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**Ken J. Roblee\*** ([kroblee@troy.edu](mailto:kroblee@troy.edu)), 232 MSCX, Troy University, Troy, AL 36082, and **Atif Abueida**. *Harmonious Labelings of Classes of Disjoint Unions of Odd Cycles and Certain Trees.*

Let  $G = (V, E)$  be a simple graph with  $m$  edges. Then  $G$  is said to be harmonious provided there exists a one-to-one function  $f : V \rightarrow \mathbf{Z}_m$  such that whenever  $u_1v_1 \neq u_2v_2 \in E$ , then  $f(u_1) + f(v_1) \not\equiv f(u_2) + f(v_2) \pmod{m}$ . In the event that  $G$  is a tree or is a disjoint union of two graphs where one is a tree, it is permitted that precisely two vertices may have the same image under  $f$ . Here, we consider  $G = C_s \cup T_{st+1}$ , where  $s \geq 3$  is odd,  $t \geq 2$  is even, and  $T_{st+1}$  is a path or a starlike tree consisting of a central vertex connected to the ends of  $t$ -many paths each with  $s$  vertices. We use a subgroup and its cosets to demonstrate these graphs are harmonious. (Received January 21, 2019)