

**OPTIMIZATION OF FUZZY CONTROLLER PARAMETERS FOR SOOT
BLOWER AND DRUM LEVEL IN POWER PLANT**

By

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

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In power plant, soot blower operation and drum level of the boiler tank play important role in efficiency. As we know that most of the power plants, the soot blowing is done based on a fixed time schedule. In many instances, certain boiler stages are blown unnecessarily, resulting in efficiency loss. Also the drum level need to be controlled. A dramatic decrease in this level may uncover boiler tubes, allowing them to become overheated and damaged. An increase in this level may interfere with the process of separating moisture from steam within the drum, thus reducing boiler efficiency and carrying moisture into the process or turbine. Target of this research is optimizing control of soot blowing and drum level by fuzzy techniques.

Keywords: Fuzzy, soot blower drum level, power plant, efficiency

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DEDICATION

I dedicate this works for the future of the country I loved: Indonesia



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I have found my coursework throughout the Curriculum and Instruction program to be stimulating and thoughtful, providing me with the tools with which to explore both past and present ideas and issues.

The logo for Swiss German University (SGU) is a large, stylized watermark in the background. It consists of the letters 'S', 'G', and 'U' in a light blue color. The 'S' is on the left, the 'G' is in the center, and the 'U' is on the right. A registered trademark symbol (®) is located to the right of the 'U'. Below the logo, the text 'SWISS GERMAN UNIVERSITY' is written in a bold, blue, sans-serif font.

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