • The Department searched for one tenure-track position in FY22 in Graphic Communications Technology. The search was successful for an August 2022 start date.
<p>16. Provide support for faculty professional development to continually improve knowledge and skills in teaching and research</p>	<ul style="list-style-type: none"> • All full-time faculty are eligible for a specified level of travel funds for conferences, presentations, and professional development. • Competitive professional development funds available as budgets permit. Three faculty initiatives were funded for FY22. Faculty requesting funds are required to submit a 3-year professional development plan outlining enhancement strategies and benefits of the planned activities. • Mentor programs are established for all TT faculty. • Tenure-track faculty in their first two years are provided additional professional development funds to nurture a focused research agenda. • Faculty are strongly encouraged to participate in/apply for CTLT and other internal professional development (PD) funding opportunities.
<p>17. Structure teaching loads to facilitate research expectations.</p>	<ul style="list-style-type: none"> • When possible, without impacting instruction, accommodations in teaching assignments, such as scheduling classes on only two or three days per week, are made to provide blocks of time conducive to scholarly productivity. • As funds permit, new tenure-track faculty receive a one course release in the fall semester during their first year.

18. Provide opportunities for summer employment and industry externships.	<ul style="list-style-type: none"> Ten faculty taught courses during the 2021 summer. 																																				
19. Annually recognize outstanding departmental faculty for teaching, research, and service and nominate faculty for other award programs as appropriate.	<ul style="list-style-type: none"> 2021 Departmental Awards to Mohammed, Inti, and Aldeman respectively for Teaching, Research, and Service. TEC Alumni awards to Chris Merrill '92 (Distinguished Alum), and Ron Rutkowski '13 & '15 (Outstanding Young Alum). CAST Alumni awards Tim Bassett '09 (CAST Academy of Achievement), Dan McCluskey '72 & '76 (CAST Hall of Fame). 2021-2022 CAST Outstanding Research Award, Pranshoo Solanki. 																																				
20. Encourage faculty involvement in CTLT services and workshops.	<ul style="list-style-type: none"> Faculty regularly participate in CTLT topical workshops to improve classroom instruction. The table below presents the number of TEC faculty who participated in CTLT events and the total participation hours for all faculty for the each of last ten years. <table border="1" data-bbox="686 726 1360 1108"> <thead> <tr> <th>Year</th> <th># of individuals</th> <th>Total Hours</th> </tr> </thead> <tbody> <tr><td>2021</td><td>11</td><td>119</td></tr> <tr><td>2020</td><td>28</td><td>312</td></tr> <tr><td>2019</td><td>20</td><td>402</td></tr> <tr><td>2018</td><td>14</td><td>182</td></tr> <tr><td>2017</td><td>17</td><td>231</td></tr> <tr><td>2016</td><td>10</td><td>201</td></tr> <tr><td>2015</td><td>11</td><td>473</td></tr> <tr><td>2014</td><td>8</td><td>257</td></tr> <tr><td>2013</td><td>17</td><td>219</td></tr> <tr><td>2012</td><td>18</td><td>244</td></tr> <tr><td>2011</td><td>13</td><td>220</td></tr> </tbody> </table>	Year	# of individuals	Total Hours	2021	11	119	2020	28	312	2019	20	402	2018	14	182	2017	17	231	2016	10	201	2015	11	473	2014	8	257	2013	17	219	2012	18	244	2011	13	220
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21. Pursue a diverse high-quality faculty and staff through appropriate recruitment activities.	<ul style="list-style-type: none"> When conducting searches for faculty and staff in 2021, ads were placed in a wide spectrum of venues to attract the best candidates. This included professional society websites, HBCU publications, and standard publications for faculty position announcements. 																																				

TEC Goal 1: Strategy 4. Promote collaborations among faculty, student, and industry to develop leadership skills, professionalism, and collegiality.

Implementation Actions	FY22 Outcomes / Status
22. Solicit industry funding to support and encourage student participation in professional organizations and associated events such as field trips, guest speakers, conferences, competitions, and trade shows.	<p>Numerous opportunities available for students to engage in meetings, field trips, conferences and competitions sponsored by professional organizations. Following is a representative sample of these activities.</p> <ul style="list-style-type: none"> Over 30 CM students attended ACI, ASC, NECA, and MCAA national/state/local meetings/events/competitions, mostly funded by industry and professional organizations. The CM Partnership program was established in 2013 to fund student professional development. See https://tec.illinoisstate.edu/giving/construct ion-management-industry-partnership/ Six GCT students participated in the Phoenix Challenge Competition in 2021.

	<p>The group took first place in the national competition. Previous student travel for this competition has been partially funded by the <i>William P. LaBounty Endowment for Graphic Communications</i>.</p> <ul style="list-style-type: none"> T&EE students participated in conferences and competitions associated with state (TEAI and TSA), regional (Midwest TEECA), and national professional organizations (ITEEA).
23. Promote experiential learning opportunities and mentoring for students such as industry-based graduate assistantships, professional practice, honors projects, and independent studies.	<ul style="list-style-type: none"> CM and ET require work experience hours prior to the senior capstone courses. 7 BS and 15 MS students were placed in internships (TEC 398 and TEC 498) in 2021. Most undergrads opt for “informal” summer internship positions without registering for credit.
24. Organize and conduct social events that promote student-faculty interaction (i.e., tailgates, homecoming, etc.).	<ul style="list-style-type: none"> Due to COVID-19 restrictions, no social events were organized in 2021.
25. Provide opportunities for students, faculty, and staff to improve knowledge and skills through engagement with professional organizations.	<ul style="list-style-type: none"> TEECA students, Dr. Merrill, Dr. Brown, and several other faculty in the Department of Technology chaired and judged the Illinois State VEX robotics competition in March/April 2021. Randy Jacobs and 4 CM students attended the NECA conference in Nashville, TN October 9-12, 2021. Randy Jacobs and 6 CM students attended the MCAA conference in Scottsdale, AZ October 17-19, 2021. Euysup Shim, Sundeep Inti, and 12 CM students attended the ASC Region III competition October 20-23, 2021. Six students competed in the Preconstruction Competition, and the other six students competed in the Commercial Construction Competition. The commercial team placed second. Jeritt Williams and 3 ET students attended the ATMAE conference in Orlando, FL November 3-5, 2021. Alex Diffor, Jordan Osborne, and Jake Weihe each presented research they had conducted with Isaac Chang. Graduate student Sam Mangialardi worked with Dr. Park on a research paper, which he presented at the Decision Science Institute Annual Conference in November of 2021.

ISU Goal 2: Foster Innovation.

CAST Goal 3: Support a workplace that facilitates and rewards faculty and staff excellence.

TEC Goal 2: Support and reward faculty and staff excellence.

TEC Goal 2: Strategy 1. Enhance a culture of research and scholarship across the department that also celebrates faculty involvement in internally and externally funded activities.

Implementation Actions	FY22 Outcomes / Status
26. Support the department’s scholarly productivity with an emphasis on refereed publications and other appropriate scholarship.	<ul style="list-style-type: none"> See: Goal 1: Strategy 3. Recruit, retain, and recognize diverse high-quality faculty and staff for details regarding initiatives and resources provided to support faculty travel for scholarly presentations, professional develop, teaching load assignments, mentoring, and awards. The <i>Wiens/Custer Professional Development Endowment</i> provides financial support for faculty participation in development activities

	that promote skills related to scholarship and grantsmanship. In addition, funding is available for incentivize consulting support tailored to specific external grant needs in the areas of budget preparation, critical review, and even proof reading. Preference will be given to faculty who are in the early stages of their career.																																																												
27. Promote participation in grants and external funding by tenured faculty.	<ul style="list-style-type: none"> Success at grantsmanship is recognized at public venues and faculty are nominated for research related awards. Annual merit review values and rewards grantsmanship. <p><i>Summary of Annual Grant/Contract Productivity</i></p> <table border="1"> <thead> <tr> <th>Year</th> <th># of Proposal</th> <th>\$ Submitted</th> <th># of Awards</th> <th>\$ Awarded</th> </tr> </thead> <tbody> <tr> <td>FY21</td> <td>5.00</td> <td>9,886,586</td> <td>3.00</td> <td>732,024</td> </tr> <tr> <td>FY20</td> <td>3.00</td> <td>834,429</td> <td>1.00</td> <td>635,000</td> </tr> <tr> <td>FY19</td> <td>6.00</td> <td>1,045,655</td> <td>5.00</td> <td>737,124</td> </tr> <tr> <td>FY18</td> <td>9.48</td> <td>2,557,136</td> <td>5.00</td> <td>720,178</td> </tr> <tr> <td>FY17</td> <td>4.00</td> <td>564,876</td> <td>0.67</td> <td>184,250</td> </tr> <tr> <td>FY16</td> <td>2.67</td> <td>380,250</td> <td>2.07</td> <td>252,701</td> </tr> <tr> <td>FY15</td> <td>2.45</td> <td>653,861</td> <td>1.00</td> <td>212,939</td> </tr> <tr> <td>FY14</td> <td>1.00</td> <td>223,715</td> <td>2.33</td> <td>1,018,336</td> </tr> <tr> <td>FY13</td> <td>3.00</td> <td>1,846,121</td> <td>3.00</td> <td>1,221,075</td> </tr> <tr> <td>FY12</td> <td>6.53</td> <td>2,318,546</td> <td>4.50</td> <td>1,420,262</td> </tr> <tr> <td>FY11</td> <td>5.43</td> <td>1,066,706</td> <td>4.43</td> <td>1,170,619</td> </tr> </tbody> </table> <p>Data from Research and Sponsored Programs</p>	Year	# of Proposal	\$ Submitted	# of Awards	\$ Awarded	FY21	5.00	9,886,586	3.00	732,024	FY20	3.00	834,429	1.00	635,000	FY19	6.00	1,045,655	5.00	737,124	FY18	9.48	2,557,136	5.00	720,178	FY17	4.00	564,876	0.67	184,250	FY16	2.67	380,250	2.07	252,701	FY15	2.45	653,861	1.00	212,939	FY14	1.00	223,715	2.33	1,018,336	FY13	3.00	1,846,121	3.00	1,221,075	FY12	6.53	2,318,546	4.50	1,420,262	FY11	5.43	1,066,706	4.43	1,170,619
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FY11	5.43	1,066,706	4.43	1,170,619																																																									
28. Provide departmental resources in support of research and grant submission.	<ul style="list-style-type: none"> The <i>Wiens/Custer Professional Development Endowment</i> provides financial support for faculty participation in development activities that promote skills related to scholarship and grantsmanship. Each year faculty can submit proposals to received funding for activities related furthering their professional development. 																																																												
29. Facilitate effective mentorship of junior faculty to develop a focused line of scholarship that integrates teaching, research, and service/outreach.	<ul style="list-style-type: none"> Mentors are assigned to all new tenure-track faculty. Chair also visits with tenure-track faculty regularly to review, encourage, and support scholarly productivity. Tenure-track faculty are strongly encouraged to participate in the URG program and other CAST/ISU workshops to enhance grantsmanship skills. Two TT faculty had ongoing URGs in 2021, three TT faculty received new URGs in FY22, and two TT faculty received new Undergraduate Research Support Program (URSP) funding in 2021. Two TT faculty have continuing competitive external grant awards. 																																																												
30. Promote faculty involvement in CAST, CTLT, and University funding opportunities and sponsored research skill development activities.	<ul style="list-style-type: none"> Tenure-track faculty regularly participate in the CAST/RSP research and grant writing workshops. Tenured faculty participate as appropriated. 																																																												

TEC Goal 2: Strategy 2. Disseminate the results of research through journal publications, conference proceedings, and research presentations.

Implementation Actions	FY22 Outcomes / Status
31. Encourage tenure-track faculty to participate in the CAST Publication Incentive Program.	<ul style="list-style-type: none"> Faculty are encouraged to access CAST Publication Incentive Program (PIP) funds for additional travel support. In 2021, 5 faculty submitted 11 applications and earned PIP awards for 11 peer reviewed journal or proceedings publications.

	<p><i>5-Year Comparison Of Faculty Scholarly Productivity As Measured by PIP Awards</i></p> <table border="1"> <thead> <tr> <th>Yr</th> <th># of Faculty</th> <th># CAST Awards</th> </tr> </thead> <tbody> <tr> <td>2021</td> <td>5</td> <td>11</td> </tr> <tr> <td>2020</td> <td>2</td> <td>3</td> </tr> <tr> <td>2019</td> <td>6</td> <td>13</td> </tr> <tr> <td>2018</td> <td>3</td> <td>8</td> </tr> <tr> <td>2017</td> <td>4</td> <td>8</td> </tr> </tbody> </table>			Yr	# of Faculty	# CAST Awards	2021	5	11	2020	2	3	2019	6	13	2018	3	8	2017	4	8
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32. Provide travel support for faculty making refereed presentations at professional conferences.	<ul style="list-style-type: none"> • TEC provides \$1000 in travel support annual to faculty making refereed presentations at professional conferences. Additional funds are available to tenure-track faculty in their first two years. • TEC provides funding for graduate students who are accepted to give peer reviewed research presentations at professional conferences. 																				
33. Provide departmental resources to support faculty research facilities and laboratories.	<ul style="list-style-type: none"> • In 2021, department IDC funds were used to support faculty research in several areas (e.g., solar data logging equipment, materials and supplies for recycled glass research, equipment for 3D printing research, software for QMA research, etc.). 																				

TEC Goal 2: Strategy 3. Support and reward innovation and excellence in teaching.

Implementation Actions	FY22 Outcomes / Status
34. Encourage faculty to participate in professional development workshops sponsored by the CTLT or other organizations.	<ul style="list-style-type: none"> • Twelve faculty and staff participated in 118.5 hours of CTLT professional development.
35. Recognize outstanding faculty by nominating them for College and University teaching awards.	<ul style="list-style-type: none"> • One tenured faculty was nominated for University Distinguished Professor. • One tenure track faculty was nominated for the CAST Outstanding Researcher Award – Pre-Tenure Category and the ISU Research Initiative Award. • Two tenured faculty were nominated for the CAST Outstanding Researcher Award – Tenured Category. Dr. Solanki received the award.
36. Provide funds to support innovative learning environments.	<ul style="list-style-type: none"> • Program Coordinators submit annual Resource Allocation Plans (RAP) for capital equipment and facilities improvements. Requests are prioritized and supported as funding allows. Programs are encouraged to include longer-term resource planning in their annual Plan of Work.

TEC Goal 2: Strategy 4. Provide professional development support and opportunities for faculty and staff.

Implementation Actions	FY22 Outcomes / Status
37. Encourage faculty to participate in professional development activities that promote excellence.	<ul style="list-style-type: none"> • Faculty – Dr. Shim attended 3 webinars in Fall 2021 sponsored by NAHB in addition to the Spring 2022 NAHB International Conference. Dr. Aldeman participated in five online mini courses on Batteries and Battery Management Systems in FY22. • Staff – one TEC staff logged 9 hours of professional development activities related to software.
38. Provide professional development funding for faculty, especially when the activities lead to external funding proposals.	<ul style="list-style-type: none"> • Three faculty received professional development funding in FY22 toward work to generate an external funding proposal.

TEC Goal 2: Strategy 5. Encourage and reward meaningful service by faculty and staff.

Implementation Actions	FY22 Outcomes / Status
39. Encourage faculty and staff to participate in service activities on and off campus.	<ul style="list-style-type: none"> • See item 59 for a list of on-campus faculty service. • Several TEC faculty served as organizers and judges for the state-wide VEX robotics competition in March and April of 2021. • Matt Aldeman was a judge/volunteer for the ISU High School Research Symposium in April of 2021. • Matt Aldeman and Jin Jo organized “An Evening with Tesla”, which took place in October of 2021. • Matt Aldeman served as a volunteer at Metcalf School in 2021. • Matt Adleman, Troy Blunier, Josh Brown, Adam Burke, Geoff Campbell, Isaac Chang, Randy Jacobs, Jin Jo, Chris Merrill, Jaby Mohammed, and Stephen Mujeye serve as faculty advisors to ISU campus RSOs. • Isaac Chang served as a volunteer at Neuqua Valley High School. • Randy Jacobs and Jin Jo served as Civic Engagement Ambassadors. • Troy Blunier worked with Engineering Technology and Technology & Engineering Education students on service projects for physically challenged elementary school students. • Jaby Mohammed volunteered as a commencement greeter (May 2021), served as a discussant for the ISU Solar Car Team, and helped with the “move-in” process for residence halls in August of 2021. • Klaus Schmidt served on the GradBird Scholar selection committee. • Bo Park served as an analytics consultant for the Children’s Discovery Museum in Uptown Normal.
40. Recognize faculty and staff service in website media posts, monthly donor letters, and annual reports.	<ul style="list-style-type: none"> • Matt Aldeman was recognized with the 2021 Department of Technology Service Award.
41. Recognize outstanding faculty and staff by nominating them for College and University service awards.	<ul style="list-style-type: none"> • Cindy Wert was nominated for the FY22 ISU Distinguished Service Award.

ISU Goal 3: Nurture Diversity and Inclusion.

CAST Goal 2: Foster a cohesive culture of diversity, inclusion, and equity that reaches all our students, faculty, and staff.

TEC Goal 3: Promote a culture of respect and inclusion among faculty, staff, and students.

TEC Goal 3: Strategy 1. Promote inclusion, respect, and equity within our classrooms by creating awareness and programming for faculty and staff.

Implementation Actions	FY22 Outcomes / Status
42. Encourage faculty and staff to attend professional development activities related to inclusion.	<ul style="list-style-type: none"> • CAST sponsored several professional development workshops in 2021. They included “Facilitating Dialog on Controversial Conversations,” “The Truth about Microaggressions,” and “Decolonizing our Classrooms & Course Materials.” These were promoted by the college and department, and several Department of Technology faculty attended each. • One faculty attended a CTLT workshop in 2021 on foundations of diversity and inclusion.

Department of Technology

43. Devote at least one meeting per year to inclusion, respect, and equity professional development.	<ul style="list-style-type: none"> • All faculty and staff were encouraged to attend professional development sessions sponsored by the University and CAST. • A portion of the September 21, 2021 department retreat was dedicated to Student Success. Tamekia Bailey (Director of CAST Connections) met with the group to collect information and lead discussions about student success within TEC.
44. Collaborate with campus organizations related to diversity initiatives and utilize existing campus resources.	<ul style="list-style-type: none"> • Department of Technology faculty and staff were encouraged to participate in a workshops on “Facilitating Dialog on Controversial Conversations,” “The Truth about Microaggressions,” and “Decolonizing our Classrooms & Course Materials.” • Dr. Jaby Mohammed is a member of the CAST DEBI committee and keeps TEC faculty and staff informed of college and university initiatives. • Faculty were encouraged to participate in other workshops sponsored by the university.
45. Provide an anonymous channel for regular feedback about departmental experiences with faculty, staff, and other students to address issues and commend accolades.	<ul style="list-style-type: none"> • Graduating seniors all have an opportunity to complete our Senior Survey to give feedback on their experiences within the Department of Technology. • Graduate students are typically interviewed by phone or in person regarding their experiences.

Goal 3: Strategy 2. Continue to diversify and promote equity among faculty, staff, and students.

Implementation Actions	FY22 Outcomes / Status
46. Be strategic when posting faculty and staff position announcements to maximize the diversity of the search pools.	<ul style="list-style-type: none"> • When conducting searches for faculty in 2021, ads were placed in a wide spectrum of venues to attract the best candidates. This included professional society websites, HBCU publications, and standard publications for faculty and staff position announcements.
47. Create social media stories that highlight diversity in the department.	<ul style="list-style-type: none"> • The Department of Technology Facebook page highlights a wide-range of stories illustrating the diversity of programs and students within the department.
48. Include questions about student experiences with diversity and equity on the senior survey to inform departmental faculty and staff.	<ul style="list-style-type: none"> • These questions were added to our senior survey. No students added any comments to the questions.
49. Ensure diverse and equitable representation on advisory boards.	<ul style="list-style-type: none"> • All program area coordinators work to ensure advisory board members represent the diversity of our constituents.

Goal 3: Strategy 3. Increase and reward collaboration among students and faculty within the Department, College, and University.

Implementation Actions	FY22 Outcomes / Status
50. Encourage faculty to design projects that promote students working across curricula.	<ul style="list-style-type: none"> • TEC 320 project groups involve students across multiple program areas.
51. Promote teaching and research projects across program areas and departments/schools.	<ul style="list-style-type: none"> • Dr. Pranshoo Solanki has worked with faculty and students in TEC and Health Sciences on a research project using recycled glass as a replacement of cement in controlled low-strength material. Their work was funded by the EPA. • Several faculty in the department (Chang, Inti, Mujeye, Schmidt, Solanki, Xie) have submitted proposals or are working on proposals for external funding that have included faculty from other units on

	campus (e.g., Agriculture, Health Sciences, School of Information Technology, Nursing, Campus AT, etc.).
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Goal 3: Strategy 4. Continue to expand the international opportunities for students and faculty.

Implementation Actions	FY22 Outcomes / Status
52. Promote opportunities for faculty and students to study abroad, present and/or collaborate on international research projects, host visiting scholars, and globalize the curriculum.	<ul style="list-style-type: none"> Sustainable & Renewable Energy students are encouraged to complete a study abroad experience at AAMS University in Aarhus, Denmark. Klaus Schmidt and Sally Xie have collaborated with international colleagues on research projects.
53. Create social media stories that highlight international activities.	<ul style="list-style-type: none"> International stories are posted on the Department of Technology’s news site and Facebook page.
54. Highlight international initiatives at departmental meetings.	<ul style="list-style-type: none"> International initiatives are highlighted when appropriate at departmental meetings.
55. Gather data from graduating students to continuously improve the graduate program.	<ul style="list-style-type: none"> International students are typically interviewed upon graduation to gather feedback regarding their experiences.

ISU Goal 4: Enrich Engagement.

CAST Goal 4: Develop and maintain productive relationships with external constituencies.

TEC Goal 4: Enhance the effectiveness of the Department by strengthening engagement.

TEC Goal 4: Strategy 1. Encourage involvement in outreach, consulting activities, and leadership in appropriate state, national and international professional organizations.

Implementation Actions	FY22 Outcomes / Status
56. Encourage faculty participation in outreach and technology transfer activities.	<p>Outreach/consulting activities in 2021:</p> <ul style="list-style-type: none"> Matt Aldeman, Kevin Devine, and Jeritt Williams met with Sylvia Garcia, Director of the Illinois Department of Commerce & Economic Opportunity on April 28, 2021. Also present were President Larry Dietz, Dean McLoda, and representatives from the BN Chamber of Commerce, Rivian, and Ferraro. Teacher professional development – Merrill & J. Brown. Robotics, manufacturing, and CAD consulting – Devine & Williams. Wind/Solar energy workshops – Aldeman & Jo. IDEA workshops for drafting educators – Blunier & Williams. MDI workshops – Park & Schmidt. Quality Management and Analytics workshops – Park.
57. Encourage faculty participation and leadership in national and international professional organizations associated with our departmental disciplines.	<p>Faculty were actively involved in providing service to State or National Professional Organizations. A sampling of professional societies include: ACCE, ACCGC, ASC, ASEE, ATMAE, GLGA, IEEE, IGAEA, ISGG, ITEEA, and TSA.</p> <ul style="list-style-type: none"> Matt Aldeman – Treasurer, Energy Conversion and Conservation Division of ASEE. Troy Blunier – Board of Directors, Council of Supervision and Leadership, ITEEA.

	<ul style="list-style-type: none"> • Ted Branoff – Treasurer (North & South America), International Society for Geometry & Graphics. • Josh Brown – Treasurer, Council for Technology & Engineering Teacher Education, ITEEA. • Isaac Chang – Vice-President, Graphics Division and Chair of CEG Exam Commission, ATMAE. • Jin Jo – Associate Editor, <i>International Journal of Sustainable Building Technology and Urban Development</i>. • Chris Merrill – Chair, Illinois TSA. • Jaby Mohammed – Campus Representative (IN-IL Region), ASEE. • Klaus Schmidt – Editorial Board, <i>MDPI-Laws</i>. • Pranshoo Solanki – Committee Member, American Concrete Institute Committee 555 and the national Transportation Research Board. 																																																
58. Encourage faculty participation as members of accreditation boards and accreditation and program review teams.	<ul style="list-style-type: none"> • Dr. Dan Wilson (retired in summer 2021) is currently the Director of ACCGC. 																																																
59. Encourage faculty participation in campus-wide committees and activities.	<p>All faculty serve on one or more TEC/CAST/ISU committee(s). Faculty service is included in annual activity reports. Following is a listing of TEC faculty serving on College and University level committees.</p> <table> <tr> <td>Acad. Freedom, Ethics & Grievance</td> <td>Bo Park</td> </tr> <tr> <td>Academic Senate</td> <td>Matt Aldeman (2021)</td> </tr> <tr> <td>CAST Council</td> <td>Euysup Shim</td> </tr> <tr> <td>CAST Curriculum Committee</td> <td>Kevin Devine, Vice-Chair</td> </tr> <tr> <td>CAST DEBI Committee</td> <td>Jaby Mohammed</td> </tr> <tr> <td>CAST Research Council</td> <td>Isaac Chang</td> </tr> <tr> <td>CeMaST, Associate Director</td> <td>Chris Merrill</td> </tr> <tr> <td>CFSC</td> <td>Josh Brown</td> </tr> <tr> <td>Civic Engagement Council</td> <td>Randy Jacobs</td> </tr> <tr> <td>Classroom Logistics Adv. Group</td> <td>Klaus Schmidt</td> </tr> <tr> <td>Council on General Education</td> <td>Sally Xie</td> </tr> <tr> <td>Engineering Arch. Committee</td> <td>Matt Aldeman</td> </tr> <tr> <td>Engineering Curriculum Comm</td> <td>Ted Branoff</td> </tr> <tr> <td>GradBird Scholar Committee</td> <td>Klaus Schmidt</td> </tr> <tr> <td>Innovation Consulting Community</td> <td>Pranshoo Solanki</td> </tr> <tr> <td>ISU Damage Assessment Team</td> <td>Pranshoo Solanki</td> </tr> <tr> <td>ISU Faculty Review Committee</td> <td>Jin Jo</td> </tr> <tr> <td>ISU IT Infrastructure Committee</td> <td>Stephen Mujeye</td> </tr> <tr> <td>ISU OSR Advisory Board</td> <td>Klaus Schmidt</td> </tr> <tr> <td>ISU STEM DEI Taskforce</td> <td>Chris Merrill / Sally Xie</td> </tr> <tr> <td>Research Computing Adv. Council</td> <td>Isaac Chang</td> </tr> <tr> <td>UAS – Advisory Council</td> <td>Josh Brown</td> </tr> <tr> <td>University Appeals Board</td> <td>Pranshoo Solanki</td> </tr> <tr> <td>University Review Committee</td> <td>Bo Park</td> </tr> </table>	Acad. Freedom, Ethics & Grievance	Bo Park	Academic Senate	Matt Aldeman (2021)	CAST Council	Euysup Shim	CAST Curriculum Committee	Kevin Devine, Vice-Chair	CAST DEBI Committee	Jaby Mohammed	CAST Research Council	Isaac Chang	CeMaST, Associate Director	Chris Merrill	CFSC	Josh Brown	Civic Engagement Council	Randy Jacobs	Classroom Logistics Adv. Group	Klaus Schmidt	Council on General Education	Sally Xie	Engineering Arch. Committee	Matt Aldeman	Engineering Curriculum Comm	Ted Branoff	GradBird Scholar Committee	Klaus Schmidt	Innovation Consulting Community	Pranshoo Solanki	ISU Damage Assessment Team	Pranshoo Solanki	ISU Faculty Review Committee	Jin Jo	ISU IT Infrastructure Committee	Stephen Mujeye	ISU OSR Advisory Board	Klaus Schmidt	ISU STEM DEI Taskforce	Chris Merrill / Sally Xie	Research Computing Adv. Council	Isaac Chang	UAS – Advisory Council	Josh Brown	University Appeals Board	Pranshoo Solanki	University Review Committee	Bo Park
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TEC Goal 4: Strategy 2. Encourage service-learning opportunities for students

Implementation Actions	FY22 Outcomes / Status
60. Encourage faculty to develop service-learning experiences in appropriate courses.	<ul style="list-style-type: none"> • Department of Technology faculty are encouraged to be more strategic related to community engagement and service-learning

Department of Technology

	activities. These activities can now be entered within Digital Measures for their annual activity reports.
61. Encourage student civic engagement in community service activities, student organizations, and service-learning projects.	<ul style="list-style-type: none"> In late March, a wind storm created damage to the guy wires on the wind turbine at the Horticulture Center. Matt Aldeman, Jin Jo and two SRE students safely took down the turbine. During the fall of 2021, the group installed a new wind turbine.
62. Provide professional development support for faculty to develop service-learning experiences in appropriate courses.	<ul style="list-style-type: none"> The university offers annual funding opportunities for Civic Engagement. All faculty are eligible to apply for these awards. Faculty can apply for Professional Development funds to develop service-learning components to their courses.

TEC Goal 4: Strategy 3. Encourage collaborations with alumni and emeriti faculty.

Implementation Actions	FY22 Outcomes / Status
63. Arrange meetings with program coordinators and emeriti faculty to foster collaborative development initiatives.	<ul style="list-style-type: none"> Ad hoc meetings with emeriti faculty are arranged when necessary. Department chair maintains regular contact with the local emeriti group.
64. Maintain regular contact with alumni and friends (newsletter, website, campus events, award recognitions, etc.).	<ul style="list-style-type: none"> News items are displayed regularly on the Department of Technology website and Facebook and LinkedIn pages. Donor letters are sent monthly and highlight activities within the department.
65. Support faculty participation at events that engage alumni and friends.	<ul style="list-style-type: none"> Faculty are encouraged to attend Alumni Day, Homecoming, Advisory Board meetings, and other events.

TEC Goal 4: Strategy 4. Model a culture of giving and philanthropy.

Implementation Actions	FY22 Outcomes / Status																						
66. Encourage all faculty to contribute to the Foundation on a regular basis (100% committed campaign).	<p><i>10-Year comparative summary of faculty/staff giving</i></p> <table border="1"> <thead> <tr> <th>Year</th> <th># Faculty/Staff Giving</th> </tr> </thead> <tbody> <tr><td>2021</td><td>20</td></tr> <tr><td>2020</td><td>20</td></tr> <tr><td>2019</td><td>8</td></tr> <tr><td>2018</td><td>9</td></tr> <tr><td>2017</td><td>11</td></tr> <tr><td>2016</td><td>12</td></tr> <tr><td>2015</td><td>10</td></tr> <tr><td>2014</td><td>13</td></tr> <tr><td>2013</td><td>11</td></tr> <tr><td>2012</td><td>11</td></tr> </tbody> </table>	Year	# Faculty/Staff Giving	2021	20	2020	20	2019	8	2018	9	2017	11	2016	12	2015	10	2014	13	2013	11	2012	11
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67. Where appropriate, talk about the importance of giving back to the University to current students and alumni.	<ul style="list-style-type: none"> During the TEC Scholarship Reception, the chair talks about the importance of giving and how current scholarship recipients have benefited from donations to the Department. 																						

TEC Goal 4: Strategy 5. Maintain high quality instructional technology, facilities, and computing infrastructure.

Implementation Actions	FY22 Outcomes / Status
68. Submit group comments from TEC to the <i>Campus Master Plan</i> task force in support of new or upgraded facilities.	<ul style="list-style-type: none"> When appropriate, the Department may submit entries to the Campus Master Plan blog.

<p>69. Annually update the <i>5-Year Facility and Major Equipment Plan</i> linked to departmental strategies.</p>	<p>Program Coordinators submit annual Resource Allocation Plans (RAP) for capital equipment and facilities improvements. Requests are prioritized and supported as funding allows. Programs are encouraged to include longer-term resource planning in their annual Plan of Work. Projects completed or in progress for FY22 include:</p> <ul style="list-style-type: none"> • Computer Systems Technology – Upgrading card readers on lab doors. • Construction Management – Upgraded equipment in the concrete mixing area and the mechanical and electrical lab. With the help with funds from CAST. • Engineering Technology – Upgrading robots and controllers in Integrated Manufacturing lab with TEC and Provost funds. • Graphic Communications Technology – Replaced spectrophotometer/Densitometer. Upgrading computers in NSB lab and faculty offices. • Sustainable & Renewable Energy – Upgraded software (Windographer). Replaced charge controller on SRE solar powered grill. • Technology and Engineering Education – Ordered planer for TUR169 in January 2021. Still waiting on its arrival.
<p>70. Annually invest in the department computer network infrastructure including hardware and software, projection equipment, computer lab updates, servers and security components.</p>	<ul style="list-style-type: none"> • Upgrading the Macintosh computers in NSB.
<p>71. Consider sustainability and environmental impacts when making material/equipment purchases and facility improvements.</p>	<ul style="list-style-type: none"> • Faculty are encouraged to provide electronic instructional materials to students to minimize printing. • Many faculty use VPN and Remote Desktop to work from off campus locations. • Most faculty utilizing ReggieNet for course management. • At least 8 online classes delivered in each of the past 8 summers.
<p>72. Annually update and implement the departmental <i>Advancement & Development Plan</i> that includes a long-range vision and funding targets for equipment, facility, and endowed scholarships.</p>	<ul style="list-style-type: none"> • <i>Departmental Development Plan</i> updated annually. • Our development officer (Toni Burningham) and dean (Todd McLoda) have worked to increase major gift donors to the department. • Faculty have worked to secure major donations of software and equipment from friends of the Department.

TEC Goal 4: Strategy 6. Leverage the experience of advisory board members to strengthen and explore advancement opportunities.

Implementation Actions	FY22 Outcomes / Status
<p>73. Add advancement and development initiatives to regular advisory board meeting agendas.</p>	<ul style="list-style-type: none"> • TEC Coordinators are encouraged to add advancement and development initiatives to advisory board meetings. With the help of University Advancement, the Construction Management faculty have created an Industry Partnership Program to provide opportunities for organizations to support student activities.
<p>74. Encourage advisory board members to explore creative advancement and development opportunities.</p>	<ul style="list-style-type: none"> • When appropriate and when time permits, TEC Coordinators dedicate portions of their advisory meetings to advancement and development opportunities.

Departmental Measures of Productivity

A five-year listing of key measures of productivity are presented below. Additional measures are listed in the major accomplishments.

Degrees Conferred Fiscal Year	FY2017	FY2018	FY2019	FY2020	FY2021
B.S. Degrees (All Majors)	123	174	131	136	142
M.S. Technology Degrees	61	54	38	33	36

Enrollment by B.S. Degree – Fall Census Day	2017	2018	2019	2020	2021
Computer Systems Technology	76	77	63	60	63
Construction Management	199	175	177	187	198
Engineering Technology	111	103	120	104	128
Graphic Communication Technology	55	45	54	64	63
Sustainable & Renewable Energy	63	40	46	48	35
Technology & Engineering Education	36	40	33	39	35
Total	540	480	499	502	522
M.S. Technology – Fall Census Day	91	101	95	91	87

Fall Faculty FTE	2017	2018	2019	2020	2021
Tenure Track	16	15	15	17	15
Full-Time Non-Tenure	4	5	5	5	6
Part-Time Instructors (FTE)	3.55	3.97	4.4	2.84	2.59
Dept. Total	23.55	23.97	24.40	24.84	23.59

Credit Hours – by Fiscal Year	2017	2018	2019	2020	2021
Undergraduate Total	8,585	8,468	8,798	8,958	N/A
Graduate Total	1,515	1,933	2,050	1,937	N/A
Dept. Total	10,100	10,401	10,848	10,895	* 9,953

External Funding Awards	FY 17	FY 18	FY 19	FY 20	FY 21
# of Proposal	4.00	9.48	6.00	3.0	5.0
\$ Submitted	\$564,876	\$2,557,136	\$1,045,655	\$834,429	\$9,886,586
# of Awards	0.67	5.00	5.00	1.0	3.0
\$ Awarded	\$184,250	\$720,178	\$737,124	\$635,000	\$732,024

Source: Research and Sponsored Programs

Faculty Productivity Measures	2017	2018	2019	2020	2021
Refereed Journal & Proceedings (PIP)	16	19	22	16	20
Refereed Proceedings and Presentations	22	25	23	13	20
Books (new or revised editions)	1	0	0	0	0

Diversity Data / TEC Undergraduates					
Year	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021
Minority	110 (20%)	118 (25%)	124 (25%)	139 (28%)	165 (32%)
Non-Minority	430 (80%)	362 (75%)	375 (75%)	363 (72%)	357 (68%)
Total	540	480	499	502	522

Diversity Data / TEC Graduate Students					
Year	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021
Minority	10 (11%)	9 (9%)	10 (11%)	9 (10%)	7 (8%)
Non-Minority	81 (89%)	92 (91%)	85 (89%)	82 (90%)	80 (92%)
Total	91	101	95	91	87

* Of the 86 TEC graduate students enrolled in Spring 2022, 60 are International Students. An additional 9 students are in a 1 or 2 semester INTO Pathway program.

Gender Data / TEC Undergraduates					
Year	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021
Man	471 (87%)	423 (88%)	439 (88%)	432 (86%)	446 (85%)
Woman	69 (13%)	57 (12%)	60 (12%)	69 (14%)	73 (14%)
Non-Binary or ND	0 (0%)	0 (0%)	0 (0%)	1 (0%)	3 (1%)
Total	540	480	499	502	522

Gender Data / TEC Graduate Students					
Year	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021
Man	46 (51%)	55 (54%)	46 (48%)	49 (54%)	51 (59%)
Woman	45 (49%)	45 (45%)	49 (52%)	42 (46%)	36 (41%)
Non-Binary or ND	0 (0%)	1 (1%)	0 (0%)	0 (0%)	0 (0%)
Total	91	101	95	91	87

2021 IDEA Ratings						
Obj	Spring 2021	Percent Selecting	TEC Average Rating	IDEA Average Rating	TEC Percent raw average a least 3.5	IDEA Percent raw average a least 3.5
1	Gaining a basic understanding of the subject (e.g., factual knowledge, methods, principles, generalizations, theories)	77	4.1	4.2	93	89
3	Learning to apply course material (to improve thinking, problem solving, and decisions)	74	4.1	4.1	87	86
4	Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course	62	4.2	4.1	90	87
Obj	Fall 2021	Percent Selecting	TEC Average Rating	IDEA Average Rating	TEC Percent raw average a least 3.5	IDEA Percent raw average a least 3.5
1	Gaining a basic understanding of the subject (e.g., factual knowledge, methods, principles, generalizations, theories)	73	4.2	4.2	96	89
3	Learning to apply course material (to improve thinking, problem solving, and decisions)	74	4.2	4.1	96	86
4	Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course	67	4.2	4.1	95	87

II. Internal Reallocations and Reorganizations

A. *Describe any reallocations or reorganizations including the movement of positions, the upgrade of positions, the creation of new positions, or the reallocation of personnel or operating funds.*

Variance and instructional capacity dollars were used to fund part-time non-tenure track, full-time non-tenure track faculty, and summer courses. TEC had two faculty retirements, a staff retirement, and a change in lead staff in FY21. Anu Gokhale and Dan Wilson retired at the end of June 2021. Permission was granted to search for a tenure track faculty in Graphic Communications Technology to replace Dan Wilson's position. That search took place in the Fall of 2021, and Dr. Celeste Calkins will start August 16, 2022. Our senior laboratory mechanic (Bob Shuman) retired in December of 2020. A search for a new laboratory mechanic was successful, and Alex Roehm was hired in March of 2021. TEC's lead staff, Misty Bell, left the university in April of 2021. Cindy Wert returned to the Department of Technology in May of 2021 after serving two years as lead staff in the Wonsook Kim School of Art.

B. *Describe how the unit used additional funds from the Provost Office to enhance accomplishments and productivity. Additional Provost Office funds could include funding sources such as: Instructional Capacity funds, Summer Session funding, Academic Enhancement Funds, or variance dollars.*

Enhancement Dollars

TEC received approval for \$132,302 in Provost Enhancement/Academic Enhancement Fee funds to upgrade the Caterpillar Integrated Manufacturing Laboratory. These funds are being combined with FY22 General Revenue funds and FY21 SBC funds to purchase 5 collaborative robotics and upgrade the robot controllers and PLCs in the lab.

Variance Dollars

Variance was utilized to fund qualified part-time non-tenure track faculty, and full-time non-tenure track faculty. Also see the following report and data regarding instructional capacity accountability.

Instructional Capacity Funds

Describe the use of instructional capacity funds and how these funds have helped meet the goals and priorities of the College/Unit. Include plans for any component of instructional capacity not yet fulfilled for FY22 (as applicable).

The CAST Strategic Plan, Goal 1 states, “Integrate relevant applied learning and technologies to provide an exemplary educational experience focusing on individual goals for both undergraduate and graduate students.” Under Goal 1, Strategy 4 says “Employ and retain diverse faculty who are equally motivated by high quality teaching and scholarly activity.” Instructional capacity funds directly support these College goals and priorities. The Department of Technology has a similar goal to “Provide state-of-the-art applied learning environments for undergraduate and graduate students in high-demand disciplines.” Instructional capacity funds are allocated to the Department of Technology for each academic year from the CAST allocation.

In FY22, the Department of Technology was allocated \$194,585.62 of instructional capacity funding from CAST and spent \$195,654.38 on classes taught by adjunct instructors. Of that total, \$0.00 came from buy-out support from grants or faculty teaching release for services provided to other academic units. Therefore, the total paid from Technology resources to maintain instructional capacity was \$1,068.76. Detailed instructional capacity expenses have been submitted to CAST in a separate document.

C. Describe how the unit used additional funds from College/Department/School/Unit to enhance accomplishments and productivity. Additional College/Department/School/Unit funds could include such as: external funding, Foundation funds, variance dollars (note: this does not include variance dollars from AIF), or external contracts.

External Funding

- TEC students received approximately \$82,000 in externally funded scholarships from corporate or professional organizations.
- Registered Student Organizations received \$6,182.56 in industry support for student travel and expenses to participate in conferences and competitions sponsored by professional organization.
- Corporate partners provide a wide range of industry caliber software at no or low cost. Software provided at no cost includes Cadenas Partsolutions, EAF, On-Center, QuickBid, Palisade @RISK, BlueBeam, Esko Artios CAD, EFI Digital Store Front, PrintPoint 7.0, PrintSmith, Purlen, and XMPie uCreate. Software purchased at discounted educational pricing includes Articulate, Siemens NX, and RobotStudio. The following software is used at no cost to the Department through AutoDesk’s educational licensing agreements: AutoCAD, Building Design Suite Ultimate, and Inventor.

Foundation Funding

The table below summarizes the value of gifts and the number of donors during the past five years. This number includes regular “Gladly we Give” contributions by 7 Illinois State University faculty/staff. Sources of funding to Foundation TEC accounts include alumni gifts, corporate matching gifts, Annual Fund, in-kind donations, scholarship sponsors, emeriti, and faculty/staff payroll deductions. Endowment yields and other Foundation accounts funded approximately \$27,250 in annual scholarship awards or program enhancement funding.

Year	Amount	# of Donors
2021	\$172,602	153
2020	\$250,839	202
2019	\$168,228*	177
2018	\$53,468*	189
2017	\$181,264*	218

**Does not include in-kind software donations*

External Contracts

As reported by Research and Sponsored Programs, Technology faculty submitted proposals for grants and contracts totaling \$9,886,586 and was awarded \$732,024 in external support. Following are the highlights from external funding in 2021.

- Merrill (PI) completed a \$635,000 federal grant titled “*Illinois Career and Technical Education Innovative Curriculum Resources Project*”. July 1, 2020-June 30, 2021.
- Solanki (PI) completed a \$18,000 Illinois-Indiana Sea Grant titled “*The Beneficial Reuse of Lake Michigan’s Dredged Materials in Sustainable Construction Material: Flowable Fill*”. June 2020-June 2021.
- Solanki (PI) and Xie (Co-PI) continued work on a \$249,997 Illinois Center for Transportation / Illinois Department of Transportation grant titled “*Influence of Field-Curing Conditions on Strength of Concrete Test Specimens*”. August 2020 – August 2022.
- Collectively, these activities have enhanced the mission and productivity of the department by (a) providing indirect funds, (b) developing and maintaining vitally important involvement of faculty with industry, (c) providing opportunities for student involvement, and (d) generating data and experience for application in faculty publications and presentations.

Tech Tuition / AEF Funds

Tech tuition funds are utilized to support computer laboratory monitors (student workers) and to upgrade equipment in eligible laboratories.

Fiscal Year	Tech Tuition / AEF Funds
2022	\$132,302
2021	\$62,059
2020	\$45,973
2019	\$41,615
2018	\$44,404
2017	\$25,973
2016	\$22,526

III. Major Objectives for FY23

Describe the unit's most important forward-looking objectives related to academic program development, Equity, Diversity and Inclusion, Faculty Success, and Student Success. Outline how the objectives support the mission/goals of the Unit/Department/School, College and *Educate•Connect•Elevate*. Shown below are the goals for the Department of Technology as framed within the *Strategic Directions, Objectives, and Actions* of the Universities Strategic Plan.

A. Enhance Strength and Stability

1. Manage enrollment for Institutional success
 - *Increase retention and graduation rates* (TEC Goal 1)
2. Support talent management to attract and retain high-quality faculty and staff
 - *Enhance learning and professional development opportunities* (TEC Goal 1)
3. Strengthen financial position
 - *Encourage a culture of philanthropy* (TEC Goal 4)
4. Utilize best practices to enhance institutional effectiveness
 - *Optimize space utilization and development to advance the University's mission* (TEC Goal 1)

B. Foster Innovation

1. Support academic program offerings to meet enrollment demand in current and emerging fields of study
 - *Continue planning on ways to increase enrollments in department programs* (TEC Goal 1)
2. Support advancement of research, creative works, and knowledge generation
 - *Increase grant-writing activities and administrative support for scholarship* (TEC Goal 2)
3. Enhance organizational infrastructure to support innovation and collaboration
 - *Create/enhance spaces that encourage collaborative research, teaching, and other learning activities* (TEC Goals 1 & 4)

C. Nurture Diversity and Inclusion

1. Enhance diversity of faculty, staff, and student populations across the inclusive spectrum
 - *Recruit more diverse faculty, staff, and students* (TEC Goal 1)
2. Invigorate the campus community by providing a welcoming and inclusive environment
 - *Increase department-wide events that include faculty, staff, and students.* (TEC Goal 3)
3. Advance learning experiences that help faculty, staff, and students succeed in a global society
 - *Increase the number of international opportunities for students and faculty* (TEC Goal 3)

D. Enrich Engagement

1. Foster partnerships offering collaborative and mutually beneficial opportunities
 - *Increase opportunities for alumni and friends to share knowledge and resources and to interact with students* (TEC Goal 4)
 - *Sustain and grow partnerships with external groups* (TEC Goal 4)
2. Involve more faculty, staff, and students in outreach, engagement, and research opportunities locally, regionally, and globally
 - *Create awareness of opportunities for students to engage in research* (TEC Goal 1)
 - *Increase civic engagement opportunities* (TEC Goal 4)
3. Embed personal well-being and professional development initiatives into campus culture
 - *Promote wellness and professional development opportunities* (TEC Goal 3)
4. Integrate approaches to engage students in career development and readiness
 - *Increase career development and readiness opportunities for students* (TEC Goal 1)

Major FY23 Objectives mapped to the Department of Technology Goals and Action Items

Goal 1: Provide state-of-the-art applied learning environments for undergraduate and graduate students in high-demand disciplines.

Action Items – Students

1. Explore ways to increase the retention and graduation rates of students.
2. Continue planning on ways to increase enrollments in department programs and recruit diverse students
3. Create awareness of opportunities for students to engage in research.
4. Increase career development and readiness opportunities for students.

Action Items – Curriculum

5. Successfully complete an ATMAE self-study for Computer Systems Technology and Engineering Technology.
6. Faculty in all areas are examining their curricula to make revisions before the Fall 2022 deadlines.

Action Items – Facilities and Equipment

7. **Computing:** The department maintains approximately 200 computers distributed amongst four primary PC computer laboratories (TUR 160B, 167, 171, and 210), one PC networking lab (TUR 173), one Mac laboratory (NSB 010), two construction management study labs (TUR 120B & 120D), faculty, staff, and GA office machines, and various other laboratory support functions. In order to maintain industry level computing power, our goal is to systematically upgrade one computer lab per year and then rotate out our lowest performing machines. In FY22 we upgraded 10 computers and monitors in TUR 120B & 120D (CM labs), 24 computers in the TUR173B networking lab, 11

computers in TUR168, 4 computers in TUR132, 24 computers in NSB10, 3 faculty computers in NSB, 5 staff computers in TUR215, and several laptops for faculty. We are also planning on adding new furniture and monitors in TUR160 (Robotics lab).

8. Technology Laboratories

Begin planning for renovating Turner Hall rooms 169 (Woods Technology Lab) and 173 A, B, & C (Computer Systems Technology classroom & lab).

Goal 2: Support and reward faculty and staff excellence.

Action Items – Faculty

9. Enhance learning and professional development opportunities. Mentor and provide professional development opportunities for the junior faculty who have joined our department over the past several years.
10. Increase grant-writing activities and administrative support for scholarship.
11. Recruit highly qualified faculty.
12. Successfully transition new faculty into the department.
13. Recognize faculty & staff excellence through nominations for CAST & University awards.

Action Items - Research & Scholarship

14. Deliver on existing grants and continue to pursue external grant and contract opportunities.
15. Partner with other ISU units and external organizations to pursue new grants and contracts.

Goal 3: Promote a culture of respect and inclusion among faculty, staff, and students.

16. Continue to dedicate at least one faculty meeting per year to professional development related to respect and inclusion.
17. Increase department-wide events that include faculty, staff, and students.
18. Continue participation in professional development activities related to inclusion.
19. Increase the number of international opportunities for students and faculty

Goal 4: Enhance the effectiveness of the Department by strengthening engagement.

Action Items – Advancement and Development

20. Encourage a culture of philanthropy.
21. Increase involvement in outreach, consulting, and leadership activities.
22. Increase civic engagement activities for students, faculty, and staff.
23. Facilitate more collaborations with alumni.

END