

### **Abstract**

*In this era, composites with artificial (synthetic) fiber reinforced materials have been widely used in various aspects. Its use is not limited to the automotive sector, but now it has penetrated into other fields such as households and industry. However, the use of synthetic fibers as composite reinforcement has a negative impact on the environment because the waste is not biodegradable and can be disruptive for generations. In this literature study the authors conducted a critical analysis using several international journals related to bamboo fiber components and composites. Obtained some data, namely the characteristics of bamboo fibers and mechanical properties. Data retrieval comes from international journals that comply with international testing standards such as ASTM which are in accordance with testing applications. Secondary data collection was in the form of testing data for the mechanical properties of bamboo apus and polypropylene. Furthermore, the author will simulate using Autodesk Fusion 360 software. After performing the simulation, the author can record the simulation results. The author can create a table to see the simulation results*

**Keyword:** Composites, Automotive, Bamboo, Polypropylene, Arm Rest, ABS, Autodesk Fusion 360.