

“GAP ANALYSIS FOR ASSESSING 5S IMPLEMENTATION IN AN
INDUSTRIAL ENGINEERING LABORATORY”

By

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AN INDUSTRIAL ENGINEERING LABORATORY

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my 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

“GAP ANALYSIS FOR ASSESSING 5S IMPLEMENTATION IN AN INDUSTRIAL ENGINEERING LABORATORY”

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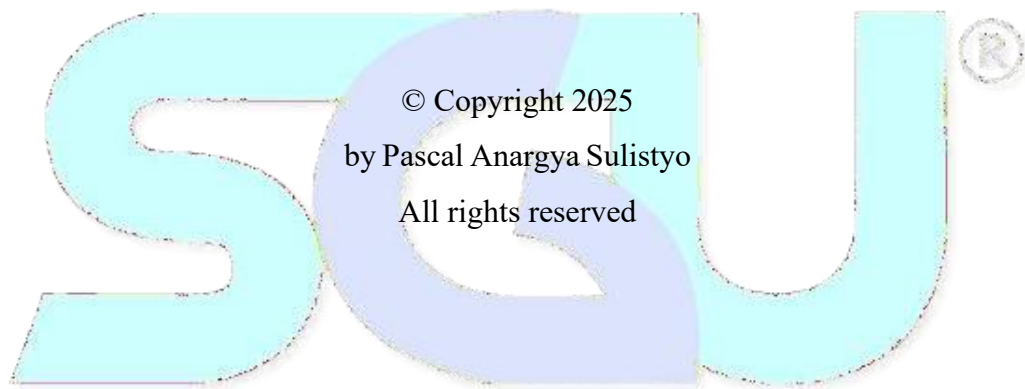
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[The 5S Methodology is a technique from Japan to improve the productivity of work that is done regardless of timing. The 5S method has been implemented in many places, such as workplaces, industries, even universities, and the laboratory of the university where the author's study is the main focus. However, in Indonesia, there were problems, as the Shitsuke value of 5S was abandoned during the COVID-19 pandemic. Hence, there is an urgency to revive both the 5S and the existing culture inside the IE laboratory to increase the productivity rate and reduce waste. One of the assisting methods being implemented is the Plan-Do-Act-Check framework, as well as photographic observation, conducted via a survey questionnaire. The statistical results of this evaluation prove that the 5S technique in the laboratory is currently deficient, and the importance of applying 5S in the laboratory needs to be addressed sooner. With the assistance of Gap Analysis and Observation via photographic documentation, there are four control points set as high priority in the list. With these problems and techniques being applied carefully, the 5S implementation in the Industrial Engineering lab of Swiss German University has a greater probability of being successful.]

Keywords: 5S Methodology, Sustainable, self-discipline, performance, efficiency, productivity, Gap Analysis, Statistical Analysis, Shitsuke, Observation, Documentation, implementation, Continuous Improvement, Kaizen, Enchantments, Quantitative, Photographic, Visualisation, Industrial Engineering, laboratory, Workplace.



DEDICATION

I dedicate this thesis paper to Mr. Ivan Kurniawan, Dr. Aditya T. Pratama (Head of IE Department), Professor Ulf Witkowski, every IE alumni, future IE students, the rest of FEIT and the entire LST Department, Jehoshaphat Sutikno, S.T. (Jay) as lecturer assistant at the time of this thesis was made, Barry A. Kozemko Jr., M.A., Industrial Engineering Batch 2019 and 2021, and Industrial Engineering junior students who helped me to create this thesis work and may be influenced by this work after long graduated, as well my German professors, and my parents, all of three late grandparents who passed away before I finished my university study, and my sole living paternal grandmother, my late High school Physics teacher, Ibu Ardiana, as well to the countries of Indonesia and Germany.



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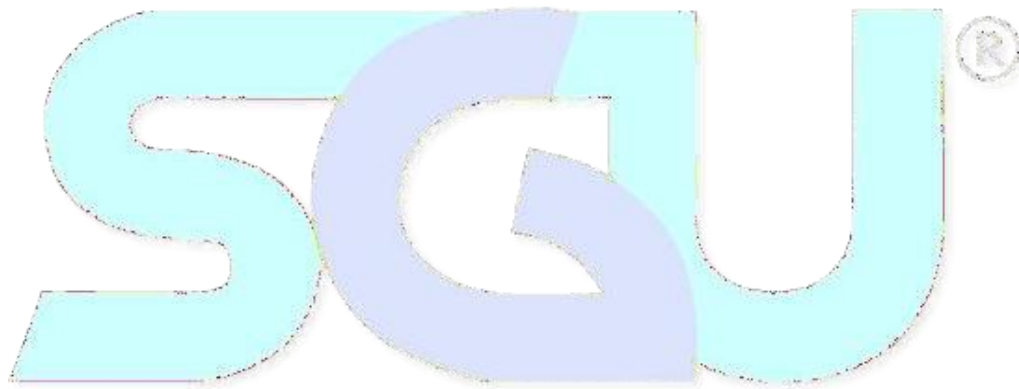
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