"Get on the Right Track"

RAILWAY RESEARCH & EDUCATION

WHO WILL MAKE BUSINESS HAPPEN? SPARTANS WILL.

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MSU is the leading university in North America offering research and education in management specifically geared to the rail industry. For freight rail, we are uniquely positioned to leverage MSU's renowned Supply Chain Management expertise at both graduate and undergraduate levels (#1 ranking by US News & World Report, 2017.)

Over 150 future senior managers and leaders of the North American rail industry have graduated MSU's Railway Management Certificate Program since its inception in 2007.

Appointment of the Burkhardt Professor in Railway Management in 2016 means we are adding new rail focused education programs. Additionally, we are developing research activities to support railway management and knowledge leadership.

Our capabilities include experience in passenger rail, motive power, alternative fuels and other aspects of the passenger and freight rail industry. Most importantly, we focus on management of the railway as a transportation system and its complex sub-systems.

Visit us at **railway.broad.msu.edu**

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Railway Management Program
Broad College of Business
MICHIGAN STATE UNIVERSITY

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EDUCATION

Our educational offerings fall into four categories.
Full details at **railway.broad.msu.edu/education**

Railway Management Certificate Program (RMCP)

This modular program has been the leading management education program for the industry in North America since its inception in 2007. It features a unique mix of lectures, group work and site visits in four modules:

- Railway Business Administration
- Railway Operations
- Railway Engineering & Technology
- Railway Regulation, Safety & the Rail Industry

Continuing Professional Development (CPD) Modules

Individual modules support career development, new entrant learning and position people for moving between functional groups in the industry.

- Modular study supports achieving work/learning objectives
- Enables cost spreading to help company and individual budgets
- Study modules most applicable to personal needs over time
- Extend certification beyond RMCP

Custom Programs

Bespoke, single organization programs designed to:

- Address specific company or business issues
- Bring a group of employees to the same level of knowledge
- Facilitate team-building and networking
- Maintain commercial sensitivity
- Support company policies and procedures

Seminars/Workshops

Topical facilitated discussions bringing together experts from industry and academia for immediate application of learning in the workplace.

THE MANAGED RAILWAY

MOTIVE POWER · ROLLING STOCK · INFRASTRUCTURE · TALENT · CONTROL · PASSENGER AND FREIGHT

THE RAILWAY AS A SYSTEM

Railways' primary function is the safe transportation of freight and/or passengers to enable economic activity. To achieve this, individual elements such as infrastructure, motive power, rolling stock, control, business processes, customer service, safety culture and talent have to be managed as an integrated system.

Railways are complex, asset rich organizations owning infrastructure and train control systems. Without additional assets such as people, locomotives, railcars, and terminals there would be no railway. Competent people who understand the interactions between all subsystems enable safe, efficient, effective and sustainable rail-based transportation.

We provide expertise in strategic business leadership, supply chain integration, technology decisions, and interface between different stakeholders through our research and education activities.

RESEARCH

Applied and academic research advances knowledge. Railway research and education at MSU combines scientific knowledge creation with practical application to stimulate innovation, address technical and commercial issues, and improve performance of organizations throughout the rail industry. Our research areas are topical and evolving. Please visit us at **railway.broad.msu.edu/research**

Research Expertise

We focus on the implications for management, suppliers and customers of the whole rail industry.

- Management of the railway as a system
- Integration of railway services into the supply/value chain for goods, materials and services
- Rail integration into end-to-end multi-modal passenger journeys
- Railway motive power, energy supply chain, and rolling stock
- Big data/data analytics and cognitive computing to enhance rail management decision making

Bespoke Research

Project-based research is tailored to specific company topics. Typically we will:

- Address specific issues faced by individual companies or business units
- Maintain commercial sensitivity and help develop company competitive advantage
- Provide selected company employees opportunity to work at the leading edge of knowledge development
- Address project aims through facilitation of networking with academia and non-competing partners