**MENG XXXX Name of Class**

**Department of Mechanical Engineering**

**January 8, 2016, Statesboro, Georgia, USA**

Technical Report X

Put paper title here

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Abstract

The abstract (300 words or less) should include a brief summary of the work performed as well as a quantitative presentation of significant findings. The abstract should concisely describe the content and scope of the project and identify the project objective, methodology, findings, and conclusions. The abstract should stand alone (i.e. it should not reference equations, tables, or figures).

Nomenclature

Nomenclature should follow customary usage. The nomenclature list should be in alphabetical order (capital letters first, followed by lowercase letters), followed by any Greek symbols, with subscripts and superscripts last, identified with headings.

*D* diameter, m

Re Reynolds number

INTRODUCTION

The introduction should include a brief overview of the theory present in the experiment and should introduce the purpose of the experiment. The introduction may include a brief history of the topic and should include background material sourced outside of provided course material. The introduction should include equations relevant to the theory being discussed.

Within the text, references should be cited in numerical order according to their order of appearance. The numbered reference citation should be enclosed in brackets. In the case of two citations, the numbers should be separated by a comma [1,2]. In the case of more than two reference citations, the numbers should be separated by a dash [5-7].

Equations should be numbered consecutively beginning with (1) to the end of the paper, including any appendices. The number should be enclosed in parentheses (as shown above) and set flush right in the column on the same line as the equation. It is this number that should be used when referring to equations within the text. Equations should be referenced within the text as "Eq. (x)." When the reference to an equation begins a sentence, it should be spelled out, e.g., "Equation (x)."

|  |  |  |
| --- | --- | --- |
|  |  | (1) |

EXPERIMENTAL METHODS

The experimental methods section should include: an experimental procedure that could be replicated, equipment used in the experiment, an experimental schematic/diagram and an overview of the analysis to be performed. This section should be in paragraph form.

DATA

The data section should contain the data obtained in the lab, with units, and presented in a logical, concise manner. Data should be presented with the appropriate number of significant digits as governed by the equipment utilized in the experiment. Statistical repeatability should be addressed through inclusion of averages and standard deviations (this information can be presented in the Results section). All trials should be included (a minimum of three per experiment).

All tables should be numbered consecutively and have a caption consisting of the table number and a brief title. This number should be used when referring to the table in text. Tables may be inserted as part of the text, or included on a separate page immediately following or as close as possible to its first reference — with the exception of those tables included at the end of the paper as an appendix.

Table 1. SAMPLE TABLE TITLE

|  |  |  |
| --- | --- | --- |
|  |  |  |
| Trial | Var1 (Units) | Var2 (Units) |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |

RESULTS

The results should contain: relevant equations used to perform calculations, sample calculations, quantitative results presented in tables and figures as appropriate to convey results. The equations and calculations performed should be introduced in paragraph form.

Introduction to sample calculation.

Introduction to second sample calculation.

All figures (graphs, line drawings, photographs, etc.) should be numbered consecutively and have a caption consisting of the figure number and a brief title or description of the figure. This number should be used when referring to the figure in text. Figures should be referenced within the text as "Fig. 1." When the reference to a figure begins a sentence, the abbreviation "Fig." should be spelled out, e.g., "Figure 1."

Figure 1. SAMPLE FIGURE TITLE

DISCUSSION

The discussion section should contain a discussion of the results and their physical significance, a comparison of experimental with theoretical/and or experimental data available in literature, and a statistical and experimental uncertainty analysis (standard deviation, equipment accuracy etc.). The results should not merely be stated but should be interpreted (i.e. what do the results mean?).

CONCLUSION

The conclusion should include a brief summary of what was done and significant findings. New material should not be incorporated in the conclusion. The conclusion should present quantitative findings not just qualitative descriptions of the results.

References

1. Ning, X., and Lovell, M. R., 2002, “On the Sliding Friction Characteristics of Unidirectional Continuous FRP Composites,” ASME J. Tribol., 124(1), pp. 5-13.
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3. Jones, J., 2000, Contact Mechanics, Cambridge University Press, Cambridge, UK, Chap. 6.
4. Lee, Y., Korpela, S. A., and Horne, R. N., 1982, “Structure of Multi-Cellular Natural Convection in a Tall Vertical Annulus,” Proc. 7th International Heat Transfer Conference, U. Grigul et al., eds., Hemisphere, Washington, DC, 2, pp. 221–226.
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7. Tung, C. Y., 1982, “Evaporative Heat Transfer in the Contact Line of a Mixture,” Ph.D. thesis, Rensselaer Polytechnic Institute, Troy, NY.
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9. Smith, R., 2002, “Conformal Lubricated Contact of Cylindrical Surfaces Involved in a Non-Steady Motion,” Ph.D. thesis, http://www.cas.phys.unm.edu/rsmith/homepage.html

Annex

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