

# **CONVEYOR RICE MILLING UNIT SYSTEM**

## **DESIGN**

*Name* : Untung Wahyudi  
*Name* : 2204181187  
*Advisor* : Firman Alhaffis , ST , MT

### **Abstract**

*Village fire as wrong one village center production plant paddy very field \_ potentially for location plant paddy field because still have vacant land . \_ Farmer usually enter grain to in bag with the manual way ie use tub or bucket. it \_ naturally need power human ( load excess work ) . Something choice for help activity the that is with use tool mechanical form bucket elevators . Based on background behind on need he did study more carry on related on machine dryer and machine grinder rice . By because it , researcher this only focus on planning conveyors carrier details rice . Based on from comparison strength with material Steel Alloy . based on from score Von mises , principal stress , displacement , and safety factor that Steel Mild have more abilities \_ effective in accept loading static which received by construction thread Conveyor Rice Milling and have mass which light compared with materials steel alloy .From results analysis on the rice milling unit conveyor that has been conducted loading with the Autodesk Inventor 2019 software it can be concluded that : after To do analysis conveyor design with heavy 600kg loading obtained von Mises stress data of 24.7074 Mpa which is still on limit safe, principal stress of 26.6978 Mpa, Displacement 0.104467 mm long and the safety factor is 8.87304. Based on analysis the design is done, the lowest safety factor value is 4.34458 value the is score lowest meaning \_ his design still colored blue still be on point safe, can be interpreted that design safe to be made .*

**Kata kunci** : elevator, stell alloy, von mises , stress, stell mild, conveyor