

13th C.W. Lovell Distinguished Lecture

4:00 p.m., Wednesday, September 23, 2015

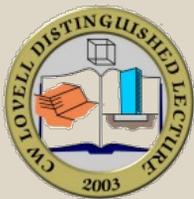
Lawson 1142, Purdue University

Professor Michele Jamiolkowski

Soil Mechanics and the Observational Method: Challenges At the Zelazny Most Copper Tailings Disposal Facility

This lecture illustrates the geotechnical aspects of the development of one of the world's largest copper tailings disposal facilities, located at Zelazny Most in southwest Poland. Its operation began in 1977, and by the end of 2013, $527 \times 10^6 \text{ m}^3$ of tailings had already been stored within the confining embankment dam ('ring dam') of about 14.3 km in total length. The foundations of the ring dam lie on Pleistocene deposits, underlain by a thick sequence of Pliocene sediments. The period of operation of the facility will continue until exhaustion of the ore body, which is estimated to occur in 2042, when the total volume of the tailings stored will reach $1000 \times 10^6 \text{ m}^3$.

In this presentation, highlights of this project will be described.



C. W. LOVELL DISTINGUISHED LECTURE



Professor Emeritus C. W. "Bill" Lovell was a native of Louisville, Kentucky, and received his BCE from the University of Louisville. He served in the U.S. Navy Construction Battalions (SeaBees) during World War 2, and taught at the University of Louisville after the War. In 1948, he came to Purdue University, and he remained in that employment until 2012, receiving MSCE and Ph.D. degrees in the process. His service in Civil Engineering extended over 48 years. His research interests were broad and varied including soft rocks (shales), compaction and compacted properties, soil fabric and pore size distribution, slope stability and erosion, cold regions, pavements, and uses of waste materials in geotechnical engineering. In 1994, Bill became a facilitator/coach in Human Resources Services at Purdue. He specialized in delivering a variety of FranklinCovey leadership/personal development seminars, and received a "Facilitator of the Year" award from FranklinCovey. Bill was active in community volunteer organizations, and continued to be an avid fly fisherman.

Detailed information on the 13th C. W. Lovell Distinguished Lecture can be found at the following website:
<https://engineering.purdue.edu/CE/Academics/Groups/Geotechnical/Details/seminar/Lovell>



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Professor Michele Jamiolkowski was born in Poland in 1932, and received his master's degree in Soil Mechanics and Engineering Geology from the Warsaw Technical University in 1959. He also obtained his postgraduate studies at the University of Kiev, the Technical University of Torino in Italy, the University of Laval in Quebec, and MIT. In 1964, he founded the engineering consulting company, Studio Geotecnico Italiano in Italy, which had become his adopted country. In 1969 he was appointed to a professorship in Geotechnical Engineering at the University of Torino, where he is currently Professor Emeritus.

Professor Jamiolkowski was one of the founders of the first doctoral program in geotechnical engineering in Italy in 1979. His primary research interests include the mechanical behavior of soils, laboratory and in situ testing, soil dynamics, bearing capacity and settlements of shallow foundations, and soil improvement. He is the author of over 250 publications and is particularly famous for his presidency of the International Committee for Safeguarding the Leaning Tower of Pisa. From 1990-2001, he worked to ensure the safety of the Pisa tower for another 300 years through under-excavation. The achievement captured the interest of the world in the complexities of soil mechanics, giving prominence to geotechnical engineering in a unique way.

Professor Jamiolkowski has consulted on several world famous projects, including: the Venice defense system against high water (MOSE project); safe guarding the historic monuments of Rome during the construction of the tunnels for the new subway line; and the reconstruction and development of the nuclear power plant in Chernobyl.

Professor Jamiolkowski was a Ralph B. Peck Lecturer at the OSCE Geo-Institute in 2006, the ZaChieh Moh Lecturer at Taipai in 2010, and the Victor de Mello Lecturer in Lisbon in 2011. He holds many awards and honors, including the De Beer Award from the Belgium Geotechnical Society; the ASCE's Karl Terzaghi and Ralph B. Peck Lecture Awards; and the Italian Award 'Savior of the Art'. He is a foreign associate of the US National Academy for Engineering and a corresponding member of the Polish Academy of Sciences. He also served as president to the International Society of Soil Mechanics and Geotechnical Engineering from 1994 to 1997.

Beginning in 2003, the C. W. Lovell Distinguished Lecture series was established through the generosity of Prof. Lovell, who expressed an interest in creating a lecture series at Purdue that will have staying power - one in which a track record of scholarship is clearly established. Thus, each year, lecturers with outstanding accomplishments in geotechnical engineering research are invited to Purdue University. The lecture series creates an excellent opportunity for our graduate students to meet and interact with some of the most important names in geotechnical engineering in person at Purdue.

Reception/Dinner to follow the Lecture at the West Faculty Lounge, Purdue Memorial Union. Reservations required by September 16th at 3:00pm. For more information please contact Susan Bales (sbales@purdue.edu; ph: 765-494-5025; fax: 765-494-0395.

