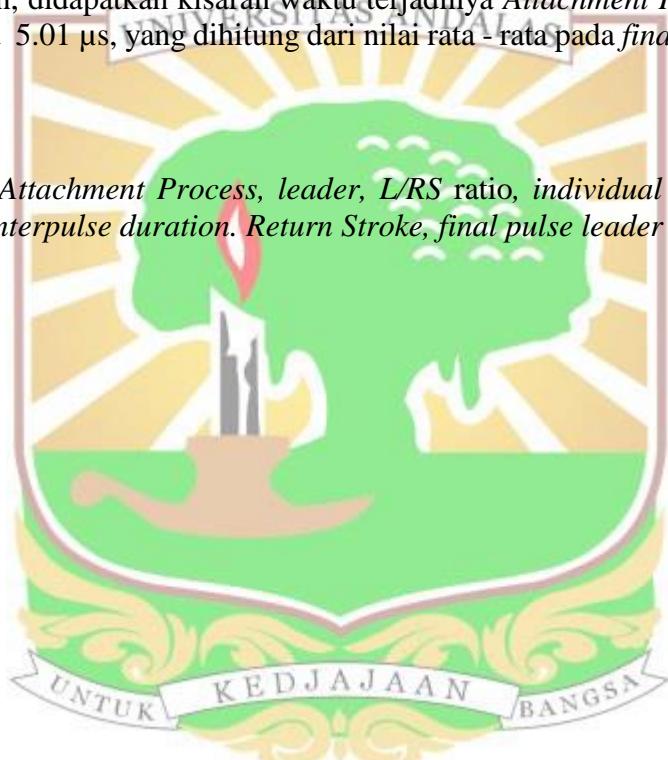


## ABSTRAK

Tugas akhir ini mengamati karakteristik terjadinya *Attachment Process* pada petir negatif *cloud to ground* (-CG) dengan mengamati pusa *Leader* terakhir dengan rentang waktu 10  $\mu$ s. Penelitian ini dilakukan terhadap 151 data pulsa medan listrik petir pada *Leader* yang terekam selama bulan Maret hingga April 2016, dengan pendeksan menggunakan antenna medan listrik (*fast antenna*). Analisis yang dilakukan dalam penelitian yaitu *L/RS Ratio*, *Individual Pulse Duration*, *Interpulse Duration*, *final pulse Leader duration*, dan durasi antara *final pulse Leader* dan puncak *Return Stroke*. Rata-rata *L/RS ratio* adalah 12,54%. Analisis *individual pulse duration* menghasilkan rata-rata 4,32  $\mu$ s. Analisis *interpulse duration* menghasilkan rata-rata 8,94  $\mu$ s. Analisis *final pulse Leader duration* menghasilkan rata-rata 5,01  $\mu$ s. Analisis durasi antara *final pulse Leader* dan puncak *Return Stroke* menghasilkan rata-rata 10,62  $\mu$ s. Berdasarkan penelitian yang dilakukan, didapatkan kisaran waktu terjadinya *Attachment Process* berkisar diantara waktu 5,01  $\mu$ s, yang dihitung dari nilai rata - rata pada *final pulse duration Leader*.

*Kata Kunci* : *Attachment Process*, *leader*, *L/RS ratio*, *individual pulse duration*, *interpulse duration*, *Return Stroke*, *final pulse leader*



## ABSTRACT

The final report is to observe the characteristics of the Attachment Process negative lightning cloud to ground (-CG) by observing the last Leader momentum with a span of 10  $\mu\text{s}$  before Return Stroke. This study was conducted on 151 lightning electric field pulses of data on Leader recorded during March and April 2016, with detection using an electric field antenna (fast antenna). The analysis conducted in the research are: L/RS Ratio, Individual Pulse Duration, Interpulse Duration, final pulse Leader duration, and the final pulse duration Leader and peak Return Stroke. The average L / RS ratio was 12.54 %. Analysis of individual pulse produces an average duration of 4.32  $\mu\text{s}$ . Analysis inter pulse duration produces an average of 8.94  $\mu\text{s}$ . Leader final analysis pulse duration produces an average of 5.01  $\mu\text{s}$ . Analysis of the final pulse duration Leader and peak Return Stroke produces an average of 10.62  $\mu\text{s}$ . Based on this research, get a range of time the Attachment Process ranged between 5.01  $\mu\text{s}$  time, which is calculated from the value - average in the final pulse duration Leader.

*Keywords : Attachment Process, leader, L/RS ratio, individual pulse duration, interpulse duration. Return Stroke, final pulse leader*

