**NUMERICAL SOLUTIONS OF SOME SECOND KIND FREDHOLM INTEGRAL EQUATIONS VIA PELL POLYNOMIALS**

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| **ABSTRACT**In this study, we obtain the approximate solutions of some second kind Fredholm integral equations viaPell polynomials. To do this, the collocation method was presented for the approximate solution of some integral equations. Moreover, we give certain numerical examples to verify the theoretical results.**References:** [1] Chakrabarti, A., & Martha, S.C. (2009). Approximate solutions of Fredholm integral equations of the second kind, *Appl. Math. And Comput*., 211 459-466.[2] Maleknejad, K., & Aghazadeh, N. (2005). Numerical solution of Volterra integral equations of the second kind with convolution kernel by using Taylor-series expansion method, *Appl. Math. Comput*. 161 915-922.[3] Mandal, B. N., & Bhattacharya, S. (2007). Numerical solution of some classes of integral equations using Bernstein polynomials, *Appl. Math. and Comput.* 190 1707–1716.[4] Nadir, M. (2018). Solving linear integral equations with Fibonacci polynomials. *Malaya Journal of Matematik*, 6(4) 711-715.[5] Nadir, M. (2014). Solving Fredholm integral equations with application of the four Chebyshev polynomials, *J. of Approx. Th. And App. Math*., 4 37-44.[9] Nadir, M., & Chemcham, M. (2017). Numerical solution of linear integral equations using hat function basis, *Asian Journal of Math. and Comp. Research*, 15(1) 1-8.[10] Nadir, M., & Lakehali, B. (2018). A variational form with Legendre series for linear integral equations, *Malaya Journal of Matematik*, 6(1) 49-52.[11] Nadir M., & Dilmi, (2017) M. Euler series solutions for linear integral equations, *The Australian Journal of Math. Analy. and Appl*., 14(2) 1-7.  |

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