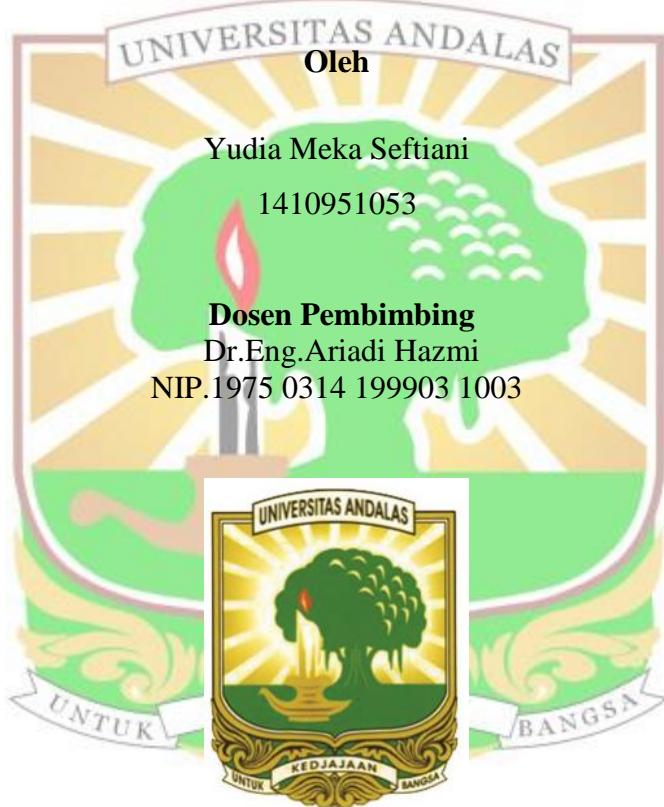


**ANALISA MEDAN LISTRIK-DEKAT  
PETIR *POSITIVE CLOUD TO GROUND***

**TUGAS AKHIR**

**Karya Ilmiah sebagai salah satu syarat untuk menyelesaikan jenjang strata  
satu (S-1) di Jurusan Teknik Elektro, Fakultas Teknik, Universitas Andalas**



**Program Studi Sarjana Teknik Elektro**

**Fakultas Teknik**

**Universitas Andalas**

**2018**

<b>Judul</b>	<b>ANALISA MEDAN LISTRIK-DEKAT PETIR <i>POSITIVE CLOUD TO GROUND</i></b>	<b>Yudia Meka Seftiani</b>
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## **Abstrak**

Penelitian ini dilakukan terhadap 19 data medan listrik-dekat petir *positive cloud to ground* (+CG). Deretan pulsa pada medan listrik petir terdiri dari *preliminary breakdown* (PB) dan *return stroke* (RS). Analisis yang dilakukan dalam penelitian yaitu: *PB/RS rasio*, *PB-RS separation*, *pre-return stroke duration*, *pulse train duration*, *individual pulse duration*. *Initial electric field change* (IEC) dan hubungan petir +CG dengan citra satelit cuaca. Rata-rata *PB/RS rasio*, *PB-RS separation*, *pre-return stroke duration*, *pulse train duration*, *individual pulse duration* dan *initial electric field change* (IEC) adalah 13,89%, 91,53 ms, 102,23 ms, 1,20 ms, 150,31  $\mu$ s dan 16%. Berdasarkan pengamatan pada citra satelit cuaca, petir +CG yang terjadi selalu disertai hujan.

Kata Kunci : *Medan listrik dekat, petir positive cloud to ground, preliminary breakdown, return stroke, citra satelit cuaca.*

<b>Title</b>	<b>Analisy of Near Electric Field of Positive Cloud to Ground Lightning</b>	<b>Yudia Meka Seftiani</b>
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### ***Abstract***

*This study was conducted on 19 electric field data near positive lightning cloud to ground (+CG). The electric field change of +CG lightning consist of preliminary breakdown (PB) and return stroke (RS). The analysis conducted in this research are: PB/RS ratio, PB-RS separation, pre-return stroke duration, pulse train duration, individual pulse duration and initial electric field change (IEC). Furthermore, the relationship between +CG lightning and cloud image satellite was observed the average value of PB/RS ratio, PB-RS separation, pre-return stroke duration, pulse train duration, individual pulse duration and initial electric field change were 13,89%, 91,53 ms, 102,23 ms, 1,20 ms, 150,31  $\mu$ s, 16 %, respectively. Based on observation of cloud image satellite, +CG lightning that happens always accompanied by rain.*

*Keyword : Near electric field, positive lightning cloud to ground, preliminary breakdown, return stroke, cloud image satellite.*

