How to prepare a Technical report using LATEX

A Project Report

Submitted to the APJ Abdul Kalam Technological University

in partial fulfillment of requirements for the award of degree

Bachelor of Technology

in

Computer Science and Engineering

by

batch member 1(batch member1 roll no)

batch member 2(batch member2 roll no)

batch member 3(batch member3 roll no)

batch member 4(batch member4 roll no)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

LBS COLLEGE OF ENGINEERING KASARAGOD

KERALA

November 2022

LBS COLLEGE OF ENGINEERING, KASARAGOD

MULIYAR – 671 542

DEPT. OF COMPUTER SCIENCE & ENGINEERING

Vision of Department

To be a renowned centre for education, research, and innovation in the frontier areas of Computer Science and Engineering.

Mission of Department

- Establish and maintain an operational environment to acquire, impart, create and apply knowledge in Computer Science and Engineering and inter-disciplinary.

- Serve as a resource centre for innovation in design & development of hardware and software.

- Inculcate leadership qualities, professional ethics and a sense of social commitment.

CERTIFICATE

This is to certify that the report entitled **How to prepare a Technical report using LaTeX** submitted by **batch member 1** (batch member1 roll no), **batch member 2** (batch member2 roll no), **batch member 3** (batch member3 roll no) & **batch member 4** (batch member4 roll no) to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Computer Science and Engineering is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

Prof. Project guide   **Prof. Project coordinator**
(Project Guide)   (Project Coordinator)
Assistant Professor   Assistant Professor
Dept.of CSE   Dept.of CSE
LBS College of Engineering   LBS College of Engineering
Kasaragod   kasaragod

Dr. Head of Dept
Professor and Head
Dept.of CSE
LBS College of Engineering
Kasaragod

DECLARATION

We hereby declare that the project report **How to prepare a Technical report using LaTeX**, submitted for partial fulfillment of the requirements for the award of degree of Bachelor of Technology of the APJ Abdul Kalam Technological University, Kerala is a bonafide work done by us under supervision of Prof. Project guide

This submission represents our ideas in our own words and where ideas or words of others have been included, we have adequately and accurately cited and referenced the original sources.

We also declare that I have adhered to ethics of academic honesty and integrity and have not misrepresented or fabricated any data or idea or fact or source in my submission. We understand that any violation of the above will be a cause for disciplinary action by the institute and/or the University and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been obtained. This report has not been previously formed the basis for the award of any degree, diploma or similar title of any other University.

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Kasaragod

batch member 3

30-11-2022

batch member 4

Abstract

This document contains essential templates required to write technical reports using LaTeX. This template may be used for the preparation of B.Tech seminar reports of APJ Abdul Kalam Technological University, Kerala. Also minimum working examples to create equations, include figure, include table, table of contents symbols list and bibliographic citation in a LaTeX document are provided.

Please note that this template is provided without warranty on an AS IS basis.

JIM

Acknowledgement

We take this opportunity to express my deepest sense of gratitude and sincere thanks to everyone who helped us to complete this work successfully. We express our sincere thanks to Dr. Head of Dept, Head of Department, Computer Science and Engineering, LBS College of Engineering Kasaragod for providing us with all the necessary facilities and support.

We would like to express my sincere gratitude to the Prof. Project coordinator, department of Computer Science and Engineering, LBS College of Engineering Kasaragod for the support and co-operation.

We would like to place on record my sincere gratitude to our project guide Prof. Project guide, Assistant Professor, Computer Science and Engineering, LBS College of Engineering for the guidance and mentorship throughout this work.

Finally I thank my family, and friends who contributed to the succesful fulfilment of this seminar work.

batch member 1
batch member 2
batch member 3
batch member 4

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Ω Unit of Resistance

$\varepsilon^{'}$ Real part of dielectric constant

c Speed of light

λ Wavelength

δ Delta

Chapter 1

Introduction

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetuer id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

Chapter 2

Literature Review

Each chapter is to begin with a brief introduction (in 4 or 5 sentences) about its contents. The contents can then be presented below organised into sections and subsections.

Technical writing is writing or drafting technical communication used in technical and occupational fields [1], such as computer hardware and software [2], engineering, chemistry, aeronautics, robotics, finance [3], medical, consumer electronics, biotechnology, and forestry. Technical writing encompasses the largest sub-field in technical communication. See figure 2.1 that shows the autonomous systems in Internet.
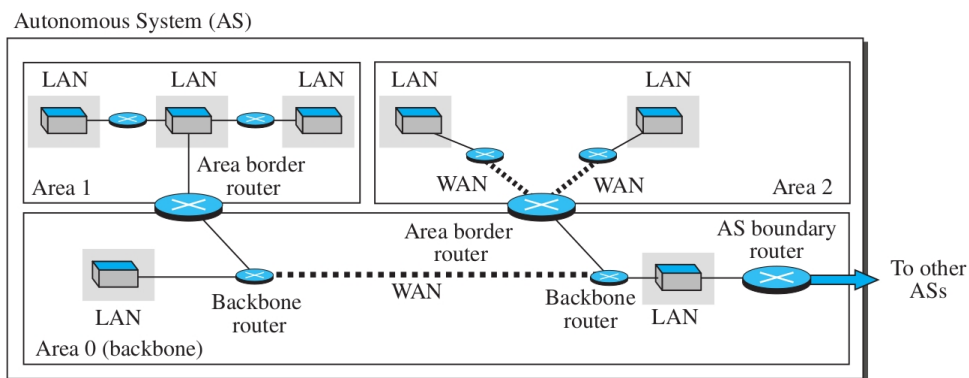

Figure 2.1: Autonomous System Hierarchy

2.1   section1

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2.1.1   title 2

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

The system is described by the equation 2.1 below. Here y is the ordinate and x is the abscissa , m is the slope and c a constant.
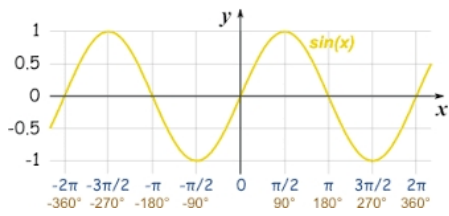
$$y = mx + c \qquad\qquad (2.1)$$

Page centered and unnumbered multiple equations. The * symbol supresses equation numbering.
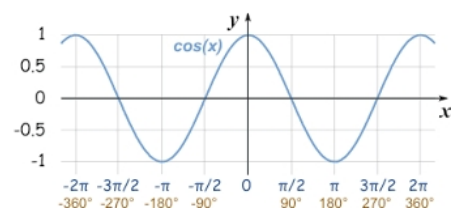
$$2x - 5y = 8$$
$$3x + 9y = -12$$

Side by side figures can be created using this environment. See fig 2.2 below.

(a) Sine Wave
(b) Cosine Wave

Figure 2.2: The Sine and Cosine waves

Chapter 3

System Development

Each chapter is to begin with a brief introduction (in 4 or 5 sentences) about its contents. The contents can then be presented below organised into sections and subsections.

3.1 section1

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

3.1.1 title 2

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vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

Chapter 4

Results and Discussion

Each chapter is to begin with a brief introduction (in 4 or 5 sentences) about its contents. The contents can then be presented below organised into sections and subsections.

4.1 section1

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

4.1.1 title 2

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus

vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

Table 4.1: test table

Sl. No	Item 1	Itm 2
1	37	45
2	42	23
3	47	1
4	52	-21
5	57	-43
6	62	-65
7	67	-87
8	72	-109
9	77	-131
10	82	-153

Chapter 5

Conclusion

Each chapter is to begin with a brief introduction (in 4 or 5 sentences) about its contents. The contents can then be presented below organised into sections and subsections.

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

References

[1] HU, Yun Chao, et al., *Mobile edge computing?A key technology towards 5G*, ETSI white paper, 2015, vol. 11, no 11, p. 1-16.

[2] @online Raspberry pi, `https://www.raspberrypi.org/` Online; accessed 10-June-2019

[3] HU, Yun Chao, et al., *Mobile edge computing?A key technology towards 5G*, ETSI white paper, 2015, vol. 11, no 11, p. 1-16.