THE GENERALIZED (s, t)- PELL MATRIX SEQUENCE

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Abstract: In this paper we defined generalized (s,t)-Pell matrix sequence which is generalized by (s,t)-Pell Matrix sequence and (s,t)-Pell-Lucas Matrix sequence. We also described some properties for generalized (s,t)-Pell matrix sequence and established relationship among (s,t)-Pell Matrix and (s,t)-Pell-Lucas Matrix sequence.

Keywords and Phrases: (s,t)-Fibonacci, (s,t)-Lucas, (s,t)-Pell, (s,t)-Pell Lucas, (s,t)-Pell matrix.

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1. Introduction, Notations and Definitions

Many scholars done fabulous work on Fibonacci, Lucas, Pell, Jacobsthal sequence etc by many sided of conditions [1-4]. The wonderful sequence Fibonacci is given by the equation

$$F_n = F_{n-1} + F_{n-2}, \quad n \geq 2,$$

From past years many scholars established the generalizations of Fibonacci, Lucas, Pell sequence etc by using parameters s and t then sequence called (s,t)-Fibonacci, (s,t)-Lucas, (s,t)-Pell sequence etc and we also describe the matrix sequence called as (s,t)- type matrix sequence like (s,t)-Fibonacci matrix sequence, (s,t)-Lucas Matrix Sequence, (s,t)-Pell matrix sequence etc.

In 2012 Gulec and Taskara in [5] defined (s,t)-Pell Sequence $\{p_n(s,t)\}_{n\in N}$ and (s,t)-Pell Lucas sequence $\{q_n(s,t)\}_{n\in N}$ and their matrix sequence (s,t)-Pell matrix