Existence of positive periodic solutions for certain delay differential equations

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Abstract : In this article, we study the existence of positive periodic solutions of certain delay differential equations. In the process we convert the differential equation into an equivalent integral equation after which appropriate mappings are constructed. We then employ Krasnoselskii's fixed point theorem to obtain sufficient conditions for the existence of a positive periodic solution of the differential equation. The obtained results improve and extend the results in the literature. Finally, an example is given to illustrate our results.