journal of inequalities in pure and applied mathematics
issn: 1443-5756

Volume 10, Issue 1, Article 27

On a Subclass of Harmonic Univalent Functions

Authors: K. K. Dixit, Saurabh Porwal,

Keywords: Convex harmonic functions, Starlike harmonic functions, extremal problems.

Date Received: 04/06/08

Date Accepted: 27/09/08

Subject Codes: 30C45, 31A05.

Editors: Hari M. Srivastava,

Abstract: The class of univalent harmonic functions on the unit disc satisfying the condition $\sum_{k=2}^{\infty}(k^m-\alpha k^n)(|a_k|+|b_k|)\leq(1-\alpha)(1-|b_1|)$ is given. Sharp coefficient relations and distortion theorems are given for these functions. In this paper we find that many results of Özturk and Yalcin [5] are incorrect. Some of the results of this paper correct the theorems and examples of [5]. Further, sharp coefficient relations and distortion theorems are given. Results concerning the convolutions of functions satisfying the above inequalities with univalent, harmonic and convex functions in the unit disc and harmonic functions having positive real part are obtained.