

**SECURITY SYSTEM WITH RFID TO PROTECT ELECTRICAL TABLE
BASED ARDUINO**

By

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SWISS GERMAN UNIVERSITY

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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

SECURITY SYSTEM WTH RFID TO PROTECT ELECTRICAL TABLE BASED ARDUINO

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This research based from students problem in ATMI Cikarang that always used facilities of mechatronics laboratory. Sometimes the students use the laboratory more, specifically is practical table, for personal use which is not directly support the teaching process without instructor permission, or playing with electric in electric table that could lead the safety hazards. In that case, it is attempted to make a system to help the instructor to watch who used the facilities in laboratory, especially practical table so we can protect the students from work accident. The purpose of the research is to create an atmosphere that is conducive and make the students who use the facilities in laboratory dare to ask for permission to use the facility as it should be.

This system is expected to solve the above problem. The system is simple, based on Arduino as a controller system. The system also use a double security, passcode and RFID. This passcode is known only by the instructor on duty. The RFID card only belongs to the instructor so the students can not use their ID for using this system. The only registered RFID by system maker can only use this system and the maker only can change the program. This system has been successfully designed and tested

Keywords: Arduino Mega, RFID, Relay, Password, Keypad.



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DEDICATION

Thank you to ALLAH SWT for blessing me from start until last during my thesis process. I dedicate this work for My Lovely Parents, My Big Family and all my Friends.



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3. Edi Sofyan, B.Eng, M.Eng, Ph.D as my Co-Advisor
4. Dr. Ir. Gembong Baskoro, M.Sc. as my Co- Advisor 2

Final words, the author say thank you so much indeed for all for those who I can not mentions the names. Hopefully this thesis can be useful for us and become the input for the parties in need.

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