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| Journal Name: | [**Asian Journal of Mathematics and Computer Research**](https://www.ikprress.org/index.php/AJOMCOR) |
| Manuscript Number: | **Ms\_AJOMCOR\_12887** |
| Title of the Manuscript: | **HANKEL DETERMINANT FOR A NEW SUBCLASS OF ANALYTIC FUNCTIONS INVOLVING CHEBYSHEV POLYNOMIALS AND TOEPLITZ DETERMINANT** |
| Type of the Article |  |

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| **PART 1: Comments** | | |
|  | **Reviewer’s comment**  **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | **Author’s Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors*  *should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | **The authors have introduced a new subclass of analytic functions using Opoola differential operator involving differential subordination. The authors have estimated the bound of second order Hankel determinant for functions belonging to the newly defined subclass.**  **This paper investigates coefficient-related problems for functions in a newly in**  **troduced subclass S∗(µ,β,℘,Un(t)). Specifically, it focuses on determining upper**  **bounds for the second-order Hankel determinant of functions belonging to the class**  **S∗(µ,β,℘,Un(t))** |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **The title can be changed to**  **Second Hankel Determinant for a New Subclass of Analytic Functions Involving Chebyshev Polynomials and Toeplitz Determinant** |  |
| **Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section?**  **Please write your suggestions here.** | **Yes, the abstract is appropriate.** |  |
| **Is the manuscript scientifically, correct? Please write here.** | Yes, it is correct. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | A few more recent and related articles can be included in the references such as   1. N. Verma \& S. S. Kumar, Certain Coefficient Problems of   $\mathcal{S}^{\*}\_{e}$ and $\mathcal{C}\_{e}$, Tamkang Journal of Mathematics (2024). https://doi.org/10.5556/j.tkjm.56.2025.5182.   1. S. S. Kumar \& N. Verma, On a Subclass of Starlike Functions Associated with a Strip Domain, Ukrainian Mathematical Journal,   {\bf 76} (2024), no.~12, 1783—1801.  <https://doi.org/10.3842/umzh.v76i12.8000>.  (1) On p.1, in the abstract, line 3, there should be space between “principle”  and “The”.  (2) On p.1, line 6, equation 1.1 should be corrected to (1,1).  (3) On p.4, equation (2.1) should be formatted correctly.  (4) On page 5, in the last paragraph, the expression for H2(2) has already been  defined on page 3. Therefore, it does not need to be repeated and can simply  be referred from there.  (5) In Reference 2, the year of publication is incorrectly placed immediately after  the authors’ names and needs to be repositioned appropriately.  (6) The journal names should be formatted consistently throughout the refer  ences, either using the full name or the abbreviated version.  (7) To enhance the completeness of the study, the following articles on coefficient  problems can be included in the introduction:  (a) N. Verma & S. S. Kumar, Certain Coefficient Problems of S∗  e and Ce,  Tamkang Journal of Mathematics (2024).  https://doi.org/10.5556/j.tkjm.56.2025.5182.  (b) S. S. Kumar & N. Verma, On a Subclass of Starlike Functions Associ  ated with a Strip Domain, Ukrainian Mathematical Journal, 76 (2024),  no. 12, 1783–1801. https://doi.org/10.3842/umzh.v76i12.8000. |  |

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| **Is the language/English quality of the article suitable for scholarly communications?** | Overall it is suitable, few corrections have been pointed out to improve the quality and readability. |  |
| **Optional/General** comments | The manuscript **can be accepted** for publication after incorporating the suggested changes. |  |

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| **PART 2:** | | |
|  | **Reviewer’s comment** | **Author’s comment** *(if agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. It is*  *mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?** | *(If yes, Kindly please write down the ethical issues here in detail)* |  |

**Reviewer details:**

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