

U.S. NAVAL ACADEMY
COMPUTER SCIENCE DEPARTMENT
TECHNICAL REPORT



The USNA Computer Science Department Technical Report Series
Information and Guide

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The USNA Computer Science Department Technical Report Series Information and Guide

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Abstract

In January of 2005, the Computer Science Department at the United States Naval Academy launched its own technical report series. The management of submissions and queries is performed automatically with Python scripts. This document describes how the system works and how it should be used to submit technical reports and retrieve reports already submitted.

Motivation

The lack of a formal technical report series in the Computer Science Department at the United States Naval Academy has been a difficulty for some time. There are many occasions when a faculty member has a report or other document that is inappropriate for formal publication in a journal or conference proceedings, yet needs to be distributed in a formally cite-able format. Without recourse to a technical report series, faculty members have been forced to “publish” documents on the web and manufacture a citation system. To rectify this, the Computer Science Department Research Committee established a technical report series with an automatic management system accessed through an online web-page. This document will describe: how the series is designed to be used and the types of documents that are appropriate for inclusion; how to submit documents to the system; and how to search for and access submitted documents.

System Overview

What can be submitted?

The system is meant for any technical document that should be published yet is inappropriate for other forums. This includes software manuals or other similar instruction sets (such as this document), longer versions and appendices of documents published elsewhere, student independent research and Bowman Scholar reports, in-progress research reports, documents of historical interest, and collections of data useful to others.

Who Can Submit?

While the series is intended for Computer Science subjects, we do not intend to limit access solely to members

of the CS department. Faculty from other departments such as Math or Engineering are welcome to submit reports that have some Computer Science content, however these faculty should get permission from the CS department research committee chair. Reports authored by students should be submitted by a CS department faculty member advisor or sponsor. Because we wish to make the process as human-free as possible, there is no direct oversight of submissions. The system depends on the users’ trustworthiness. In order to discourage spamming of the system, access to the submission page will be limited to requests coming from USNA IP addresses.

What is the Process?

The system has been designed to require as little oversight as possible. A submitter fills out a web-form and submits a PDF file; a number is assigned to the document and a cover page is automatically added. The number is of the form: USNA-CS-TR-YYYY-NN, where YYYY is the current year, an NN is a number based on the order documents were submitted each year (e.g. the second document submitted in 2006 will be USNA-CS-TR-2006-02). Figure 1 shows an example cover page. The addition of the title page is performed by first using information from the web form to generate a \LaTeX file, which is then converted to a PDF file. Then the cover PDF and the submitted PDF are both converted to Postscript, concatenated, and the result is converted back to PDF. This process creates a handsome document when printed, but one that, while legible, is somewhat ugly on the screen. We are happy to entertain suggestions for solutions. Finally, please be sure the document is in its final form before submission. It is difficult to remove documents and roll back the system in a stable way.

The submission scripts also make a details page for the document, and it generates a BibTeX entry for \LaTeX users. Retrieval of documents is also performed through a web form, which enables searchers to sort by year or by author, access the information and BibTeX page, and download the PDF.

Submission Details

The process for submission is:

U.S. NAVAL ACADEMY
COMPUTER SCIENCE DEPARTMENT
TECHNICAL REPORT



Unifying Undergraduate Artificial Intelligence Robotics: Layers Of
Abstraction Over Two Channels

Crabbe, Frederick L Hume, David

USNA-CS-TR-2005-02

January 27, 2005

USNA Computer Science Dept. • 572C Holloway Rd Stop 9F • Annapolis, MD 21403

Figure 1: An example cover page automatically generated by the system

1. Go to the submission web-page. This can be accessed directly at <http://www.cs.usna.edu/~research/tr/scripts/restricted/manage.py>. Links to this page will also be available at the Technical Reports home page: <http://www.cs.usna.edu/~research/tr/>, or the department research page: <http://www.cs.usna.edu/~research/>. When you get there, the browser should look something like figure 2.
2. Fill in the fields for title, abstract and authors. No checking is made to ensure that the information entered here matches information in the document itself. Data entered here will become the “official” identification information, so be sure to get it right, or you’ll end up looking rather silly.
3. Add the path to the PDF file you are submitting. You may either do this directly or click the browse button and find the file using a dialog box.
4. Make sure everything is correct (figure 3).
5. Click the Add button.

Once you add the document, a number is automatically generated, and you are given the opportunity to inspect the final product. Click the link to check the final PDF, and you’re done.

Figure 2: The submission form

Figure 3: The submission form after having been filled in.

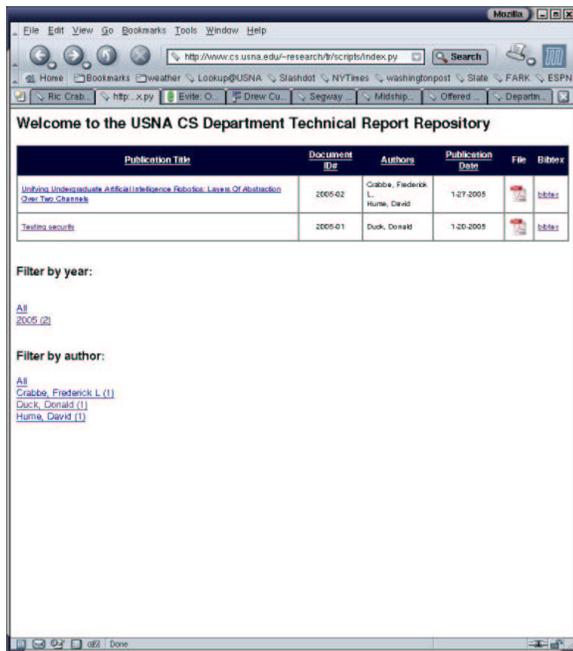


Figure 4: The document query page.

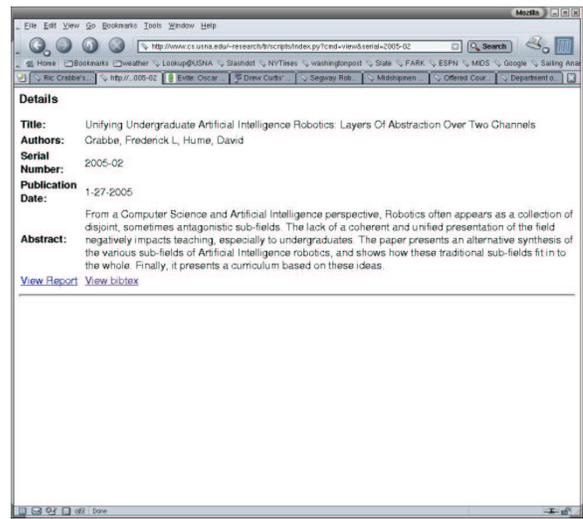


Figure 5: A document information page.

Query Details

To find a technical report, go to the index page <http://www.cs.usna.edu/~research/tr/scripts/index.py>, reachable from the Technical Reports home page: <http://www.cs.usna.edu/~research/tr/>, or the department research page: <http://www.cs.usna.edu/~research/>.

When you get there, it should look something like figure 4.

From this page, you can filter and sort the documents. You filter the documents (remove all but ones from a particular author or year) by clicking on the filter criteria at the bottom of the page. You can further sort the filtered documents by title, number, authors, or publication date by clicking on the column headings in the table. Clicking on the title of the document takes you to the information page for that document (figure 5). Clicking the BibTeX link shows you the BibTeX for the document (figure 6). Clicking on the Adobe PDF symbol downloads the PDF document.

Conclusion

The tech report system described was designed to be as self sufficient as possible. If everyone behaves and follows directions, we'll all be able to share the convenience we previously lacked. So go do research!

Acknowledgements

The concept for such a system was devised by Chris Brown, and almost all of the actual programming was performed by Kris Kendall. The author would like to thank Whiting-Turner for the comforting hum of industrial fans by which he could write this document. Without a poor solder on a critical water pipe, he may have done something useful instead.

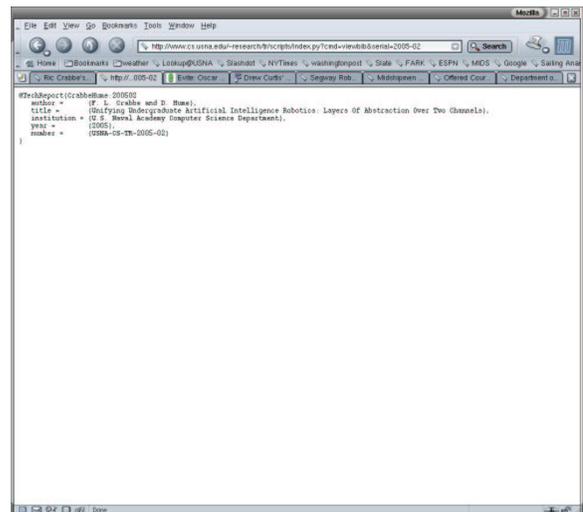


Figure 6: A document's BibTeX information.