

About the OTL



- The OTL is the state library for Oklahoma Department of Transportation (ODOT). It is in Carson Engineering Center Room 213 on the campus of the University of Oklahoma.
- ODOT contracts OU for library services which includes collection management, dissemination of research, and Section 508 remediation of research reports.
- The library houses over **19,000** items owned by ODOT, including Federal Highway Administration reports, publications from the Transportation Research Board, research from DOTs and universities across North America, engineering exam study guides, and historical documents and maps.
- Non-Traditional Services:
 - Knowledge Management Program
 - Partnerships with University Organizations
 - Conference Planning and Webinars



Above: Librarians Michael Molina and Katie Widmann
Below: Carson Engineering Center





How OTL Helps Knowledge Management at ODOT

- Since 2018, the Oklahoma Department of Transportation and the OTL have been developing and implementing a knowledge management (KM) initiative to increase KM practices agency-wide. The goal is to preserve organizational knowledge and effectively reduce brain drain.
- Knowledge management can be defined as: “A variety of techniques to help workers quickly find accurate subject matter information and expertise to more efficiently, answer a question, solve a problem, or complete a task.”
- How KM Helps:
 - Share experience across the organization
 - Link people to information
 - Reduce rework
 - Work smarter, search less
 - Mitigate risk of organizational memory loss

Activities of OTL KM Group

- Draft lessons learned document
- Conduct social network analysis
- Create a naming system and taxonomy for ODOT intranet
- Develop videos on KM topics for staff
- Create articles and FAQs on KM best practices
- Interview employees to conduct knowledge capture and discover pain points





KM Video Topics

What is Knowledge Management?

Why KM Matters?

Barriers to Knowledge Sharing

How to Share Knowledge Effectively

Role of People, Processes, and Technology

KM Success Stories

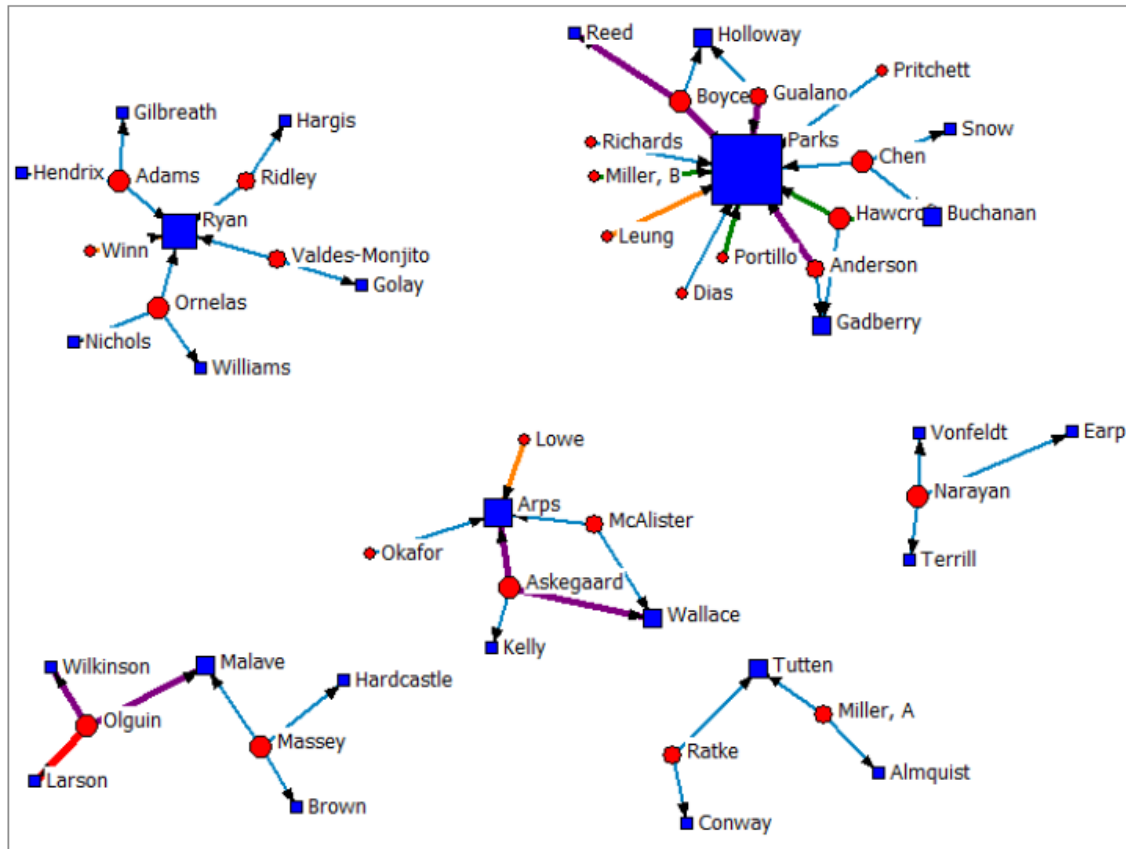
How to Get Started

KM: You're Already Doing It

Figure 6a

Sociogram depicting EDP early-career engineer-centric network for Central Office

Materials rotation.



Above: A sample figure of a sociogram from the SNA study

Social Network Analysis

- Social network analysis (SNA) enables an investigation of social structures and relationships. Results are reported mathematically and visually to describe an identified network.
- Data from surveys both quantifies and demonstrates measures of centrality, betweenness, cliques, closeness, and degrees of separation, among others.

Partnerships with University Organizations



- OTL is located on the campus of the University of Oklahoma
- College of Engineering
 - Campus events, speaking to classes, working with students
- Southern Plains Transportation Center
 - Region 6 UTC comprising 11 universities across 5 states
 - Work with PIs to assist in research and plan workforce development activities
- University Libraries
 - University Libraries Day

Left: Bizzell Memorial Library on the campus of the University of Oklahoma

PROGRAM

7:30 am	Registration and Breakfast
8:30 am	Welcome and Opening Remarks Joni Seymour, Chief Innovation Officer, Oklahoma Transportation
8:45 am	Keynote Lecture (Moderator: Joni Seymour, Chief Innovation Officer, Oklahoma Transportation) Dawn Sullivan, Deputy Director, Oklahoma Transportation
9:15 am	Panel Discussion on AI in Transportation: Opportunities and Challenges (Moderator: Tab Pierce, Chief Technology Officer, Oklahoma Transportation) Joni Seymour, Chief Innovation Officer, Oklahoma Transportation Jessica Gateff, Deputy Director of Data Services, Oklahoma City Metropolitan Area Mashrur "Ronnie" Chowdhury, Eugene Douglas Mays Chair of Transportation, Clemson University Karteeek Kotamsetty, Product Engineer, Google
10:15 am	Networking Break and Poster and Demo Viewing
10:45 am	Technical Session 1 (Moderator: Norb Delatte, Professor, Oklahoma State University)
10:50 am	Presentation 1 "3D Printing Concrete Structures with a Tractor" Tyler Ley, Professor, Oklahoma State University
11:10 am	Presentation 2 "ODOT Geotechnical Update" Bryce Hanlon, Geotechnical Engineer, Oklahoma Transportation
11:30 am	Presentation 3 "Innovative Multi-Hazard Resistant Bridge Columns for Accelerated Bridge Construction" Jeffery Volz, Professor, University of Oklahoma
11:50 am	Lunch and Poster and Demo Viewing
1:00 pm	Technical Session 2 (Moderator: Royce Floyd, Associate Professor, University of Oklahoma)
1:05 pm	Presentation 4 "ODOT Office of Innovation and the Oklahoma Transportation Library" Tara Cullum, Deputy Chief Innovation Officer, Oklahoma Transportation, and Michael Molina, Senior Librarian, Oklahoma Transportation Library
1:35 pm	Presentation 5 "Proactive Condition Monitoring of Freight Rail Rolling Stock to Mitigate Catastrophic Derailments" Constantine Tarawneh, Sr. Associate Dean for Research and Graduate Programs, University of Texas Rio Grande Valley
1:55 pm	Presentation 6 "ODOT Engineering Recruitment Program(s)" Anthony Delce, Division Engineer, Oklahoma Transportation
2:15 pm	Networking Break and Poster and Demo Viewing
3:00 pm	Poster Awards Ceremony and Video Presentations of Winning Posters (Moderator: Anthony Delce, Division Engineer, Oklahoma Transportation)
3:30 pm	Closing Remarks Tara Cullum, Deputy Chief Innovation Officer, Oklahoma Transportation, and Musharraf Zaman, SPTC Director and Professor, University of Oklahoma

Conference Planning and Webinars

- Oklahoma Transportation Research Day
- Transportation Industry & Workforce Development Symposium
- Transportation & Extreme Weather Symposium

Left: A page from the program agenda for Oklahoma Transportation Research Day

Oklahoma Transportation Research Day – October 15, 2024

- Showcase ODOT Research
- Students, Academia, DOT
- A chance to showcase OTL



Above: Talking about OTL at the conference

Right: Cover page for the conference program



Oklahoma Transportation Research Day 2024

**University of
Central Oklahoma**
GRAND BALLROOM

100 Nigh University Dr
Edmond, OK 73034

Tuesday, October 15, 2024
7:30 AM - 3:30 PM CDT

Transportation Industry & Workforce Development Symposium – April 30, 2024

- In partnership with the Southern Plains Transportation Center
- Brought together industry, students, and government
- Coincided with a visit from OST-R



Top Left: Conference attendees engaging with vendors from the transportation industry

Top Right: Dr. Robert Hampshire giving an address

Bottom: Attendees listening to a presenter

Transportation & Extreme Weather Symposium – April 1, 2025

- Brought together practitioners from different sectors
 - Weather/Climate
 - Transportation/Engineering
 - Stakeholders/Rightsholders
- OTL had a seat at the table during ideation sessions to discuss problems and solutions relating to workforce development

Right: Page from the conference program



SCHEDULE

MORNING - AUDITORIUM, ROOM #1313

8:00-8:45 a.m. - **Breakfast/Sign In**

8:45-9:00 a.m. - **Welcome Remarks**

9:00-10:00 a.m. - **Keynote:** Past, Current, and Future Weather Extremes and Impacts on the Transportation Sector

Renee McPherson, University of Oklahoma, lead author of the Fifth National Climate Assessment (NCA5) Southern Great Plains chapter.

Mikhail Chester, Arizona State University, co-author of the NCA5 Transportation chapter.

10:00-10:30 a.m. - **Break**

10:30-11:45 a.m. - **Panel Discussion:** The Intersection Between Extreme Weather And Transportation And Future Needs, Threats, And Vulnerabilities

Moderator: Robert Palmer

Associate Vice President for Research & Partnerships, University of Oklahoma, and Interim Director of the National Weather Center

Speakers:

Maria Kollou
Texas A&M University
Coastal and Urban

Mikhail Chester
Arizona State University
Transportation

Rhonda Fair
Oklahoma Department
of Transportation
Tribal and Rural

Renee McPherson
University of Oklahoma
Weather and Climate Extremes

11:45 a.m.-12:00 p.m. - **Ideation Session Overview**

AFTERNOON - ATRIUM

12:00-1:00 p.m. - **Lunch**

1:00-2:00 p.m. - **Ideation Session A**

2:00-2:30 p.m. - **Break**

2:30-3:30 p.m. - **Ideation Session B**

3:30-3:45 p.m. - **Closing Remarks**

3:45 p.m. - **Adjourn**

Webinars

- Most PIs want to talk about their work
- Leverage contacts at your DOT or university
 - Do they do a webinar series? If so, is there a way you can co-sponsor or assist? Offer to moderate?
 - If not, offer to host a series



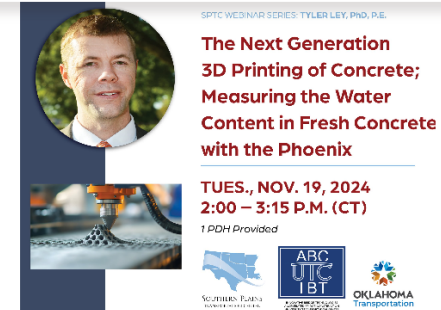
Complex Project Management

THUR., DEC. 5, 2024
9:00 A.M. – 4:00 P.M. (CT)
7 PDHs Provided

Southern Plains Transportation Center • 11/12/24

Read More

Short Course: Complex Project Management



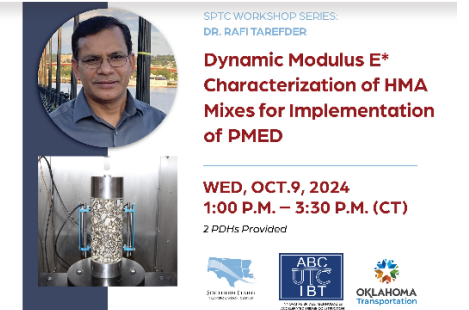
The Next Generation 3D Printing of Concrete; Measuring the Water Content in Fresh Concrete with the Phoenix

TUES., NOV. 19, 2024
2:00 – 3:15 P.M. (CT)
1 PDH Provided

Southern Plains Transportation Center • 11/7/24

Read More

Webinar: The Next Generation 3D Printing of Concrete; Measuring the Water Content in Fresh Concrete with the Phoenix



Dynamic Modulus E* Characterization of HMA Mixes for Implementation of PMED

WED, OCT. 9, 2024
1:00 P.M. – 3:30 P.M. (CT)
2 PDHs Provided

Southern Plains Transportation Center • 10/2/24

Read More

Workshop: Dynamic Modulus E* Characterization of HMA Mixes for Implementation of PMED

Lessons Learned

- Cultivate relationships from your network
 - Library school
 - Universities
 - UTC Program
 - State DOT
 - Industry
- Find out where meetings and events are happening and grab a seat at the table; A small seat is better than no seat
- If you hear about an event or opportunity, volunteer
- Everyone needs help with something
- A lot of people don't know what librarians can do. It's your job to sell yourself
- Create a portfolio of projects or catalog of services you can show off
 - Don't be afraid to start small and to fail
 - Publicize, publicize, publicize
- Use the tools at your disposal
 - Call
 - Interview
 - Survey
 - In-person visits
 - Don't be afraid to travel and get outside of your comfort zone
- Balance the needs of the library with the needs of your department
 - Does it make sense to close the library for a day if it means you're helping the department/agency in a larger project?
 - Is your manager understanding if you devote your time to things not traditionally seen as librarian duties?
 - Review your contract/guiding document detailing your duties and roles. Can things be expanded to increase your visibility within the department?