

RESEARCHER CURRICULUM VITAE

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EDUCATION

1986 December	PhD in Mining Engineering Pennsylvania State University, University Park, PA, USA
1983 August	Master of Mining Engineering Pennsylvania State University, University Park, PA, USA
1978 March	Bachelor of Mining Engineering Seoul National University, Republic of Korea

PROFESSIONAL HISTORY

- 1977 – 1979: Daewoo Development Corporation, Seoul, Korea.
- 1987 – Present: Professor, Dong – A University, Busan, Korea.
- 2004 – 2005: Visiting scholar, Department of Chemical Engineering, University of Sheffield, UK.
- 2009 – 2013: Chairperson, Korea Energy and Mineral Resources Engineering Program by Ministry of Industry, Trade and Energy.
- 2012 – 2014: Dean of Engineering College, Dong – A University, Busan, Korea.
 Dean of Graduate School of Industry and Information, Dong A University, Busan, Korea.
- 2010 – 2014: Member of Resources Development Subcommittee, National Energy Committee at the President Office.
- 2010 – Present: Advisory Committee member at
 - Ministry of Trade, Industry and Energy/KORES/MIRECO
 - Korea Expressway Corporation
 - Korea Infrastructure Safety & Technology Corporation

- 2017 – Present: Member of Mine Safety Committee, Ministry of Trade, Industry and Energy.

HONORS AND AWARDS

- 2009: Merit Award by the Korean Society for Rock Mechanics.
- 2010: Award of Appreciation by the Korean Society of Mineral and Energy Resources Engineers.
- 2012: Korean Prime Minister’s Award for Excellence in Oversea Mineral and Energy Resources Development

PROJECT EXPERIENCE

- 2017.03 - 2017.12: Development of fire control technology in Korean underground non-metal mines
- 2013.06 -2017.09: Study on the low-cost economical environmental control technologies in large-opening limestone mines
- 2016.04 – 2016.12: Development of respirable mine dust control technology
- 2011.07 – 2014.06: Study of underground crushing plant and environmental monitoring system for eco-friendly sustainable mine development

DISTINGUISHED BOOK

- 2014: Mine Environment Engineering, CIR, Seoul, S. Korea

PEER – REVIEWED PUBLICATIONS

Journal papers

- Bui, X. N., Lee, C., Nguyen, Q. L., Adeel, A., Cao, X. C., Nguyen, V. N., ... & Nguyen, V. D. (2019). Use of Unmanned Aerial Vehicles for 3D topographic Mapping and Monitoring the Air Quality of Open-pit Mines. *Inżynieria Mineralna*, 21.
- Bui, X. N., Lee, C. W., Nguyen, H., Bui, H. B., Long, N. Q., Le, Q. T., ... & Moayedi, H. (2019). Estimating PM10 Concentration from Drilling Operations in Open-Pit Mines Using an Assembly of SVR and PSO. *Applied Sciences*, 9(14), 2806.

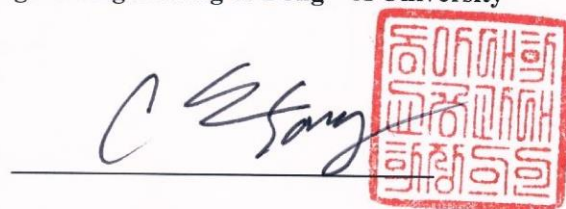
- Nguyen, V. D., Heo, W. H., Kubuya, R., and **Lee, C. W.** (2019). Pressurization Ventilation Technique for Controlling Gas Leakage and Dispersion at Backfilled Working Faces in Large-Opening Underground Mines: CFD Analysis and Experimental Tests. *Sustainability*, Vol 11 (12): 3313.
- Nguyen, V., and **Lee, C.** (2019). Optimization of the Unducted Auxiliary Ventilation for Large-Opening Underground Limestone Mines. *Tunnel and Underground Space*, Vol 29 (6): 480-507.
- Nguyen, V., Kim, D., Hur, W., and **Lee, C.** (2018). Experimental and CFD study on the exhaust efficiency of a smoke control fan in blind entry development sites. *Tunnel and Underground space*, Vol 28(1): 38-58.
- Nguyen, V., and **Lee, C.** (2018). A Study on the Ventilation Schemes for Gas Leakage and Dispersion Controlling at the Backfilled Working Face in Large-Opening Underground Mine. *Tunnel and Underground space*, Vol 28 (4): 372-386.
- Lee, C.**, Nguyen, V. D., Kubuya, K. R., and Kim, C. O. (2018). A Study on the Ventilation Effects of the Shaft Development at a Local Limestone Mine. *Tunnel and Underground Space*, Vol 28 (6): 609-619.
- Lee, C. W.**, Nguyen, V. D., 2017. A study on the optimal installation of ducted fan ventilation system in long mine airways – focused on the wall separation distance and the gap length between ducts. *Journal of Korean Society for Rock Mechanics, Tunnel and Underground Space*, Vol. 27 (1), pp. 12-25.
- Park, D. J., Kang, H. H., **Lee, C. W.**, 2017. A comparative study on the auxiliary fan pressure and the ventilation efficiency in large-opening limestone mine airways. *Journal of Korean Society for Rock Mechanics, Tunnel and Underground Space*, Vol. 27 (1), pp. 1-11.

- Lee, C. W.,** Nguyen, V. D., 2016. A study on the fire propagation characteristics in large-opening multi-level limestone mines in Korea. *Geosystem Engineering*, Vol. 19(6), pp. 317-336.
- Lee, C. W.,** Nguyen, V.D., 2015. Development of a Low-Pressure Auxiliary Fan for Local Large-opening Limestone Mines. *Journal of Korean Society for Rock Mechanics, Tunnel and Underground Space*, Vol. 25(6), pp. 543-555.
- Lee, C. W.,** Kim, H. G., 2015. CFD analysis of truck fire in large-opening limestone mine. *The 15th North American Mine Ventilation Symposium*. Blacksburg, VA, USA.
- Lee, C.W.,** Kim, H.G., 2014. CFD analysis of the propagation of truck fire in a underground limestone mine, *Journal of the Korean Society of Mineral and Energy Resources Engineers*, Vol. 51/2,pp.248-259.
- Kim, D. Y., Lee, S. H., Jeong, K. H., **Lee, C. W.,** 2013. Study on the turbulent diffusion coefficients of contaminants in an underground limestone mine with large cross section using tracer gas. *Geosystem Engineering*, Vol. 16(2), pp. 183-189.
- Lee, C. W.,** Kim, D. Y., Kil, S. W., 2012. Asbestos particle dispersion in the atmosphere from abandoned mine sites. *Geosystem Engineering*, Vol. 15(2), pp. 132-141.
- Kim, D. Y., Lee, S. H., Jeong, K. H., **Lee, C. W.,** 2012. A case study on the ventilation and heat environment in a underground limestone mine with rampway. *Journal of Korean Society for Rock Mechanics, Tunnel and Underground Space*, Vol. 22(3), pp. 163-172.
- Lee, C. W.,** Kim, D. Y., 2011. A study of the ventilation efficiency of the inclined shaft in tunnel for the energy optimization, *Journal of the Korean Society of Mineral and Energy Resources Engineers*, Vol. 47/2, pp. 177-182.

- Lee, C. W.,** Park, H. C., 2009. A study on the natural ventilation force in tunnels. *Journal of Korean Society for Rock Mechanics, Tunnel and Underground Space*, Vol. 19(3), pp. 226-235.
- Kim, H. G.,** Song, S. H., Kim, N. Y., Lee, C. W., 2007. The efface of introduction of diesel passenger cars on the ventilation requirements for road tunnels. *Journal of Korean Tunneling and Underground Space Association*, Vol. 9(3), pp.309-321.
- Lee, C. W.,** Suh, K. Y., Kim, J. W., 2006. The Effects of Tunnel Geometrical Characteristics and Canopy Installation on the Ventilation and Fire Propagation. *Journal of Korean Tunneling and Underground Space Association*, Vol. 8(4), pp. 325-334.
- Lee, S. G, **Lee, C. W.,** Chun, B. S, Chung, C. H., 2006. Scale-model study of an innovative smoke exhaust system for bidirectional tunnels. *Journal Tunneling and Underground Space Technology*, Vol. 21(3-4), pp. 309-310.
- Lee, C. W.,** Kim, J. W., 2005. A study on the deterministic temperature-time curves and required resistance times by fire model for assessment of tunnel fire-resistance performance, *Journal of Korean Tunneling and Underground Space Association*, Vol. 7/2, pp.71-82.
- Lee, C. W.,** 2004. A comparative study on the relationship between estimates of the critical velocity and number of jet fans for smoke control, *Journal of Korean Tunnelling and Underground Space Association*, Vol. 6/4, pp. 269-278.

- Lee, C. W.**, 2003. A study on a graphical method for determining the characteristics of jet fan ventilation system using the contour curve of the ventilation requirements, *Journal of Korean Society for Rock Mechanics, Tunnel and Underground Space*, Vol. 13/3, pp.235-243.
- Lee, C. W.**, 2002. Application study of the ventilation simulation model for vehicle tunnel, *Journal of Korean Society for Rock Mechanics, Tunnel and Underground Space*, Vol. 11/4, pp.319-327.
- Lee, C. W.**, 2001. A study on the safe blasting design for low vibration control-blasting through the vibration analysis”, *Journal of Korean Society of Explosives and Blasting Engineering*, Vol. 18/2, pp.7-13.
- Lee, C. W.**, 2000. A study on the hazardousness of ground vibration, noise and airborne dust at the construction sites, *Journal of Korean Society of Environmental Engineers*, Vol. 2/1, pp. 25-33.
- Lee, C. W.**, 1999. Development of a simulation model for underground space environment-focused on the radioactive waste storage space, *Journal of Korean Society for Rock Mechanics, Tunnel and Underground Space*, Vol. 9/4, pp.306-314.
- Lee, C. W, Wan, W. H, Mutmansky, J. M., Ramani, R. V.**, 1996. A convection-based model of diesel particulate matter occurrences in mines. *Applied occupational and environmental hygiene*, Vol. 11(7), pp. 881-888.

College of Engineering of Dong – A University



Prof. Dr. Chung Kun Song

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