IMWA INSIGHT

Obituary Przemysław Bukowski (1959-01-02 – 2025-07-27)

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Our dear colleague Prof. Dr. Przemysław Bukowski (Fig. 1) passed away on 27 July 2025.

Przemysław was an active IMWA member from 2004 until 2019. He published eleven IMWA conference and journal papers on various subjects related to mine water in the Silesian Coal Basin. He dedicated his entire professional life to the Central Mining Institute. From 2006 onwards, he served as Deputy Head of the Department of Geology and Geophysics. Until March 2025, he was Head of the Mining and Environmental Hydrogeology Laboratory. He developed his scientific career at the GIG-PIB, obtaining a doctorate and a postdoctoral degree in technical sciences in 1999 and 2011 respectively. His scientific achievements include over 100 publications and numerous presentations at industry conferences. These work are of great practical importance, representing a valuable contribution to the development of methods for improving safety in mining, particularly with regard to preventing water hazards in underground mines.

As well as being an IMWA member, he was an active member of several expert committees, including the Committee on Hazards in Mining Plants at the Higher Mining Office and the Committee on Hydrogeological Documentation at the Ministry of the Environment. He also served on expert teams at the Council for Land Resource Management at the Office of the Chief Geologist. In 2017, he was awarded the Silver Cross of Merit.

I specifically remember him from the post-congress field trips at the IMWA conferences in Spain (2005) and Germany (2011). His knowledge of mine water and sense of humour made these events unforgettable for me.

We extend our heartfelt condolences to his family, friends, and colleagues. His legacy will live on through a

better understanding of hydrology and mine closure in the Silesian Coal Basin (Fig. 2), and through the people and institutions he inspired.

IMWA articles and conference papers published by Przemysław Bukowski

Bukowski P (2000) Water storage capacity of rock massif in forecasting the flooding process of mine workings. Proceedings, 7th International Mine Water Association Congress:506–518.

Bukowski P (2009) Relationship between Renewable Energy from Low Enthalpy Mine Waters Stored in Polish Hard Coal Mines and Water Hazards in Active Coal Mines. In: Water Institute of Southern Africa, International Mine Water Association (eds) Proceedings, International Mine Water Conference. Document Transformation Technologies, Pretoria, p 946–951.

Bukowski P (2011) Water Hazard Assessment in Active Shafts in Upper Silesian Coal Basin Mines. Mine Water Environ 30(4):302–311. https://doi.org/10.1007/s10230-011-0148-2.

Bukowski P, Bromek T, Augustyniak I (2006) Using the DRASTIC System to Assess the Vulnerability of Ground Water to Pollution in Mined Areas of the Upper Silesian Coal Basin. Mine Water Environ 25(1):15–22.



Fig. 1 Przemysław Bukowski

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Upper Silesian Coal Basin intensive drainage dewatered rock mass flooding process S7 **S1** S₂ S3 S4 S5+6 S8 X overflow land mine gases outflow 3МРа dewatered rock mass investigation period initial drainage secondarily water saturated rock mass period development of in connection with flooding process drainage period stability of total water drainage period final drainage partially drainage rebound partially flooding period and water rebound

Fig. 2 Przemysław Bukowski's understanding of the mine water situation in the Silesian Coal basin (from Bukowski et al. 2019)

Bukowski P, Bukowska M (2008) Changes in Geomechanical Properties of Carboniferous Rocks Under the Influence of Water and Their Possible Consequences in the Areas of Abandoned Mines of the Upper Silesian Coal Basin (Poland). Proceedings, 10th International Mine Water Association Congress:123–126.

Bukowski P, Bukowska M, Rapantova N, Hemza P, Niedbalska K (2019) Secondary Water Saturation of a Carboniferous Rock Mass in a Abandoned Mines as the Cause Behind the Changes in Geomechanical Conditions and State of Hazards in Active Mines of the Upper Silesian Coal Basin. Paper presented at the Mine Water – Technological and Ecological Challenges (IMWA 2019), Perm, Russia:3–9.

Bukowski P, Grzybek I (2005) Coal mine flooding as a cause of methane hazard – The case study of Morcinek mine, Upper Silesian Coal Basin, Poland. Mine Water 2005 – Mine Closure. University of Oviedo, Oviedo.

Bukowski P, Wagner J, Witkowski A (2007) Use of void Space in abandoned Mines in the Upper Silesia Coal Basin (Poland). Water in Mining Environments. Mako Edizioni, Cagliari.

Kubica J, Bukowski P, Gzyl G (2008) Delimiting of Safety Pillars to Separate Multi-layer Thick-seam Mining Systems from an Aquifer in an Adjacent Flooded Mine. Proceedings, 10th International Mine Water Association Congress:23–26.

Niedbalska K, Bukowski P, Augustyniak I (2019) Carboniferous Rock Mass Permeability Studies in Underground Mines of the Upper Silesian Coal Basin in Poland. Paper presented at the Mine Water – Technological and Ecological Challenges (IMWA 2019), Perm, Russia:559–563.

Niedbalska K, Haladus A, Bukowski P, Augustyniak I, Kubica J (2011) Modelling of changes of hydrodynamic conditions in the aquatic environment of the Maczki-Bór sand pit due to the fact of planned closure of mining operations (NE part of Upper Silesian Coal Basin – Poland). Mine Water – Managing the Challenges – 11th International Mine Water Association Congress. RWTH Aachen University, Aachen.

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