

NAME: Jhon Silva-Castro

POSITION TITLE AND INSTITUTION: Associate Professor, Mining Department, University of Kentucky

**PROFESSIONAL PREPARATION**

University of Kentucky	Lexington, KY	Mining Engineering	Ph.D.	2012
Universidad Nacional de Colombia	Bogotá, CUND	Civil Engineering	M.Sc.	2003
Universidad Nacional de Colombia	Bogotá, CUND	Civil Engineering	B.S.	1996

**APPOINTMENTS:**

01/01/2021 – Present      Director of Graduate Studies, Mining Eng., Univ. of Kentucky, Lexington, KY  
05/01/2019 – Present      Associate Professor, Mining Engineering, University of Kentucky, Lexington, KY  
08/01/2013 – 05/01/2019    Assistant Professor, Mining Engineering, University of Kentucky, Lexington, KY

**RESEARCH INTERESTS:**

Explosives, Blasting, Gas and dust explosions, Rock Dynamics, Numerical Modeling, Ground Vibrations, Mine Safety, Surface Mining, Mine Planning and Scheduling

**SELECTED PUBLICATIONS:**

\* Indicates my Grad. Students

Schaefer\*, Nate, Dharmendra Kumar, Jhon Silva. “Numerical Modeling of Fracture Extension Using Displacement Discontinuity Method”, *Blasting and Fragmentation Journal*, Vol. 13, No.1, 2019.

Lifeng Li\*, Silva, Jhon, “Synthesis of single-hole signatures by group delay for ground vibration control in rock blasting”, *Journal of Vibration and Control*, Volume: 26 issue: 13-14, page(s): 1273-1284, Article first published online: December 24, 2019; Issue published: July 1, 2020. <https://doi.org/10.1177/1077546319892435>

Fei Liu\*, Silva, J., S. Yang, H. Lv., and J. Zhang., “Influence of explosives distribution on coal fragmentation in top-coal caving mining”, *Geomechanics and Engineering, An International Journal*, Volume 18, Number 2, June 10, 2019. [DOI: 10.12989/gae.2019.18.2.111](https://doi.org/10.12989/gae.2019.18.2.111)

Jhon Silva-Castro., “A different methodology to control and predict ground vibrations from mine blasting”, *Canadian Geotechnical Journal*, 2019, 56(7): 929-941, <https://doi.org/10.1139/cgj-2018-0073>

Jhon Silva, Tristan Worsley\*, Braden Lusk “Practical Assessment of Rock Damage Due to Blasting”, *International Journal of Mining Science and Technology*, Volume 29, Issue 3, May 2019, Pages 379-385., <https://doi.org/10.1016/j.ijmst.2018.11.003>

Lamont, R.\*, Silva, J. Dynamic Properties of Geologic Specimens Subjected to Split-Hopkinson Pressure Bar Compression Testing at the University of Kentucky. *Geotech Geol. Eng.* 37, 897–913 (2019). <https://doi.org/10.1007/s10706-018-0659-8>

Silva, J. Lifeng. Li\* “Deconvolution of blast vibration signals by wiener filtering”, *Inverse Problems in Science and Engineering*. 2018, 26:10, 1522-1538, <https://doi.org/10.1080/17415977.2017.1422734>

Silva, J., Lifeng Li\*, Gernard Jeremy, “Reliability Analysis for Mine Blast Performance Based on Delay Type and Firing Time,” *International Journal of Mining Science and Technology*, 2018, 28, 195-204. <http://dx.doi.org/10.1016/j.ijmst.2017.07.004>