

10/01/19 - 3/31/2020

Publications

1. Mast, T., Neighborgall, C., Peterson, A., Holton, C., and Ahmadian, M., Sensor Selection Consideration for Top-of-Rail (TOR) Lubrication Detection, Proceedings of the 2020 Joint Rail Conference, St. Louis, MO, April 20-21, 2020. The conference was postponed to 2021 due to COVID-19 social and travel restrictions. (Virginia Tech)
2. Radmehr, A., Ahangarnejad, A.H., Tajaddini, A., and Ahmadian, M., Surface Profile and Third-body Layer Accumulation Measurement Using a 3D Laser profiler, Proceedings of the 2020 Joint Rail Conference, St. Louis, MO, April 20-21, 2020. The conference was postponed to 2021 due to COVID-19 social and travel restrictions. (Virginia Tech)
3. Afzalan, M., Jazizadeh, F. K., and Ahmadian, M., Towards Railway Automated Defect Detection from Onboard Data using Deep Learning, Proceedings of the 2020 Joint Rail Conference, St. Louis, Mo, April 20-21, 2020. The conference was postponed to 2021 due to COVID-19 social and travel restrictions. (Virginia Tech)
4. Radmehr, A., Ahangarnejad, A.H., Tajaddini, A., and Ahmadian, M., Influence of Angle of Attack on Wheel-rail Interface (WRI) Dynamics Under Various Friction Conditions, Proceedings of the 2020 Joint Rail Conference, St. Louis, MO, April 20-21, 2020. The conference was postponed to 2021 due to COVID-19 social and travel restrictions. (Virginia Tech)
5. Tan, Y., Hosseini, S-M, Chen, Y., and Ahmadian, M., Simulation Evaluation of Fouled Ballast Thermal Characteristics, Proceedings of the 2020 Joint Rail Conference, St. Louis, MO, April 20-21, 2020. The conference was postponed to 2021 due to COVID-19 social and travel restrictions. (Virginia Tech)
6. Dama, N. and Ahmadian, M., Discrete Element Modeling of Railway Ballast for Studying Railroad Tamping Operation,” Proceedings of the 2020 Joint Rail Conference, St. Louis, MO, April 20-21, 2020. The conference was postponed to 2021 due to COVID-19 social and travel restrictions. (Virginia Tech)
7. Hosseini, S-M, Tan, Y., and Ahmadian, M., Forward-Looking Infrared Radiometry (FLIR) Application for Detecting Ballast Fouling,” Proceedings of the 2020 Joint Rail Conference, St. Louis, MO, April 20-21, 2020. The conference was postponed to 2021 due to COVID-19 social and travel restrictions. (Virginia Tech)
8. Radmehr, A., Ahangarnejad, A.H., Pan, Y., Tajaddini, A., and Ahmadian, M., Wheel-Rail Contact Patch Geometry Measurement and Shape Analysis Under Various Loading Conditions, Proceedings of the 2020 Joint Rail Conference, St. Louis, MO, April 20-21, 2020. The conference was postponed to 2021 due to COVID-19 social and travel restrictions. (Virginia Tech)
9. Lasisi, A, Merheb, A, Zarembski, A.M., and Attoh-Okine, N., Rail Track Quality and T-Stochastic Neighbor Embedding for Hybrid Track Index, Proceedings of IEEE Big Data 2019 Conference, Los Angeles, CA, December 2019. (University of Delaware)
10. Alsahli, A, Zarembski, A.M., Palese, J. and Euston W., Investigation of the Correlation between Track Geometry Defect Occurrence and Wood Tie Condition, Journal of Transportation Infrastructure Geotechnology, pp. 226-244 Vol. 6, Issue 3, September 2019. (UNLV)

11. Mortazavian, E., Wang, Z. and Teng, H., Repair of light rail track through restoration of the worn part of the railhead using submerged arc welding process. Accepted for publication in the International Journal of Advanced Manufacturing Technology, March 2020.. (UNLV)

Presentations

1. Attoh-Okine, N., Application of Data Analytics to Railway Maintenance, Conference of Big Data in Railway Maintenance 2019, December 11-12, 2019. (University of Delaware)
2. Palese, J., Application of Data Analytics to Rail Wear Forecasting, Conference of Big Data in Railway Maintenance 2019, December 11-12, 2019. (University of Delaware)
3. Zaremski, A.M., Probabilistic Relationship for Development of a Severe Track Geometry Defect based on Ballast Condition as Measured by GPR, Conference of Big Data in Railway Maintenance 2019, December 11-12, 2020. (University of Delaware)
4. Lasisi, A, Merheb, A, Zaremski, A.M. and Attoh-Okine, N., Rail Track Quality and T-Stochastic Neighbor Embedding for Hybrid Track Index” IEEE Big Data 2019 Conference, Los Angeles, CA, December 2019. (University of Delaware)
5. Ashley, G. and Attoh-Okine, N.O. Approximate Bayesian Computation for Railway Geometry Modeling, Transportation Research Board Annual Meeting, Washington D.C., 2020. (University of Delaware).
6. Zaremski, A.M., Yurlov, D, Palese, J. W. and Attoh-Okine, N., Determination of Probability of a Track Geometry Defect based on GPR Measured Subsurface Conditions Using Data Analytics, 2019 World Congress of Railway Research, Tokyo, Japan, .October 28- November 1, 2019. (University of Delaware)
7. Dai, A., Zhu, M., Jiang, Y., and Teng, H., Development of UAV-based Rail Track Irregularity Monitoring and Measuring Platform, Fall Transportation Conference, Las Vegas, Nevada, October 31, 2019. (UNLV)
8. Ghafoori, N. and Hasnat A., Non-Proprietary Ultra High-Performance Concrete for Ballast-Track High Speed Railroad Sleepers, Fall Transportation Conference, Las Vegas, Nevada, October 31, 2019. (UNLV)
9. Schill, R., Transit Degradation Monitoring and Failure Prediction of Carbon Insert (Strip) in Pantograph Shoe, Fall Transportation Conference, Las Vegas, Nevada, October 31, 2019. (UNLV)

Magazine articles

1. Zaremski, A. M., Big Data in Railroad Maintenance Management: The Railroad Industry Continues to Make Use of Big Data, Railway Age, March 2020. (University of Delaware)