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Research outputs

Automatische Zugvorbereitung am Rollberg - Der FDFT Preparator
Himmelbauer, G. S., Hasenleithner, T., Stadlmann, B., Egger, M., Kaltenbrunner, A. & Pratter, R., Aug 2025, ZEVrail, 149, 8, p. 310-315 6 p.

Potenziale der Grades of Automation im Rangierbetrieb: Der beschwerliche Weg zu einem vollautomatisierten Rangierbahnhof
Reichmann, M., Wagner, A. & Himmelbauer, G. S., May 2025, Der Eisenbahningenieur, 05/2025, p. 67-71 5 p.

Introducing the concept of grades of automation for shunting operations
Reichmann, M., Himmelbauer, G. S., Wagner, A., Zajicek, J., Stadlmann, B., Wancura, H., Furian, N. & Vössner, S., Mar 2025, In: Journal of Rail Transport Planning and Management. 33, 100500.

Benefits, Challenges, and Opportunities of the Digital Automatic Coupling
Himmelbauer, G. S., Reichmann, M., Wagner, A., Wancura, H., Hasenleithner, T., Stadlmann, B., Egger, M. & Zajicek, J., Jan 2025, *Transport Transitions: Advancing Sustainable and Inclusive Mobility: Proceedings of the 10th TRA Conference, 2024, Dublin Ireland.* 1 ed. Cham: Springer, p. 298-303 6 p. (Lecture Notes in Mobility; vol. Part F658).

Conceptual Design of Shunting Automation Elements Utilising the Digital Automatic Coupler
Himmelbauer, G. S., Hasenleithner, T., Egger, M., Skok, B., Kaltenbrunner, A. & Stadlmann, B., Sept 2024, *Proceedings of the Sixth International Conference on Railway Technology: Research, Development and Maintenance.* Pombo, J. (ed.). Edinburgh, UK: Civil-Comp Press, Vol. CCC 7.

Conceptual design and evaluation of sensor technology for automatic uncoupling of railroad wagons
Himmelbauer, G. S., 17 May 2023. 16 p.

Visual odometry and mapping under poor visibility conditions using a stereo infrared thermal imaging system.
Edlinger, R., Zauner, G., Himmelbauer, G. S. & Nüchter, A., 16 Jan 2023, *Electronic Imaging .* 5 ed. IS&T 7003 Kilworth Lane, Springfield, VA 22151 USA: Society for Imaging Science and Technology, Vol. 35. p. 1-7 7 p. (IS and T International Symposium on Electronic Imaging Science and Technology).

Projects

DACIO - Digital Automated Coupling in Infrastructure Operations
Stadlmann, B. (PI), Egger, M. (CoPI), Penkner, T. (CoI), Hasenleithner, T. (CoI) & Himmelbauer, G. S. (CoI)
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