

**OPTIMIZED PROCESS CONTROL FOR OPERATION, ENERGY,
MANAGEMENT, AND MAINTENANCE IN BOILER PLANT USING SCADA**

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

OPTIMIZED PROCESS CONTROL FOR OPERATION, ENERGY, MANAGEMENT, AND MAINTENANCE IN BOILER PLANT USING SCADA

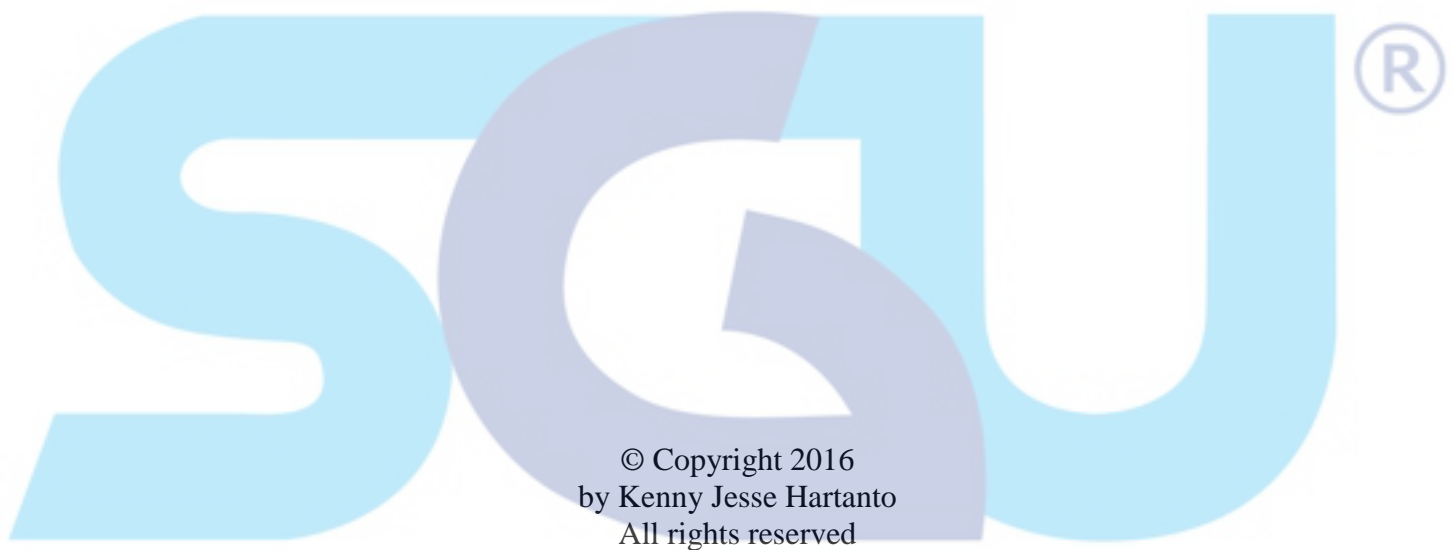
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Over the years for high quality, greater efficiency and automated machines has increased in the industrial. Plants require continuous monitoring and inspection at specific time intervals. There are number of possibilities of errors at measuring parameters and various stages involved with human workers and the lack of few features of microcontrollers. This paper attempt to explain the advantages the companies will face by implementing automation into them. The boiler control, which is the most important part of any plant, and its automation, is the precise effort of this paper. In order to automate and minimize human intervention, there is a need to develop a Supervisory Control and Data Acquisition (SCADA) system that used to monitors the plant and helps to reduce the errors caused by humans. While the SCADA is used to monitor all parameter system in plant, Programmable Logic Controller (PLC) is also used for the internal storage of instruction for the implementing function such as programming, sequencing, logic, counting, timing and arithmetic to control through digital or analog I/O modules.

Keywords: Automation, Programmable Logic Controller (PLC), Supervisory Control and Data Acquisition system (SCADA), Boiler.



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DEDICATION

I dedicate this works to all my family members, College friends, lecturers in Swiss German University who have been constant source of motivation, inspiration and support



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The authors realize that this thesis is not perfect. Thus, the authors expect critics and constructive suggestions from all parties for revision and further improvements.

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