

**WOOD PLASTIC COMPOSITE FROM *PULAI SPECIES (ALSTONIA  
ANGUSTILOBA)* USING POLYPROPYLENE**

By

Lucy Anak Jawan

Mimi Suzaini Bt Mohamed

Shaid Syazwan B Muhamad

Norliyana Bt Ahmad Shukri

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Faculty of Applied Science, Universiti Teknologi MARA, Pahang

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# **CHAPTER 1**

## **INTRODUCTION**

Traditionally, wood composites have been produced to mimic and substitute for solid wood in variety of different applications. These materials are typically produced of wood elements in different form (i.e fibers, particles, strands, veneer or lumber) that are adhered with thermosetting resins. The resulting perform similar to solid wood in many respect and typically takes simples product form such as flat plates of rectangular beam elements (M.Roweell,1995).

More recently, a new class of materials has combines wood with thermoplastic polymers. The development of these materials has been driven primary by the need for durable wood materials that can function in exterior environment without preservative treatment. In recent years, composites produced from wood and thermoplastic resins have seen rapid increases in commercial production. Over the last decade, the production of these products has increased 30 % with annual 60 % increase projected for the next 5 years (Eckert, 2000). In the United States, wood plastic deck board production has doubled annually since 1996. The years 2000 alone witnessed ten new production start-ups. Wood composites currently dominate market share of structural and non-structural residential building products. With the current trends in forest production, composites technologies will continue to grow in breadth and depth.