

1154-VV-2789 **Hassan Almusawa*** (almusawah@vcu.edu), Virginia Commonwealth University, Department of Mathematics and Applied Mathema, Richmond, VA 23284, and **Ryad Ghanam** and **Gerard Thompson**. *Symmetries of the Canonical Geodesic Equations of Five-Dimensional Nilpotent Lie Algebras*.

Symmetries of the canonical geodesic equations of indecomposable nilpotent Lie groups of dimension five are constructed. For each case, the associated system of geodesics is provided. In addition, a basis for the associated Lie algebra of symmetries as well as the corresponding non-zero Lie brackets are listed and classified. (Received September 18, 2019)