Bio-sketch for Prof. Zach Agioutantis
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Professional Preparation

National Tech Univ of Athens	Athens Greece, Mining and Metallurgical Eng,	Eng. Dipl,	1982
Virginia Tech	Blacksburg VA, Mining Engineering	MS	1984
Virginia Tech	Blacksburg VA, Mining Engineering	PhD	1987

Appointments

7/2020-present	Chair, Department of Mining Engineering, University of Kentucky, USA
7/2016-12/2020	Director of Graduate Studies, Department of Mining Engineering, University of Kentucky, USA
10/2014-present	Mining Engineering Foundation Professor, Department of Mining Engineering, University of Kentucky, USA
5/2001-10/2014	Professor, Department of Mineral Resources Engineering, Technical University of Crete (TUC), Greece.
9/2012-7/2013	On sabbatical from TUC and Visiting Professor at the Virginia Center for Coal and Energy, Virginia Polytechnic Institute and State University, USA, participating in a number of funded research projects.
9/2011-8/2012	Head, Department of Mineral Resources Engineering, Technical University of Crete, Greece.
2005-2013	Director, Engineering Geology Lab, Department of Mineral Resources Engineering, Technical University of Crete, Greece.
9/2003-8/2007	Head, Department of Mineral Resources Engineering, Technical University of Crete, Greece.
3/1993-10/2014	Director, Rock Mechanics Laboratory, Department of Mineral Resources Engineering, Technical University of Crete, Greece.
9/1992-10/2014	Director, Computer Laboratory, Department of Mineral Resources Engineering, Technical University of Crete, Greece.
9/1989-10/2014	Lecturer, Assistant Professor, Associate Professor, Professor, Department of Mineral Resources Engineering, Technical University of Crete, Greece.

Related Journal Publications

- Mark, C. and Z. Agioutantis, Analysis of Coal Pillar Stability (ACPS): A new generation of pillar design software, *International Journal of Mining Science and Technology*, 2018, https://dx.doi.org/10.1016/j.ijmst.2018.11.007
- Agioutantis, Z., S. Delmadorou, N. Steiakakis, C. Steiakakis and S. Papaterpos, A real-time event-driven database productivity and maintenance planning tool for continuous surface mining operations, *International Journal of Mining and Mineral Engineering,* 2019, Vol 10, No 2/3/4, pp. 177-188*,* https://dx.doi.org/10.1504/IJMME.2019.104446
- Steiakakis, C., G. Papavgeri, N. Steiakakis, Z. Agioutantis and P. Schilizzi, A cloud – based near real time slope movement monitoring system, *International Journal of Mining and Mineral Engineering, 2019,* Vol 10, No 2/3/4, pp. 233- 254, https://dx.doi.org/10.1504/IJMME.2019.104455
- Androulakis, V., J. Sottile, S. Schafrik, and Z. Agioutantis, Concepts for Development of Autonomous Coal Mine Shuttle Cars, *IEEE Transactions on Industry Applications*, available on IEEE Early Access area, February 10, 2020, Print ISSN: 0093-9994, Electronic ISSN: 1939-9367*,* https://dx.doi.org/10.1109/TIA.2020.2972786

- Kamenopoulos, S. and Z. Agioutantis, The importance of the Social License to Operate at the investment and operations stage of coal mining projects: Application using a Decision Support, *The Extractive Industries and Society*, https://dx.doi.org/10.1016/j.exis.2020.05.019
- Hong S-Y, A. Bal, F Badurdeen, Z. Agioutantis, S. Hicks, Evaluation of Bunker Size for Continuous / Discrete Flow Systems by Applying Discrete Event Simulation: A Case Study in Mining. *Simulation Modeling Practice and Theory*, 105 (2020), December https://dx.doi.org/10.1016/j.simpat.2020.102155
- Mark, C., R. Stephan, Z. Agioutantis, Analysis of Mine Roof Support (AMRS) for US Coal Mines, *Mining, Metallurgy & Exploration*, 37, (2020),1899–1910, https://dx.doi.org/10.1007/s42461-020-00301-x

Active Sponsored Projects

- Z. Agioutantis, PI, S. Schafrik co-PI, J. Sottile, co-PI, "Autonomous Underground Mining Systems to Improve Safety – Intelligent Coal Mining", funded by the Alpha Foundation for the Improvement of Mine Safety and Health, December 2017 – November 2021, approx. budget $2,195,000.
- S. Schafrik, PI, Z. Agioutantis co-PI, "Roof Bolting Module Automation for Enhancing Miner Safety", funded by the Alpha Foundation for the Improvement of Mine Safety and Health, September 2019 – August 2022, approx. budget $748,000.
- Z. Agioutantis, PI, S. Schafrik co-PI, "Comprehensive atmospheric monitoring in underground coal mines: long term critical trend analysis and tablet-based communication", funded by the Alpha Foundation for the Improvement of Mine Safety and Health, September 2020– August 2022, approx. budget $382,000.
- J. Sottile, PI, S. Schafrik co-PI, Z. Agioutantis co-PI, "Autonomous Docking of Face Haulage Mining Machinery In GPS-Denied Environments", funded by NIOSH, September 2020 – August 2022, approx. budget $650,000.
- J. Silva, PI, Z. Agioutantis co-PI, "Analysis of the Influence of Macro Fractures on Underground Coal Mine Ventilation Seals", funded by the Alpha Foundation for the Improvement of Mine Safety and Health, November 2020 – October 2022, approx. budget $544,000.
- Z. Agioutantis, co-PI, "Wetbud Maintenance", funded by RPG, January 2021 – December 2023, approx. budget $101,000.