



Independent University, Bangladesh

UNDERGRADUATE INTERNSHIP MANUAL

Department of Electrical & Electronic Engineering

Copyright © Dept. of EEE, IUB

Objectives

The objective of this manual is to provide a clear idea about the strategy for developing an undergraduate internship/industrial attachment. It also guides students and faculty members about the undergraduate internship/industrial attachment.

Guidelines for undergraduate internship/industrial attachment

These guidelines may serve as a framework for undergraduate internship/industrial attachment. These guidelines cover the procedures, goals, and responsibilities of students and faculty members involved in undergraduate internship/industrial attachment. Students involved in undergraduate internship/industrial attachment should enroll for EEE499 / ETE499. An internship should be conducted *individually*.

Steps to follow

1. *Searching and selecting a Company / Industry / Organization* for undergraduate internship / industrial attachment.
2. *Selecting a supervisor* for undergraduate internship / industrial attachment at the EEE department.
3. *Submitting the undergraduate internship application form* to the department office. A prescribed application form is available in the department website.
4. *Submitting an application of internship proposal* to the selected Company / Industry / Organization.
5. *Conducting the internship* (12 weeks in length, with the exception of DESCO where it is 6 weeks in length) at the selected Company / Industry / Organization.
6. *Collecting the evaluation report* from the respective Company /Industry/Organization.
7. *Submitting the draft internship report* to the internship supervisor.
8. *Defending the internship*. The exam date will be announced by the department.
9. *Submitting the final internship report* to the department office for final grading.

Internship Company/Industry/Organization

Students completing at least 120 credits may search a suitable Company / Industry / Organization based on their field of interest. In this regard, students may take help from the EEE department office or from the office of the Career Guidance and Placement (CGP) at IUB or from their academic advisor. Students may take help from IUB alumni of EEE department. Students may also talk to the Company/Industry/Organization directly.

Internship Supervisor

Students completing at least 125 credits may select their internship supervisor from the EEE department based on their field of interest. Students may discuss with their academic advisor to find their internship supervisor in their field of interest.

Application for internship proposal

An application of internship proposal signed by the Head of EEE department must be submitted to the selected Company/Industry/Organization. Students may also collect this letter from the office of the Career Guidance and Placement (CGP) at IUB. The official addresses of different Companies/Industries/Organizations are available at the office of the Career Guidance and Placement (CGP). Students may also collect the official addresses of different Companies/Industries/Organizations by themselves. Students must also submit a prescribed application form for internship to the department office which is available in the department website.

Conducting the internship

- The plan for completing the internship/industrial attachment should envision 12 weeks of internship (with the exception at DESCO / PDB where it is 6 weeks in length) with approximately 40 hours per week (including field work, data collection etc.) or as per schedule assigned by the Company/Industry/Organization.
- Students must meet their internship supervisor at least twice a month to inform about their internship progress. In this regard, students must have to take sign from their internship supervisor in the internship progress report. Students also have to take sign from their supervisor assigned by the company before meeting to their internship supervisor. The format of the internship progress report is available in the department website.
- Students must begin to write their internship report at least one month before the defending the internship or according to the instruction of their internship supervisor.
- Students must submit their internship report to their supervisor at least two weeks before the final examination.

Collecting the evaluation report

Students will collect the name, designation and e-mail address of the person in charge of the respective company/industry (industry supervisor) and submit these information to his/her internship supervisor. Student's supervisor will then send the prescribed evaluation report form to the company at the last week of their internship program and collect the evaluation report electronically.

Defending the Internship

- **Written Examination:** Students have to sit for a written exam. The examination date will be announced by the department and most likely to be the day before the oral presentation date. The syllabus for the written exam will be all core and concentration (compulsory only) courses studied by the students during their undergraduate program.
- **Viva:** Students have to present their internship work in front of examination committee. The time duration of oral viva will be approximately 10 mins.

Examination committee

The examination committee members will be assigned by the department Head. One or more external members may be included in the committee.

Grading policy

The internship will be graded by the members of examination committee including the internship supervisor. In this regard, the weight of marks distribution will be as follows:

Written examination	-	20%
Performance evaluated by internship supervisor	-	20%
Performance evaluated by industry supervisor	-	20%
Report evaluated by examination committee	-	20%
Oral presentation evaluated by examination committee	-	20%

Report writing

The undergraduate internship report will be at least 40 pages (12-point Times New Roman, 1.5-line spacing) excluding the appendix. Student must write their report according to the format of internship report. A template of internship report is available in the department office/website.

Report submission

Two copies of hard binding (one copy each for internship supervisor and EEE department) and a soft copy (PDF format) of the report must be submitted to the department office for final grading. Students must submit their preliminary/draft report to their internship supervisor at least two weeks before the final presentation or according to the instruction of the examination committee. Student must modify the report according to the comments / feedback received from the internship supervisor and other examiners, if any, before submitting the final report to the department office.

Plagiarism

The department of Electrical and Electronic Engineering (EEE), Independent University, Bangladesh considers plagiarism as a very serious issue. In submitting assessed written work it is important to beware of plagiarism, which is the unacknowledged use of other people's material. The department considers this as cheating and it can have serious consequences, even if it is unintentional. Disciplinary action will be taken and the University policy shall be strictly reinforced in this regard. To avoid any misunderstanding, students are advised to put quotations from other authors within quotation marks and give full references to every source they use, even if they are not quoting directly from it. Students can take advice from their supervisor if they are worried about unintentional plagiarism.

Organization of the report

The organization of the internship report will contain the following pages:

Title Page

Approval Page

Acknowledgements

Abstract

Contents Page

List of Figures

List of Tables

Chapter 1: Introduction

Chapter 2: Company Profile

Chapter 3: Literature Review

Chapter 4: Main Topic Covered at the Company/Industry

Chapter 5: Summery & Future Work

References

Appendices

Format of the report

I. GENERAL DOCUMENT GUIDELINES

Paper: The thesis must be printed on good quality white paper on single side of the paper.

Length: Minimum length is 40 pages, which only includes the main text and excludes the endnotes and appendices. There is no Maximum number of pages. The thesis will be evaluated based on the quality instead of length.

Margins: Left Margin – 3 cm, Right Margin – 2.5 cm, Top Margin – 2.5 cm, Bottom Margin – 2.5 cm, Header 1 cm, Footer 1.5 cm

Font Size and Type: 12-point Times New Roman font.

Line Spacing: Documents should be 1.5-line spacing throughout, with the exception of the contents of table having more than two lines in a cell.

Paragraph Indentions: 1 cm

Order of Material: Title Page, Approval Page, Acknowledgments, Abstract, Table of Contents, List of Figures, List of Tables, the Text of the Internship Report, List of References, Appendix. (see the template)

Numbering of Pages: Page numbers must be centered 1.5 cm below the bottom margin as set by the footer. There is no heading to the left or right of the page number. The placement of page numbers must be consistent throughout the thesis. Pages should be numbered sequentially throughout the chapter. Preliminary pages are numbered as follows:

- The title page is counted as page i (assumed, do not print number)
- The remaining preliminary pages are numbered with lower case Roman numerals (ii, iii, etc).
- The main body of the text and the reference section are consecutively numbered with Arabic numerals beginning page “1” and continuing throughout, including text, illustrative materials, list of references, and appendices.

II. PRELIMINARY PAGES

The preliminary pages include the title page, declaration page, signature page, acknowledgements, abstract, table of contents, list of figures and list of tables. No page numbers should be shown for the title page but it is assumed to be page i. Then starting from the declaration page until abstract pages will be numbered with lower case Roman numerals and considered to be page ii to ix.

Title page (see the template):

1. Logo of Independent University, Bangladesh.
2. Name of Independent University, Bangladesh: Title case, **Bold**, Times New Roman, 14-point, Centered.
3. Title of Internship: Title case, **Bold**, Times New Roman, 20-point font, Centered.
4. Student’s Name and ID: Title case, Times New Roman, 14-point font, Centered.

5. Statement of presentation in the form: “in Consideration of Partial Fulfillment for the Requirements of the Degree of BACHELOR OF SCIENCE IN ELECTRICAL AND ELECTRONIC ENGINEERING”; Times New Roman, 12-point font, Centered.
6. Name of the Department: Title case, Times New Roman, 14-point font, Centered.
7. The term and Year of internship report submission: Title case, Times New Roman, 14-point font, Centered.

Signature Page (see the template):

1. Title of Internship: Title case, **Bold**, Times New Roman, 16-point font, Centered.
2. Student’s Name and ID: Title case, Times New Roman, 14-point font, Centered.
3. Approval from internship supervisor in the form “has been approved on 15 December, 2010”: lower case, Times New Roman, 12-point font, Centered.
4. Supervisor’s name with title and Academic Position: Times New Roman, 12-point font, Centered.
5. Original signature of internship supervisor in the final copy is required (if submitting electronically, the signature page is left unsigned)

Table of Contents (see the template): Follow the format of the template. For clarity, use 12-point font. All chapter titles, headings and subheadings should appear in the Table of Contents. Font style of items listed within the Table of Contents should be the same as the font used within the text (e.g. headings listed within the Table of Contents are in the same font style as in the body of the internship report).

List of Figures and List of Tables (see the template): The list of figures/ tables must conform to the examples provided in the template and include all tables or figures (i.e. illustrations, photographs, pie/bar charts, and maps) within the body of the thesis listed by table/figure number and table/figure caption.

Acknowledgments (see the template): This page is to thank those who have helped in the process of obtaining the degree. Permission to quote copyrighted material should be listed here, as well as acknowledgments for grants and special funding, if any. This should occupy a single page and be 1.5-line spaced.

Abstract: The internship report must contain an abstract. An abstract is a concise account of the internship and should state the problem, describe the procedure or method used, and summarize the conclusions reached. Paragraphs are formatted with the same layout used in the document. This should occupy a single page and be 1.5-line spaced.

III. BODY OF THE REPORT:

Page numbering: The body of the thesis and appendices are numbered in Arabic numerals starting with 1 and continuing until the last page of the thesis.

Chapter: The first line of the first chapter will be "CHAPTER 1", **uppercase, 30-point bold**. The title of the chapter will appear in the next line in capital letters, centered, **uppercase, 30-point bold**. Two lines below the chapter title, place the first line of text. Succeeding chapters, "CHAPTER 2", etc., should follow this same format. Do not use terminal punctuation on any chapter headings. Each chapter should begin on a new page.

Example

CHAPTER 1

INTRODUCTION

The first level of chapter 1 will be placed here.

Headings and Sub-headings of Chapters: The subdivision within a chapter or section does not begin on a new page unless the preceding page is filled. If there is not room for the complete heading and at least two lines of text at the bottom of a page, the new subdivision should begin on the next page. All chapter titles and headings should follow the following example.

Example

1. 1 First level heading: Sentence case, Bold, 12 point.

You would indent and start writing the text here

1.1.1 Second level heading: Sentence case, Bold, 12 point.

You would start writing the text here after the period and keep wrapping around underneath the subheading like this.

1.1.1.1 Third level heading: Lower case, Italic, 12 point.

You would start writing the text here after the period and keep wrapping around underneath the subheading like this.

Captioning and Numbering the Figures: The numbering of figures will start with the chapter number followed by the numbers in Arabic numerals by placing a decimal point in between. For example, figure numbers in chapter 2 will start as Figure 2.1, Figure 2.2 and so on. The figure caption will follow the figure number and should be placed at the bottom of each figure. Below is an example of figure caption and number.

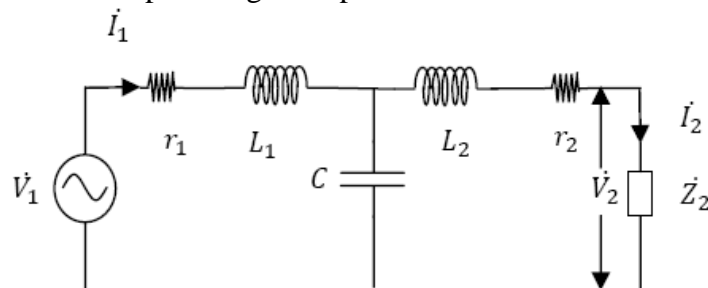


Fig. 2.3 T-LCL type immittance circuit

Captioning and Numbering the Tables: The numbering of tables will start with the chapter number followed by the numbers in capital Roman by placing a hyphen in between. For

example, table numbers in chapter 3 will start as Table 3.1, Table 3.2 and so on. The Table caption will follow the Table number and should be placed at the top of each Table. Below is an example of figure caption and number.

Table 3.1 Circuit parameters of proposed immittance circuit

Components	Values
V_1	200 [volt]
$L_1 = L_2$	23.6 mH
C	15.6 μ F
$r_1 = r_2$	0.28 Ω

IV. REFERENCES

Be sure that if a work is cited in the text, it must be in the references and vice versa. The references must be cited in the text ascending order as they listed and be 1.5-line spaced. With regard to the format of the references, using a hanging indent i.e. the first line of the reference is flushed all the way to the left margin and the rest of the reference are indented ½ cm. First and middle name (if given) of the author(s) are listed in initials only. The title of the work should be placed within double inverted comas followed by journal title / conference name (in italic), volume number, pages and year of publication (in parentheses) with the exception for books, electronic resources and company report. The above rules for listing references of journal articles, conference proceedings, books, and electronic sources (websites) are presented with examples as follows:

1. For Journal Articles, use the following form
 [1] M. A. Razzak and S. Takamura, "Study on Generalized Immittance Converter", *IEEE Transactions on Circuits and Systems*, Vol. 3, pp. 746-751 (2012).
2. For Conference Proceedings, use the following form
 [2] M. A. Razzak and Bing Zeng, "A Constant Current Immittance Conversion Circuit", *IEEE International Conference on Circuits and Systems*, 14-17 December, 2011, Sydney, Australia, pp. 746-751.
3. For Dissertation/Thesis, use the following form
 [3] M. A. Razzak, "Design and Implementation of a Novel Immittance Conversion Circuit for Constant Current Applications", A Doctoral Dissertation presented at Nagoya University, Japan (January, 2005).
4. For Internship Report use the following form
 [4] N. R. Rahman, "Study on Substation Equipment and Switchgear & Protective Devices at DESCO", An internship report presented at Independent University, Bangladesh (December, 2010).
5. For Books, use the following form
 [5] D. C. Aurther, *Circuits and Systems*, Wiley and Sons, 2nd Edition (1995).

6. For Electronic Resources (websites), use the following form
[6] <http://www.immittanceconverter.com/> accessed on 14 March, 2012.
7. For Company/Industry/Organization Report or Bulletin, use the following form
[7] DESCO Annual report, March, 2012.

V. APPENDICES

Appendices may include data tables, source codes, analytical procedures, survey forms, or any other supplementary material provided by supervisory committee. Each Appendix begins on a separate page. Each Appendix is labeled by ascending letters (e.g. A, B, C, etc.) and title. Pages should be numbered in sequence with the rest of the thesis. Same margins and line spacing should be maintained as used in the body of the text.