

## **Predictor-corrector scheme in modified block method for solving delay differential equations with constant lag**

### **ABSTRACT**

In this paper, the numerical solution of delay differential equations using a predictor-corrector scheme in modified block method is presented. In this developed algorithm, each coefficient in the predictor and corrector formula are recalculated when the step size changing. The Runge-Kutta Fehlberg step size strategy has been applied in the algorithm in order to achieve better results in terms of accuracy and total steps. Numerical results are given to illustrate the performance of this modified block method for solving delay differential equations with constant lag.

**Keyword:** Delay differential equations; Modified block method; Variable step size