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Dr. Frank Merat's
EECS Senior Project Class
August 31, 2005

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Brian C. Gray, MLIS

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Office: Nord Hall 507

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- <http://library.case.edu/ksl/engineering/>
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- 20 journals for browsing
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- Office Hours:
 - <http://library.case.edu/ksl/engineering/>
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- Nord Hall 507
- ~20 hours per week
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Why not Google or Google Scholar?

- No authority control
 - Hidden costs
 - Lack of subject classifications
 - May have several links pointing to the same source
 - Probably will not lead to the full text
- May be a good starting place to gather ideas

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New or Improved Services

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Books & Journals

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Case Western Reserve University

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SEARCH

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Finding and using information resources - where to go, who can help, what's best for your needs

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Last updated on 8/19/2005 1:00:57 PM



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- Site Map

- Electronic Resources
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Humanities, Science, Engineering, more...

Research Guides to Get You Started

The screenshot shows the Kelvin Smith Library website. At the top right, there are links for CASE.EDU, HOME, DIRECTORIES, and SEARCH. The main header includes the CASE logo and 'CASE WESTERN RESERVE UNIVERSITY' on the left, and 'KELVIN SMITH LIBRARY' on the right. Below the header is a navigation bar with links: KSL Home, Catalog, Services, Collections, Research Tools, CaseLearns, and About Us. A 'Print Version' link is also present. On the left side, there is a sidebar with 'Today's Desk Hours' (12:00 PM TO 12:00 AM), a 'Research Guides' section with links to Catalog, Electronic Resources, OhioLINK, Ask a Librarian, Technical Support, and Site Map, and a 'SEARCH LIBRARY:' section with a search box and a 'SEARCH' button. The main content area shows a breadcrumb trail: 'KSL Home > Research Tools > Research Guides', with 'Research Tools > Research Guides' circled in red. Below this is a link to 'Your Library Resources - Support OhioLINK Funding!'. The 'Research Guides' section includes a description and a link to 'KSL Subject Specialists/Collection Managers'. There are two main categories: 'Arts and Humanities' with links to African American Studies, American Studies, Dance, English, History, Music, and Theater and Dance; and 'Engineering' with links to General Engineering, Biomedical Engineering, Chemical Engineering, Civil Engineering, Electrical Engineering & Computer Science, Macromolecular Science and Engineering, Materials Science & Engineering, and Mechanical & Aerospace Engineering. A red arrow points to the 'Research Guides' breadcrumb, and another red arrow points to the 'ELECTRICAL ENGINEERING & COMPUTER SCIENCE' link.

<http://library.case.edu/ksl/research/subjects/engr/eecs/>

- Research Databases
- Print, Electronic, & Society Journals
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 - Bibliographies
 - Dictionaries
 - Directories
 - Encyclopedia
 - Handbooks
 - Style Guides
- Business & Company Information
- Patents & Standards
- Government Resources
- Societies & Associations
- Internet Resources
- Career Resources
- Grants, Fellowships, etc.
- News from the Profession
- Related Subject Areas



Research Databases - find articles, reports, e-books, statistics and more...

- All Subjects
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- Business
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- General Interest
- Government
- Health Sciences
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- Reference
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 - Agriculture
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Title	Description (Click link for more info)	Choose A Content Type	Choose An Access Type
Compendex (1969-present)	Comprehensive interdisciplinary engineering database that is the electronic equivalent of the print ... [more info]	All <input type="text" value="All"/>	All <input type="text" value="All"/>
Compendex Historical (1884-1968)	The Historical file provides access to engineering literature published from 1884 to 1968. Records i... [more info]	Abstracts & Indexes	
Computer Science Index	Offers abstracting and indexing of academic journals, professional publications, and other reference... [more info]	Abstracts & Indexes Full text	
Computer Source	Provides researchers with the latest information and current trends in high technology with abstract... [more info]	Abstracts & Indexes Full text	
Engineered Materials Abstracts (CSA)	Covers polymers, ceramics, and composites in a variety of structural and other advanced applications... [more info]	Abstracts & Indexes	
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BROWSE

SEARCH

IEEE XPLORE GUIDE

SUPPORT

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Enter keywords or phrases, select fields, and select operators

<input type="text"/>	in	All Fields
AND	<input type="text"/>	All Fields
AND	<input type="text"/>	All Fields

Run Search

Reset

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Run Search

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Key

IEEE JIIL IEEE Journal or Magazine

IEE JIIL IEE Journal or Magazine

IEEE CHIF IEEE Conference Proceedings

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Sobol, H.; Tomiyasu, K.;
Microwave Theory and Techniques, IEEE Transactions on
Volume 50, Issue 3, March 2002 Page(s):594 - 611
Digital Object Identifier 10.1109/22.989945
[AbstractPlus](#) | [References](#) | Full Text: [PDF\(417 KB\)](#) **IEEE JIIL**
- 2. Design and fabrication of scanning near-field microwave probes compatible with atomic force microscopy to image embedded nanostructures**
Massood Tabib-Azar; Yaqiang Wang;
Microwave Theory and Techniques, IEEE Transactions on
Volume 52, Issue 3, March 2004 Page(s):971 - 979
Digital Object Identifier 10.1109/TMTT.2004.823596
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- 3. The microwave technology**
Bih, J.Z.;
Microwave and Telecommunication Technology, 2003. CrIMiCo 2003. 13th International Crimean Conference
8-12 Sept. 2003 Page(s):15 - 21
Digital Object Identifier 10.1109/CRMICO.2003.1256324
[AbstractPlus](#) | Full Text: [PDF\(944 KB\)](#) **IEEE CHIF**
- 4. The effect of sub-pixel areal distribution of snow on the estimation of snow depth**

IEEE Xplore – Abstract

3D modelling and indexing for CAD-based object recognition

[Villalobos, L.](#) [Merat, F.L.](#)

Dept. of Electr. Eng., Case Western Reserve Univ., Cleveland, OH, USA;

This paper appears in: Robotics and Automation, 1994. Proceedings., 1994 IEEE International Conference on

Publication Date: 8-13 May 1994

On page(s): 1965 - 1972 vol.3

Meeting Date: 05/08/1994 - 05/13/1994

Location: San Diego, CA

INSPEC Accession Number:4824293

Digital Object Identifier: 10.1109/ROBOT.1994.351184

Posted online: 2002-08-06 19:19:24.0

Abstract

A 3D object recognition system for parts designed with a form feature CAD is presented. Objects are modelled as organized compositions of instantiated form primitives...

IEEE Xplore – Abstract

Index Terms

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Non-controlled Indexing

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[CAD](#) [hypotheses generation](#) [neural nets](#) [object representation](#) [part](#)
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Pages

3D Modelling and Indexing for CAD-based Object Recognition

Leda Villalobos and Francis L. Merat

Electrical Engineering Department
Center for Automation and Intelligent Systems Research
Case Western Reserve University, Cleveland, OH 44106-7221

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Abstract

tion system for parts designed with presented. Objects are modelled as of instantiated form primitives. den of part recognition is shifted to the part database to matching ive database, which is usually a

System architecture is briefly described in section 3, whi hypotheses generation and verification are presented i sections 4 and 5. Results for synthetic and actual rang images are shown in section 6, with conclusions in sectic 7.

2. 3D form Feature Modelling

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Best 200 shown

Relevance scale

1 [Sense 'n respond technologies: Transversal issues in real-time sense-and-respond systems](#)

Ahmad T. Al-Hammouri, Huthaifa A. Al-Omari, Vincenzo Liberatore, Stephen M. Phillips

June 2005

Proceedings of the 2005 workshop on End-to-end, sense-and-respond systems, applications and services EESR '05

Full text available: [pdf\(135.92 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#)

Networked S&R systems extend human capabilities beyond temporal and spatial barriers with useful applications in broad areas. Involving the physical-world environments, S&R systems must fulfill the intrinsic real-time requirements of these physical environments. However, communication networks lack of QoS can hamper performance and effectiveness of S&R. Therefore, end system strategies must be deployed to retain effectiveness and to enhance performance of S&R. In this paper, we survey transversa ...

2 [Empirical evaluation of testing: An empirical evaluation of test case filtering techniques based on exercising complex information flows](#)

David Leon, Wes Masri, Andy Podgurski

May 2005

Proceedings of the 27th international conference on Software engineering

Full text available: [pdf\(132.08 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Some software defects trigger failures only when certain complex information flows occur within the software. Profiling and analyzing such flows therefore provides a potentially important basis for filtering test cases. We report the results of an empirical evaluation of several test case filtering techniques that are based on exercising complex information flows. Both coverage-based and profile-distribution-based filtering techniques are considered. They are compared to filtering techniques bas ...

Keywords: dynamic information flow analysis, dynamic slicing, observation-based testing, program dependences, software testing, test case filtering

ACM Digital Library - Citation

Transversal issues in real-time sense-and-respond systems

Full text	 Pdf (136 KB)
Source	International Conference On Mobile Systems, Applications And Services archive Proceedings of the 2005 workshop on End-to-end, sense-and-respond systems, applications and services table of contents Seattle, Washington SESSION: Sense 'n respond technologies table of contents Pages: 7 - 12 Year of Publication: 2005 ISBN:1-931971-32-3
Authors	Ahmad T. Al-Hammouri Case Western Reserve University Huthaifa A. Al-Omari Case Western Reserve University Vincenzo Liberatore Case Western Reserve University Stephen M. Phillips Arizona State University
Sponsors	USENIX : USENIX Association SIGMOBILE : ACM Special Interest Group on Mobility of Systems, Users, Data and Computing
Publisher	USENIX Association Berkeley, CA, USA

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↑ ABSTRACT

Networked S&R systems extend human capabilities beyond temporal and spatial barriers with useful applications in broad areas. Involving the physical-world environments, S&R systems must fulfill the intrinsic real-time requirements of these physical environments. However, communication networks lack of QoS can hamper performance and effectiveness of S&R. Therefore, end system strategies must be deployed to retain effectiveness and to enhance performance of S&R. In this paper, we survey transversal issues pertaining to the development of agile S&R systems to work over a geographically scalable network.

Knovel Library



<http://www.knovel.com>

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Knovel Interface

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Search for: **Search**

Query Example: "polyphenylene oxide" AND chemical resist*

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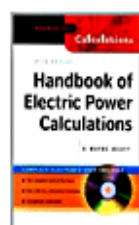
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Edited by: Beaty, H.W. © 2001 McGraw-Hill | [Title Details](#) | [Ordering Info](#)

Description: Electric power engineers and technicians can turn to the 3rd edition of this popular handbook for step-by-step calculation procedures for solving over 300 problems commonly encountered in electrical power engineering.

Table of Contents

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Text

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Text

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Text

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Text

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Text

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Text

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Title: Design and fabrication of curved micromirrors using the MultiPoly process

Author: [Bin Mi](#); [Kahn, H.](#); [Merat, F.](#); [Heuer, A. H.](#); [Smith, D. A.](#); [Phillips, S. M.](#)

Author Affiliation: Dept. of Electr. Eng. & Comput. Sci., [Case Western Reserve Univ.](#), Cleveland, OH, USA

Book Title: *Proceedings of IEEE Sensors 2003 (IEEE Cat. No.03CH37498)*. 42-5 Vol.1.

Conference: Proceedings of IEEE Sensors 2003. Toronto, Ont., Canada. 22-24 Oct. 2003. Vol.1. Sponsored by: IEEE Sensors Council.

Publisher: IEEE Piscataway, NJ, USA, 2003. 1367.

Abstract: This paper presents the design and fabrication of reflective curved micromirrors with pre-determined static shapes. The fabrication of these devices uses conventional surface micromachining technology and the MultiPoly process (Yang et al., 2000), which is a technique for depositing multilayers of LPCVD polysilicon in order to control the overall stress and stress gradient. The inexpensive fabrication of these micromirrors allows for a range of designs that could address many applications, including optical switches Abstract no. A2005124280A017; B2005064145051.

Identifiers: reflective curved micromirrors. pre-determined static shapes. conventional surface micromachining technology. MultiPoly process. multilayer deposition. LPCVD polysilicon. overall stress. stress gradient. adaptive optics

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Title: Static and Electrically Actuated Shaped MEMS Mirrors.

Authors: [Bin Mi](#)¹ bin.mi@case.edu
[Smith, David A.](#)¹ dave@webtego.com
[Kahn, Harold](#)²
[Merat, Frank L.](#)¹ flm@case.edu
[Heuer, Arthur H.](#)²
[Phillips, Stephen M.](#)³

Source: Journal of Microelectromechanical Systems; Feb2005, Vol. 14 Issue 1, p29, 8p, 2 charts, 7 diagrams, 3 graphs, 11bw

Document Type: Article

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Author-Supplied Keywords: [microelectromechanical systems \(MEMS\)](#)
[micromirror](#)
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NAICS/Industry Codes: [33314](#) Optical Instrument and Lens Manufacturing

Abstract: A novel digitally-actuated shaped micromirror for on-off optical switch applications is described. Reflective static spherical mirrors were designed and fabricated using conventional surface micromachining and the MultiPoly process, a technique for depositing multilayers of LPCVD polysilicon in order to control the overall stress and stress gradient. The resulting mirrors were measured to have radii of curvature of approximately 9 mm in agreement with design predictions. Based upon these static mirrors, an actuable micromirror (diameter = 500 μm, static radius of curvature = 6.4 mm) was designed for snap action. This mirror was simulated using an electromechanical coupled-field model and fabricated using the MultiPoly process. Its performance was measured dynamically using an interferometer. A curved-to-flat digital actuation of the mirror was successfully achieved with a pull-in voltage of 38 V. [1211] [ABSTRACT FROM AUTHOR]

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