

**CORRIGENDUM TO: ANALYSIS AND SOLUTION OF COMPLEX
ORDER DIFFERENTIAL EQUATIONS USING SINGULAR
KERNEL, PUBLISHED IN DIFFERENTIAL EQUATIONS AND
APPLICATIONS, VOL. 16 NO. 2 (2024), 171–182, BY AMAR DEEP**

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Abstract. Key updates are introduced in this corrigendum: existence findings are presented using upper and lower solutions together with Schauder's fixed point theorem in a new Section 5; a precise solution and verification are added to the original case. Clarifying comments on assumptions in complex-order models have been included, and corrections to the convergence analysis and examples are provided for consistency. The original findings are strengthened and made clearer by these changes.

Mathematics subject classification (2020): 34A08, 34A12, 47H10, 45G05.

Keywords and phrases: Adomian decomposition method, singular kernel, fixed point theorem, upper and lower solutions, existence and uniqueness.

REFERENCES

- [1] UMIT CAKAN, ISMET OZDEMIR, *Existence of nondecreasing solutions of some nonlinear integral equations of fractional order*, Journal of Nonlinear Sciences and Applications, 2015, **8** (6), 1112–1126.
- [2] H. HASSANI, Z. AVAZZADEH, *Novel operational matrices for solving 2-dim nonlinear variable order fractional optimal control problems via a new set of basis functions*, Applied Numerical Mathematics, 2021, **166**, 26–39.
- [3] M. M. HOSSEINI, H. NASABZADEH, *On the convergence of Adomian decomposition method*, Applied Mathematics and Computation, 2006, **182**, 536–543.
- [4] PRATIBHA VERMA, RAKESH KUMAR, BHUPANDER SINGH, AMARDEEP, *Analysis and Solution of Complex Order Differential Equations Using Singular Kernel*, Differential Equations & Applications, 2024, **16** (2), 171–182.
- [5] MAN SINGH, LAXMINARAYAN DAS AND PRATIBHA VERMA, *Analysis and solution of fractional order differential equations using singular kernel*, Journal of Nonlinear and Convex Analysis, 2024, **25** (9), 2387–2396.