CREATIVE MATH. & INF.
22 (2013), No. 2, 229 - 235

Online version available at http://creative-mathematics.ubm.ro/
Print Edition: ISSN 1584 - 286X Online Edition: ISSN 1843 - 441X

Graphical representations for errors arising by approximation with bivariate operator of Stancu type

IOANA TAŞCU and ANDREI HORVAT-MARC

ABSTRACT.

In this paper, we will obtain some graphic representations for the polynomial approximation of particular bivariate functions. We present three examples of approximations by Stancu operator. The selected functions include an example of production function. These could be further used for teaching purposes.

REFERENCES

[1] Bărbosu, D., *Bivariate operators of Schurer-Stancu type*, Anal. Şt. Univ. Ovidius Constanţa (2003), fasc. 1, 1–7
[2] Gonska, H. H. and Meier, J., *Quantitative theorems on approximation by Bernstein-Stancu operators*, CALCOLO, **21** (1984), No. 4, 317–335, http://dx.doi.org/10.1007/BF02576170
[3] Stancu D. D., *On a generalization of the Bernstein polynomials*, Studia Univ. Babeşs- Bolyai, Cluj, **14** (1969), 31–45
[4] Stancu, D. D. and Vernescu, A., *On some remarkable positive polynomial operators of approximation*, Rev. Anal. Numér. Théor. Approx., **28** (1999), No. 1, 85–95
[5] Taşcu, I. and Zelina, I., *On the mean square error of the bivariate operator of Stancu type*, Carpathian J. Math., **19** (2003), No. 2, 141–146

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
FACULTY OF SCIENCES NORTH UNIVERSITY CENTER AT BAIA MARE
TECHNICAL UNIVERSITY OF CLUJ-NAPOCA
VICTORIEI 76, 430122 BAIA MARE, ROMANIA
E-mail address: itascu@yahoo.com
E-mail address: andrei.horvat-marc@cunbm.utcluj.ro

* *Dedicated to Professor Emeritus Constantin Corduneanu on the occasion of his 85th birthday*
Received: 15.08.2013; In revised form: 28.09.2013; Accepted: 01.10.2013
2010 *Mathematics Subject Classification.* 41A10, 97N50.
Key words and phrases. *Aproximation by polynomials, Bernstein-Stancu operator.*