Electronic Journal: Southwest Journal of Pure and Applied Mathematics
Internet: http://rattler.cameron.edu/swjpam.html
ISSN 1083-0464
Vol. No. 01, 1997, pp. 8–12.
Submitted: January 14, 1997. Published: May 29, 1997.

A HEURISTIC ALGORITHM FOR CONSTRUCTING OPTIMAL LOOKUP TABLES IN CIRCUIT DESIGN

Bing Shen and Ferenc Szidarovszky

Abstract. A heuristic algorithm is developed to find the optimum locations of interpolation points in constructing lookup tables in electronic circuit design. Cubic spline interpolators are used, and three versions of the algorithm are introduced. Computational results are reported to illustrate the effectiveness of the methodology.

1991 A.M.S. (MOS) subject classification Codes. 65D07,65D17.

Key Words and Phrases. Cubic splines, optimum location of nodes, heuristic algorithm.

Systems and Industrial Engineering Department, University of Arizona, Tucson, Arizona 85721, USA
E-mail address: szidar@sie.arizona.edu