

## **Peat Soil Improvement with Bamboo Reinforcement Technology: A Review**

### **ABSTRACT**

Construction of road or building on soft soil, especially on peat soil, is the most challenging condition where there are consequences that engineers may have faced. Peat has excellent water-holding characteristics, highly fibrous due to the presence of a lot of decomposed materials and organic matter, which makes it highly compressible, weak at shear strength, and low in bearing capacity. This characteristic makes it unsuitable for use as foundation or sub-grade since it would have a large impact on deformation and settlement if not treated very well. Due to the excellent effects, soil reinforcement has been seen as a relevant method in various infrastructural projects in recent years since this technique is the most practical application to improve the strength and stiffness of peat soil by using various methods, including bamboo technology. This paper highlights some of the alternative methods in peat soil reinforcement technology. It combines several techniques based on the floating concept bamboo insights that effectively distributed the load on the embankment over the peat soil. In this strategy, it is observable to reduce the impact of deformation and settlement on peat soil.