

REALIZATION OF ARITHMETIC OPERATIONS ON SIGNAL SEQUENCES USING NORMAL ALGORITHMS AND REWRITING CYCLIC NORMAL AUTOMATON

U. M. FERNANDES DIMLO¹ & E. G. RAJAN²

¹Research Scholar, University of Mysore, Karnataka, India

²Founder & President, Pentagram Research Center Pvt. Ltd, Hyderabad, Andhra Pradesh, India

ABSTRACT

Symbolic computation is study and development of algorithms and software for manipulating mathematical expressions and objects. In signal processing data is represented using symbols. But today computers are basically numeric computers hence automation of basic and advanced signal processing operations became very difficult task. Even though effort has been made to write algorithms and programs for signal processing operations but time complexity of such implementations are very poor. In this paper signals are represented as strings or words which can be stored in computer memory, further normal algorithms are written to perform basic arithmetic operations like addition, difference, product and division of two signals using rewriting cyclic normal automata.

KEYWORDS: RCNA, Normal Algorithms, Substitution Formula