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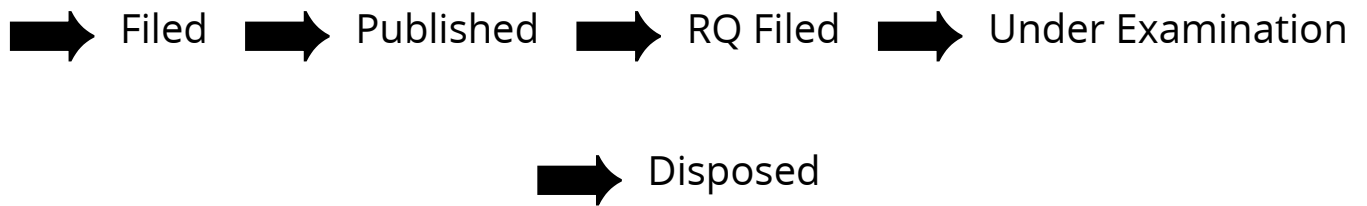# (http://ipindia.nic.in/index.htm)

Application Details

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TITLE OF INVENTION	An Approach for Solving Differential Equations and Variational Problems Based on Python Elvet NN System
FIELD OF INVENTION	COMPUTER SCIENCE
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(57) Abstract :
Abstract Elvet is a Python module that we developed to solve differential equations and variation applications utilizing various machine learning techniques. Any solution of coupled ordinary, as well as partial differential equations with arbitrary beginning and boundary conditions, can be handled by Elvet. It can also minimize any function that depends on a collection of functions of numerous variables while placing constraints on them. It could be done while minimizing the effect of the constraints. A neural network trained to provide the required function can be seen as a representation of the approach to any of these challenges.

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