

SUMMARY OF THE FINDINGS

Many problems, arising in a wide variety of application areas, give rise to mathematical models which form boundary value problems for ordinary or partial differential equations. The foremost desire of an investigator is to solve the problem explicitly. If little theory is available and no explicit solution is readily obtainable, generally the ensuing line of attack is to identify circumstances under which the complexity of the problem may be reduced. To solve this problem researcher used the integral inequality method. We established the new linear as well as non-linear retarded integral inequalities. This inequality gives explicit bounds on unknown function which used as a tool in studying the qualitative properties of differential, integral, partial and integrodifferential equations. With the help of these new retarded integral inequalities we study the qualitative property of integral as well as partial differential equations with retarded argument. The results obtained during the tenure of the project is accepted and presented. The details are as follows

- The research article entitled “A NOTE ON GRONWALL – BELLMAN INEQUALITIES IN TWO VARIABLES” is accepted by Aryabhata J. of Mathematics and Informatics and is going to publish in Jan-Jun. 2017 issue.
- The research article entitled “Some generalized integral inequalities and their applications” is accepted by International J. Applied Mathematics Analysis and Applications and is going to publish in Jan- Jun2017 issue.

- Presented research article entitled “Generalization of the Lemma of Bellman” in national level seminar on Recent Development in Mathematics held by Rajarshi Shahu College, Pathri on 24 Jan 2017.
- Presented research article entitled “On Bihari like integral inequalities with retarded argument and application” in the international conference on Mathematical Analysis and its Applications organized by Dayanand Science college, Latur on March 5-9,2017.