Review Form 1.7

Journal Name:	**Journal of Advances in Mathematics and Computer Science**
Manuscript Number:	**Ms_JAMCS_119602**
Title of the Manuscript:	**Modelling Fluid Flow in Zone 1 of an Open Horseshoe Channel with Lateral Inflow Channels**
Type of the Article	

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PART 1: Review Comments

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Compulsory REVISION comments 1. **Is the manuscript important for scientific community?** (Please write few sentences on this manuscript) 2. **Is the title of the article suitable?** (If not please suggest an alternative title) 3. **Is the abstract of the article comprehensive?** 4. **Are subsections and structure of the manuscript appropriate?** 5. **Do you think the manuscript is scientifically correct?** 6. **Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.** **(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)**	Review Report The review on the 'Modelling Fluid Flow in Zone 1 of an Open Horseshoe Channel with Lateral Inflow Channels". While traditional open channel flow research focuses on factors like channel geometry and slope, there's a growing interest in understanding flow behavior in more complex systems. This includes: Comments: Tree-like networks: Many natural and engineered systems involve branching networks, like blood ves- sels or microfluidic chips. Research is exploring how to design these networks to maximize flow efficiency by considering factors like channel width ratios, channel shape and angles at each generation and at the branching points. Some of the papers are " Scaling laws for optimized power-law fluid flow in self-similar tree-like branching networks: https://doi.org/10.1063/5.0213109 " " Scaling Laws for Optimal Power-Law Fluid Flow within Converging-Diverging Dendritic Networks of Tubes and Rectangular Channels: 10.26434/chemrxiv-2024-m3g5r " Deformable channels: In some cases, the channel walls themselves can deform under pressure or flow forces. This can impact flow behavior and potentially enhance flow by creating specific channel shapes. Further in the introduction, we can also incorporate the recent advancement of enhanced flow in deformable CNT tubes/channels to highlight the very relevant and broader range of fluid-CNT interactions, where the fluid flow characteristics are influenced by the tube's flexibility, impacting practical areas like drug delivery and desalination, the suggested articles on it are " Enhanced flow in deformable carbon nanotubes: https://doi.org/10.1063/5.0188089 " "Pulsatile pressure enhanced rapid water transport through flexible graphene nano/Angstrom-size chan- nels: a continuum modeling approach using the micro-structure of nanoconfined water: https://doi.org/10.1088/1367-2630/acff7e " Overall assessment: It will be good to add these papers in the introduction of this manuscript about fluid flow through channels. This research review examines existing studies on open channel flow and highlights these emerging areas of investigation. By considering these complexities, we can design more efficient and effective fluid flow systems for various applications.	
Minor REVISION comments 1. **Is language/English quality of the article suitable for scholarly communications?**		

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Optional/General comments		

PART 2:

	Reviewer's comment	**Author's comment** *(if agreed with 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 details)*	

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