2015-2020 Strategic Plan

VISION: To be a preeminent college of engineering, engineering management, technology, and computer science in education and applied research.

MISSION:

- (1) Educate and train future technical & engineering management workforce for Tennessee, the nation, and beyond.
- (2) Discover new knowledge in engineering, management, technology and computer science.
- (3) Engage communities through scholarship, service and economic development.

	Objectives Goals	1. Enrich Student Experience	2. Cultivate excellence in teaching and learning	3. Enhance applied research capabilities of the college for broader impact to the society	4. Engage community through scholarship and service with leadership and distinction	5. Enhance national/ international reputation and recognition
Α.	Enhance <u>student learning</u> and faculty teaching (1, 2)	✓	✓			
В.	Expand and enhance graduate programs (1,2)	✓		✓		
C.	Diversify and increase student and faculty population (4)	✓	✓			
D.	Establish and support <u>engagement</u> activities for student success (1,4)	✓	✓			
E.	Strengthen <u>research</u> expertise (2,3)	✓		✓		✓
F.	Increase <i>partnerships</i> with external academic, government, and industry organizations (1, 2)	✓		✓	✓	✓
G	Increase <u>leadership</u> roles by faculty, staff, and students in service, professional, and academic communities (2,4)				✓	✓
Н	Increase <u>outreach and marketing</u> strategies (3)				✓	✓

^{*} Numbers within the parenthesis represent alignment with the UTC strategic plan goals shown below.

UTC Goals: 1. Transform lives through meaningful learning experiences.

- 2. Inspire, nurture and empower scholarship, creativity, discovery, innovation, and entrepreneurial initiatives.
- 3. Ensure stewardship of resources through strategic alignment and investments.
- 4. Embrace diversity and inclusion as a path to excellence and societal change.

ASSESSMENT TOOLS	METRICS	ACTIONS						
A. Enhance <u>student learning</u> and faculty teaching (1, 2)								
students/faculty ratio	maintain ratio	Increase faculty size (Dean/Heads)						
# of new hands-on experiences (courses)	development new activities for alternative teaching							
# of development new activities for alternative teaching methods (online, hybrid, non-traditional)								
undergraduate research experiences 25 %		• Establish student Success Center (SC) (Dean/Heads)						
% of interdisciplinary (externally sponsored) team projects/year								
% of internships and co-ops/year	internships and co-ops/year 50 %							
% students participating extracurricular activities (prof societies) Certificates								
new research labs (sponsored) /classrooms	~15,000 sq ft							
increase % of retention and graduation rate	first year retention rate by 20%; 6-year graduation rate by 20% (5% by year)							
E exams passing rate (engineering) 80%								
# of new graduate programs/concentrations/certificates								
# of GRAs/GTAs	increase by 100 % ~ 24 total	implement student recruitment strategy						
# of graduate students supported by external grants	increase by 100% ~30	(Assoc. Dean/Heads)Hire senior faculty						
of increase in enrollment increase by 100% ~ 360		Increase external funding (Faculty)						
C. <u>Diversify and increase</u> student and faculty population	(4)							
% of female students and faculty	udents and faculty UG: 18%; Faculty: Increase by 25							
% of minority (other than female)	UG: increase by 25% (current ~11%)	community colleges and high schools						
% increase in enrollment (graduate/undergraduate)	2020 students by 2020	(Faculty)						
of domestic student population in graduate programs increase by 25%		Establish joint programs (Dean/Heads)						
D. Promote faculty and staff <u>service engagement</u> activities for student success (1,4)								
Establishment of student success center (SC) (Director and personnel) (tutoring, internships, Co-ops, advising, etc)								
f new major engagement activities (LLC initiatives, ceer Fair) 5 in 5 yrs		Faculty/Staff)						

 $^{^{*}}$ All faculty and staff will support the *actions* with ones designated within parentheses working as leaders.

ASSESSMENT TOOLS	METRICS	ACTIONS				
Strengthen <u>research</u> expertise (2,3)						
# publications/faculty (college average)	minimum of 2 paper/yr	Develop and				
# presentations/faculty (college average)	minimum of 2/yr	implement faculty mentorship				
\$ awarded by faculty	\$4M/yr by 2020	(Dean/Heads)				
# of proposals submitted (college average)	minimum of 2 proposals/yr/faculty as PI	Establish research seminars (Heads)Strengthen ties				
\$ research expenditure	\$1M/yr	with SimCenter research (Faculty)				
F. Increase <i>partnerships</i> with external academic, government, and industry organizations (1, 2)						
# joint projects	5 new projects/yr	Develop and				
# joint programs (2+2, 4+1, etc.)	3 new programs	implement coordinated plan				
# exchange programs (faculty)	5 new programs	for partnerships (Dean/Heads)				
# of post-docs	one new post-doc per year	(Beally Heads)				
. Promote <u>leadership</u> roles by faculty, staff, and students that demonstrate excellence (2,4)						
% faculty serving on external committees/boards/panels	20%	Identify and seek				
% faculty holding the leadership roles in professional societies	20%	recognition opportunities				
% of students participating in community services	30%	(Assoc. Dean/				
# external teaching/research awards received by faculty	3	Faculty/Staff)Allocate fund to				
# student external awards/recognition	10/yr	promote faculty and students				
% of student competition participated	Increase by 20%	(Dean/Heads)				
# of invited speakers/papers/chapters/books	Increase by 50%					
# society fellows/career awards	2					
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H. Increase outreach and marketing strategies (3)						
# of community STEM activities	one additional one/year	Partner with				
# PE faculty	Increase by 10 % (engineering)	industry for STEM activities (SC				
# of visits to high/middle/community schools	sits to high/middle/community schools 20/year					
# teachers trained	Increase by 25 % in 5 years	 Support outreach/ alumni activities led 				
# college publications (annual reports/magazines) online and hard copy	additional one per year	by Student Success Center (Faculty/Staff)				
# of major alumni events (recruitments/Ads)	major alumni events (recruitments/Ads) one every other year					
Increase media presence (TV, Billboards, Radio, FaceBook, website, booklet, etc.)	increase one medium per year	media presence (Dean/Heads)				

5/yr

of chairing conferences/panels/workshops

professorships

endowed professorships