

Marzo 20, 2018

CURRICULUM VITAE

José-Antonio Romero-Navarrete

Universidad Autónoma de Querétaro (UAQ)
 Campus San Juan del Río
 Facultad de Ingeniería
 Río Moctezuma 249, San Cayetano,
 San Juan del Río,
 Querétaro, Mexico 76800

Celular: 011-52-427-1178815
 E-mail: jaromero@uaq.mx

Posiciones académicas y de investigación

Visiting scientist, Instituto Federal para la Investigación y Prueba de Materiales (BAM) (Abril-Diciembre, 2017), Supervisor: Dr.Prof. Frank Otremba.

Visiting scholar, Concordia University, Montreal, Canada (Seis meses, 2005). Supervisor: Dr. Subhash Rakheja.

Visiting scholar, Concordia University, Montreal, Canada (1999-2001), Supervisor: Dr. Subhash Rakheja.

Visiting scholar, Claremont Colleges, Claremont, California, USA (Tres meses, 1995), Supervisor: Prof. Ellis Cumberbatch.

Investigador titular, Mexican Institute of Transport, Ministry of Communications and Transport (1989 – 2005).

Investigador Titular, Instituto de Investigaciones Eléctricas, Cuernavaca, Morelos (1984-1989). Secretario, CENIDET, Academia de Ing. Mecánica, Cuernavaca, Morelos (1987 – 1989).

Posiciones en la industria

Coordinador de Mantenimiento. Planta Química de Polaquimia (Griupo Polak) (1982-1983).

Prestador de Servicio Social. AHMSA, Plata de laminado en caliente, Tulpelac, E.Mex. (1979).

Prestador de prácticas profesionales. Cementos La Cruz Azul, Jasso, Hidalgo, México (1980).

Educación

Doctorado en Ingeniería, Universidad Nacional Autónoma de México (1999)

Maestría en Ciencias con Especialidad en Ing. Mecánica, Instituto Politécnico Nacional, México (1985).

Licenciatura en Ing. Mecánica, Instituto Politécnico Nacional, México (1981).

Premios y distinciones

Guest Co-editor, Special Issue on Hazardous Materials - Heavy Vehicle Systems Inderscience Publisher. (2010).

Representante del Cuerpo Académico Consolidado de Estructuras, Construcción y Transporte (2013 - fecha).

Premio Alejandrina a la Investigación (3 ocasiones): 1997 (Primer Lugar); 2002 (Segundo lugar); y 2010 (Primer lugar).

Investigador Nacional, Nivel 1. (1987-1994, 2002 - date).

Perfil PRODEP (2010-2020)

Patentes Mexicanas

Romero, J.A., Benitez Rangel, J.P., Ramírez Mendoza, M.A. (2017) “Válvula de pedal libre de anclaje”; título de invención 343667.

Romero, J.A., Arroyo-Contreras, G.M., López-Cajún, C. (2017) “Sensor hidrostático para el pesaje de vehículos en movimiento”, título de invención 346641.

Martínez, M., y **José A. Romero** (2011) “Contenedor de bajo perfil para camiones cisterna”, título de invención 284015.

Romero et al. (2001) “Máquina de fresado de pavimento asfáltico”, título de invención 202118.

Romero et al. (1999) “Calentador transportador de material a granel”, título de invención 191793.

Bonilla, F., y **Romero et al.**, (1998) “Dispositivo para el pintado de barreras centrales”, título de invención 189293.

Artículos en revistas especializadas

Romero, José A., Lozano, A.A., Obregon-Biosca, S.A., and Betanzo-Quezada, E. (2017) A plane model of the interaction of a vehicle with the road infrastructure, Advances in Engineering Software, Available online 27 Marzo 2017
<http://www.sciencedirect.com/science/article/pii/S0965997817301370>

Romero, José A., Lozano, A.A., Betanzo-Quezada, E., and Arroyo-Contreras, G.M. (2016) *Cargo securement methods and vehicle braking performance*, International Journal of Vehicle Performance 2(4): 353-373.

Romero, José A., Lozano, A.A., Arroyo-Contreras, G.M., and López-Cajún. C.S. (2016) *Analysis of the impact of a detached heavy trailer against a concrete median barrier*, International Journal of Vehicle Performance 2(4): 374-389.

Obregón-Biosca, S., **Romero-Navarrete, J. A.**, Mendoza-Sanchez, J., and Betanzo-Quezada, E. (2015) *Impact of Mobility Induced by Urban Sprawl: Case Study of the Querétaro Metropolitan Area*, J. Urban Plann. Dev. 1943-5444.0000295.

Romero, José A., Betanzo-Quezada, E., Obregón Biosca, S.A. (2014) *Rail damage potentials of sloshing cargo*, International Journal of Railway Research 1(1): 44-52.

Romero, José A., Lozano-Guzmán, A., Betanzo-Quezada, E., Obregón Biosca, S.A. (2013) *A flexible pavement damage metric for a straight truck*, International Journal of Heavy Vehicle Systems 20: 209-221.

Romero, José A., Betanzo, E., Lozano, A. (2013) *A Methodology to assess road tankers rollover trend*, SAE International Journal of Commercial Vehicles 6:93-98,

Libro

Romero, José A., Lozano, A.A. (2016) Isostatic structures, ISBN: 978-607-97047-3-5.

Memorias en extenso

Romero, José A., Otremba, F. (2016) Experimental and theoretical modeling of cargo sloshing during braking. ASME paper IMECE2016-65698, Phoenix, Arizona.

Romero, José A., Otremba, F. (2017) Modeling of the Lateral Stability of River Tankers. Proceedings, NAFEM World Congress. Stockholm. 11-14 June 2017.

- Romero, José A.**, Otremba, F. (2017) A Massive Vehicle – Flexible Pavement Dynamic Interaction Simulator. Proceedings, NAFEM World Congress. Stockholm. 11-14 June 2017.
- Otremba, F. and **Romero, José A.** (2017) Analysis of the capsizing of a tanker in the Rhine river. IMECE2017-70488 November 3-9, 2017, Tampa, Florida, USA.
- Otremba, F. and **Romero, José A.** (2017) Modelling a partly filled road tanker during an emergency maneuver. World Congress on Engineering and Computer Science 2017. San Francisco, California. USA.
- Romero, J.A.**, Lozano-Guzmán, A.A., Otremba, F. (2017) An active acceleration system to mitigate/avoid underride rear-end crashes. Proceedings, International Conference on Advance Mechatronic Systems, Xiamen, China. December 5-9, 2017.
- José A. Romero**, Frank Otremba (2017) A GPS Data – based Overall Performance Measure for Heavy Trucks. Presentation. 4th International Workshop on Sustainable Road Freight. Cambridge University. Engineering Department, UK.
- Frank Otremba, **José A. Romero** (2018) A testing rig to study vehicle-track interaction during turning. ASME paper JRC2018-6102. Joint Rail Conference. Pittsburgh, April 2018.
- Martínez-Ocampo, M.A., **Romero, José A.**, Reyes-Araiza, J.L., Obregón-Biosca, S.A. (2016) *An Assessment of the Effectiveness of Speed Controlling Devices in Descending Slope Roads*, IEEE Proceedings. 2016 CONIIN Congress. (In Press)
- Hurtado-Hurtado, G., **Romero, José A.**, López-Cajún, C.S. (2016) *Energy Harvesting Simulator*, IEEE Proceedings. 2016 CONIIN Congress.
- Romero, José A.**, Lozano-Guzmán, A.A., Arroyo-Contreras, G.M. (2016) *A Finite Element Model to assess flexible pavement – vehicle interaction*, IEEE Proceedings. 2015 CONIIN Congress.
- Montoya, R., **Romero, José A.**, Betanzo-Quezada, E., and Obregón-Biosca, S.A. (2016) *A hybrid GPS-simulation based methodology to assess road pricing and environment impact of trucks*, Proceedings, XIX Pan-American Conference of Traffic, Transportation Engineering and Logistics, Mexico City.
- Romero, José A.**, Otremba, F. (2016) *Experimental and theoretical modeling of cargo sloshing during braking*. ASME-IMECE 2016 Congress, Phoenix, USA.
- Hurtado-Hurtado, G., **Romero, José A.** (2016) *Conceptual Design of an Energy Harvesting Accessory for Road Vehicles*. ASME-IMECE 2016 Congress, Phoenix, USA.
- Romero, José A.**, Lozano-Guzmán, A.A., Arroyo-Contreras, G.M. (2015) *A Study of the effect of variations in bogie centre distance on rail car roll performance*, Proceedings, The 14th IFTOMM World Congress, Taipei, Taiwan, October 25-30, 2015 DOI Number: 10.6567/IFTOMM.14TH.WC.OS17.012
- Romero, José A.**, Lozano-Guzmán, A.A., Obregón-Biosca, S.A., Betanzo-Quezada, E. (2015) *A heavy truck - infrastructure interaction model*, Proceedings of the Fifteen International Conference on Civil, Structural and Environmental Engineering Computing, Civil-Comp Press, Scotland. ISBN978-1-905088-63-8, p. 213
- Romero, José A.**, Alvarado-Morales, M.A., Arroyo-Contreras, G.M, (2015) *A train-track dynamic interaction model*, Proceedings of the Fifteen International Conference on Civil, Structural and Environmental Engineering Computing, Civil-Comp Press, Scotland. ISBN978-1-905088-63-8, p. 124
- Romero, José A.**, Lozano-Guzmán, A.A., Arroyo-Contreras, G.M. and Betanzo-Quezada, E. (2015) *Road tanker pavement damage potentials*, Proceedings of the Fifteen International Conference on Civil, Structural and Environmental Engineering Computing. Civil-Comp Press, Scotland. ISBN978-1-905088-63-8, p. 215.
- Romero, José A.**, Lozano-Guzmán, A.A., Aguilera-Navarrete, I. (2014) *Investigation of a 27-fatality crash involving a double road tanker impacting the central barrier* (2014) ASME paper IMECE2014-39603. Proceedings of the ASME 2014 International Mechanical Engineering Congress and Exposition IMECE 2014.
- Romero, José A.**, Lozano-Guzmán, A.A., Betanzo-Quezada, E., López-Cajún, E. (2014) *Robotics and road transportation: A Review*, Proceedings, ICIRA 7th International Conference. Springer. ISBN 978-3-319-13963-0

Romero, José A., Betanzo-Quezada, E., Lozano-Guzmán, A. (2013) *A methodology to assess road tankers rollover trend*, SAE technical paper 2013-01-0682, SAE World Congress, Detroit Abril 16-18, 2013.

Capítulos de libros

- Obregón Biosca, S.A., **Romero, José A.**, Betanzo-Quezada, A. (2015) *Statistics and the studies of mobility in the Urban Metropolitan Area of Queretaro*, Statistics and Science, Fontamara, Russel J. Bowater (Editors), pp. 17-40, ISBN: 978-607-736-208-1, Mexico. (In Spanish)
- Betanzo-Quezada, A., **Romero, José A.**, Obregón Biosca, S.A. (2015) *Quantitative research on goods transport in Queretaro's Metropolitan Area*, Statistics and the studies of mobility in the Urban Metropolitan Area of Queretaro, Statistics and Science, Fontamara, Russel J. Bowater (Editors) pp. 41-60, ISBN: 978-607-736-208-1, Mexico. (In Spanish)
- Arroyo-Contreras, G.M., López-Cajún, C., Pérez-Lara, M.A., **Romero, José A.** (2015) *Statistical and probability models through DEEFEP software*, Statistics and Science, Fontamara, Russel J. Bowater (Editors) pp. 41-60, ISBN: 978-607-736-208-1, Mexico.
