The approximate analytical solutions of the D-dimensional space of the Schrödinger equation is studied with a newly proposed potential model. The proposed potential is a combination of Coulomb potential and inverse trigonometry scarf-type potential. The energy equation and the corresponding wave function are obtained using parametric Nikiforov–Uvarov method. The energy equations for Coulomb potential and inverse trigonometry scarf-type potential are respectively obtained by changing the numerical values of the potential strengths. It is found that the results obtained are equivalent to that previously obtained for Hellmann potential which is a combination of Coulomb potential and Yukawa potential. It is also found that the results for inverse trigonometry scarf potential are equivalent to the results previously obtained for Yukawa potential. Also, the Onicescus information energy of a system under the influence of the newly proposed potential is investigated in detail.

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