An Extended Generalized (p,q)-Extensions for the Apostol type Polynomials

Ugur Duran[1], Serkan Araci[2], Mehmet Acikgoz[3], Hemen Dutta[4]

[1] *Iskenderun Technical University, Turkey*
mtdrnugur@gmail.com
[2] *Hasan Kalyoncu University, Turkey*
mtsrkn@hotmail.com
[3] *Gaziantep University, Turkey*
ackgoz@gantep.edu.tr
[4] *Gauhati University, India*
hemen dutta08@rediffmail.com

Abstract: In this report, a new unified generalization for Apostol type polynomials of order α and level m based on (p,q)-numbers is introduced. Then, several new formulas and identities including some algebraic and differential properties are derived. Moreover, multifarious correlations including the well known (p,q)-polynomials such as Apostol type (p,q)-Bernoulli polynomials, Apostol type (p,q)-Euler polynomials, Apostol type (p,q)-Genocchi polynomials (p,q)-Stirling numbers of the second kind, and (p,q)-Bernstein polynomials.

Along this note we mainly use techniques in the paper [1].

REFERENCES

[1] L. Castilla, W. Ramirez, A. Urilies, An extended generalized q-extensions for the Apostol type polynomials, accepted for publication in Abstract and Applied Analysis, 2018.