

**DIFFERENTIAL SUBORDINATIONS AND FUZZY
DIFFERENTIAL SUBORDINATIONS USING
HILBERT SPACE OPERATOR**

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Abstract: Differential subordination has recently been extended from the geometric function theory to the fuzzy set theory by several authors. In this paper, we use the notion of fuzzy differential subordination to introduce certain fuzzy classes using Hilbert Space Operator. Certain interesting results are established for these classes.

Keywords and Phrases: Differential subordination, fuzzy subordination, fuzzy set, fuzzy best dominant, subordinations.

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1. Introduction

S. S. Miller and P. T. Mocanu introduced differential subordination and derived some properties associated with it [11]. Then developed by many authors see also [12, 13]. Fuzzy subordination and fuzzy differential subordination was first studied by G. I. Oros and Gh. Oros [14]. Authors have extended the notion