# ENG20009 – Project Brief Assignment

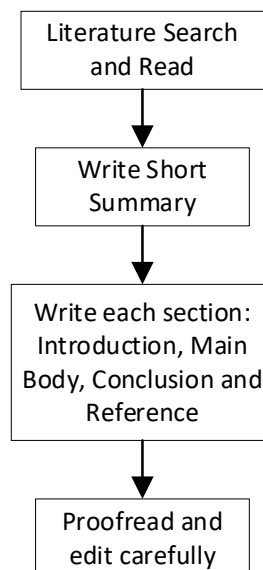| Portfolio - Project  i) **Portfolio Project Brief (10%)**  ii) Portfolio Project Demonstration (35%)  iii) Portfolio Project report (15%) | Group/ Individual  **individual**  Group  Group/ Individual | 60% | 2, 3, 4, 5 | **i) Mar 31, 2023 by 23:59pm (End of Week 5); submit in Canvas**  ii) Your on-campus workshop class in week 12 & project codes due in your lab class of week 13  iii) Jun 2, 2023 by 23:59pm (End of Week 13) |
|---|---|---|---|---|

(i) Project Brief
- Project planning and task division of each member. Particularly your individual tasks can be explained in more detail.
- Literature review on one of the applications of the SDI-12 sensor. The application of the SDI-12 sensor can be based on selected majors (electrical/electronics, software, robotic &mechatronics and software). This can be included a review of the hardware and software/firmware.
- The structure of the report includes the following:
  o Introduction (project planning and task division),
  o Main body of the review
  o Conclusion
  o References (IEEE style), please ensure there is in-text citation in the main body of the review.
- The report uses the IEEE, two-column format with a maximum of 4 pages. Template can be obtained using the following link: https://www.ieee.org/conferences/publishing/templates.html.
- The report must be submitted as a single PDF, which must be named as 'your group ID-PB'. For example: 12345678-PB.pdf
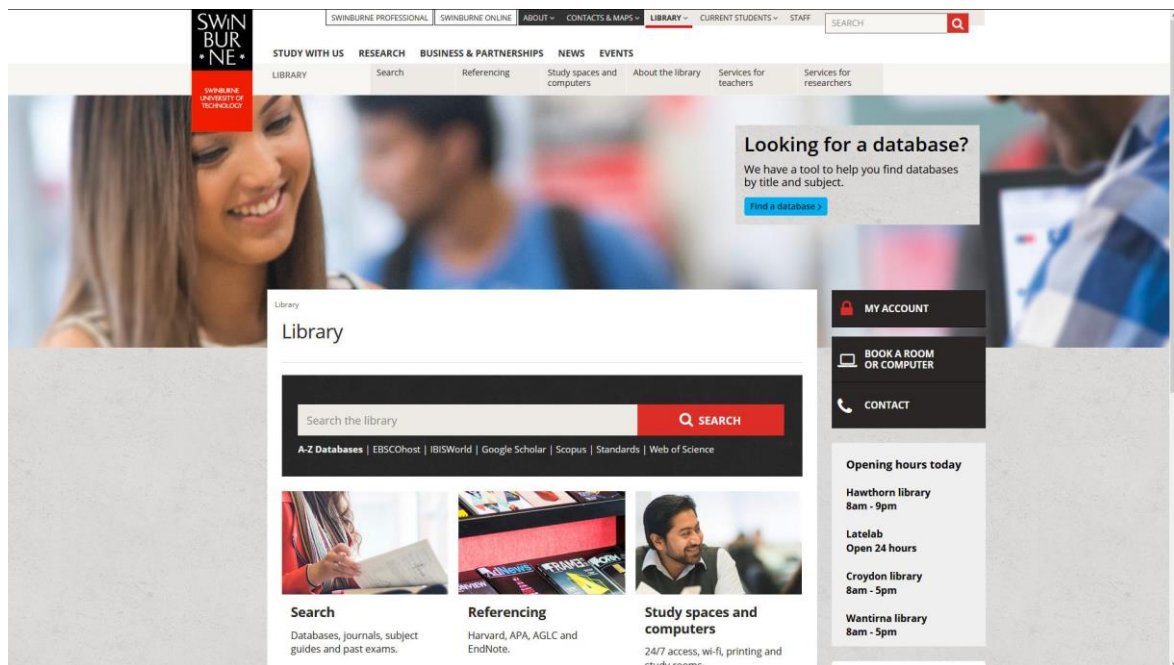
# Literature review/survey

A project literature review/survey is an overview of existing knowledge related to the particular project.

A good project literature review should be able to summarise, analyse, synthesise the relevant literature with the particular field of project. It provides information how the related project has evolved, highlighting what has already been done.

1. The structure/format of the project literature review should contains introduction, main body, conclusion and reference.
   - **Introduction**
     It should define your project and provide a suitable context of the chosen project application; providing your reasons for choosing the particular application; and state the scope of review.
   - **Main body**
     It should be organised according to common themes; provides insight into relation between the chosen project applications and wider project area; and move from a general to specific focus of project application.
   - **Conclusion**
     It should summarise the important aspect of the existing project application and identify significant gaps in existing knowledge.
   - **Reference**
     Relevant references that have been used in the main body section; consistent with the reference style.

2. Steps for writing a project literature review

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┌─────────────────┐
│ Literature Search│
│   and Read      │
└─────────────────┘
        │
        ▼
┌─────────────────┐
│  Write Short    │
│   Summary       │
└─────────────────┘
        │
        ▼
┌─────────────────┐
│ Write each section:│
│ Introduction, Main │
│ Body, Conclusion and│
│   Reference     │
└─────────────────┘
        │
        ▼
┌─────────────────┐
│  Proofread and  │
│  edit carefully │
└─────────────────┘
```

3. Search in the library



4. Databases Search

5. Web of Science Search



6. Google Scholar Search

7. IEEE format

# Paper Title* (use style: paper title)

line 1: 1st Given Name Surname
line 2: *dept. name of organization*
*(of Affiliation)*
line 3: *name of organization*
*(of Affiliation)*
line 4: City, Country
line 5: email address or ORCID

line 1: 2nd Given Name Surname
line 2: *dept. name of organization*
*(of Affiliation)*
line 3: *name of organization*
*(of Affiliation)*
line 4: City, Country
line 5: email address or ORCID

line 1: 3rd Given Name Surname
line 2: *dept. name of organization*
*(of Affiliation)*
line 3: *name of organization*
*(of Affiliation)*
line 4: City, Country
line 5: email address or ORCID

line 1: 4th Given Name Surname
line 2: *dept. name of organization*
*(of Affiliation)*
line 3: *name of organization*
*(of Affiliation)*
line 4: City, Country
line 5: email address or ORCID

line 1: 5th Given Name Surname
line 2: *dept. name of organization*
*(of Affiliation)*
line 3: *name of organization*
*(of Affiliation)*
line 4: City, Country
line 5: email address or ORCID

line 1: 6th Given Name Surname
line 2: *dept. name of organization*
*(of Affiliation)*
line 3: *name of organization*
*(of Affiliation)*
line 4: City, Country
line 5: email address or ORCID

*Abstract*—**This electronic document is a "live" template and already defines the components of your paper [title, text, heads, etc.] in its style sheet.** *CRITICAL: Do Not Use Symbols, Special Characters, Footnotes, or Math in Paper Title or Abstract.* (Abstract)

*Keywords—component, formatting, style, styling, insert (key words)*

## I. Introduction (*Heading 1*)

This template, modified in MS Word 2007 and saved as a "Word 97-2003 Document" for the PC, provides authors with most of the formatting specifications needed for preparing electronic versions of their papers. All standard paper components have been specified for three reasons: (1) ease of use when formatting individual papers, (2) automatic compliance to electronic requirements that facilitate the concurrent or later production of electronic products, and (3) conformity of style throughout a conference proceedings. Margins, column widths, line spacing, and type styles are built-in; examples of the type styles are provided throughout this document and are identified in italic type, within parentheses, following the example. Some components, such as multi-leveled equations, graphics, and tables are not prescribed, although the various table text styles are provided. The formatter will need to create these components, incorporating the applicable criteria that follow.

## II. Ease of Use

### A. Selecting a Template (Heading 2)

First, confirm that you have the correct template for your paper size. This template has been tailored for output on the A4 paper size. If you are using US letter-sized paper, please close this file and download the Microsoft Word, Letter file.

### B. Maintaining the Integrity of the Specifications

The template is used to format your paper and style the text. All margins, column widths, line spaces, and text fonts are prescribed; please do not alter them. You may note peculiarities. For example, the head margin in this template measures proportionally more than is customary. This measurement and others are deliberate, using specifications that anticipate your paper as one part of the entire proceedings,

and not as an independent document. Please do not revise any of the current designations.

## III. Prepare Your Paper Before Styling

Before you begin to format your paper, first write and save the content as a separate text file. Complete all content and organizational editing before formatting. Please note sections A-D below for more information on proofreading, spelling and grammar.

Keep your text and graphic files separate until after the text has been formatted and styled. Do not use hard tabs, and limit use of hard returns to only one return at the end of a paragraph. Do not add any kind of pagination anywhere in the paper. Do not number text heads-the template will do that for you.

### A. Abbreviations and Acronyms

Define abbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract. Abbreviations such as IEEE, SI, MKS, CGS, sc, dc, and rms do not have to be defined. Do not use abbreviations in the title or heads unless they are unavoidable.

### B. Units

- Use either SI (MKS) or CGS as primary units. (SI units are encouraged.) English units may be used as secondary units (in parentheses). An exception would be the use of English units as identifiers in trade, such as "3.5-inch disk drive".

- Avoid combining SI and CGS units, such as current in amperes and magnetic field in oersteds. This often leads to confusion because equations do not balance dimensionally. If you must use mixed units, clearly state the units for each quantity that you use in an equation.

- Do not mix complete spellings and abbreviations of units: "Wb/m2" or "webers per square meter", not "webers/m2". Spell out units when they appear in text: ". . . a few henries", not ". . . a few H".

- Use a zero before decimal points: "0.25", not ".25". Use "cm3", not "cc". (*bullet list*)