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## GENERATION OF GRACEFUL TREES

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## **ABSTRACT**

In this paper, a new family of trees is generated by combining the given trees, and it proves that the result tree  $T_1$  is graceful and admits  $\alpha$  - valuation. Further, by recursively attaching a given tree with the resultant, generates a bigger family of trees  $T_i$  for  $i \geq 2$ , and we prove that such trees are graceful and have  $\alpha$  - valuation.

**KEYWORDS:** Trees, Recursive Attachment, Graceful Labeling, Graceful Trees,  $\alpha$  - Valuation

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