The functional-differential equations emerge in the analysis of the time-dependence of systems with memory where the form and role of the time-delay influence may vary. In the introductory-level paper, the author considers an elementary Runge-Kutta-type discretization of the model and an interpolation of (m steps of) its pre-history (using splines and m=4) which reduce her equations to the tridiagonal matrix inversion problem with a non-linearity hidden in its right-hand side. The solutions are being sought by iterations and their convergence is analyzed. Attention is paid to the influence of the elimination of the linear component (changing the tridiagonal matrix) and to the shooting method. A few numerical experiments are added using MATLAB software.

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