An Investigation on Minimal Surfaces of Multivalent Harmonic Functions [1]

Hakan Mete Taştan, Yaşar Polatoğlu

Abstract

The projection on the base plane of a regular minimal surface S in $\mathbb{R}^3$ with isothermal parameters defines a complex-valued univalent harmonic function $f = h(z) + \overline{g(z)}$. The aim of this paper is to obtain the distortion inequalities for the Weierstrass-Enneper parameters of the minimal surface for the harmonic multivalent functions for which analytic part is an m-valent convex function.

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Hakan Mete Taştan
İstanbul University
Department of Mathematics
Vezneciler 34134, İstanbul, Turkey
e-mail: hakmete@istanbul.edu.tr

Yaşar Polatoğlu
İstanbul Kültür University
Department of Mathematics and Computer Science
Ataköy, 34156, İstanbul, Turkey
e-mail: y.polatoglu@iku.edu.tr