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Journal Name:	**Journal of Advances in Mathematics and Computer Science**
Manuscript Number:	**Ms_JAMCS_57935**
Title of the Manuscript:	**Fast and Effective Region-based Depth Map Upsampling with Application to Location Map-Free Reversible Data Hiding**
Type of the Article	**Type of Article**

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
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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	**This paper proposed a region based depth map upsampling scheme. It also proposed a joint upsampling and location map-free reversible data hiding method. The proposed upsampling approach partitioned missing depth pixels into three disjoint regions: the homogeneous, semi-homogeneous, and non-homogeneous regions. Further, the proposed JUR method integrates depth copying, mean value, and bicubic interpolation approaches to reconstruct the three kinds of missing depth pixels.** **The authors improve the manuscript and address the following comments:** **1) The authors claim that the proposed approach addresses common weakness of existing methods for depth map upsampling which lack of taking the region classification of missing depth pixels into account.** **The authors should clarify how proposed approach differs from following existing methods. All these methods are based on depth upsampling and region classification.** **[a] Kim et al., Fast Depth Map Upsampling Based on Region Classification, International Conference on 3D Systems and Applications, pp. 243-247.** **[b] O. Choi and S. Jung, "A Consensus-Driven Approach for Structure and Texture Aware Depth Map Upsampling," in IEEE Transactions on Image Processing, vol. 23, no. 8, pp. 3321-3335, Aug. 2014, doi: 10.1109/TIP.2014.2329766.** **[c] Konno et al., "Depth Map Upsampling by Self-Guided Residual Interpolation", 23rd International Conference on Pattern Recognition (ICPR) Cancún Center, Cancún, México, December 4-8, 2016.** **[d] Miguel Tallón, "Upsampling and Denoising of Depth Maps via Joint-Segmentation", : EUSIPCO 2012 (20th European Signal Processing Conference 2012)**	
Minor REVISION comments	2) Incorporating location map-free reversible data hiding method for depth upsampling is new and interesting. Comparative analysis has been done with state-of-the-art methods. However, I have not seen any reference beyond 2016. Despite several algorithms for depth upsampling are presented recently. The authors should make a comparative analysis with very recent algorithms. Some reference are given below: [e] Y. Chang, S. Kim and Y. Ho, "Depth upsampling methods for high resolution depth map," 2018 International Conference on Electronics, Information, and Communication (ICEIC), Honolulu, HI, 2018, pp. 1-4, doi: 10.23919/ELINFOCOM.2018.8330567. [f] Beomjun Kim, Jean Ponce, Bumsub Ham, "Deformable kernel networks for guided depth map upsampling", arXiv:1903.11286, 2019 [g] Yi Guo, Ji Liu, Depth Edge Guided CNNs for Sparse Depth Upsampling, arXiv:2003.10138, 2020	

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Optional/General comments	Add missing references mentioned above	

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)*	

Reviewer Details:

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