THE APPROXIMATE METHOD FOR SOLUTION OF TRANSIENT HEAT CONDUCTION FOR A SEMI – INFINITE REGION INITIALLY AT UNIFORM TEMPERATURE

Silviu VLASIE
University "Dunarea de Jos" of Galati, ROMANIA
Domneasca Str, Nr.111. tel: 0236-414871, fax: 0236-461353
e-mail: svlasie@yahoo.com

ABSTRACT

In solving the heat conduction problem with the integral transform technique in the cartesian system we use a third degree polynomial approximation to approximate the temperature profile. Now examine the solution of this problem with the integral method in order to illustrate the procedure and to compare the approximate and the exact solutions.

REFERENCES

[1] **Carslaw H. S., Jaeger J. C.** Conduction of heat in solids. Oxford University Press, 2nd ed., London, 1959.
[2] **Necati Özişik M.** Boundary value problems of heat conduction. Dover Publications Inc., New York, 1989.
[3] **Goodman T.R.** Application of integral methods to transient nonlinear heat transfer. Advanced in Heat Transfer, vol. 1, Academic Press, New York, 1964