

TWO-PAGE RÉSUMÉ – THOMAS NOVAK

PROFESSIONAL PREPARATION:

- Ph.D. Major: Mining Engineering Minor: Electrical Engineering
The Pennsylvania State University, May 1984.
- M.S. Mining Engineering
University of Pittsburgh, August 1978.
- B.S. Electrical Engineering
The Pennsylvania State University, May 1975.

APPOINTMENTS:

University of Kentucky

- Professor and Alliance Coal Academic Chair, Mining Engineering, Nov 2010 – Present.

National Institute for Occupational Safety and Health

- Division Director, Mining Science and Technology; Office of Mine Safety and Health Research, Mar 2008 – Nov 2010.

Virginia Polytechnic Institute and State University (Virginia Tech)

- C.T. Holland Professor and Department Head, Mining and Minerals Engineering, Nov 2004 – Mar 2008.
- Professor and Dept. Head, Mining and Minerals Engineering, Aug 2001 – Nov 2004.

The University of Alabama

- Professor, Holder of the G.N. Drummond Chair, and Department Head of Civil and Environmental Engineering, Jan 2000 - Aug 2001.
- Professor and Holder of the G.N. Drummond Chair of Civil Engineering, Aug 1999 - Jan 2000.
- Interim Department Head, Aerospace Engineering and Mechanics, Aug 1998 - Aug 1999.
- Professor, Electrical Engineering, Aug 1996 - Aug 1998.
- Associate Professor, Mineral Engineering, Aug 1988 - Aug 1996.
- Assistant Professor, Mineral Engineering, July 1983 - Aug 1988.

The Pennsylvania State University

- Instructor and Mining Center Coordinator, Aug 1981 - Jul 1983.
- Instructor of Mining Engineering, Aug 1978 - Aug 1981.

U.S. Bureau of Mines, Pittsburgh Research Center

- Electrical Engineer, Jun 1976 - Aug 1978.

Republic Steel Corporation, Northern Coal Mines Division

- Assistant Division Maintenance Engineer, May 1975 - Jun 1976.

PROFESSIONAL LICENSES:

Professional Engineer: Alabama: No. 18233-E
 Pennsylvania: No. PE-046660-R

SELECTED PUBLICATIONS:

- Reyes, M.A. and T. Novak, “Injury Surveillance and Safety Considerations for Large Format Batteries,” IEEE Transactions on Industry Applications, Mar/Apr 2016, pp. 1925-1930.
- Sottile, J., T. Novak, A. Tripathi, “Best Practices for Implementing High-Resistance Grounding in Mine Power Systems,” IEEE Transactions on Industry Applications, vol. 51, no. 6, Nov/Dec 2015.
- Mazur, D.C., J. Sottile, T. Novak, “An Electrical Mine Monitoring System Utilizing the IEC 61850 Standard,” IEEE Transactions on Industry Application, 2015, Mar/Apr, pp. 1317-1325.
- Novak, T., “Safety Analysis of Trailing Cables u Novak, T. and W.C. Wedding, “Application of Flooded-Bed Dust Scrubbers to Longwall Mining Systems in the U.S., World Coal, Vol. 24, No. 1, January 2015, pp. 23-26.
- Novak, T. and J. Sottile, “Powering Mining – Longwall Power Systems in the U.S.A.,” World Coal, Vol. 24, No. 9, Sept, 2015, pp. 37-42.
- Novak, T. and J. Sottile, “Mine Electrical Systems – Direct Current systems, Part 1,” IEEE Industry Applications Magazine, Institute for Electrical and Electronics Engineers, Inc., Sep/Oct 2015, pp. 7-13.
- Sottile, J. and T. Novak, “Mine Electrical Systems, Part 2 – Alternating Current Systems,” IEEE Industry Applications Magazine, Institute for Electrical and Electronics Engineers, Inc., Nov/Dec 2015, pp. 8-13. sed on 2400-V Continuous Mining Machines,” IEEE Transactions on Industry Applications, vol. 48, no. 2, March/April, 2012, pp. 567-574.
- Novak, T., D.P. Snyder, J.L. Kohler, “Post Accident Mine Communications and Tracking Systems,” IEEE Transactions on Industry Applications, vol. 46, no. 2, March/April, 2010, pp. 712-719.

SELECTED RESEARCH CONTRACTS/GRANTS:

- “Experimental Testing and Design of Protective Measures for Communications and Tracking Systems Subjected to Catastrophic Events in Underground Coal Mines,” Alpha Foundation for the Improvement of Mine Safety and Health, Oct 2016 – Oct 2018, \$561,000, (J. Silva PI and T. Novak Co-PI), *University of Kentucky*.
- “Improved Face Ventilation For Extended-Cut Continuous Mining Using a Wing Regulator and Scrubber Control System,” Alpha Foundation for the Improvement of Mine Safety and Health, Oct 2015, \$673,000, (W.C. Wedding PI and T. Novak Co-PI), *University of Kentucky*.
- “Coal Mine Dust Mitigation through Novel Scrubber Development and Numerical Modeling,” CDC – National Institute for Occupational Safety and Health, Oct 2014 – Sept 2019, \$1,250,000, (W.C. Wedding PI and T. Novak Co-PI), *University of Kentucky*.
- “The Application of Flooded Bed Dust Scrubbers to Longwall Mining Systems,” The Alpha Foundation for the Improvement of Mine Safety and Health, Nov 1, 2013 – Oct 31, 2015, \$659,000, (T. Novak, PI), *University of Kentucky*.
- “Underground Coal Mine Communications and Tracking Systems Performance and Maintenance,” CDC – National Institute for Occupational Safety and Health, Contract No. 254 -2012-M- 53283, Oct 1, 2012 – December 30, 2013, \$103,000, (T. Novak, PI) *University of Kentucky*.
- “A Detailed Respirable Dust Study in Kentucky Coal Mines,” Kentucky Department of Energy Development and Independence, July 1, 2011 – July 1, 2012, \$200,000, (T. Novak, PI) *University of Kentucky*.

SERVICE TO PROFESSIONAL SOCIETIES:

Institute of Electrical and Electronics Engineers

- IEEE - Fellow (2004-present), Senior Member (1993-2004), Member (1984-1993)
- IEEE – Industry Applications Society, Chairman of the Mining Industry Committee (2011-2012)

Society of Mining, Metallurgy, and Exploration, Inc. (SME)

- Chair, Coal and Energy Division, 2015.
- Chair elect, Coal and Energy Division 2014.
- Program Chair, Coal and Energy Division, 2013.
- Member, Coal and Energy Division, (2011-Present)