

Jae Kwang Park

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Basic Information



Name: Jae Kwang Park
(Mar 1954–)

Birth	Gwangju, Republic of Korea
Location:	
Title:	Professor
Affiliation:	University of Wisconsin-Madison
Honor:	the Order of Service merit, Yellow Stripes

1. Dr. Park: A Pioneer in Environmental Engineering

Dr. Park is a distinguished professor in the Civil and Environmental Engineering Department at the University of Wisconsin-Madison. Renowned for his groundbreaking contributions to wastewater treatment technology and environmental sustainability, Dr. Park's work has had a profound impact on both the sciences and the humanities.

2. A Trailblazer in AI-Powered Wastewater Treatment

Dr. Park's most notable contribution is the development of a real-time aeration control system for wastewater treatment plants. This revolutionary invention addresses the limitations of traditional static aeration processes, which often lead to excessive energy consumption. By integrating artificial intelligence (AI) models, statistical tools, and empirical relations, Dr. Park's system dynamically optimizes dissolved oxygen (DO) setpoints and airflow rates in real time, ensuring substantial energy savings while maintaining effluent water quality.

3. A Visionary for Sustainable Environmental Solutions

Dr. Park's research interests extend far beyond wastewater treatment, encompassing a wide range of environmental challenges. He has made significant contributions to the prediction of environmental issues such as pipe breakage, the sustainable recycling of tire-derived aggregate, the upcycling of waste, water quality management, river restoration, the biological treatment of toxic organic compounds, biological nutrient removal, hazardous waste treatment, mass transport in the environment, the fate of organic compounds in water and wastewater treatment processes, computer-aided design of water and wastewater treatment plants, and the reuse of scrap vehicle tires as a contaminant sorbent.

4. A Distinguished Scholar and Educator

Dr. Park is a prolific author, having published over 100 journal articles and one book. He is also a dedicated educator, having taught various environmental engineering courses at the University of Wisconsin-Madison since 1988. His passion for teaching and research has inspired countless students to pursue careers in environmental engineering.

5. A Global Impact on Sciences and Humanities

Dr. Park's work has had a significant impact on both the sciences and the humanities. His groundbreaking contributions to wastewater treatment technology have helped to reduce energy consumption and improve water quality, while his research on environmental sustainability has informed policies and practices that protect the environment for future generations.

Dr. Park's dedication to innovation and environmental stewardship has earned him numerous accolades, including the Yellow Stripes Order of Service merit for his contributions to the \$20-billion National Four-River Restoration Project in Korea and the British Council Fellowship for his Ph.D. at the University of Newcastle-upon-Tyne.

Dr. Park's legacy extends far beyond his academic achievements. He is a true pioneer in environmental engineering, whose work has helped to shape a more sustainable future for our planet.

6. Educational Background

Dr. Park embarked on his academic journey by earning a Bachelor of Science in Civil Engineering from Yonsei University in 1977, followed by a Master of Science in Environmental Engineering from Seoul National University in 1979. After fulfilling his military service, he gained valuable industry experience as a consulting engineer in Korea and Australia for two years. Seeking further academic advancement, Dr. Park pursued a Doctor of Philosophy in Public Health Engineering at the University of Newcastle upon Tyne in the United Kingdom, graduating in 1985. Before joining the University of Wisconsin-Madison, he honed his research skills as a research engineer at the Sanitary and Environmental Health Research Laboratory at the University of California, Berkeley, from 1985 to 1988.

7. Publications

Dr. Park has published many publications [\[1\]\[2\]\[3\]\[4\]\[5\]\[6\]\[7\]\[8\]\[9\]\[10\]\[11\]\[12\]\[13\]\[14\]\[15\]\[16\]\[17\]\[18\]\[19\]](#).

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