

## LATTICE IMPLICATIVE ALGEBRAS

*Jula Kabeto Bunkure*

*Research Scholar, Department of Mathematics, Bahir Dar University, Ethiopia*

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### **ABSTRACT**

*In this research paper, firstly, I introduce the concept of implicative algebras and obtain certain properties. Further, I prove that implicative algebra is equipped with a structure of a bounded lattice and prove that it is lattice implication algebra. It also observes that " $\rightarrow$ " can never be associative. Secondly, we introduce two more binary operations " $+$ " and " $-$ " on implicative algebra and obtain certain properties with these operations. Further, we prove that any implicative algebra is a metric space. Also, we prove that every implicative algebra can be made into the regular authomethrized algebra of Swamy (1964).*

**KEYWORDS:** *Implicative Algebra, Concept, Prove, Regular Authomethrized Algebra*