

# ***Interactive comment on “Exploring Geomorphic Processes and Martian Gale Crater Topography on Mars using CTX and HiRISE Express Image Dataset” by Pavan Kumar et al.***

## **Anonymous Referee #3**

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Exploring Geomorphic Processes and Martian Gale Crater Topography on Mars using CTX and HiRISE Express Image Dataset is a timely and significant contribution in the field of celestial science. Investigation of geomorphological features on Mars has been scanty carried out. The authors have utilized CTX and HiRISE images for mapping geomorphological features. The methodology adopted for this study is sound and results have been presented in convincing manner. The study will immensely be helpful for further studies and add new dimension to existing literature. However, the manuscript is not flawless and needs correction at several places: 1. "mapping of the Mars planet" should be replaced with "mapping of Mars." 2. "The inset vertical exaggeration image provides 3D view of the Gale Crater and its surrounding area" 3D in the sentence

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needs to be replaced with perspective in the study area section. 3. "curiosity's science" Curiosity is the US rover currently in operation and its various activities needs to be mentioned in introduction section. 4. "Peace vallis" needs to be replaced with "Peace Vallis". 5. A CTX image is not a topographic dataset. The resolution of CTX imagery is 6 m/pixel. The derived DEM products are typically 18 m/pixel. The manuscript cannot be accepted in its current form and hence demands a minor revision.

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