

**SREE CHITRA THIRUNAL COLLEGE OF ENGINEERING,
PAPPANAMCODE,
THIRUVANANTHAPURAM 695 018**

B. Tech Project Report Format

1. ARRANGEMENT OF VARIOUS PAGES AND CONTENTS:

The sequence in which the project report material should be arranged and bound should be as follows:

1. Cover Page (This is the copy of title page which will be put as cover)
2. Title Page (Both cover Page and Title page are the Same format)
3. An OHP sheet (Over Head Projector Transparent Sheet of A4 Size)
4. Bonafide Certificate1 (College Certificate)
5. Certificate -2 (External Project Organisation's)
6. Acknowledgement
7. Abstract
8. Table of Contents
9. List of Tables
10. List of Figures
11. List of Symbols, Abbreviations and Nomenclature
12. Chapter 1: Introduction
13. Chapter 2: Literature Survey.
14. Chapter 3: Methodology
15. Chapter 4: Procedures, Setup, Manufacturing, Fabrication, etc...
16. Chapter 5 ...etc Result Analysis & Discussion.
17. Conclusions
18. Scope of Future work
19. Appendices
20. References
21. Journal paper format of the project for publication.
22. Bio – data of project candidates (compulsory)

The table and figures shall be introduced in the appropriate places.

2. PAGE DIMENSION AND BINDING SPECIFICATIONS:

1. The dimension of the Project report should be in A4 size.

2. The project report should be bound using **flexible cover of the thick specified colour art paper** (hard binding) with plastic covering. This is the standard method of binding projects. First by stitching the arranged paper set, gumming the cover page on hard paper board and place them properly for bonding. Neatly trim the bound volume free edges. A nice Plastic cover is also provided for wet weather proofing.
3. The cover page should be **printed in black letters** in a paper of specified colours (Use light versions only) and the text for printing should be identical and same as that of title page.
4. **For each Branch there is specified colours allotted.**
5. **For Details contact project Coordinator s / Advisors**

Serial No.	Branch of Engineering	Specified Colours for Cover Page
1	Mechanical	Sandal wood Yellow light
2	Mechanical (Production) Engg.	Light Sky Blue
3	Mechanical (Auto mobile) Engg.	Light Leaf Green

3. **PREPARATION FORMAT:**

3.1 Cover Page & Title Page – Both are of the same page contents .One copy of Title page is used for covering the report. A specimen copy of the Title page of the project report is given in **Appendix 1.**

3.2 Bonafide Certificate1 – The Bonafide Certificate shall be in double line spacing using Font Style Times New Roman and Font Size 12, as per the format in **Appendix 2.**

The certificate shall carry the signatures of the internal and external guides and shall be followed by guide’s name, designations, department and full address of the institution , where the guides has guided the student. Type the word **“INTERNAL GUIDE”** & **“EXTERNAL GUIDE”** in capital letters above the respective guide names. The name with academic designation of the Head of Department must be typed and space shall be provided for the signature.

External Certificate 2 - If submitting to the external institution, the certificate should be in the official **Letter head** carrying the signatures of authorised persons / external guides of the project institution and official seals and also shall contain guide’s name, designations, department and full address of the institution, where the project has been carried out.

3.3 Abstract – Abstract should be **one page** synopsis of the project report typed 1.5 (One and a half spacing) line spacing, Two or Three paragraphs of Font Style Times New Roman and Font Size 12.

A guide signed single page abstract should be distributed to the students in the class just before all presentations (interim presentations and final presentation) and the same abstract should be given to the project guides, project co-ordinators and to the project evaluation faculties at least one day before .

3.4 Table of Contents –

The page of “table of contents” should list all materials preceding and following that page. The title page and Bonafide Certificate will not find a place among the items listed in the Table of Contents but the page numbers of which are in lower case Roman letters. One and a half spacing should be adopted for typing the matter under this head. The table of content can typed in a table with hidden border lines so that alignment and correction editing will be very easy. A specimen copy of the Table of Contents of the project report is given in **Appendix 3**.

3.5 List of Tables –

The list should use exactly the same captions as they appear above the tables in the text. One and a half spacing should be adopted for typing the matter under this head.

3.6 List of Figures –

The list should use exactly the same captions as they appear below the figures in the text. One and a half spacing should be adopted for typing the matter under this head.

Figures: Number figures consecutively in each chapter using the decimal system, i.e. the third figure in chapter 5 is Fig. 5.3.

3.7 List of Symbols, Abbreviations and Nomenclature –

One and a half spacing should be adopted or typing the matter under this head. Standard symbols, abbreviations etc. should be used. The **items 3.5, 3.6, 3.7 can also be typed inside proper tables with no border lines**. So editing corrections and alignment becomes very easy. Make initially table with border lines then finally change the table property to no lines.

3.8 Chapters –

The chapters may be broadly divided into 3 parts (i) Introductory chapter, (ii) Chapters developing the main theme of the project work (iii) and Conclusions.

The main text will be divided into several chapters and each chapter may be further divided into several divisions and sub-divisions like Literature Survey, Methodology, Procedure etc.

- ❖ **Each chapter should be given an appropriate title according to the nature of project and the contents in it.**
- ❖ Tables and figures in a chapter should be placed in the immediate vicinity of the reference where they are cited.
- ❖ Footnotes should be used sparingly. They should be typed single space and placed directly underneath in the very same page, which refers to the material they annotate.

3.9 Appendices –

Appendices are provided to give supplementary information, which is included in the main text may serve as a distraction and defocus the attention and may cloud the central theme.

- Appendices are numbered using Arabic numerals, e.g. Appendix 1, Appendix 2, etc.
- Appendices, Tables and References appearing in appendices should be numbered and referred to at appropriate places just as in the case of chapters.
- Appendices shall carry the title of the work reported and the same title shall be made in the contents page also.

3.10 List of References –

The listing of references should be typed 2 spaces below the heading “REFERENCES” in alphabetical order in **single spacing left – justified**. The reference material should be listed in the alphabetical order of the first author. The name of the author/authors should be immediately followed by the year and other details. In case of specific websites, provide the full path / link of the related reference. The **generic websites** like **Google, Wikipedia, howstuffworks** etc should **not be included** in the reports.

A typical illustrative list given below relates to the citation example quoted .The below sample contains the method of writing the list of references if, the reference is, an international journal, Reference books for particular applications, general fundamental text books, very specific & special references, only a specific page or a figure or an equation which is referred, a web journal (. com), or a web site (. html) or a link (. pdf).

How to show references in the context:

Generally the References will be written in sequential order of appearance in the edited material and will be given serial ascending numbers. In the “**References**” they are typed in the same order. The context of reference, in the material, the Serial number will be given with in a square bracket. Example: [3] or [**Ref. 3**]

A typical illustrative list given below relates to the citation example quoted

REFERENCES

1. Barnard, R.W. and Kellogg, C. 'Applications of Convolution Operators to Problems in Univalent Function Theory', Michigan Mach J., Vol.27, 1980, pp.81–94.
2. Shin, K.G. and Mckay, N.D. et al. 'Open Loop Minimum Time Control of Mechanical Manipulations ', Proc.Amer.Contr.Conf., San Diego, CA, 2009, pp. 1231-1236 .
3. William Stallings, 'Wireless Communication and Networks', 2nd edition, June 2005, Prentice Hall of India.
4. Cullity, B.D., 'Element of X-ray Diffraction', 5 th Edition 1978, Allison Wesley.
5. Sinke, W.C., 'The Photovoltaic Challenge' MRS Bulletin, American Ceramic Society Bulletin, 1993, Vol. 18, No. 10, p.18.
6. Journal: www.elsevier.com/locate/actaastro/ layer insulations/. (sciencedirect.com)
7. Site : www.sbir.nasa.gov/sbir/abstracts/06/sbir/phase2/SBIR-06-2-X9.01-1948.html.
8. Link : www.quest-corp.com/archieve/nasa/2000_0019_8625_1456.pdf .

3.10.1 Table and figures -

By the word Table, is meant **tabulated numerical data** in the body of the project report as well as in the appendices. **All other non-verbal materials** used in the body of the project work and appendices such as charts, graphs, maps, photographs and diagrams may be designated **as figures**.

Tables:

Use the same systems as that for figures. The table number and its description is however at the top of the table. In referring to a particular table the word "table" is always capitalized.

Equations:

Use the same numbering systems as figures and tables. The number is placed at the far right of the equation and is bracketed. If referred to in the text the word is capitalized and abbreviated (e.g. Eq. 4.3) except at the beginning of a sentence, where it is spelled out.

Footnotes:

Footnotes appear at the foot of the page and are numbered with elevated numerals in sequence throughout the text and are single spaced. They serve two functions: to clarify or supplement a particular sentence or portion of the text, or to document a reference or source of information. They should be used only in unavoidable circumstances.

3.11 Journal paper format of the project for publication –

The final complete project work should be made into a manuscript of a suitable journal format and this should be attached at the end of the project report as an **Appendix**. The prescribed journal format may **Elsevier/ Wiley/ Saga/ IEEE/AMIE/ASME or any** other as decided by the department. The purpose of this is to enable the student to get a practice and if the project is really suitable then to upload their work for publication.

4. TYPING INSTRUCTIONS:

- ❖ The impression on the typed copies should be black in colour.
- ❖ **One and a half spacing** should be used for typing the general text.
- ❖ The general text shall be typed in the Font style ‘**Times New Roman**’.
- ❖ **Margin: Top 1.0 ”, Bottom 1.0 ” Left 1.5 ” Right 1.0 ” (all in inches)**
- ❖ Line spacing: **One and a half spacing** ,
- ❖ Font size: **12** , Font style ‘**Times New Roman**’ . normal
- ❖ Larger fonts may be used for headings & subtitles .(not too large , limit to **14** or **16**)
- ❖ Do not add any additional spacing’s between headings and paragraph.
- ❖ Use the very minimum numbers of pages. No separate pages for writing chapter no - 1, chapter no - 2 etc.. **No wastage of recourses.**
- ❖ No header lines or footer lines. In short **No decorations of any sort.**
- ❖ Enrich properly each pages of the project report. **No wastage of space.**
- ❖ Give Page Number in the page footer center
- ❖ The introduction chapter starts with the Page No 1.
- ❖ The Title page and Bonafide Certificates will not find a place among the items listed in the Table of Contents but the page numbers of which are in lower case Roman letters.
- ❖ The page numbers of Abstract, List of Tables, List of Figures and List of Symbols, Abbreviations & Nomenclature are in lower case Roman letters.
- ❖ For page wise setting and to keep a page as a single unit insert page-breaks options before and after so that whatever editing’s you do in the document , that will not affect the edited portion which is inside these page -breaks. What will happen at the most is generation of some new blank pages. At the end of the editing process delete these extra blank pages carefully. It is always better to start editing from introduction to conclusion with insertion of page-breaks. (in Microsoft WORD format)

- ❖ Give Page numbers only after final editing.
- ❖ **From chapter 1 introduction page to starting page of the conclusion chapter** both sides of the pages can be used for printing. ie **double side printing can be done**.
Please be aware of margin setting of left side page is the mirror image of right side page. So do the margin setting carefully as in book printing.
- ❖ Make separate files for certificates, Table of contents, Abstract, List of Tables, List of Figures and List of Symbols, Abbreviations & Nomenclature. Since they all are of single page entries. Corrections can be done easily and independently.

5. NUMBER OF COPIES :

Please confirm “ **THE NUMBERS OF COPIES REQUIRED** ” with the project coordinators before final printing

6. SUBMISSION :

- ❖ Firstly the Original and all copies of project Reports should get it signed by your internal and external guides, co-ordinators and Head of Department.
- ❖ From the office get College Round Seal on the certificate.
- ❖ You (Each one of you in group project) should have the original project report with you. There should not be any matter addition or deletion in the certificates or in the title pages or in the cover pages. All the originals should be the same. Since the project is generally a group work and there is no individual property rights. There are equal rights to all project mates.
- ❖ **Submit** One copy of project Report to your internal Guide/s.
- ❖ **Submit** One copy of project Report to your external Guide/s.
- ❖ **Submit** One copy of Project Report to co-ordinator /Department.
- ❖ Also **Submit the Soft copies** of your Project **Power Point Presentations** and the **Project Report in a CD** to the co-ordinator / Department. That will be kept in digital library and will be made available for all SCTCE students for future reference and further studies.

APPENDIX 1

(A typical Specimen of Cover Page & Title Page)

A PROJECT REPORT ON

TITLE OF PROJECT REPORT

 < Single line spacing –Bold >

*Submitted in partial fulfilment of the requirements for the
award of the degree of*

 <1.5 line spacing><Italic>

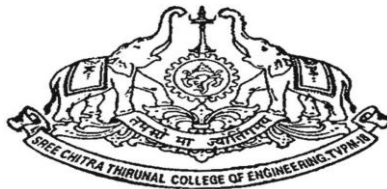
BACHELOR OF TECHNOLOGY

In

< Font Size 14 > <Italic >

NAME OF THE DEGREE

< Font Size 16 > < Bold >



COLLEGE EMBLEM

Submitted by

<Italic>

NAME OF THE CANDIDATE(S) : UNIVERSITY CANDIDATE CODE

 < Bold >

BRANCH OF STUDY

SREE CHITRA THIRUNAL COLLEGE OF ENGINEERING

THIRUVANANTHAPURAM 695 018

<1.5 line spacing>

MONTH & YEAR

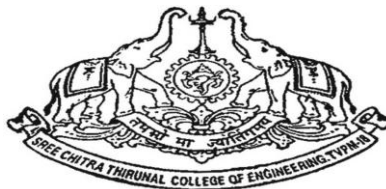
Note “ SPECIMEN”

A PROJECT REPORT ON

**STUDY OF UNSTEADY FLOWS IN SEGMENTED SOLID
ROCKET MOTORS USING UNSTRUCTURED FINITE
VOLUME METHOD**

*Submitted in partial fulfilment of the requirements for the
award of the degree of*

BACHELOR OF TECHNOLOGY
In
MECHANICAL (AUTOMOBILE) ENGINEERING



Submitted by

JAY 09 402 111
JAYA .A.B. 09 402 222
KUMAR . C.D 09 402 333
ANOOP KUMAR 09 402 444

DEPARTMENT OF MECHANICAL ENGINEERING
SREE CHITRA THIRUNAL COLLEGE OF ENGINEERING,
THIRUVANANTHAPURAM 695 018.

JUNE 2023

APPENDIX 2

(A typical specimen of Bonafide Certificate)

**SREE CHITRA THIRUNAL COLLEGE OF ENGINEERING,
THIRUVANANTHAPURAM - 695 018.**

DEPARTMENT / BRACH OF STUDY.

COLLEGE EMBLEM

CERTIFICATE

Certified that project work entitled “.....**Title of the project**” is a bonafide work carried out by “.....**Name of the Candidate (s).** at ...”.....**Name and Address of the organisation where the project is carried out.....**” .in partial fulfilment for the award of Bachelor of Technology in “.....Name the Branch of Study.....” from APJ Abdul Kalam Technological University during the academic year 2023-2024, who carried out the project work under the guidance and no part of this work has been submitted or published any where earlier for the award of any degree

 < single spacing>

<<Signature of the Project co-ordinator>>
SIGNATURE

<<Signature of the Internal guide>>
SIGNATURE

<<Name>>

PROJECT CO_ORDINATORS

<<Academic Designation>>

<<Name>>

INTERNAL GUIDE

<<Academic Designation>>

<<Full address of the Dept & College >>

<<Full address of the Dept & College >>

<<Signature of the Head of the Department>>
SIGNATURE

<<Signature of the external guide>>
SIGNATURE

<<Name>>

HEAD OF THE DEPARTMENT

<<Academic Designation>>

<<Name>>

EXTERNAL GUIDES

<<Academic Designation>>

<<Full address of the Dept & College >>

<<Full address of the Dept & College >>

Note “ Specimen”

**SREE CHITRA THIRUNAL COLLEGE OF ENGINEERING,
THIRUVANANTHAPURAM - 695 018.
DEPARTMENT OF MECHANICAL ENGINEERING.**



CERTIFICATE

Certified that project work entitled “ **STUDY OF UNSTEADY FLOWS IN SEGMENTED SOLID ROCKET MOTORS USING UNSTRUCTURED FINITE VOLUME METHOD** ” is a bonafide work carried out by “ **JOY VARGHESE V.M. (09 402 111), SHAJAN (09 402 222), SHYJI (09 402 333) and PREM KUMAR. J (09 402 444)**” at TERLS, Vikram Sarabhai Space Centre , Thiruvananthapuram ” .in partial fulfilment for the award of Bachelor of Technology in “ **MECHANICAL (AUTOMOBILE) ENGINEERING** ” from APJ Abdul Kalam Technological University during the academic year 2023-2024, who carried out the project work under the guidance and no part of this work has been submitted or published any where earlier for the award of any degree.

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Sample

APPENDIX 3
(A typical specimen of table of contents)

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