



SISTEM PROTOTYPE PEMBATAS DAN PENGAMAN OVERHEAT PADA KOMPONEN LISTRIK

UNDERGRADUATE THESIS

**Submitted as one of the requirements to obtain
Sarjana Teknik Elektro**

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**FACULTY OF ENGINEERING
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President University i SISTEM PROTOTYPE PEMBATAS DAN PENGAMAN OVERHEAT PADA KOMPONEN LISTRIK UNDERGRADUATE THESIS Submitted as one of the requirements to obtain Sarjana Teknik Elektro (Find at https://puis.president.ac.id/manual/student_handbook find Academic Degree) By: Lillun Nahar 002201800015 FACULTY OF ENGINEERING ELECTRICAL ENGINEERING CIKARANG JULI 2023 President University ii PANEL OF EXAMINER APPROVAL The Panel of Examiners declare that the undergraduate thesis entitled Sistem Prototype Pembatas Dan Pengaman Overheat Pada Komponen Listrik at was submitted by Lilun Nahar majoring in Electrical Engineering from the Engineering as assessed and approved to have passed the Oral Examination on Juli 4th, 2023 Panel of Examiner (Antonius Suhartomo, Ph.D) Chair of Panel Examiner (Dr. Eng Azhari Sastranegara, M.Eng)

ABSTRAK

Overheat pada komponen kelistrikan cukup umum terjadi. Hal ini disebabkan oleh kondisi dimana suhu benda mengalami keanikan di atas batas normal. Overheat pada perangkat terkhususnya kelistrikan dapat menyebabkan kebakaran. Kenaikan suhu yang melebihi batas normal akan menciptakan titik api, dan kemudian titik api akan semakin membesar dan terjadilah kebakaran. Kebakaran sangat merugikan manusia. Tak hanya dari segi ekonomi namun kebakaran juga merugikan dari segi waktu, psikologis dan lainnya. Oleh sebab itu penulis membuat prototype alat menggunakan IC 741, IC UM3561, IC 7809, speaker dan perangkat lainnya. Penelitian ini bertujuan untuk mendeteksi terjadinya overheat pada rangkaian listrik dimana nantinya perangkat akan secara otomatis memutus aliran listrik saat mendeteksi adanya overheat pada rangkaian serta memberikan peringatan dini bahwa terjadi overheat pada perangkat. Hasilnya, proyek ini berhasil membuat prototype yang bekerja dengan sangat baik. Prototype ini dapat memberitahukan terjadinya overheat dan memutus aliran listrik dengan waktu 2,33 detik dan 3.5 detik setelah tombol reset ditekan

Keywords: overheat, IC 741, IC UM3561, IC 7809, speaker.

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