## Subclass of Close-To-Convex Harmonic Mappings

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**Abstract :** In this article we have studied a class of sense preserving harmonic mappings in the unit disk D. Let  $B^{0}H(\alpha, \beta)$  denote the class of sense-preserving harmonic mappings  $f=h+g^{-}$  in the open unit disk D and satisfying the condition  $|z h_{\square}(z)+\alpha$   $(h_{\square}(z)-1) | \leq \beta - |z g''(z)+\alpha g'(z)| (\alpha > -1, \beta > 0)$ . We have proved that  $B^{0}H(\alpha, \beta)$  is close-to-convex in D. We also prove that the functions in  $B^{0}H(\alpha, \beta)$  are stable harmonic univalent, stable harmonic starlike and stable harmonic convex in D for different values of its parameters. Further, the coefficient estimates, growth results, area theorem, boundary behavior, convolution and convex combination properties of the class  $B^{0}H(\alpha, \beta)$  of harmonic mapping are obtained.

Keywords : analytic, univalent, starlike, convex and close-to-convex

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