

Transportation Tech Overview

Valerie Lefler & Ryan Johnsen
CEO & Vice President



Roadmap

- Transportation Tech Origins
- DACUM
- Training & Academic Outreach
- Troubleshooting Forum
- Equipment Resource
- Accelerator Newsletter



Origins of Transportation Tech

- US DOT Small Business Innovation Research Grant (SBIR)



Origins of Transportation Tech

- State DOTs & Industry in continuous need of technical professionals
- Most training currently on-the-job, requires a lot of time
- Continuous difficulty establishing traditional programs in academia
- Traditional educational models inadequate, slow to adapt



ITS Technician Demand Crisis...

**SHIPMENTS OF ITS DEVICES, BY REGION, THROUGH 2019
(MILLION UNITS)**



Region	2012	2013	2014 (est.)	2019	CAGR% 2014-2019
North America (NA)	31.3	41.4	56.1	182.8	26.6
Europe, Middle East, Africa (EMEA)	38.8	51.3	68.8	232.7	27.6
Asia-Pacific (APAC)	40.8	56.7	80.3	301.8	30.3
Caribbean and Latin America (CALA)	11.9	16.1	21.9	77.9	28.9
Total	122.8	165.5	227.1	795.2	28.5

Phase 1: Evaluate & Plan (Completed January 2016)

- Content Outline for ITS & CV Certification Levels 1, 2, & 3
- Study of Existing Coursework & Training Available
- Survey of Existing Community College Faculty & Students on Interest
- ITS & CV Sample Modules
- Business Plan
- **The Accelerator** Online Newsletter Proof of Concept



Phase 2: Create Learning Content & Technical Support Resources

- ITS DACUM (Designing A CUrriculUM)
- On Demand Educational Content
 - Certification Opportunities
 - Renewal Opportunities
 - Education Outreach



Phase 2: Create Learning Content & Technical Support Resources

- Learning Management System
- Technician Support Services
 - Trouble Shooting Forum
 - Product Guide & User Reports
- Publication of **The Accelerator**



Curriculum Development Partners



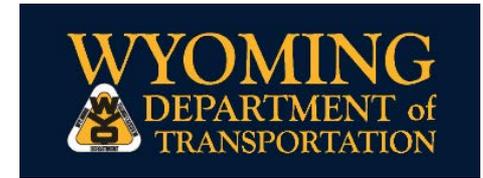
- Connected Vehicle Curriculum Development
- Academic Outreach Modules
- M City & CV SMEs

- Curriculum Development & Quality Control
- Technical Advisory Role
- DACUM Creation
- Prototype Program Establishment



Boots On the Ground Partnership

- ITS Technicians, Managers, Engineers in the Field
- Content & Learning Experts
- Cross Regional Perspective
- State & Municipal Partnerships



Designing A Curriculum (DACUM)



DACUM Participants (Left to Right):
Gary Covey (K.C. SCOUT), Jeff Felty (City of Lincoln),
Keith Tupper and Tommy Scott (WYDOT)

- Methodical Breakdown of Profession & Complex Skills
- Establishment of Syntax & Baseline Position Requirements

Designing A CURiculum (DACUM)

- Primary Understanding Established
- Survey of Professional Community
- Final Input Registered into DACUM Archive at The Ohio State University
- Visit www.transportationtech.com to take survey

* 1. Group A. Maintain ITS Devices

	How important is this task?	How often do you perform this task?	Rank order importance of tasks in this group.
A1. Perform ITS device preventative maintenance	<input type="text"/>	<input type="text"/>	<input type="text"/>
A2. Monitor ITS device operation	<input type="text"/>	<input type="text"/>	<input type="text"/>
A3. Manage work orders	<input type="text"/>	<input type="text"/>	<input type="text"/>
A4. Establish safe work environment	<input type="text"/>	<input type="text"/>	<input type="text"/>
A5. Repair ITS equipment	<input type="text"/>	<input type="text"/>	<input type="text"/>
A6. Replace ITS equipment	<input type="text"/>	<input type="text"/>	<input type="text"/>

Training Development

- **Professional Applications:**
 - Employee Onboarding & Advancement
 - Technology Expansion
 - Knowledge Certification & Endorsement Renewal
 - Continuing Education & Edutainment



Mobile – Micro - Relevant

- Bite Sized Content
 - 5-15 Minutes
 - Specific Topic Focused
 - Design Training to Position Requirements
- Online Format
 - Mobile Responsive & Repeatable
 - Comprehension tested
- Visuals from Real World Installations
 - Prove It Activity – “Case Studies”



TRANSPORTATION TECH

You're responding to a repair ticket. A traffic camera has stopped transmitting. You see no obvious damage to the outside of the cabinet or the lock.

Inside the cabinet, you see this.

You don't recognize the device, and it doesn't appear to be doing anything.

What do you do about the device?

- [Leave it in place and report it to your supervisor immediately](#)
- [Remove it and email your supervisor about it back at the shop.](#)
- [Ignore it and begin troubleshooting the camera](#)
- [File a police report](#)

Cybersecurity Field Guide

Multi-Disciplinary Approach

- Applicable to Various Fields of Study
 - Electronics
 - Information Technology / Computer Science
 - Engineering
 - Automotive
- Adjusts to Range of Expertise & Adapts as Technology Evolves



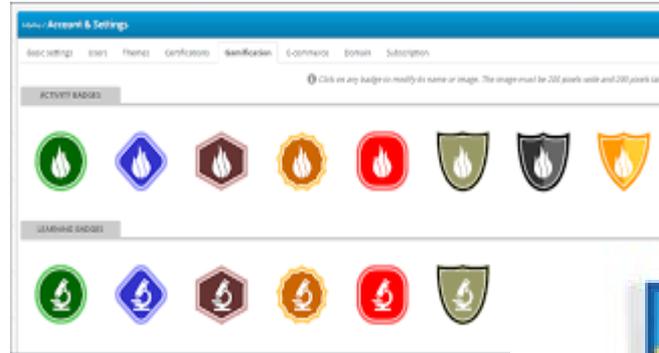
Customizable Training Content

- **Course Compliments:**
 - Teachers or Managers Select Modules Based Upon Expertise or Lesson Objectives
- **Projects:**
 - Custom Arrangement of Courses for Specific Installation Projects
- **Common Errors:**
 - Custom Arrangement of Courses to Address Major Recurring Issues
- **Background “centric”:**
 - Custom Arrangement of Courses Based Upon Work History



Badging & Certification

- 3 Levels of Certification
- Gamification
 - Accomplishment
- Completion Certification
 - Badgr
 - Not-For-Credit Start
 - Establish Career Certificate Program
 - Groundwork for Full Degree Programs



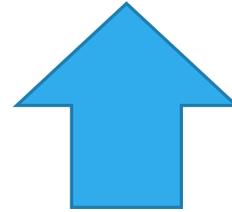
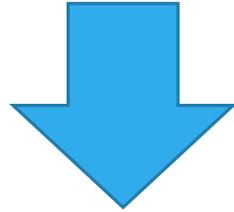
Academic Outreach & Program Establishment

- **Student & Faculty Utilization:**
 - Community College Credit Based Course Content Enhancement
 - University Course Content Enhancement & Research Preparation
 - High School Class Supplement or STEM After School Program Use



Primary Goal of Transportation Tech

- Curriculum for Community College & High School Students
 - **More students in the ITS Technician Career Pipeline**



- Professional Development Content for ITS Technicians
 - **Assist professionals from all disciplines get “as needed” technical content for ITS technical skill development**

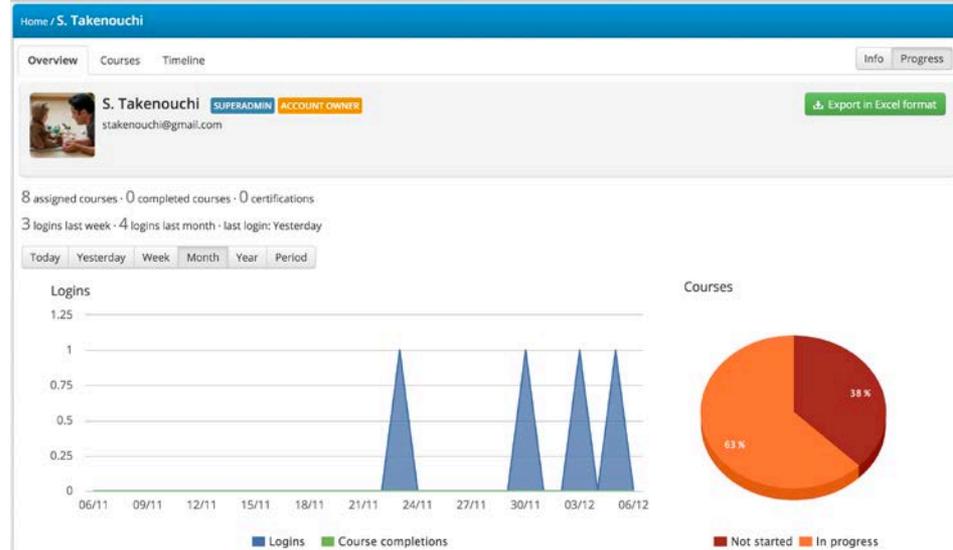
Primary Development Plans

Training Phase	Phase 1 Training Development											
Time Unit (Hours)	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
Content Label												
Core Content Learning Paths	Intro to ITS Network Concepts	Intro to ITS Electrical Principles & Wiring	ITS Work Zone Safety Tools & Work Zone Setup	Introduction to Traffic Operations & ITS Applications								
Elective Learning Paths	ITS Careers & Training	ITS Cybersecurity Hygiene & Awareness	Intro to Connected Vehicles	Concepts in Traffic Management	Intro to MUTCD	Intro to ITS Legal & Policy Issues						
Learning Objects to Develop												

- **Overview:**
 - 3 Levels of Certification
 - 60 Hours of Training to Be Developed Overall

Learning Management System

- Manager/Educator Overview:
 - Completion Record
 - Monitor Progress
 - Scores on Evaluations
 - Activity Log
- Designate 'Learning Paths'
- Customizable to Individual Organizations



Learning Management System

- Dedicated Login & Learning Platform
- Customizable to Individual Organizations, Institution
- Instructors from DOT & Academic Institution



Controllers

Categories:

- Controllers (2)
- Cabinets (1)

Sub-Categories:

- McCain (2)
- McCain (1)

	<p>McCain 2070EN2 NEMA Controller</p> <p>2070EN2 NEMA Controllers have an open architecture, modular design, and advanced functionality, bringing together the best of the Model 2070 and NEMA worlds. The 2070EN2 NEMA Controller is the industry-standard 2070E controller adapted f... Read More</p>	<p>Details</p> 
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	<p>McCain 2070EN1 NEMA Controller</p> <p>2070EN1 NEMA Controllers bringing together the best of the Model 2070 and NEMA worlds through an open architecture and modular design. The 2070EN1 NEMA Controller is the industry-standard ... Read More</p>	<p>Details</p> 
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Cabinets

	<p>McCain 350i ATC Cabinet</p> <p>350i ATC cabinets combine the best of rack mount and serial-based designs to meet the needs of today's LED intersections. Using smarter, high-density components, the cabinets offer unparalleled control capabilities for intersections th... Read More</p>	<p>Details</p> 
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Equipment & Support Directory

- Vendor Directory
- User Reviews
- Searchable
- Comparison Shop

Troubleshooting Forum



Trouble in a Barrel...

You may fire when ready.

[Recent Questions](#) [▲](#)

0

Votes

1

Answers

18

Views

All the lights in my signal head are on at the same time

By ilovetrouble, 9 months ago

1

Votes

0

Answers

15

Views

I'm utilizing Single Mode Fiber and I am getting link on the other

By Doblinc, 10 months ago

0

Votes

0

Answers

8

Views

Flash Mode intersection - same time, every day - help

By ilovetrouble, 10 months ago

Hardware, Software & Equipment Discussion



The Pros & Cons...

Discussion about equipment and software your organization is looking into acquiring...

[Recent Questions](#) [▲](#)

0

Votes

0

Answers

15

Views

What type of media do you use most at your agency

By Doblinc, 10 months ago



Does Anybody Have a Spare....

Discussion about legacy equipment which you can't get parts for (but someone may still have laying around the shop)

General Discussion



General Discussion

The forum for discussion anything generally related to ITS, Connected Vehicles, and so on...

[Topics: 0](#) | [Posts: 0](#)

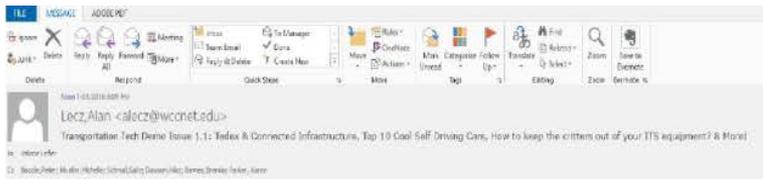


Career & Training Advice

Discussion about ITS or Connected Vehicle related careers, training, professional development, and advancement.

Tech Support Forum

- End Goal: Establish a Self Sustaining Professional Community
- Provide Field Support for Chronic Issues
- Generational Transfer of Knowledge
- Equipment Discussion & Exchange of Legacy Equipment



Demo Issue 1.1 Jan 20, 2016

IT's & CV Rock Star Videos to Share in Your Classroom or during Coffee Break!



Driverless Cars and Connected Infrastructure: The Future | Jim Barbarezzo | TEDxLancasterville



10 Of The Coolest Self-Driving Vehicles

New Product Feature!
(click to learn more)



Sponsored by:



Most Popular Threads from the IT's Trouble Shooting Forum Boards

Voted #1: How do you keep the critters out of your equipment?

- Packing steel wool in your conduit entry in the equipment enclosure and of pull boxes going to the equipment enclosure.
- If there are any louvered vents on the doors, add a section of aluminum window screen duct taped to the inside of the door over the louvers.
- Add some ant traps inside the equipment enclosure if ants are present.

If you want to go all out American Polywater carries products for keeping out pests and water.

<http://www.polywater.com>



Yes, those are SNAKES tangled in with the cables! Always look before you reach!

Email us your unexpected "critter" guest images in your equipment at: media@transportationtech.com



We will vote next week and winner receives \$50 Best Buy Gift Card!

Voted #2: Where is my video stream?

The easiest way to check this is by starting from point A. (your computer to point B, the camera site)

- Check your network settings on your computer.
- Depending on what sort of communications scenario you you ping the head end? If yes, work your way to the cam reach the switch/router, the more forward to the next dev
- Do you have a web addressable power strip? If yes, see i
- Can you ping the video encoder? If the answer is no. Go strip, there should be some sort of command line to cycle to the encoder.

[Click here to keep reading and "Find Your Video Stream!"](#)

SIEMENS



Educator of the Week:



Rodney Hiers, Mississippi Gulf Coast Community College, Electronic Technology Instructor

Transportation Tech Success Story! -- SIGN UP TODAY!! Save \$239!



I'm an electrician and I lost my job when the contractor I was working for folded this fall. I decided I'd pick up some extra skills this winter and bide my time until spring when I could try and get some work again. I enrolled in Transportation Tech and moved through the material at my own pace (which I really liked) and am now done with level one training and mid-way through level two training. What's even better: I applied with a contractor that's doing a major upgrade project on the interstates around town and now have a job that pays better then what I was doing!!

- Erin Fairchild, Laramie, Wyoming

Partners Wanted!

- DOT/Industry Joint Training Development
- Technical Academic Certificate or Program Creation
- Subject Matter Experts



Question & Answer





Thank You

Valerie Lefler

CEO

valerie@igdinaction.com

Ryan Johnsen

Vice President

ryan@igdinaction.com