

<b>16:00–16:40</b>	Coffee break	
<b>16:40–18:40</b>	Lecture block on the topic <b><i>wheel-rail contact and experimental testing devices</i></b>	
<b>Janoš P.</b> [BONATRANS GROUP a. s.], Kovář L., Šíroky J., Kotrba A.: Analysis of Parameters Affecting the Wheels Lifespan		16:40 – 17:00
<b>Pulda J.</b> [University of Pardubice, Faculty of Transport Engineering], Voltr P., Culek B.: Experimental Proof of Spin Influence on Rail-Wheel Contact Forces: Measurements Design on Roller Test Rig		17:00 – 17:20
<b>Voltr P.</b> [University of Pardubice, Faculty of Transport Engineering], Bílek A., Lata M.: Adhesion Conditions under the Influence of Solid Flange Lubricants – Full-Scale Roller Rig Tests		17:20 – 17:40
<b>Piskač J.</b> [Czech Technical University in Prague, Faculty of Mechanical Engineering], Pechar S.: DAKO Train Test Stand		17:40 – 18:00
<b>Kalivoda J.</b> [Czech Technical University in Prague, Faculty of Mechanical Engineering], Bauer P., Novák M., Novák Z.: Contactless System for Wheelsets' Angle of Attack Measurement		18:00 – 18:20
<b>Raif L.</b> [DT – Výhybkárna a strojírna, a.s.], Vévoda A., Komárek M., Výmola L.: Abt Rack Railway Turnouts and Rack Railway Vehicle Passage Solutions		18:20 – 18:40
<b>18:40–18:50</b>	<b>Conference closing ceremony</b>	
<b>19:00–24:00</b>	<b>Conference banquet</b>	

**FRIDAY September 19, 2025 TECHNICAL VISIT TO THE MUSEUM OF OLD MACHINES AND TECHNOLOGIES IN ŽAMBERK**

*The program of the excursion will be specified later; however, we expect the excursion to take place approximately between 8 a.m. and 3:30 p.m.*

**CONTRIBUTIONS IN POSTER SESSION (September 17–18, 2025)**

- Fridrichovský T.** [Czech Technical University in Prague, Faculty of Mechanical Engineering]:  
Use of the VRUT System in Education of Railway Vehicles
- Hába A.** [University of Pardubice, Faculty of Transport Engineering]:  
Guidance of Tram Wheelset Passing Over Obtuse Crossing
- Kohout M.** [University of Pardubice, Faculty of Transport Engineering], Řihák D., Vaniš J.:  
Selected Braking Problems of Freight Wagons with Disc Brake
- Michálek T.** [University of Pardubice, Faculty of Transport Engineering], Šlapák J., Salaba V., Heřt D.:  
Selected Problems of Vehicle-Track Interaction in Small-Radius Curves
- Voltr P.** [University of Pardubice, Faculty of Transport Engineering], Netolický J., Liberová S.:  
Twin-Disc Testing of Solid Lubricants for Wheel-Rail Interface – The Influence of Solid Lubricant Stick Loading
- Vyhnanovský M.** [University of Pardubice, Faculty of Transport Engineering], Nachtigall P., Křížan L., Vojtek M.:  
Modern Rolling Stock as a Pillar of the Technological Triangle

**Note: The organizers reserve the right to change the program.**

**Association of Mechanical Engineers, Czech Republic – Česká Třebová Club**  
**Faculty of Transport Engineering of the University of Pardubice**  
**Faculty of Mechanical Engineering of the University of Žilina**

27<sup>th</sup> conference with international participation



which is held under the auspices of

**Martin Kupka**  
Minister of Transport of the Czech Republic

**Martin Netolický**  
President of the Pardubice Region

**Ladislav Řoutil**  
Dean of the Faculty of Transport Engineering of the University of Pardubice

## Conference program

The general partner of the conference is the company



The media partner of the conference is the journal



The partners of the conference are the companies



**September 17–19, 2025**

**Cultural Center in Česká Třebová, Czech Republic**

SCHEDULE OF LECTURES

WEDNESDAY September 17, 2025

08:00–10:00	Registration of participants	
10:00–10:20	Conference opening ceremony Speech of guests	
10:20–10:30	Break	
10:30–11:50	Introductory lecture block – <i>invited lectures</i>	
	<b>Pulda J.</b> [VÚKV a.s.], Mrzena R., Heptner T., Mouřeček Z.: Increase of Traction Forces in Head of a Train above Current Limit in the Network of Správa Železnic	10:30 – 10:50
	<b>Malkovský Z.</b> [VÚKV a.s.]: Digital Automatic Coupling (DAC) – Project Information	10:50 – 11:10
	<b>Benický M.</b> [CZ LOKO a.s.], Haupt L.: Current State of Development of Dual Locomotives in CZ LOKO	11:10 – 11:30
	<b>Pohl J.</b> [Siemens Mobility, s.r.o.]: System Solution for Decarbonisation of Rail Transport	11:30 – 11:50
11:50–13:20	Lunch	
13:20–16:00	Lecture block on the topic <i>modern rail vehicles</i>	
	<b>Šindel R.</b> [Siemens Mobility, s.r.o.]: Emission-Free Rail Vehicles for Regional Passenger Rail Transport	13:20 – 13:40
	<b>Folwarczny D.</b> [ŠKODA TRANSPORTATION a.s.]: Battery Electric Multiple Units ŠKODA	13:40 – 14:00
	<b>Mlynařík L.</b> [University of Pardubice, Faculty of Transport Engineering], Novák J., Sadílek O.: Simulation Calculations of the Effects of Operation on the Consumption of a Battery Rail Vehicle	14:00 – 14:20
	<b>Sýkora R.</b> [ŠKODA TRANSPORTATION a.s.], Kopečný M., Černušek P.: Experience with the Start of Operation of ŠKODA Single-Deck EMUs	14:20 – 14:40
	<b>Bílek A.</b> [České dráhy, a.s.], Elstner M., Ritter V.: Operation and Maintenance of the Electric Multiple Units with Traction Battery	14:40 – 15:00
	<b>Strítešský P.</b> [AŽD Praha, s.r.o.], Novák M.: Autonomous Operation from the Perspective of Operation and Necessary Vehicle Design Modifications	15:00 – 15:20
	<b>Sála P.</b> [ŠKODA TRANSPORTATION a.s.], Strazhnyk V., Skrypachov K.: Metro Train for City Sofia	15:20 – 15:40
	<b>Šimek P.</b> [CZ LOKO a.s.]: Locomotives for Operation in Nordic Conditions	15:40 – 16:00
16:00–16:40	Coffee break	
16:40–18:40	Lecture block on the topic <i>dynamics and simulation of rail vehicles</i>	
	<b>Červenka Z.</b> [ŠKODA TRANSPORTATION a.s.], Byrtus M.: Simplified Dynamic Models in Suspension Optimization, Part 2	16:40 – 17:00
	<b>Jeniš F.</b> [Brno University of Technology, Faculty of Mechanical Engineering], Macháček O., Michálek T., Staněk P.: Ride Comfort Increasing with Semi-Actively Controlled Dampers – Running Tests	17:00 – 17:20
	<b>Vrba J.</b> [Czech Technical University in Prague, Faculty of Mechanical Engineering], Dybala V.: The Research and Application Possibilities for the Wheelset Active Steering System for Tramcars	17:20 – 17:40
	<b>Pejša J.</b> [VÚKV a.s.]: Validation of an MBS Model of a Tram	17:40 – 18:00

<b>Ježdík R.</b> [VÚKV a.s.], Lopot F., Rulc V.: Tram Front Ends Testing with Respect to the Collision with a Pedestrian	18:00 – 18:20
<b>Plomer J.</b> [Siemens Mobility s.r.o.]: Bridge Compatibility of Railway Vehicles	18:20 – 18:40

THURSDAY September 18, 2025

08:30–09:30	Lecture block on the topic <i>vehicle-environment interaction</i>	
	<b>Mergl E.</b> [VÚKV a.s.], Šátek J.: The Measurements of Aerodynamic Effects in Tunnels on the Czech Railway Network	08:30 – 08:50
	<b>Phamová L.</b> [VÚKV a.s.]: Effect of a Tunnel on the Internal Noise of a Railway Vehicle	08:50 – 09:10
	<b>Vnenk P.</b> [Správa železnic, s.o.], Tomandl V., Fridrich K.: Update of ČSN 73 4959 with Emphasis on Horizontal and Vertical Requirements on Boarding Edges of Platforms	09:10 – 09:30
09:30–10:10	Coffee break	
10:10–11:50	Lecture block on the topic <i>maintenance &amp; diagnostics of vehicles and infrastructure</i>	
	<b>Janiš O.</b> [Railpool GmbH]: Organisation of Traction Vehicle Maintenance in the Conditions of a European Leasing Company	10:10 – 10:30
	<b>Culek B.</b> [University of Pardubice, Faculty of Transport Engineering], Schmidová E.: Renovation of the Rail Head Running Surface by Plasma Welding	10:30 – 10:50
	<b>Hlaváč J.</b> [RYKO a.s.]: Innovations in Non-Destructive Testing of Railway Freight Wagon Wheelset Axles	10:50 – 11:10
	<b>Kovář O.</b> [STARMON s.r.o.]: Complex Diagnostics of Running Railway Vehicles and Railway Superstructure	11:10 – 11:30
	<b>Vágnér J.</b> [University of Pardubice, Faculty of Transport Engineering], Voltr P., Šlapák J., Kohout M., Sála P., Strazhnyk V.: On-Board Diagnostics of Dynamic Response of Railway Vehicle Wheels	11:30 – 11:50
11:50–13:20	Lunch	
13:20–16:00	Lecture block on the topic <i>vehicle subsystems and components, ETCS</i>	
	<b>Švéd S.</b> [VÚKV a.s.], Bauer P., Fridrichovský T., Havlík K., Moravčík M., Musil J., Pejša J., Pulda J., Sakalík V.: Innovative Freight Bogie NP-X	13:20 – 13:40
	<b>Novotný O.</b> [SKF CZ a.s.], Babka J.: Cylindrical Roller Unit for Freight Application Equipped by Bogies System Y25	13:40 – 14:00
	<b>Kolář J.</b> [Czech Technical University in Prague, Faculty of Mechanical Engineering]: Advantages of Using Two-Speed Gearboxes in Wheelset Drives of Rail Vehicles BEMU	14:00 – 14:20
	<b>Búry M.</b> [Tatravagónka a.s.], Moravčík M.: Stanchions of the Snps Freight Wagon – Structural Solutions and Mechanical Loading during Log and Sawm Timber Transport	14:20 – 14:40
	<b>Gerlici J.</b> [University of Žilina, Faculty of Mechanical Engineering], Lovska A., Dižo J.: Analysis of the Strength of an Open Wagon Body When It Is Lifted to Change Bogies at a Railway Ferry Station	14:40 – 15:00
	<b>Ivanov I.</b> [AŽD Praha, s.r.o.], Jaroš M., Marek S.: Integration of ETCS On-Board Units in Rolling Stock	15:00 – 15:20
	<b>Štěpánek J.</b> [CZ LOKO a.s.], Kubela J.: Experience from ETCS On-Board Installations	15:20 – 15:40
	<b>Lieskovský A.</b> [AŽD Praha s.r.o.], Myslivec I.: AVV over ETCS	15:40 – 16:00