

IEEE Xplore®

IEEE Information Driving Innovation

An Overview and Tutorial



Overview

- What is IEEE Xplore?
- Features, Tools, and Benefits
- Browsing Tables of Contents
 - Journals & Magazines, Conference Proceedings, Standards
- Searching
 - Basic, Advanced, Author, CrossRef
 - Search Results
 - Search Tips
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- Viewing an Abstract or AbstractPlus Record
- Viewing Full-Text PDF and HTML
- Requesting a Free Trial

What is IEEE Xplore?

- The IEEE *Xplore* online delivery system provides full-text access to the world's highest quality technical literature in electrical engineering, computer science, and electronics
 - Includes: IEEE transactions, journals, letters, magazines, conference proceedings, and standards; and IEE (Institution of Electrical Engineers) journals, magazines, and conference proceedings
 - Content undergoes rigorous peer-review processes to ensure the high quality of technical materials

The screenshot displays the IEEE Xplore website interface. At the top, there is a navigation bar with links for Home, Login, Logout, Access Information, Alerts, Sitemap, and Help. Below this, a banner reads "Welcome Guest User" and "1,000,000 documents online". The main content area is divided into several sections:

- Welcome to IEEE Xplore:** A message stating "... delivering full text access to the world's highest quality technical literature in electrical engineering, computer science, and electronics."
- Login:** A form with fields for Username and Password, and a "Forgot your password?" link.
- Browse:** A list of categories including Journals & Magazines, Conference Proceedings, and Standards.
- Basic Search:** A search box with "All Brief Abstracts" and a search button, along with links for Advanced Search, Author Search, and CrossRef Search.
- What's New:** A section for browsing the latest update to see recently added content, with a link to "Visit What's New".
- Alerts:** A section for registering and accessing content alerts, with a link to "Visit Alerts".
- Top 100 Documents:** A section for finding the most accessed documents for the month, with a link to "View Top 100".
- What's New @ IEEE:** A promotional box for "11 FREE Newsletters" with a "Subscribe Now!" button.

At the bottom, there is a footer with "Cookies Enabled", "Help Contact Us Privacy & Security IEEE.org", "Indexed by Inspec", and "© Copyright 2005 IEEE & All Rights Reserved".

www.ieee.org/ieeexplore

What is IEEE Xplore?

- **IEEE Xplore delivers access to IEEE online collections, IEEE member subscriptions, and single articles for purchase**
 - IEEE/IEE Electronic Library (IEL)
 - IEEE All-Society Periodicals Package (ASPP)
 - IEEE Proceedings Order Plans (POP and POP All)
 - IEEE Enterprise
 - IEEE Member Digital Library
 - IEEE Society Member subscriptions
- **Serves IEEE members and users from subscribing institutions**
- **Serves guest researchers and the public with free search and online document purchase**

Features, Tools, and Benefits

• Table of Contents Alerts

- Sign up to receive email notification when new issues of the journals and magazines you select are posted online. Each email contains a direct link to the latest issue's table of contents

• What's New

- See the newest content added to IEEE *Xplore* over the previous four weeks

• Forthcoming Articles

- Access IEEE articles that have been accepted for publication and posted online before they are available in print. These articles have passed through all editorial processes, including peer review. Subscribers get early access to this valuable content

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Home | Login |

TOC Alerts BROWSE SEARCH

Sign up to receive regular email notification of recently posted journals and magazines. Each email contains a direct link to the latest issue's table of contents

New Account
To set up a new email alert account, enter your name and email address below and click

Existing Account
If you have an existing email alert account and would like to modify your selection of titles address, or unsubscribe, enter your email address below and click Submit.

Name:

Email address:

Submit Reset

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Home | Login |

Information About Content BROWSE SEARCH

What's New

IEEE Peer Review
Full Text in IEEE Xplore
Publication Title Changes
Forthcoming Articles
Multimedia
CrossRef
Participating Publishers
Indexed by Google™

What's New
IEEE Xplore posted new content in 25 publications in the latest recently added content.

Update in Journals and Magazines
25 February 2005 | 17 February 2005 | 10 February 2005

Update in Conference Proceedings
25 February 2005 | 17 February 2005 | 10 February 2005

Update in Standards
25 February 2005 | 17 February 2005 | 10 February 2005

Features, Tools, and Benefits

• Multimedia

- Some documents may contain external multimedia or graphics files. Select the **Multimedia** link in the table of contents or in the Abstract or AbstractPlus record to better understand the concepts illustrated by the author

• Downloadable Citations

- Within AbstractPlus records or search results, subscribers and IEEE Members can use bibliographic management software to import pre-formatted citation information into their work

• OPAC linking

- The Online Public Access Catalog (OPAC) linking table gives librarians the information necessary to build links from OPAC records directly into a publication's page in IEEE *Xplore*. The links created from this table will remain intact into the future. For journal and magazine titles, links can also be created to the issue's table of contents

Document options

- Full Text: [PDF](#) (454 KB)
- Full Text: [HTML](#)
- [Multimedia](#)

Download this citation

Choose:

Download:

[Download](#)

[Learn More](#)

Rights & Permissions

[Request Permissions](#)

RIGHTSLINK

[Learn More](#)

Pixel design of pulsed CMOS digital photosensitivity control

[Kagawa, K. Isakari, K. Furumiya, T. Uehara, A.](#)
Nara Inst. of Sci. & Technol., Japan

This paper appears in: **Electronics Letters**
 Publication Date: 6 Mar 2003
 Volume: 39, Issue: 5
 On page(s): 419- 421
 Number of Pages: xviii+770
 Meeting Date: 09/01/1997 - 09/02/1997
 Location: Vienna, Austria
 ISSN: 0013-5194
 ISBN: 0013-5194
 References Cited: 12
 CODEN: IEEXE7
 INSPEC Accession Number: 75464219
 DOI: 10.1088/0305-4470/36/11/301

IEEE Xplore
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Home | Login | L

OPAC Linking [BROWSE](#) [SEARCH](#)

FAQ for Librarians

FAQ for IEEE Enterprise

OPAC Links

Subscription Products

Usage Reports

IEEE Xplore Demo

Technical Support

OPAC Linking

In order to facilitate linking between a library's Online Public Access Catalog (OPAC) and IEEE Xplore, IEEE Xplore provides a table with publication and linking information and standards. This table gives librarians the information necessary to build links from OPAC records directly into a publication's page in IEEE Xplore. The links created from this table will remain intact into the future. For journal and magazine titles, links can also be created to the issue's table of contents

What is OPAC Linking?

The links created by the following instructions below can be used to link directly into a publication's page in IEEE Xplore from an OPAC record to the publication's title page, or to the issue's table of contents level (for journals/magazines).

How to use OPAC Linking?

To create links from an OPAC record to the publication's title page, or to the issue's table of contents level (for journals/magazines), use the following instructions:

Features, Tools, and Benefits

• Ask*IEEE Document Delivery Service

- You have the option of purchasing referenced documents of interest that were not published by IEEE. Select the Buy via Ask*IEEE link to begin the purchase process powered by Infotrieve, Inc.

The screenshot shows the IEEE Xplore website interface. On the left, a navigation menu includes 'IEEE Article Purchase', 'Ask*IEEE Document Delivery Service', 'Download Citations', 'Linking', and 'Rights & Permissions'. The 'Ask*IEEE Document Delivery Service' option is highlighted. On the right, the service is described as being powered by Infotrieve, Inc., and offers the option to purchase referenced documents not published by IEEE.

• Purchasing Individual Articles

- You may purchase full-text PDF documents not included in your online subscription. Simply select the Full-Text PDF or Buy Document link to purchase instant access

The screenshot shows the IEEE Xplore website interface. On the left, a navigation menu includes 'IEEE Article Purchase', 'Ask*IEEE Document Delivery Service', 'Download Citations', 'Linking', and 'Rights & Permissions'. The 'IEEE Article Purchase' option is highlighted. On the right, the service is described as giving the option to purchase full-text PDF documents directly from IEEE Xplore, with a credit card required for each purchase. Pricing information is also visible: IEEE article or paper - IEEE Members pay US\$13, non-member pay more.

• Re-use Permissions through CCC Rightslink

- A CCC Rightslink icon appears in all AbstractPlus records, allowing you to quickly and conveniently obtain permission to re-use an article or paper from the Copyright Clearance Center to articles and papers

The screenshot shows the IEEE Xplore website interface. On the left, the 'Download this citation' section includes a dropdown menu for 'Choose' (set to 'Citation') and another for 'Download' (set to 'EndNote, ProCite, RefMan'). A 'Download' button is visible. Below this is the 'Rights & Permissions' section, which includes a 'Request Permissions RIGHTS LINK' button and a 'Learn More' link. On the right, the paper's metadata is displayed, including the journal name 'Electronics Letters', publication date '6 Mar 2003', volume '39', issue '5', and page range 'xvii+770'. The DOI is listed as 10.1088/0305-4470/36/11/301.

Features, Tools, and Benefits

• CrossRef

- IEEE participates in the CrossRef Search Pilot with 28 other leading publishers. Google has indexed the full text of scholarly documents in the publishers' databases through a CrossRef gateway. CrossRef links appear in IEEE journal and magazine AbstractPlus records, connecting you to other publishers' databases via a unique and persistent Digital Object Identifier (DOI). *Access to these records depends on your institution's subscriptions.*

• Usage Reports

- An online usage statistics site is available to institutional subscribers. Statistics are subscriber-specific and secure, and employ username/password authentication

• Online Support

- IEEE provides dedicated technical support to answer all product and technical questions. Complete the online Technical Support Form if you need assistance.

Browsing Tables of Contents

(Journals & Magazines)

- Locate **Browse** and select **Journals & Magazines**
- **Filter the list by publisher**
 - Select IEEE or IEE to view a list of periodicals for that publisher
- **Browse journal & magazine titles by keyword in the journal title**
 - For example, enter “magnetics” to locate “IEEE Transactions on Magnetics”
- **Or Browse alphabetically**
 - In the alphabetical listing, select the letter “M” to locate “IEEE Transactions on Magnetics”

Home |

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□ Browse Journals & Magazines **BROWSE**

CHOOSE: All Titles IEEE Titles IEE Titles

OPTION 1
Browse by keyword
Enter one or more keywords in the order they appear in the journal or magazine title.
magnetics >>

OPTION 2
Browse alphabetically
Select a letter to view titles beginning with that letter.
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Select the [+] symbol to view a publication's title history:

-Magnetics, IEEE Transactions on
-IEE - Manufacturing Engineer
-Manufacturing Technology, IEEE Transactions on
-Mechatronics, IEEE/ASME Transactions on
-IEE - Medical and Biological Engineering and Computing
-Medical Imaging, IEEE Transactions on

Browsing Tables of Contents (Conference Proceedings)

- **Locate Browse and select Conference Proceedings**
- **Filter the list by publisher**
 - Select IEEE or IEE to view a list of conference proceedings for that publisher
- **Browse conference proceedings by keyword in the conference title**
 - For example, enter “electronic components” or “ISSCC”
- **Or Browse alphabetically**
 - Select a letter to locate a conference proceeding by the first keyword in the title

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Home |

□ Browse Conference Proceedings **BROWSE**

CHOOSE: All Titles IEEE Titles IEE Titles

OPTION 1
Browse by keyword
Enter one or more keywords in the order they appear in the conference proceeding
ISSCC >>

OPTION 2
Browse alphabetically
Select a letter to view titles beginning with that letter.
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Select the [+] symbol to view a publication's title history:

- 100 Years of Radio, 1995., International Conference on
- 3-D Digital Imaging and Modeling, 2003. 3DIM 2003. Proceedings. Fourth Inter
- + 3-D Digital Imaging and Modeling, International Conference on
- 3-D Imaging Techniques for Medicine, IEE Colloquium on
- + 3D Data Processing Visualization and Transmission, International Symposium
- 3D Data Processing, Visualization and Transmission, 2004. 3DPVT 2004. Proce
- 3D Imaging and Analysis of Depth/Range Images, IEE Colloquium on

Browsing (Standards)

- Locate Browse and select Standards
- Browse standards by keyword in the title
 - For example, enter “802.11” to view a list of these standards



The screenshot shows the IEEE Xplore website interface. At the top, there is a navigation bar with links for Home, Login, Logout, Access Information, Alerts, Sitemap, and Help. Below this is the IEEE Xplore logo and the text 'RELEASE 2.0'. A secondary navigation bar contains the words 'BROWSE', 'SEARCH', 'IEEE XPLORE GUIDE', and 'SUPPORT'. The main content area is titled 'Browse Standards' and features a search box with the text '802.11' entered. Below the search box, there is a list of search results with two columns: 'Standard Number' and 'Standard Title'. The results include IEEE Std 802.11-1997, ISO/IEC 8802-11: ANSI/IEEE Std 802.11, 1999 edn, IEEE Std 802.11a-1999, and IEEE Std 802.11b-1999, each with a corresponding title link.

| Standard Number | Standard Title |
|---|--|
| IEEE Std 802.11-1997 | IEEE Std 802.11-1997 Information Technology- telecommunications And Information exchange Between Systems-Local And Metropolitan Area Networks-specific Requirements- part 11: Wireless Lan Medium Access Control (MAC) And Physical Layer (PHY) Specifications |
| ISO/IEC 8802-11: ANSI/IEEE Std 802.11, 1999 edn | Information technology - telecommunications and information exchange between systems - local and metropolitan area networks - specific requirements. Part 11: wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications |
| IEEE Std 802.11a-1999 | Supplement to IEEE standard for information technology telecommunications and information exchange between systems - local and metropolitan area networks - specific requirements. Part 11: wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: high-speed physical layer in the 5 GHz band |
| IEEE Std 802.11b-1999 | Supplement To IEEE Standard For Information Technology- Telecommunications And Information Exchange Between Systems- Local And Metropolitan Area Networks- Specific Requirements- Part 11: Wireless LAN Medium Access Control (MAC) And Physical Layer (PHY) Specifications: Higher-speed Physical Layer Extension In The 2.4 GHz Band |

Search - Basic

- **Basic Search (Guests)**

- You may enter a word or phrase and use search operators “And”, “Or”, or “Not”
- Your search is based on the contents of the **brief Abstract record**

- **Basic Search (IEEE members and users from subscribing institutions)**

- You may enter a word, phrase, or Boolean expression
- Your search is based on the contents of the **expanded AbstractPlus record**



Search - Advanced

- **Option 1: Helps you define your search**

- There is no need to know query language syntax
- Define up to three search phrases (strings) and specify the fields in which you want to search
- Modify your search based on type of publication or your institution's subscription, date range, display format, and organization of your results

- **Option 2: Allows you to perform a more detailed search**

- Use query language syntax
- Define any number of search phrases (strings) using logical, proximity, thesaurus, and wildcard operators
- Modify your search based on type of publication or your institution's subscription, date range, display format, and organization of your results

- **Select the links “Field Codes”, “Search Examples”, or “Search Operators” for helpful search information**

The screenshot displays the IEEE Xplore Advanced Search interface. At the top, it says "IEEE Xplore RELEASE 2.0" and "Home |". Below that, there are navigation links: "Advanced Search", "BROWSE", "SEARCH", and "IEEE XPLORE".

OPTION 1
Enter keywords or phrases, select fields, and select operators

This option shows three search rows. The first row has a text input field containing "cmos" and a dropdown menu set to "All Fields". The second row has a dropdown menu set to "AND", a text input field containing "solid-state", and a dropdown menu set to "Publication Title". The third row has a dropdown menu set to "AND", a text input field containing "baker", and a dropdown menu set to "Author". Below these rows are two buttons: "Run Search" and "Reset".

OPTION 2
Enter keywords, phrases, or a Boolean expression

This option features a large, empty text input field. Below it are two buttons: "Run Search" and "Reset".

At the bottom of the interface, there is a link: "» Learn more about [Field Codes](#), [Search Examples](#), and [Search Operators](#)".

Search - Author

- Locate **Search** on the navigation menu or the Home page and click **Author**
- **Quick-Find an Author** allows you to locate an author using the complete or partial surname
 - For example, "Fodor D". Do not use a comma or enter the full first name.
- If you are not sure how to spell the name, you can click a letter to browse the list of names beginning with the selected letter

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Home | Login | Logout | Access Information | Alerts | Sitemap | Help

Author Search BROWSE SEARCH IEEE XPLORE GUIDE SUPPORT

OPTION 1
Quick Find an Author:
 Enter a name to locate articles written by that author.

 Example: Enter Lockett S to obtain a list of authors with the last name Lockett and the first initial S.

OPTION 2
Browse alphabetically
 Select a letter from the list.
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Select a name to view articles written by that author

| | | |
|---------------------------------------|-----------------------------------|------------------------------------|
| A. Min Tioa | A. Tavora A. S. | A'Hearn K. |
| A'Ortendahl D. | A'tain A. K. B. | A-Buraiky S. |
| A-Chang Hsu | A-Cheng Wu | A-Firna T. |
| A-Khatib M. M. | A-Ning Du | A-Ping Zhang |
| A-Rahim A. A. | A-Rum Jun | A-Shamsi S. |
| A-Xin Nie | A. C. Tsoi | A. Fung |
| A. H. You | A. L. Y. Low | A. LaRiviere H. J. |
| A. Min Tioa | A. T. S. Wee | A. Twumasi Y. |
| A. X. | Aa Johannessen E. | Aa'lam N. |
| Aaberg I. A. | Aabo T. | Aabo Y. |
| Aaby A. A. | Aaccardo A. | Aach T. |
| Aad I. | Aadahl P. | Aadland O. |
| Aadrul Islam A. K. M. | Aadsen D. | Aadsen D. R. |

Next 50

Search - CrossRef

- Locate Search on the navigation menu and click CrossRef
- Enter your search criteria in the CrossRef Search Pilot box to locate content from the pilot participants' collections, including IEEE
- Access to documents is dependent upon an institution's or individual's subscription

IEEE Xplore[®]
RELEASE 2.0

Home | Login | Logout | Access Information | Alerts | Sitemap | Help

IEEE

CrossRef Search Pilot

BROWSE SEARCH IEEE XPLORE GUIDE SUPPORT

The publishers currently participating in the CrossRef Search Pilot are:

- American Physical Society
- Annual Reviews
- Ashley Publications
- Association for Computing Machinery
- BioMed Central
- Blackwell Publishing
- BMJ Publishing Group
- Cambridge University Press
- Cold Spring Harbor Laboratory Press
- FASEB
- IEEE
- INFORMS
- Institute of Physics Publishing
- International Union of Crystallography
- Investigative Ophthalmology and Visual Science
- Journal of Clinical Oncology
- Lawrence Erlbaum Associates
- Medicine Publishing Group
- Nature Publishing Group
- Oldenbourg Wissenschaftsverlag
- Oxford University Press
- PNAS
- Royal College of Psychiatrists
- Springer-Verlag
- Taylor & Francis
- University of California Press
- University of Chicago Press
- Vathak Publishing
- John Wiley & Sons

A group of 29 leading publishers is participating in a CrossRef Search Pilot. Google has indexed the full text of scholarly documents on the publishers' websites through a CrossRef gateway. This effort focuses users' searches and reduces the noise produced by general web searches.

Use the CrossRef Search Pilot box below to locate content from participating publishers' sites, including IEEE. This new search is powered by Google using the articles's Digital Object Identifier (DOI) to link from the search results to the published article. Access to articles is determined by each publisher and your institution's subscriptions.

Note: For the most comprehensive search of IEEE content, please use the IEEE Xplore Author, Basic, or Advanced search functions.

CrossRef Search
29-publisher pilot for full-text scholarly research

POWERED BY Google

Search

Please take a moment to tell us about your experience using the CrossRef Search by completing this [survey](#).

Search Results

• Modify Search

- Enter criteria and check the box to search within your results

• Display Format

- Select Citation or Citation & Summary to change how your search results display

• Select Items to Print, Email, or Download Citation

- IEEE Members and users at subscribing institutions may select items in search results for further viewing by selecting **View Selected Items**

• View Session History

- View and edit your search session history from your search results or under Search on the navigation menu

The screenshot displays the IEEE Xplore search results interface. At the top, the navigation bar includes 'Home', 'Login', 'Logout', 'Access Information', and 'Alerts'. The main header shows 'IEEE Xplore RELEASE 2.0' and navigation tabs for 'Search Results', 'Browse', 'Search', and 'IEEE Xplore Guide'. The search results section indicates that the search for '(kartalopoulos<in>au)' matched 17 of 1025326 documents, with 25 results displayed per page, sorted by Relevance. A 'Modify Search' section allows users to edit the search criteria and select a display format (Citation or Citation & Summary). A list of search results is shown, including '1. DWDM: shaping the future communications network', '2. Optical access networks', and '3. Our first anniversary issue'. Each result includes the author, publication details, and links for 'AbstractPlus' and 'Full Text'. A 'View Selected Items' button is located at the bottom of the results list.

Search Tips

- **Wildcards**

- “*” wildcard represents any or no characters
Example: ***sed*** returns results of “**sediment**” or “**based**”

- “?” wildcard represents any single character
Example: **Fib??** returns results of “**fiber**” or “**fibre**”

HINT: Wildcards can also be used to truncate words before non-English characters such as an umlaut (ü) or an accent (é). Since these characters cannot be searched, a word such as the author name Grundström should be searched as Grundstr*

- **Use Quotation Marks around a word to indicate a search for exact wording & spelling with no word stem variations**

- Example: A search on “**acoustic**” with quotations would NOT search for results on variant terms such as acoustics or acoustical

- **See the latest articles published online, not yet available in print**

- Key in “**Accepted for Future**” in a search field
- Or visit a publication’s home page to see if any future articles are available

Search Tips - Advanced Search

- **Search subscribed content only**
 - Subscribers to the IEEE All-Society Periodicals collection may select “**Search subscribed content only**” to search only those documents included in their subscription
- **Search the latest content update**
 - Limit your search to the last weekly update of new content in IEEE *Xplore*

The screenshot displays the IEEE Xplore Advanced Search interface. At the top, there are navigation links: Login, Logout, Access Information, Alerts, Sitemap, and Help. Below this is the IEEE logo and a navigation bar with SEARCH, IEEE XPLORE GUIDE, and SUPPORT. The main content area is divided into several sections:

- Publications:** Includes radio buttons for "Select publications" and "Search subscribed content only" (which is selected). Below are checkboxes for IEEE Periodicals, IEE Periodicals, IEEE Conference Proceedings, IEE Conference Proceedings, and IEEE Standards.
- Select date range:** Includes radio buttons for "Search latest content update (8 Jun 2004)" and "From year". The "From year" dropdown is set to "All" and the "to" dropdown is set to "Present".
- Display Format:** Includes radio buttons for "Citation" and "Citation & Abstract".
- Organize results:** Includes a "Maximum" dropdown set to "100", a "Display" dropdown set to "25" results per page, a "Sort by" dropdown set to "Relevance", and an "In" dropdown set to "Descending" order.

At the bottom, there are links for Help, Contact Us, Privacy & Security, and IEEE.org, along with a copyright notice: © Copyright 2005 IEEE. All Rights Reserved.

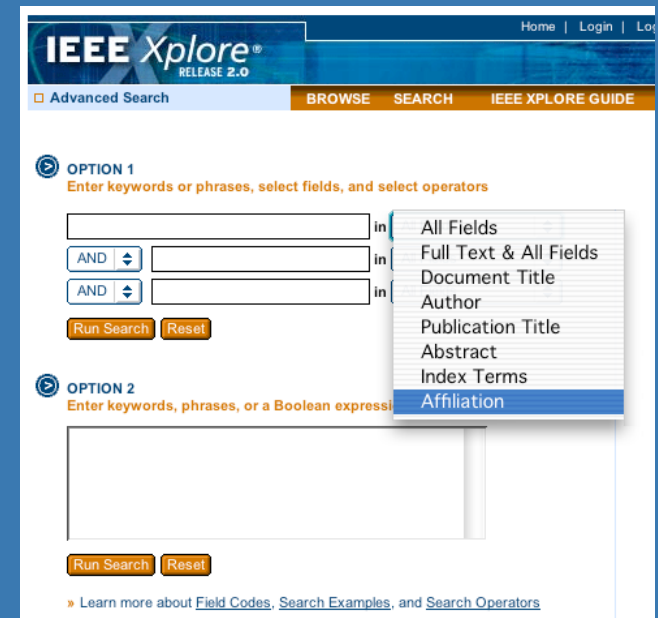
Search Tips - Advanced Search

• Full-Text search

- Under Option 1, select “**Full Text & All Fields**” to search within full-text PDF documents and associated metadata fields

• Search by Affiliation

- Under Option 1, select “**Affiliation**”
- To search for a specific author from an organization, enter the name of the organization in the search box and change the field to affiliation



Publication Home Pages

- Home pages are available for IEEE periodicals and some IEEE conference proceedings. From these pages you can:
 - Go to any issue of the periodical
 - View forthcoming articles (when available)
 - View a publication's title history
 - Access publication and author information
 - Link to sponsoring IEEE Society web sites
 - Submit a manuscript

The screenshot displays the IEEE Xplore website interface for the IEEE Microwave Magazine. The top navigation bar includes links for Home, Login, Logout, Access Information, Alerts, Sitemap, and Help. The main content area features the magazine's title, a search box, and a 'Submit a Manuscript' button. The 'Forthcoming' section shows a 'View Articles' button and dropdown menus for Year (2004) and Issue (Volume 5, Issue 4). The 'Search This Publication' section includes a search input field and a dropdown for 'All Fields'. The 'Publication Information' section lists the frequency (4), ISSN (1527-3342), and subject category (Microwave). The 'Published by' section identifies the IEEE Microwave Theory and Techniques Society. The 'Contacts' section provides contact information for the Editor-in-Chief (Madhu S. Gupta) and Business Development Manager (Susan Schneiderman). The footer includes a link to learn more about IEEE Journal & Magazine Subscriptions, a copyright notice for 2005 IEEE, and the IEEE logo.

View Abstract or AbstractPlus Record

• Abstract record

- Available to guests and institutional subscribers
- May include: document's citation, number of references cited, DOI, date posted online, abstract, link to full text, and option to purchase the document

• AbstractPlus record

- Expanded content available to IEEE members and institutional subscribers for subscribed content only
- May include: document's citation, number of references cited, CODEN, Inspec accession number, DOI, date posted online, abstract, index terms (Inspec and author keywords), references, citing documents, and link to full text

The screenshot shows the IEEE Xplore website interface. At the top, there is a navigation bar with 'Home | Login | Logout | Access Information'. Below this is a search bar with the text 'Guest Search Results' and buttons for 'BROWSE', 'SEARCH', and 'IEEE XPLORER GUIDE'. The search results section displays 'Results for "(winston) <in> (ti,jn,au,ab,cs)"' and indicates that 110 documents were found. Below the search results, there is a 'Login' section with fields for 'Username' and 'Password', and a 'Forgot your password?' link. To the right, under 'Article Information', two articles are listed: '1. Enhancing speech recognition and speech understanding systems...' and '2. The accelerator for the Los Alamos free-electron laser-IV...'. Each article has links for 'Abstract' and 'Full Text'.

The screenshot shows the abstract and citation information for a specific document. On the left, under 'Document options', there is a 'Full Text: PDF (506 KB)' link. Below this, there is a 'Download this citation' section with a 'Choose' dropdown menu set to 'Citation' and a 'Download' button. On the right, under 'The transfinite-element time-domain method', there is a list of authors: 'Din-Kow Sun, Jin-Fa Lee, Cendes, Z.', followed by the publication details: 'This paper appears in: Microwave Theory and Techniques, IEEE Transactions on Microwave Theory and Techniques, Vol. 51, Issue: 10, Oct. 2003'. Below this, there is an 'Abstract' section with the text: 'This paper presents an efficient time-domain method for computing the propagation constants of waveguide ports. The resulting system matrix is real, symmetric, positive-definite, and nonuniform grids, the computational complexity for problems with that of the finite-difference time-domain method.' At the bottom, there is an 'Index Terms' section with the term 'Inspec' and a 'Controlled Indexing' section with links to 'Maxwell equations', 'S-matrix theory', 'coaxial waveguides', 'conjugate gradient method', 'electromagnetic wave propagation', 'finite element analysis', and 'matrix inversion'.

AbstractPlus Links

• Author Names

- Quickly perform an author search of the entire database without leaving the page or having to enter search criteria

• Inspec Index Terms

- Search on all documents indexed under the selected terms

• References

- Link directly to other IEEE and IEE referenced documents in IEEE *Xplore*
- CrossRef outbound links (access to the full text of content through CrossRef links is dependent upon your institution's subscriptions)
- Purchase a non-IEEE document through the Ask*IEEE document delivery service

• Citing Documents

- Link to documents in IEEE *Xplore* that cite the document you are currently viewing

• Download Citations

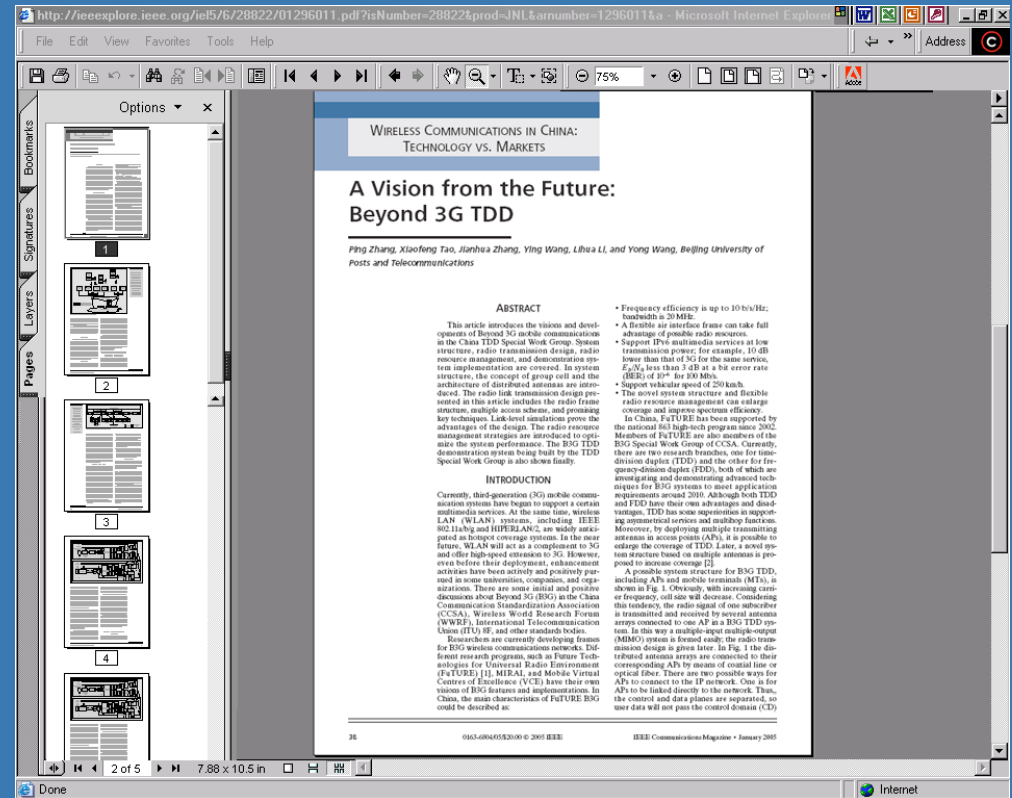
- Download the citation or citation with abstract into a bibliographic management program

The screenshot displays the IEEE Xplore interface for a specific document. The top navigation bar includes 'Home', 'Login', 'Logout', 'Access Information', 'Alerts', 'Sitemap', and 'Help'. The main content area is divided into several sections:

- Document options:** Includes links for 'Full Text: PDF (454 KB)', 'Full Text: HTML', and 'Multimedia'.
- Download this citation:** Features a 'Choose' dropdown set to 'Citation' and a 'Download' button with a secondary dropdown for 'EndNote, ProCite, RefMan'.
- Rights & Permissions:** Includes a 'Request Permissions' button and a 'Rights Link' icon.
- Publication Information:** Lists the journal 'Electronics Letters', publication date '6 Mar 2003', volume '39', issue '5', and page range '419-421'.
- Abstract:** Provides a summary of the paper's content, mentioning a newly designed pulse frequency modulation photosensor for retinal prosthesis.
- Index Terms:** Divided into 'Controlled Indexing' (with terms like 'pixel design', 'pulsed CMOS', 'dynamic range', 'eye prosthetics', 'retinal prosthesis', 'biomedical electronics', 'electrical stimulation') and 'Non-controlled Indexing'.
- Author Keywords:** Lists 'pixel design; pulsed CMOS; dynamic range; eye prosthetics; retinal prosthesis; biomedical electronics; electric stimulation'.
- References:** Shows a 'Sidebar Reference' section with a list of related works, including a citation by M. A. Khan et al. from IEEE Electron Device Lett.

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The screenshot shows the IEEE Xplore interface for a specific article. The article title is "Pixel design of pulsed CMOS digital photosensitivity control" by Kagawa, K., Isakari, K., Furumiya, T., Uehara, A., and Toku. The interface includes navigation links like "View TOC", "Previous Article", and "Next Article". Under "Document options", the "Full Text: HTML" link is highlighted. Below that, there are options to "Download this citation" using various services like EndNote, ProCite, and RefMan. A "Download" button is visible. The page also features a "CCC Rightslink Service" section with a "Request Permissions" button and a "Learn More" link. The article's metadata, including publication date (6 Mar 2003), volume (39), issue (5), and page numbers (419-421), is displayed on the right side. An "Abstract" section at the bottom begins with "A newly designed pulse frequency modulation phot".

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