

FEKETE-SZEGŐ INEQUALITY FOR A CERTAIN CLASS
OF ANALYTIC FUNCTIONS

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Abstract. In this present investigation, the authors obtain Fekete-Szegő inequality for certain normalized analytic function $f(z)$ defined on the open unit disk for which $zf'(z)/f(z) + \alpha z^2 f''(z)/f(z)$ ($\alpha \geq 0$) lies in a region starlike with respect to 1 and symmetric with respect to the real axis. Also certain application of the main result for a class of functions defined by convolution is given. As a special case of this result, Fekete-Szegő inequality for a class of functions defined through fractional derivatives is obtained..

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Key words. Analytic functions, Starlike functions, Subordination, Coefficient problem, Fekete-Szegő inequality.

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