## 1158-34-168

Bhuvaneswari Sambandham<sup>\*</sup> (buna.sambandham@dixie.edu), Aghalaya S Vatsala and Vinodh Chellamuthu. Linear Sequential Caputo Fractional Boundary Value Problems with Mixed Nonhomogeneous Boundary Conditions and the Numerical Results. Preliminary report.

We recently developed the numerical results for linear sequential Caputo fractional boundary value problems with mixed homogeneous boundary conditions. We used Green's function representation to obtain the existence of the solution of the nonlinear problem. Also, we developed the numerical code for the boundary value problems with general nonhomogeneous terms with mixed nonhomogeneous boundary conditions. In this work, we plan to develop the accurate code for the linear nonhomogeneous sequential Caputo fractional boundary value problems for any nonhomogeneous terms with mixed boundary conditions. This will be useful in solving the nonlinear Caputo fractional boundary value problem with Caputo mixed boundary conditions by monotone method. (Received February 29, 2020)