



**Analysis of Wire Defects in the Wiring Harness
Production Process Using Fishbone Diagram and 5
Whys Method at PT Sumitomo Wiring Systems
Batam Indonesia**

Final Project

By:

Muhamad Hafiiz Ismail (3222311029)

**Electronics Manufacturing Engineering Study Program
Electrical Engineering Department
Politeknik Negeri Batam
2026**

Statement of Authenticity of Final Project

I, the undersigned, certify that the contents of part or all of my Final Project entitled: " Analysis of Wire Defects in the Wiring Harness Production Process Using Fishbone Diagram and 5 Whys Method at PT Sumitomo Wiring Systems Batam Indonesia " is my own work, completed without the use of materials that are not permitted , and is not the work of other parties which I acknowledge as my own work. All references cited or referred to have been written in full in the bibliography. If it turns out that my statement is not true, I am willing to accept sanctions in accordance with applicable regulations.

Batam, 01 July, 2026



MUHAMAD HAFIZ ISMAIL
NIM: 3222311029

Approval sheet

The Final Project is structured to fulfill one of the requirements for
obtaining a degree
Bachelor of Associate Engineer (AMd.T.)
in
Batam State Polytechnic

By:
Muhamad Hafiiz Ismail (3222311029)

Session date: 03 August, 2026

Approved by :



1. Fitriyanti Nakul, S.Pd., M.Si
NIK: 118197
(Examiner I)



1. Muhammad Arifin S.Si., M.Si.
NIK: 116161
(Supervisor I)



2. Nadhrah Wivanius, S.Si., M.Si
NIK: 115141
(Examiner II)