

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 3, Issue 6, April 2023

Image Mosaicing

Dr. Mohammed Ahmed¹, Prof. Waheeda Dhokley², Gunjan Agarwal³, Ishan Ahmed⁴, Tamim Ahmad⁵, Sudarshan Tarmale⁶

Assistant Professor, Department of Computer Engineering^{1,2} Students, Department of Computer Engineering^{3,4,5,6} M. H. Saboo Siddik College of Engineering, Mumbai, Maharashtra, India

Abstract: Image mosaicing is a technique for combining many images of the same scene to generate a larger, seamless panoramic image. Image mosaicing can be traced back to the days of manually piecing images. Image-mosaicing techniques have been created to automate the process since the introduction of computer technology. The method consists of five phases, including feature matching and estimation of the homography matrix. Image mosaicing is commonly used in virtual tourism, video games, and photo editing. Despite the fact that the image panoramic feature is accessible in digital cameras, there is still potential for improvement, and more research in this sector is required.

Keywords: Image mosaicing, Panoramic images, Computer vision, Image processing, Feature matching, Homography matrix.

REFERENCES

- [1]. Erik Makino Bakken et al "Underwater Image Mosaics for AUV-Mounted Cameras "©2020 IEEE | DOI: 10.1109/IEEECONF38699.2020.9389090
- [2]. Qiangchen et al "SUAV Image Mosaic Based on Rectification for Use in Traffic Accident Scene Diagramming" 2020 IEEE | DOI: 10.1109/IICSPI51290.2020.9332401
- [3]. Xiangyan Lan et al "An Improved UAV Aerial Image Mosaic Algorithm Based on GMS-RANSAC" ©2020 IEEE | DOI: 10.1109/ICSIP49896.2020.9339283
- [4]. Chaitra Ravi et al "Development of Image Stitching Using Feature Detection and Feature Matching Techniques" ©2020 IEEE | DOI: 10.1109/INOCON50539.2020.9298339
- [5]. Yi Zheng et al "Automatic Sorting and Mosaics of Unordered Overlapping Images Based onFourier-Mellin Transforms and SIFT"©2019IEEE|DOI:10.1109/CISP-BMEI48845.2019.8966017
- [6]. Pooja Deshmukh et al "A Review of Various Image Mosaicing Techniques" ©2019 IEEE | DOI: 10.1109/i-PACT44901.2019.8960220
- [7]. A. Laraqui, K. Azmi and M. Laraqui, "A video conversion technique to image mosaic," 2019 International Conference on Intelligent Systems and Advanced Computing Sciences (ISACS), 2019, pp. 1-5, DOI: 10.1109/ISACS48493.2019.9068870
- **[8].** KhellalAtmane et al "Quantitative analysis of real-time image mosaicing algorithms" ©2018 IEEE | DOI: 10.1109/IWSSIP.2018.8439448
- [9]. Y. Feng and S. Li, "Research on an Image Mosaic Algorithm Based on Improved ORB Feature Combined with SURF," 2018 Chinese Control and Decision Conference (CCDC), 2018, pp. 4809-4814, DOI: 10.1109/CCDC.2018.8407963
- [10]. Prof. Waheeda Dhokley et al "Image Mosaicing using bidirectional algorithm" ©2017 IEEE | DOI: 10.1109/ICIIECS.2017.8275964
- [11]. K.Sai Venu Prathap et al "A Critical Review on Image Mosaicing" ©2016 IEEE | DOI: 10.1109/ICCCI.2016.7480028
- [12]. Yumei Zhen et al "An Airborne Remote Sensing Image Mosaic Algorithm Based on Feature Points" ©2016 IEEE | DOI: 10.1109/IMCCC.2016.145

DOI: 10.48175/IJARSCT-9367



IJARSCT



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 3, Issue 6, April 2023

- [13]. Achala Pandey et al "An Improved DCT -based Phase Correlation Method for Image Mosaicing" ©2015 IEEE | DOI:10.1109/ICIIP.2015.7414778
- [14]. Yunxiao Shan et al "The Study on Auto Mosaic Technology of Microscopic Image" ©2014 IEEE | DOI:10.1109/CSNT.2014.175
- [15]. Yang Xiao Hong et al "UAV Image Automatic Mosaic Method Based on Matching Of Feature Points" ©2013 IEEE | DOI: 10.1109/CAC.2013.6775697

