Garimagai Borjigin

Postdoctoral fellow at the University of Tsukuba, Japan
garimagai92@yahoo.co.jp

Research Interests

autostereoscopic displays, super-multiview displays, integral volumetric imaging, virtual/augmented reality (VR/AR)

Education & Employment

Present | Postdoctoral fellow: University of Tsukuba | Ibaraki, Japan

2022 | Ph.D. in Engineering: University of Tsukuba | Ibaraki, Japan

2016 | Service engineer: Beijing-Fanuc Mechatronics CO., LTD. | Beijing, China

2013 | Bachelor in Engineering: Beijing Institute of Technology | Beijing, China

Publications

Reviewed Journal Papers:

1) **Backlight system using an interleaved Fresnel lens array that attains a uniform luminance and two-dimensional directional light control**
   Optics Letters, 47(2):301-304, 2022.
   Garimagai Borjigin and Hideki Kakeya
2) **Autostereoscopic display for multiviewers positioned at different distances using time-multiplexed layered directional backlight**
   Applied Optics, 60(12):3353-3357, 2021.
   Garimagai Borjigin and Hideki Kakeya
3) **Autostereoscopic displays with time multiplexed directional backlight using curved lens arrays**
   ITE Transactions on MTA, 9(1): 80–85, 2021.
   Garimagai Borjigin and Hideki Kakeya

Reviewed Conference Proceedings:

1) **Autostereoscopic Display for Two Viewers Providing Images Specific to Each Viewpoint**
   SID Display Week, 2022.
   Garimagai Borjigin and Hideki Kakeya
2) **Autostereoscopic Display with Time-Multiplexed Directional Backlight Using a Novel Linear Fresnel Lens Array [🏆IDW '20 Best Paper Award]**
   International Display Workshops, Proceedings of IDW’20, 482-485, 2020.
   Garimagai Borjigin and Hideki Kakeya

3) **Autostereoscopic Display with a Deep Viewing Zone Using Time-Multiplexed Directional Backlight**
   SID Display Week, SID Symposium Digest of Technical Papers, 51(1): 1615-1618, 2020.
   Garimagai Borjigin and Hideki Kakeya
4) **Autostereoscopic Display with Time-Multiplexed Directional Backlight Using a Curved Lens Array**
   International Display Workshops, Proceedings of IDW'19, 3DSA5/3D5-4, 2019.
   Garimagai Borjigin and Hideki Kakeya
5) **An autostereoscopic display with time-multiplexed directional backlight using a decentered lens array**
   Digital Holography and Three-Dimensional Imaging, W2A.2, 2019.
   Garimagai Borjigin and Hideki Kakeya

Nonreviewed Reviewed Proceedings:

1) **Performance Improvement of Focal Accommodation Induction in Super-Multiview Display**
   Three-Dimensional Media Technology (ITE Japan), 2022.
   Garimagai Borjigin, Akira Nagai and Hideki Kakeya
2) **Autostereoscopic Display for Two Viewers Providing Images Specific to Each Viewpoint**
   ITE Winter Annual Convention, 2021.
   Garimagai Borjigin and Hideki Kakeya
3) **An autostereoscopic display with time division multiplexing directional backlight using a decentered lens array**
   ITE Winter Annual Convention, 2018.
   Garimagai Borjigin and Hideki Kakeya

Grants & Fellowships

1) Research Fellowship for Young Scientists (DC2-PD) | $70k
   Japan Society for the Promotion of Science | 2022.04 – 2024.03

Languages

Mandarin, Japanese, English, Mongolian

Skills

Programming (C++, C#, OpenGL)
Hardware (Arduino)
Software (Unity, Blender)
Digital fabrication (CAD, 3D printing)