Learn how to design and implement successful aeration control systems

Combining principles and practices from mechanical, electrical, and environmental engineering, this book enables you to analyze, design, implement, and test automatic wastewater aeration control systems and processes. It brings together all the process requirements, mechanical equipment operations, instrumentation and controls, carefully explaining how all of these elements are integrated into successful aeration control systems. Moreover, Aeration Control System Design features a host of practical, state-of-the-technology tools for determining energy and process improvements, payback calculations, system commissioning, and more.

Author Thomas E. Jenkins has three decades of hands-on experience in every phase of aeration control systems design and implementation. He presents not only the most current theory and technology, but also practical tips and techniques that can only be gained by many years of experience. Inside the book, readers will find:

- Full integration of process, mechanical, and electrical engineering considerations
- Alternate control strategies and algorithms that provide better performance than conventional proportional-integral-derivative control
- Practical considerations and analytical techniques for system evaluation and design
- New feedforward control technologies and advanced process monitoring systems
Throughout the book, example problems based on field experience illustrate how the principles and techniques discussed in the book are used to create successful aeration control systems. Moreover, there are plenty of equations, charts, figures, and diagrams to support readers at every stage of the design and implementation process.

In summary, *Aeration Control System Design* makes it possible for engineering students and professionals to design systems that meet all mechanical, electrical, and process requirements in order to ensure effective and efficient operations.

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**ABOUT THE AUTHOR**

**THOMAS E. JENKINS, PE,** is an owner and President of JenTech Inc., where he provides consultation services to the wastewater treatment industry, including control systems, aeration systems, energy conservation, blower systems, and process equipment design. He also cofounded Energy Strategies Corporation in 1984. Mr. Jenkins is a Professor of Practice in the Department of Civil and Environmental Engineering at the University of Wisconsin-Madison. He also teaches water and wastewater treatment classes in the University's Department of Engineering Professional Development.

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