

## Department of Electrical Engineering

### Final Term Assignment

Date: 29/06/2020

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#### Course Details

**Course Title:** Technical Report Writing

**Module:** 4

**Instructor:**

**Total Marks:** 50

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#### Student Details

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Note: **Plagiarized work is not acceptable.**

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Q1	Technical writers use design processes to creatively solve complex problems; they use writing processes to create complex documents. In both cases, there are steps or stages. What is the chronological manner to know the technical writing process?	Marks 10
		CLO 1
Q2	In research the question leads to a problem that needs to be solved by the researcher. Clearly explain the parameters within which your proposal must stay.	Marks 10
		CLO 2
Q3	Assume that your manager wants to create a Web page/ Facebook page/ YouTube channel. Investigate the situation, and write a report explaining the feasibility of creating and maintain a Web page/Facebook page/ YouTube channel.	Marks 10
		CLO 2
Q4	The report is generally written for the purpose of solving a problem. There are many different types of reports. Define different types of reports and explain the particular requirements for the Formal report.	Marks 10
		CLO 2
Q5	It is considered illegal to reproduce someone else's expression of ideas or information without permission. Define the term which is used for this literary crime and explain how to protect any "Fact" that have been considered the intellectual property of the author.	Marks 10
		CLO 2

Q3	Assume that your manager wants to create a Web page/ Facebook page/ YouTube channel. Investigate the situation, and write a report explaining the feasibility of creating and maintain a Web page/Facebook page/ YouTube channel.
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**ANSWER:**

***Feasibility Report or Study:***

A feasibility study is an analysis that takes all of a project's relevant factors into account—including economic, technical, legal, and scheduling.

As in the question we've been asked to write down a feasibility report on any of the three topics.

I'd like to write the feasibility report on the creation of a web page.

A feasibility report is about studying a situation (for example, a problem or opportunity) and a plan for doing something about it, and then determines whether that plan is "feasible"—whether it is practical in terms of current technology, economics, time frame, social needs and preferences, and so on. The feasibility report answers the question "Should we implement Plan X?" by stating "yes," "no," or sometimes a "maybe" or "under certain conditions." Not only does it indicate whether the idea is feasible, it also provides the data and the reasoning behind that determination; conversely, it might outline the reasons why the idea cannot or should not be implemented, or what obstacles must be overcome before the idea can become feasible. Typical questions addressed in these reports include.

There are the following three main things which we'll consider while writing the report,

1. Is it possible?
2. Is it financially viable?
3. Will it be accepted by the community?

# Feasibility Report for a Web-Page

## Summary

This report is all about how a web-page is better than a YouTube or a Facebook page and why are we preferring a pre-paid project over a free project (YouTube and Facebook doesn't cost you to build your personal page or channel instead they charge their advertisers and even pay you if you've sufficient subscribers)

## The possibilities:

The above project is very simple and easy to made.

1. we'll hire a freelancer who will make us a tweb-page in no time and easily.
2. Also, there are a whole lot of websites through which we can build our web-page with their guidance.

We can contact a software company and they'll do it for us.

3. It can be perfectly done under our project budget.
4. This project will be completed in the allocated time.
5. It is totally legal to create a web-page through the above-mentioned sources.

## Financial Viability:

1. The above project should be done because it'll fulfill all our needs.
2. it'll have long terms benefits that'll outweigh the costs because it is a life time project.
3. This project is very affordable and it'll provide us the expected result.
4. This is the need of our company and we must do it.

## Acceptance by the community:

1. People will love this idea and will appreciate it.
2. There might be some people who won't accept it but after a brief explanation they'll understand the project and will appreciate it greatly.

3. We'll have the enough public support that will be good in acceptance of this project.
4. We'll try to reach different advertisement companies for the cause stake-holding purpose and they'll be happy to cooperate with us.

Q1	Technical writers use design processes to creatively solve complex problems; they use writing processes to create complex documents. In both cases, there are steps or stages. What is the chronological manner to know the technical writing process?
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**ANSWER:**

The chronological manner or the steps which a technical writer use in the process of technical writing to solve a complex problem or writing a complex problem are the following;  
There are the following five steps for a technical writing process,

1. Plan
2. Structure
3. Write
4. Review
5. Publish

**Plane:**

All projects need to be planned – at least at some level. Whilst the technical writers don't have to go create a detailed Gantt chart for every technical writing project, it certainly helps if you answer some of the following questions before you put pen to paper. The results of this planning may be as simple as some bullet points jotted down in your notepad – or you may find that simply going through this as a mental exercise is sufficient. When you're planning to write technical documents, you should ask yourself:

- Scope – How many documents do I need to write? What are their key characteristics? Am I going to publish them in multiple formats – if so, are there any production requirements I should be aware of?
- Timing – How long do I need to schedule for review cycles? What's the final deadline?
- Process – What are the high-level steps that I need to follow to create the documents?

Along with these basic questions (which apply to almost any project – not just technical writing) there are some specific writing-related questions that you'll need to consider in your documentation project:

- Audience – who am I writing for? Do they have a sophisticated command of language? What are their education levels?
- Reviewers / Subject Matter Experts – these are the people who'll lend their technical expertise in the creation of the documents and review them for accuracy
- Existing information
- Style guide / templates
- Etc.

## **Structure:**

A structure is the backbone of your document – the hierarchy of headings that define the logical order that it will progress. Structure is absolutely essential to successful documents, and it's something that you should develop *before* you start writing. A well-structured document is one that has had *thought* go into it beforehand, which means you're less likely to need to rehash it later on.

It's important to understand that structure isn't a straitjacket – it'll evolve and change as you write and review the document. After you publish, you may end up with a very different-looking document to the one you envisaged – that's perfectly normal and there's nothing at all wrong with it!

There are a number of common structural approaches when it comes to technical documents:

- Narrative structure – The traditional approach – intro, body, conclusion
- Process-based structure – Common in technical documentation such as procedures and user guides
- Library structure – A collection of articles on a common topic, loosely structured
- System-based structure – Describing the components of a system such as an auto manual

## **Write:**

Writing is where you convert your bare-bones table of contents and notes into a series of drafts, culminating in a draft that's ready for formal review. Contrary to popular impression, writing is only about 20-30% of the process in a well-planned document – much of the effort goes into planning, structuring, and reviewing your work. In fact, the *more* time you spend planning and structuring your work, the *less* time you're likely to spend on writing.

There are a few time-honored (as well as some new) techniques that technical writers draw on:

- KISS (Keep It Simple, Stupid!)
- Plain English
- Five Ws (and One H)
- Inverted pyramid
- Verb-noun structure
- Active voice

These techniques will help you write better documentation – documentation that your audience finds useful, engaging and a pleasure to read. Of course, in order to *apply* these techniques, you need to have a decent grasp of the English language.

## **Review:**

like to think of review as the polishing stage. It's where your document gets the trial by fire, so to speak, of having others formally review it, as well as undergoing another very important task – editing and proofing. if you haven't already done so, you'll now need to define who's responsible for reviewing what (also called a Review Matrix), or validating it if you've been proactive and defined it during the planning step – which you should aim to do.

In the *Review* step, there are a number of discrete activities going on (depending on the type of document being written):

- Review by subject matter experts
- Testing a procedure / instruction to make sure you / a subject matter expert can follow the steps
- Peer review by a colleague

- Editing and proofing.

### ***Publish:***

Publishing can be a complicated process – or it can be extremely easy. Publication is where writers manufacture and launch the final product. This might be as straightforward as emailing an approved document to your manager, or uploading it to a content management system or intranet. On the other hand, it might involve some fairly complicated logistics.

Q4	The report is generally written for the purpose of solving a problem. There are many different types of reports. Define different types of reports and explain the particular requirements for the Formal report.
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### ***ANSWER:***

Technical Report:

A technical report (also scientific report) is a document that describes the process, progress, or results of technical or scientific research. Including in-depth experimental details, data, and results. It might also include recommendations and conclusions of the research.

### ***Types Of Reports:***

There are the following different types of technical report,

- Structural report
- Analytical report
- Periodic report
- Feasibility report
- Progressive report
- Informational report
- Evaluation report

### ***Structural report:***

- Structural Reports are often referred to as “Engineers Reports” or “Structural Engineers Reports” or “Structural Survey”.
- Structural report will specify which items were inspected and the observations and conclusions found during the inspection.
- It will state whether or not there is a structural concern and if so, what needs to be done to rectify the problem or what further investigations may be necessary.

### ***Feasibility Report:***

- Feasibility report examines the practicality of a proposed project
- Feasibility reports are created to help the decision makers to choose between available options.
- A feasibility report also determines whether or not the investigated task can be done with the amount of resources available

### ***Evaluation Report:***

- This type provides an opinion or judgment rather than a yes-no-maybe answer or a recommendation.
- It provides a studied opinion on the value or worth of something.
- This type of report compares a thing to a set of requirements (or criteria) and determines how well it meets those requirements.

### ***Information Report:***

- Information report provide data, facts, feedback, and other types of information without analysis or recommendations
- Recommendations is the biggest difference between informational and analytical reporting.

### ***Analytical Report:***

- An analytical report examines a problem or issue and recommends an action.
- These reports attempt to describe why or how something happened and then to explain what it means.
- An analytical report is professional document written mostly for business uses.

### ***Periodic report:***

- It is one which is submitted at regular intervals for the purpose of recording information.
- It can take almost any form depending on the project and the frequency of reports required.
- It serves to show comparison and tendencies.

### ***Formal Report:***

#### ***Definition:***

“A formal report is an official report that contains detailed information, research, and data necessary to make business decisions. This report is generally written for the purpose of solving a problem. ”

### ***Report for upper management:***

If you are writing a report for upper management or for another organization, you will need a formal report.

### ***Research papers:***

Formal reports are also used for research papers in higher education.

### ***Longer and well researched:***

Formal reports are longer and well researched.

### ***Impersonal:***

Formal reports are impersonal, rarely using personal pronouns and contractions. Summaries are located on separate pages and usually have more than one heading.

Formal reports may also be preceded by a proposal. Include a contents page if your report is more than five pages long. A cover letter or memo may be required.

### ***Formal Structure:***

#### ***cover page:***

include a cover page that resembles a book cover.

#### ***The abstract:***

The abstract briefly summarizes the problem, the process of research and final conclusions in one page or less.

#### ***Title page:***

Your title page will cover the title of the report, the person who compiled the report, the publisher and submission date.

#### ***initial thesis or the purpose of the study:***

Summarize your initial thesis or the purpose of the study, and include all the details that are necessary for your audience to completely understand the question.

#### ***table of contents:***

Include a table of contents and a list of tables and figures.

#### ***The body:***



The body of your report will include an introduction, overview of the research and final conclusions and recommendations.

### ***Acknowledgments:***

End your report with acknowledgments, a list of references where you located your research and any appendices.

Q2	In research the question leads to a problem that needs to be solved by the researcher. Clearly explain the parameters within which your proposal must stay.
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### ***ANSWER:***

#### ***BASIC REQUIREMENTS OF A RESEARCH PROPOSAL:***

A proposal needs to show how your work fits into what is already known about the topic and what new paradigm will it add to the literature, while specifying the question that the research will answer, establishing its significance, and the implications of the answer. The proposal must be capable of convincing the evaluation committee about the credibility, achievability, practicality and reproducibility (repeatability) of the research design .

In order to write a research proposal a researcher must keep in mind the following parameters to write it down;

1. Introduction.
2. Review of literature
3. Aims and objectives
4. Research design and method
5. Ethical considerations
6. Budget
7. Appendices.
8. Citations.

#### ***Introduction:***

It is also sometimes termed as 'need for study' or 'abstract'. Introduction is an initial pitch of an idea; it sets the scene and puts the research in context. The introduction should be designed to create interest in the reader about the topic and proposal. It should convey to the reader, what you want to do, what necessitates the study and your passion for the topic.

#### ***Review of literature:***

It refers to all sources of scientific evidence pertaining to the topic in interest. In the present era of digitalisation and easy accessibility, there is an enormous amount of relevant data available, making it a challenge for the researcher to include all of it in his/her review.

### ***Aims and objectives:***

The research purpose (or goal or aim) gives a broad indication of what the researcher wishes to achieve in the research. The hypothesis to be tested can be the aim of the study. The objectives related to parameters or tools used to achieve the aim are generally categorized as primary and secondary objectives.

Research design and method:

The objective here is to convince the reader that the overall research design and methods of analysis will correctly address the research problem and to impress upon the reader that the methodology/sources chosen are appropriate for the specific topic. It should be unmistakably tied to the specific aims of your study.

### ***Ethical considerations:***

Medical research introduces special moral and ethical problems that are not usually encountered by other researchers during data collection, and hence, the researcher should take special care in ensuring that ethical standards are met. Ethical considerations refer to the protection of the participants' rights (right to self-determination, right to privacy, right to autonomy and confidentiality, right to fair treatment and right to protection from discomfort and harm), obtaining informed consent and the institutional review process (ethical approval). The researcher needs to provide adequate information on each of these aspects.

### ***Budget:***

When the researcher prepares a research budget, he/she should predict and cost all aspects of the research and then add an additional allowance for unpredictable disasters, delays and rising costs. All items in the budget should be justified.

### ***Appendices:***

Appendices are documents that support the proposal and application. The appendices will be specific for each proposal but documents that are usually required include informed consent form, supporting documents, questionnaires, measurement tools and patient information of the study in layman's language.

### ***Citations:***

As with any scholarly research paper, you must cite the sources you used in composing your proposal. Although the words 'references and bibliography' are different, they are used interchangeably. It refers to all references cited in the research proposal.

## **SUMMARY:**

Successful, qualitative research proposals should communicate the researcher's knowledge of the field and method and convey the emergent nature of the qualitative design. The proposal should follow a discernible logic from the introduction to presentation of the appendices.

Q5	It is considered illegal to reproduce someone else's expression of ideas or information without permission. Define the term which is used for this literary crime and explain how to protect any “Fact” that have been considered the intellectual property of the author.
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### ***Answer:***

To reproduce someone else's expression of ideas or information without permission is called plagiarism and this is illegal.

### ***Plagiarism:***

#### ***Definition:***

“The practice of taking someone else's work or ideas and passing them off as one's own.”

### ***Protection of the intellectual property of the author:***

There are many ways in which a person can protect his intellectual work to get plagiarized, some of them are given below;

### ***Using Plagiarism Checker for Protecting Contents:***

Copyright means a person's right to his original work for a number of years so that other people can't copy or publish that particular thing. Plagiarism has become a very common problem these days. It's messing up with the creative writer's bright future.

The term 'intellectual property' applies to each original creation, like artistic works, design, literary works, inventions, symbols, computer codes, names, images etc. It is also popularly known as patents, inventions, and trademarks. To copyright one's creativity has become really important due to the ongoing plagiarism issues. It's morally, ethically and legally wrong to copy other people's original work. That's why nowadays academicians and writers use plagiarism checkers.

### ***Save and Date all Original Work:***

The first thing you want to do is make sure that you save, date, and make copies of all of your original work. There are several different ways that you can go about this: you can print out your work and get it notarized; you can mail your work to yourself so that it has a post mark date (also known as the “poor man’s copyright”); or you can make sure that you save the most original version properly on your computer. These actions will help you if you ever do need to take someone to court, but on their own they will not likely be enough. That's because officially registering for a copyright is the only way to have enough evidence to stand in a court of law.

### ***Register with the U.S. Copyright Office:***

Technically, according to U.S. law, the second you create a piece of work it belongs to you; therefore, if someone else takes it, that’s copyright infringement. However, extra protection is also needed. There are several different non-official sites that claim to grant copyright to your work. Avoid these and register directly with the U.S. Copyright Office. It costs \$45 per submission.

### ***Add Copyright Notices to Blogs:***

Once you've registered your work, it's best to use copyright notices on your websites or blogs—anywhere that you may publish your work. Similar to alarm system warnings, these notices won't scare all thieves, but will deter a majority of them.

### ***Use Plagiarizer-Catching Tools:***

The only way you'll know if someone plagiarized your work is if you see it floating around (on another site, for example) without your permission. The faster you catch wind of this, the better.