Part I: UTC Program-Wide Performance Indicators

UTC Name: Center for Connected and Automated Transportation (CCAT)
University: University of Michigan
Grant #: 69A3551747105
Reporting Period: October 1, 2021 - September 30, 2022

OSTR Goals

METRIC	Research Performance Measures	CCAT Consortium Total	University of Michigan	Purdue University	University of Illinois - Urbana Champaign	Washtenaw Community College	University of Akron	Central State University
1. Number of transportation-related courses offered during the reporting period that were taught by faculty and/or teaching assistants who are associated with the UTC.	Undergraduate courses	18	4	9	4	0	0	1
	Graduate courses	17	8	7	2	0	0	0
2. Number of students participating in transportation research projects during he reporting period funded by this grant.	Undergraduate students in research	25	14	2	2	0	4	3
	Graduate students in research	116	68	40	6	0	2	0
3. Number of transportation-related advanced degree programs that utilize grant funds during the reporting period to support graduate students.	Masters level programs	9	0	6	2	0	1	0
	Doctoral level programs.	12	3	6	2	0	1	0
4. Number of students supported by this grant during the reporting period.	Undergraduate degrees	20	14	0	2	0	2	2
	Masters degrees	21	16	4	0	0	1	0
	Doctoral degrees	51	11	33	6	0	1	0
5. Number of students supported by this grant who received degrees during the reporting period.	Undergraduate degrees	6	5	0	0	0	0	1
	Masters degrees	9	6	2	0	0	1	0
	Doctoral degrees	8	2	3	2	0	1	0
6. Number and total dollar value of research projects selected for funding during the reporting period using UTC grant funds (Federal and/or Recipient Share) that you consider to be applied research and advanced research.	Number of applied research projects	13	5	5	1	0	1	1
	Dollar value of applied research projects	$1,893,081	$966,021	$569,997	$232,060	$0	$75,000	$50,000
	Number of advanced research projects	0	0	0	0	0	0	0
	Dollar value of advanced research projects	$0	$0	$0	$0	$0	$0	$0

Part II: CCAT UTC Specific Performance Indicators

UTC Name: Center for Connected and Automated Transportation (CCAT)
University: University of Michigan
Grant #: 69A3551747105
Reporting Period: October 1, 2021 - September 30, 2022

Technology Transfer Goals

1. **OUTPUTS**	**Research Performance Measures**	**Consortium Total**	**University of Michigan**	**Purdue University**	**University of Illinois Urbana Champaign**	**Washtenaw Community College**	**University of Akron**	**Central State University**
1.A. Disseminate research results through publications, conference papers, and policy papers	Technical reports	18	1	15	1	0	0	1
	Papers at conferences, symposia, workshops, and meetings	64	36	14	5	0	7	2
	Peer-reviewed journal articles	31	18	8	2	0	3	0
1.B. Develop inventions, new methodologies, or products	Annual number of research deployments	29	7	22	0	0	0	0
1.C. Research projects funded by sources other than UTC and matching fund sources	Number of projects	17	10	3	4	0	0	0
	Dollar amount of projects	$16,693,169	$15,447,587	$645,582	$600,000	$0	$0	$0
2. **OUTCOMES**	**Research Performance Measures**							
2.A. Incorporate new technologies, techniques or practices	Number of technology transfer activities that offer implementation or deployment guidance	79	9	70	0	0	0	0
2.B. Improve the processes, technologies, techniques in addressing transportation issues	Number of research deliverables disseminated from each research project	30	5	18	7	0	0	0
3. **IMPACTS**	**Research Performance Measures**							
3.A. Increase the body of knowledge and safety of the transportation system	Number of instances of technology adoption or commercialization	12	6	6	0	0	0	0
	Number of conferences organized by the CCAT consortium members	13	4	6	3	0	0	0
3.B. Improve the operation and safety of the transportation system	Number of instances of research changing behavior, practices, decision making, policies (including regulatory policies), or social actions	13	5	6	0	0	2	0

Leadership Development Goals

1. **OUTPUTS**	**Research Performance Measures**							
1.A Keynote speeches or invited speaker presentations	Number of media engagements	21	6	0	0	15	0	0
	Number of academic engagements	56	22	2	16	10	5	1
	Number of industry engagements	51	15	5	6	25	0	0
2. **OUTCOMES**	**Research Performance Measures**							
2.A Leadership positions held	Regional organizations	22	2	0	5	15	0	0
	National organizations	20	6	1	8	5	0	0
	International organizations	12	3	4	5	0	0	0
2.B CCAT affiliated students holding leadership positions	Number of students	29	6	0	1	18	1	3

Education and Workforce Development Goals

1. **OUTPUTS**	**Research Performance Measures**							
1.A Number of Workforce Online learning modules created and developed toward the certification of completion training for the emerging CAT field technician	Number of learning modules	22	0	0	2	19	1	0
1. B Continued Development and Integration of ITS Technologies with Automotive Technologies in Curricula	Number of Credit Education Certificate/Degree Program Courses developed	7	0	0	0	7	0	0
1. C Advancement of Options and Enrollments in two Engineering-focused degree programs, and a Certificate	Number of Students Enrolled in Engineering-related Programs	949	0	0	0	949	0	0
1.D Number of curriculum development and professional development activities for instructors in related CAT technologies	Number of Professional Dev. Activities in IT [CAT]	45	0	0	0	45	0	0
	Number of participants	83	0	0	3	80	0	0
1.E Number of K-12 Career pathways activities related to CAT career fields.	Number of K-12 Activities in CAT Career Areas	72	0	0	0	72	0	0
	Number of participants	896	0	0	0	896	0	0

Outreach Goals

1. **OUTPUTS**	**Research Performance Measures**							

1.A Media stories referencing CCAT, CCAT research or other activities	Number of media stories	21	6	0	0	15	0	0
1. B Newsletters, press releases, and website	Number of newsletters	33	4	0	2	27	0	0
	Number of press releases	0	0	0	0	0	0	0
	Number of website hits	85,981	35,047	0	49,995	938	0	1
2. **OUTCOMES**	**Research Performance Measures**							
2.A Research Champions	Industry principals	12	4	7	0	0	1	0
	Number of industries represented	22	14	7	0	0	1	0
	Government principals	16	1	11	2	0	2	0
	Number of government agencies represented	36	2	31	2	0	1	0
Collaboration Goals								
1. **OUTPUTS**	**Research Performance Measures**							
1. A Collaboration with other agencies	Number of agencies providing matching funds	4	0	3	1	0	0	0
	Number of agencies participating in CCAT events	33	24	5	1	0	3	0
	Number of agencies committed to CCAT projects	11	0	5	1	0	5	0
	Number of individuals from external agencies attending CCAT events	370	336	24	0	0	10	0
1. B Collaboration with other organizations	Number of organizations providing matching funds	8	2	3	1	0	2	0
	Number of organizations participating in CCAT events	123	67	4	0	52	0	0
	Number of organizations committed to CCAT Projects	8	3	2	0	0	3	0
	Number of individuals from external organizations attending CCAT events	1795	1625	10	0	160	0	0