

Futura!

Newsletter of the Purdue research collaboratory for next generation transport systems

Fall 2019



CCAT's MISSION

"To provide research information that will significantly guide the evolution of CAVs in terms of their impact on safety, mobility, and sustainable development."

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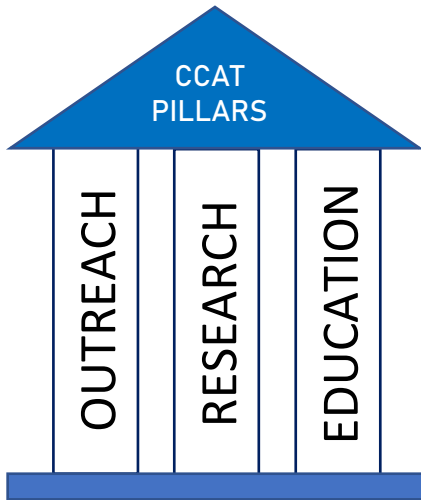
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Professor Srinivas Peeta was the founding director of NEXTRANS (CCAT's predecessor), and the first CCAT associate director. He guided both Centers through their formative years.

He contributed immensely to the high reputation that the center currently has not only nationally but also worldwide. Dr. Peeta is currently a professor in the Georgia Institute of Technology's School of Civil and Environmental Engineering.

~ Samuel Labi, CCAT Director



Purdue offices and lab of the USDOT Center for Connected and Automated Transportation

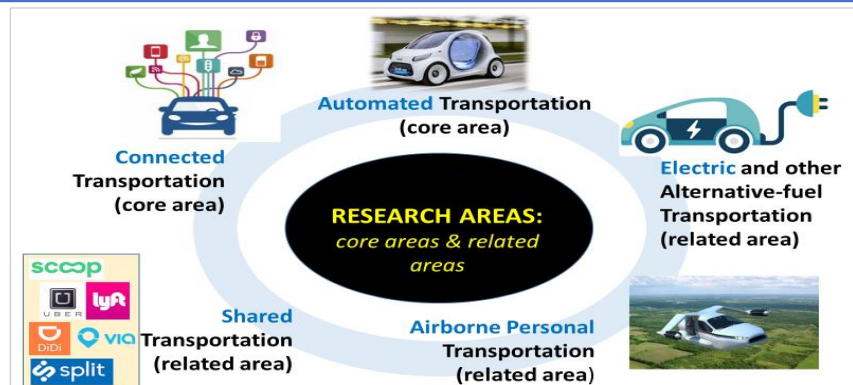
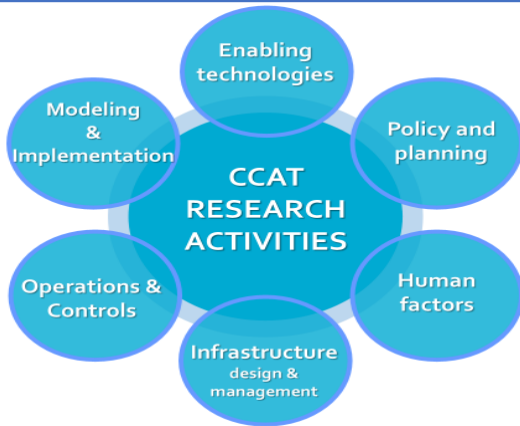
CCAT Overview

The U.S. DOT Center for Connected and Automated Transportation (CCAT) covers the states of Michigan, Indiana, Illinois, Ohio, and Minnesota (see figure on bottom right).

The Center was established in 2016 based on an award from USDOT's Research and Innovative Technology Administration (RITA) to conduct a multidisciplinary program of transportation research, education, and technology transfer.

The period of performance is Nov 30, 2016 to Sep 30, 2022, and the annual funding is \$2.6M.

CCAT Research Activities, Overall Research Areas



Purdue Researchers (2019-2021)

1. Bullock
2. Cai
3. DeLaurentis
4. Fricker
5. Gkritza
6. Labi
7. Mousas
8. Peeta
9. Pitts
10. Tarko
11. Sinha

Research ACTIVITY	Research AREA	Automated	Connected	Electric*	Shared*	Airborne Personal*
Enabling Technology		6	1			
Policy and Planning		2,6,11	6,11	5,6	2,6	6
Human Factors		6,7,8,9	6			
Infrastructure		6,8,11	6,8,11	5,6	2,6	6
Operations		1,6,10	1,6,8	1	2,6	
Controls		1	1,8	1		
Modelling		6,8	6,8	6	2,6	
Implementation		1,6	1			

*unfunded independent or non-CCAT studies

Consortium



K-12 VISITORS, Summer 2019



Shubham Agarwal, Seyedali Ghahari and Mahmoud Tabesh demonstrate driving simulation in the K-12 outreach event.

In June 2019, the Center welcomed 20 visitors from Purdue's Minority Engineering Program and MITE. They came to learn about autonomous vehicles and driving simulations, and human factors.

Featured CCAT member



Yuntao Ross Guo

Purdue CCAT is working on a dissertation titled "Leveraging Information Technologies and Policies to Influence Short- and Long-term Travel Decisions"

The 2019 TRB Annual Conference

CCAT students attended the annual Transportation Research Board Conference in January 2019, in Washington DC, and gave 11 presentations at various lectern and poster sessions.

The 2019 ICTD Conference



At the ASCE Transportation and Development Institute (T&DI)'s ICTD Annual Conference June 12, 2019 in Alexandria, VA, 6 CCAT students gave 12 presentations at lectern and poster sessions.



Graduation News!



Our Spring 2019 graduates!! From left: Yangjiao Chen (MS), Jenny Rickys (CE graduate program administrator), Irina Benedyk (PhD) and Yujie Li (MS).
Congratulations!

Designed and arranged by Nam Bheemaiah and Sam Labi

The Next Generation Transportation Systems Annual Conference, May 2019



Discovery Park (location of the NGTS Conference)



Conference chairs and awardees



The conference provided opportunities for participants to be aware of (and learn from) the research of other students, exchange ideas and professional experiences, and discuss case studies and research applications.

The student organizers were funded by the USDOT Center for Connected & Automated Transportation (CCAT) at Purdue and the conference was sponsored by Discovery Park and Celsus Corporation. Speakers at the conference included both CCAT-funded and non-CCAT funded students.

The topics spanned multiple research areas (including automation, connectivity, shared mobility, smart parking), and research activities (demand estimation, enabling technology, policy & planning, human factors, driving simulation, infrastructure design and management, implementation, and operations & controls).