

**BOUNDS FOR A NEW SUBCLASS OF BI-UNIVALENT  
FUNCTIONS RELATED TO SHELL-LIKE CURVES  
ASSOCIATED WITH THE  $(p, q)$ -SALAGEAN DERIVATIVE**

**P. Nandini, L. Dileep\* and S. Latha\*\***

Department of Mathematics,  
JSS Academy of Technical Education,  
Srinivaspura Bengaluru - 560060, Karnataka, INDIA

E-mail : pnandinimaths@gmail.com

\*Department of Mathematics,  
Vidyavardhaka College of Engineering,  
Mysuru - 570002, Karnataka, INDIA

E-mail : dileepL84@vvce.ac.in

\*\*Department of Mathematics,  
Yuvaraja's College, Mysore - 570005, Karnataka, INDIA

E-mail : drlatha@gmail.com

**(Received: Feb. 21, 2025 Accepted: Mar. 20, 2025 Published: Apr. 30, 2025)**

**Abstract:** This paper aims to investigate a new subclass of bi-univalent functions defined by the  $(p, q)$ -Salagean derivative, associated with shell-like curves connected with Fibonacci numbers. It also examines the coefficient estimates and Fekete-Szegő inequalities for functions in this class.

**Keywords and Phrases:** Bi-univalent functions, Fekete-Szegő inequality, Fibonacci numbers, Shell-like curve and  $(p, q)$ -Salagean derivative.

**2020 Mathematics Subject Classification:** 30C45, 30C50.