Variational principles are very powerful techniques at the interplay between nonlinear analysis, calculus of variations, and mathematical physics, etc. Since the birth of the calculation of variations, it has been realized that, when applied, variational methods can produce results that can sometimes be more effective than many other methods. The aim of this work is to study the existence of solutions to some boundary value problems associated with ordinary differential equations on the half-line where using several techniques based on Ekeland's variational principles, the critical point theorems, the minimization theorem, and the Mountain Pass theorem.

Dr. Bouafia Dahmane is a teacher at Msila University in Algeria since 2014. His area of interest is in studying ordinary and fractional differential equations by using variational methods and fixed points theory. Published many research articles in various international journals.

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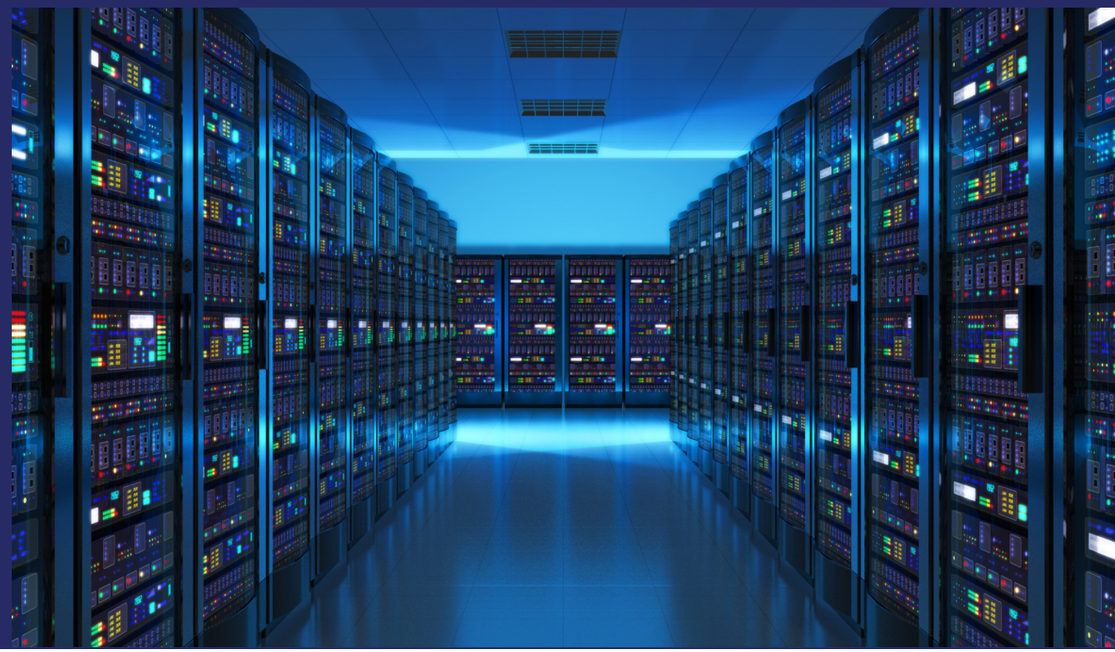

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Positive Solutions for Some Boundary Value Problems

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