

☰

Browse▼My Settings▼Help▼Institutional Sign In

Institutional Sign In

All

▼

Q

ADVANCED SEARCH

Conferences > 7th International Conference on Control, Automation, Robotics and Vision ... ?

Analogous view transfer for gaze correction in video sequences

Publisher: IEEE

Cite This

PDF

Tat-Jen Cham ; S. Krishnamoorthy ; M. Jones All Authors

3 Paper Citations

3 Patent Citations

123 Full Text Views



Alerts

Manage Content Alerts
Add to Citation Alerts

Abstract

Document Sections

- 1 Introduction
- 2 Overview of Gaze Correction Framework
- 3 Analogous View Transfer
- 4 Data-Driven Estimation versus Analytic Computation for View Transfer
- 5 Experimental Results

Show Full Outline ▼

- Authors
- Figures
- References
- Citations



Abstract: This paper provides a framework for doing facial gaze correction in video sequences. The proposed framework involves stages of face registration, face parameter mapping, ... [View more](#)

► Metadata

Abstract: This paper provides a framework for doing facial gaze correction in video sequences. The proposed framework involves stages of face registration, face parameter mapping, and face synthesis. We introduce the concept of analogous views, and derive a novel formulation which extends view transfers based on epipolar geometry to cope with non-rigid motion. Additionally, a disparity mapping function is derived which is learned from training data and handles both spatial disparities as well as pixel-value changes. The disparity mapping function generalizes to facial expressions, illumination conditions and individuals not in the training set, as shown by the results obtained.

Published in: 7th International Conference on Control, Automation, Robotics and Vision, 2002. ICARCV 2002.

Date of Conference: 02-05 December 2002 **INSPEC Accession Number:** 7884185

Date Added to IEEE Xplore: 14 October 2003 **DOI:** 10.1109/ICARCV.2002.1234980

Print ISBN: 981-04-8364-3 **Publisher:** IEEE

Keywords: **IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our Privacy Policy.**

Accept & Close

More Like This

Footnotes

Contents

1 Introduction

The use of video conferencing has seen substantial growth over the last few years, particularly over the internet. How-ever, one major hurdle faced in video conferencing is that while speech is enhanced by visual feedback, current systems unfortunately distort the natural communication of facial expressions and language – user experience suffers as a result. Figure 1 illustrates this problem. Since the camera and the screen are not in the same plane, eye-contact will never be established, facial language does not convey naturally, and users may encounter general awkwardness in the conversation. Furthermore in a multi-party conferencing setup, speakers have to declare the person they are speaking to, since other users will not be able to determine the intended gaze direction of the speaker. Figure 1: Real-world scenario of video conferencing

Authors

Figures

References

Citations

Keywords

Metrics

Footnotes

Need
Full-Text

access to IEEE Xplore
for your organization?

CONTACT IEEE TO SUBSCRIBE >

More Like This

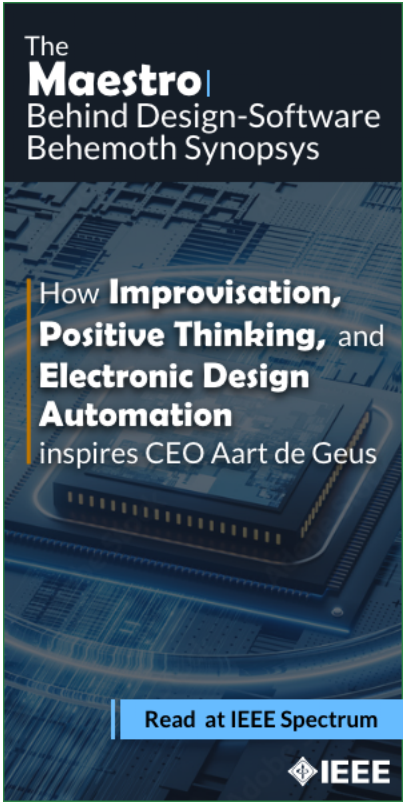
Design and Implementation of User Interface through Hand Movement Tracking and Gesture Recognition
2018 International Conference on Information and Communication Technology Convergence (ICTC)
Published: 2018

Human gesture recognition based on image sequences
2015 34th Chinese Control Conference (CCC)
Published: 2015

Show More

IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our Privacy Policy.

Accept & Close



CHANGE
USERNAME/PASSWORD

PAYMENT OPTIONS
VIEW PURCHASED
DOCUMENTS

COMMUNICATIONS
PREFERENCES
PROFESSION AND
EDUCATION
TECHNICAL INTERESTS

US & CANADA: +1 800 678
4333
WORLDWIDE: +1 732 981
0060
CONTACT & SUPPORT



[About IEEE Xplore](#) [Contact Us](#) [Help](#) [Accessibility](#) [Terms of Use](#) [Nondiscrimination Policy](#) [IEEE Ethics Reporting](#) [Sitemap](#)
[IEEE Privacy Policy](#)

IEEE Account

- » [Change Username/Password](#)
- » [Update Address](#)

Purchase Details

- » [Payment Options](#)
- » [Order History](#)
- » [View Purchased Documents](#)

Profile Information

IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our [Privacy Policy](#).

Accept & Close

- » Technical Interests
- Need Help?
- » US & Canada: +1 800 678 4333
- » Worldwide: +1 732 981 0060
- » Contact & Support

[About IEEE Xplore](#) [Contact Us](#) [Help](#) [Accessibility](#) [Terms of Use](#) [Nondiscrimination Policy](#) [Sitemap](#) [Privacy & Opting Out of Cookies](#)

A not-for-profit organization, IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity.
© Copyright 2023 IEEE - All rights reserved. Use of this web site signifies your agreement to the terms and conditions.

IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our [Privacy Policy](#).

Accept & Close