Abstract:

Delay differential Equations are type of differential equations in which the derivative of the unknown function at a certain time is given by terms of the values of the function at pterions times. This kind of differential equations is also called time – delay systems or equations with deviating argument or differential – difference equations. There are a lot of applications of delay differential equations in many fields of study , such as in control theory , communication networks , dynamic performances, engineer etc. In this research , we submit basic concepts and important definitions of delay differential equations and describe the problem with deviating arguments with examples in chapter one , In the second chapter we study an important method which is called method of steps for solving delay differential equation with illustrates examples.