Standards Searching: Learn Effective Skills
By
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NUS Libraries
Research Cycle

IDEATION
Get your literature review done
Do a literature search

WRITE, PUBLISH and PROTECT your idea

WIDEN REACH

What is Researcher Unbound

LOTS of information
Organise and manage

01 Literature search in different disciplines: Psychology, Engineering, Chinese Studies, Chemistry
02 Reference Management: Mendeley, EndNote
03 Writing, Publishing, and Intellectual Property (IP): Learn from the Experts
04 Measure Research Impact: Promote your Research, Research Best Practice

What is Researcher Unbound
If you are starting on your research and need some help in the research process, we are here to help you. Come join us at the Researcher Unbound (RU), a series of workshops aimed at helping researchers like you discover and grasp essential skills such as literature searching, referencing and publishing your research work.

RU READY TO KICKSTART YOUR RESEARCH?
GATHER INFORMATION

01
Literature search in different disciplines:
Psychology, Engineering, Chinese Studies, Philosophy

REFERENCE MANAGEMENT
ORGANISE YOUR REFERENCES
Outline

A. Introduction
B. The five big sets of standards
C. How to get e-standards that we subscribe
D. How to check for Singapore Standards/Codes of Practice
E. What if NUS Libraries does not have standard you need?
F. Subject Guide for standards collection
Outline

1) Overview of Library’s standards collection

2) How to check for a particular standard

3) What to do if you can’t find it

4) Online Guide:
   - Cheat sheet
   - Summary of five sets
   - Content of this session
Section A

Introduction
# Standard Bodies

## National
- **SS** SPRING Singapore
- **BSI** British Standards Institution

<table>
<thead>
<tr>
<th>National Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS 570</td>
</tr>
<tr>
<td>BS 4678-4</td>
</tr>
</tbody>
</table>

## Regional
- **CEN** European Committee for Standardization (Comité Européen de Normalisation)

<table>
<thead>
<tr>
<th>Regional Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 3-10</td>
</tr>
</tbody>
</table>
Standard Bodies

International

- **ISO** International Organization for Standardization
  - *all subject areas except electrical and electro technical matters. These are handled by the*
- **IEC** International Electrotechnical Commission

**Other bodies:**

E.g. American Concrete Institute (ACI)
Standards get adopted by other standards bodies

E.g. ISO 9001

Got adopted by Europeans
EN ISO 9001

Got adopted by British
BS EN ISO 9001

The Library does NOT have ISO or EN online, but has British Standards Online (BSOL)

Can you, an NUS student/staff, with access to BSOL get hold of ISO 9001 or EN 9001?

Yes
Section B

The Five Big Sets
FIVE Important Sets of Standards

1a) Singapore standards (Prefix SS) *EN, ISO*

1b) Singapore standard[s] : [code of practice] (Prefix SS CP)

We HAVE COMPLETE set

Hard copy, NOT electronic copy
FIVE Important Sets of Standards

2) British Standards Online (BSOL)
   Prefix: BS  EN, IEC, ISO

3) IHS Standards expert. IEC (aka IEC Standards)
   Prefix: IEC  ISO

For both:
- Online
- We DO NOT have every of them of them
FIVE Important Sets of Standards

4) **IEEE Xplore**
   - Institute of Electrical and Electronics Engineers
   - Prefix: IEEE

- ANSI (American National Standards Institute) on electrical and computer engineering
- IEC, ISO on electrical and computer engineering
- National Electrical Safety Code
  - Online
  - We have the COMPLETE set, but except draft standards
FIVE Important Sets of Standards

5) ASTM Standards

Prefix: ASTM

- American Society for Testing and Materials
- Online
- We have the COMPLETE set, except withdrawn standards
## Summary of Five Sets

<table>
<thead>
<tr>
<th>R/N</th>
<th>Prefix</th>
<th>Title</th>
<th>Format</th>
<th>Location</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>SS</td>
<td>Singapore Standards</td>
<td>Hard copies</td>
<td>*CL Reference 6 (PH Room)</td>
<td>Complete set. Some with prefixes EN or ISO can be found</td>
</tr>
<tr>
<td>1b</td>
<td>CP</td>
<td>Singapore Standard[s]: [Code of Practice]</td>
<td>Hard copies</td>
<td>*CL Reference 6 (PH Room)</td>
<td>Complete set</td>
</tr>
<tr>
<td>2</td>
<td>BS</td>
<td>British Standards Online</td>
<td></td>
<td></td>
<td>Selected ones only. Some with prefixes EN, IEC, ISO can be found</td>
</tr>
<tr>
<td>3</td>
<td>IEC</td>
<td>IHS Standards Expert. IEC</td>
<td>Online</td>
<td></td>
<td>Selected ones only. Has ISO ones on electrical engineering</td>
</tr>
<tr>
<td>4</td>
<td>IEEE</td>
<td>IEEE Xplore</td>
<td>Online</td>
<td></td>
<td>Complete, but excludes draft ones. Has selected ANSI, IEC or ISO ones on electrical and computing engineering</td>
</tr>
<tr>
<td>5</td>
<td>ASTM</td>
<td>ASTM Standards</td>
<td>Online</td>
<td></td>
<td>Complete set, but excludes withdrawn ones. ASTM stands for American Society for Testing and Materials</td>
</tr>
</tbody>
</table>

- **Complete**: Full set available.
- **Has some EN or ISO ones**: Includes some international standards.
- **Selected ones only**: Only specific selections are available.
- **Complete, excludes draft**: Full set available, excluding draft documents.
- **Has some ANSI, IEC or ISO ones**: Includes some international standards.
Section C

How to get e-standards that we subscribe

(i) British Standards
British Standards

Database: British Standards Online
- Sometimes slow
- 3 concurrent users
- May not be able to access at first try due to concurrent user limitation

DEMO
Write-up based on demo available online

No. of hits in write-ups might have increased
Individual standards can be retrieved by using the FINDMORE@NUSL Search box

**DEMO**

Write-up based on demo available online

*No. of hits in write-ups might have increased*
Section C

How to get e-standards that we subscribe

(ii) IEEE Standards

Keying in standard number in FINDMORE@NUSL search box will not work

DEMO:
• Using IEEE Xplore

Write-up based on demo available online

No. of hits in write-ups might have increased due to time lapse
Section C

How to get e-standards that we subscribe

(iii) IHS Standards Expert. IEC

• Online, only ONE concurrent user

• Keying in standard number in FINDMORE@NUSL search box will not work
IHS Standards Expert. IEC

1) Use Firefox. At the Library portal, http://libportal.nus.edu.sg/frontend/index click DATABASES

2) Type in iec

3) Click arrow
4) Click on title

5a) Click on **Campus Login** if in campus

5b) Otherwise scroll down and follow instructions on screen

6) Fill in and click OK
7) Click on **IHS Standards Expert** to log in

8) Click on **Continue to legacy IHS Standards Expert** to log in
9) Key in standard no here. E.g. **IEC 62116**

10) Click to choose **My Subscription**
IHS Standards Expert. IEC

11) Click to view

12) Click Log out after use
Section C

How to get e-standards that we subscribe

iv) ASTM Standards
   • Online, a bit slow
   • Keying in standard number in FINDMORE@NUSL search box will not work
ASTM Standards

1) Use Firefox. At the Library portal, http://libportal.nus.edu.sg/frontend/index click DATABASES

2) Type in astm

3) Click arrow
4) Click on title

5a) Click on **Campus Login** if in campus

5b) Otherwise scroll down and follow instructions on screen

6) Fill in and click OK
8) Click

7) Type in ASTM 3686
9) The latest version ASTM D3686-13 is always retrieved

10) If necessary, limit by Standards

11) Click to open
ASTM Standards

Red font: links to other parts of the document

Blue font: external links

Not all coloured fonts are clickable links
If you need to use the database after you have opened the file, do not close the file, but click on the back arrow of the browser.
Section D

How to check for Singapore Standards/Codes of Practice
Singapore Standards/Codes of Practice

- We have the full set (hard copy only)
- The up-to-date, current standards are at Central Library, CL Reference 6 (PH Room)
- Out-of-date, withdrawn ones are in Closed Stacks
Where is Closed Stacks?

- **Closed Stacks** is a locked room accessible only to Library staff.
- If you need an item there, you need to make an online request.
- For procedure to make an online request, please see [http://libfaq.nus.edu.sg/a.php?qid=10029](http://libfaq.nus.edu.sg/a.php?qid=10029)
Where is CL Reference 6 (PH Room)?

- Central Library, 5th floor near the Information Services Office
- Face the Information Services Office
- The PH [Peggy Hochstadt] Room is on your right
- Enter the PH Room
  - section 6 is on the right, first row of shelves
  - pamphlet boxes rather than books are there
  - Labels of boxes are colour-coded
  - Most standards are in boxes with yellow labels
  - All codes of practice are in boxes with green labels
Location of CL Reference 6 (PH Room)
Box for Singapore Standards SS

Colour of label: Yellow

Prefix: SS

Standard’s # range

Call number (not important for purpose of locating standard)
Singapore Standards

Singapore adopts EN, ISO and BS standards

The SS EN (with light blue labels) and the SS ISO (with orange labels) boxes are shelved after the regular SS boxes

There is no box for BS standards
Boxes for Singapore Standards SS EN and SS ISO

Prefix: SS EN
Colour of label: light blue

Prefix: SS ISO
Colour of label: orange
Box for Singapore Standards: Code of Practice SS CP

Colour of Label: Green

Call number (not important for purpose of locating standard)

SS CP’s # range

Call No: T59.212 SSC
Arrangement of Boxes with Colour-Coded Labels in CL Reference 6 (PH Room)

Prefix: SS

Prefix: SS ISO

Prefix SS EN (light green label)

Boxes for Code of Practice, prefix SS CP
How to Confirm if Library has a Particular Singapore Standard/Code of Practice

Standard needed:
SS 34 Specification for Undercoat paint for gloss enamel

Keywords used: SS 34 and paint and gloss.

Demo
Write-up available online

Go to website of Singapore Standards eShop to check for minor amendments to current version if any
http://www.singaporestandardseshop.sg/Product/Home.aspx
Minor amendments to current version are available online at the website of Singapore Standards eShop

http://www.singaporestandardseshop.sg/Product/Home.aspx

Key in SS 34
### Singapore Standard SS 34 : 1998

**SPECIFICATION FOR UNDERCOAT PAINT FOR GLOSS ENAMEL**

**AMENDMENT NO. 1**  
March 2001

1. **Page 8, Subclause 5.1.5, Flexural bend adhesion (Bend test)**  
   a) Replace ‘dry film thickness of approximately 50 microns’ from the first sentence and with ‘wet film thickness of 75 - 10 microns’.
   b) Replace ‘3 mm’ from the third sentence and with ‘6 mm’.

---

### Open amendment (if any)

Some could be important, e.g. Replace ‘3 mm’ from the third sentence and with ‘6 mm’.
Cheat Sheet on How to Get Standard You Need

<table>
<thead>
<tr>
<th>Standard You Need</th>
<th>Cheat Sheet on How to Get Standard You Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSL</td>
<td>LINC, for minor amendments… <a href="http://www.singaporestandardseshop.sg/Product/Home.aspx">URL</a></td>
</tr>
<tr>
<td>ASTEM</td>
<td></td>
</tr>
<tr>
<td>BSOL</td>
<td></td>
</tr>
<tr>
<td>IEEE (except drafts)</td>
<td></td>
</tr>
<tr>
<td>ISO</td>
<td></td>
</tr>
<tr>
<td>SS/SS CP (including Eurocodes)</td>
<td><a href="http://www.singaporestandardseshop.sg/Product/Home.aspx">URL</a></td>
</tr>
<tr>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

Standard You need SS
## Cheat Sheet on How to Get Standard You Need

<table>
<thead>
<tr>
<th>Standard You Need</th>
<th>Sources to Check in Order of Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO</td>
<td>FindMore, <strong>IEEE Xplore</strong>(^+), <strong>IEC</strong>(^+), LINC</td>
</tr>
<tr>
<td>ASTM (except withdrawn ones)</td>
<td>LINC</td>
</tr>
<tr>
<td>ANSI</td>
<td>IEEE Xplore, LINC</td>
</tr>
<tr>
<td>IEEE (except drafts)</td>
<td>IEEE Xplore</td>
</tr>
<tr>
<td>ISO</td>
<td>FindMore, BSOL, IEEE Xplore(^+), IEC(^+), LINC</td>
</tr>
<tr>
<td>SS/SS CP (including Eurocodes)</td>
<td>LINC, for minor amendments of current version, check <a href="http://www.singaporestandardsshop.sg/Product/Home.aspx">http://www.singaporestandardsshop.sg/Product/Home.aspx</a></td>
</tr>
<tr>
<td>Others</td>
<td>LINC</td>
</tr>
</tbody>
</table>

\(^{+}\) Only if subject is on electrical or electro technical matters
Section E

What if 5 big sets do not have standard you need?
Source of Free Standards

- Get free standards from European Telecommunications Standards Institute (ETSI) website
  http://www.etsi.org/standards-search#Pre-defined Collections
For others, check at the **BOOKS & MEDIA** Tab of the Library Portal

E.g. Required standard is **ACI 440.5-08** with title
*Specification for construction with fiber-reinforced polymer reinforcing bars*
E.g. Required standard is **ACI 440.5-08** with title *Specification for construction with fiber-reinforced polymer reinforcing bars*

**a)** At the Library portal, click **BOOKS & MEDIA** tab

**b)** Type in **ACI 440.5-08** and keywords from title if necessary. Avoid words like *specification* or *standard* or *code of practice*
The standard would be in the Closed Stacks. Do an online request. For details, please see http://libfaq.nus.edu.sg/a.php?qid=10029
National Library Board’s Standards Collection

- Level 7, Lee Kong Chian Reference Library at 100 Victoria Street near Bras Basah Complex.
Standards not in NUS or NLB Libraries

- **Google it**
  - It *might be* available free
  - You might find out that the standard, e.g. an ANSI standard is based on another standard, an ISO standard that NUS or NLB Library has
  - This will not give you exactly what you need, but at least you get something similar.
If All Else Fails…

- Request NUS Libraries to purchase the standard
- For procedure, please see: http://libfaq.nus.edu.sg/a.php?qid=9924
Section F

Subject Guide for standards collection

Demo

http://libguides.nus.edu.sg/standards
Please give us your feedback

• Go to: **http://bit.ly/ru-esurvey**

Thank You