Existence Of Solutions Of Differential Equations

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A large class of scientific and engineering problems is modelled by partial differential equations, integral equations or coupled ordinary and partial differential equations which can be described as differential equations in infinite dimensional spaces using semigroups. In general, nonlinear differential equations, with and without delays, serve as an abstract formulation of many partial nonlinear differential equations which arise in problems connected with heat-flow in materials with memory, viscoelasticity and many other physical phenomena. Problems in electrodynamics, reactor kinetics, behaviour of economic systems, weapon fire control from moving platforms are all modelled by nonlinear differential equations. So it becomes important to study the existence of solutions nonlinear differential equations in Banach spaces. All the results are established with the help of fixed point principles.