A fast and efficient color image enhancement method based on fuzzy-logic and histogram
6. Conclusion

A fast and efficient fuzzy based color image enhancement method has been proposed in this paper. Comparative analysis of proposed method with conventional histogram based contrast enhancement techniques (like histogram equalization, adaptive histogram equalization) along with the recent histogram based Gray Level Grouping method and the Fuzzy Logic method was carried out to ascertain which of these methods is better suited for automatic contrast enhancement of color images. From comparative analysis it is concluded that our proposed Fuzzy Logic method as elucidated in this paper has improved the visual quality as well yielded a higher Tenengrad and CII values. The method is computationally faster compared to existing advanced enhancement techniques. The drawback of this method is that it can be applied only to low contrast and low bright color images. Future work is concentrated on developing a method to adaptively calculate the stretching parameter $K$, to balance the contrast level in both low contrast and over contrast color images.