## Professional English — I Introduction & Vocabulary for Math

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#### A simple survey

- Have you passed CET4 / CET 6?
- Have you taken TOEFL / IELTS?
- Have you attend an academic conference in English?
- Have you attend an academic conference oversea? Where is it?
- Have you talked with native English speakers? How does it feel like?

#### What can you get from this course?

Do you know the following logo?





#### What can you get from this course?

**Paper Reading & Writing** 

state-of-the-art (SOTA)

the rule of thumb





JOURNAL OF LITEX CLASS FILES, VOL. 14, NO. 8, AUGUST 2015

#### How to Use the IEEEtran LATEX Class

Michael Shell, Member, IEEE

(Invited Paper)

Abstract—This article describes how to use the IEEEtran class with FTrX to produce high quality typeset papers that are suitable for submission to the Institute of Electrical and Electronics Engineers (IEEE). IEEEtran can produce conference, journal and technical note (correspondence) papers with a suitable choice of class options. This document was produced using IEEEtran in Computer Society (compsec) journal mode

Index Terms-Class, IEEEtran, LETEX, paper, style, template, typesetting.

guage, an author can produce professional quality typeset research papers very quickly, inexpensively, and with minimal effort. The purpose of this article is to serve as a user mands, are both available for free online. guide of IEEEtran LATEX class and to document its unique features and behavior.

This document applies to version 1.8b and later of IEEEtran. Prior versions do not have all of the features described [7] here. IEEEtran will display the version number on the user's console when a document using it is being compiled. The latest version of IEEEtran and its support files can be obtained from IEEE's web site [1], or CTAN [2]. This latter site may have some additional material, such as beta test versions and files related to non-IEEE uses of IEEEtran. See 2 CLASS OPTIONS the IEEEtran homepage [3] for frequently asked questions and recent news about IEEEtran.

Complimentary to this document are the files bare con f\_compsoc.tex and bare\_jrnl\_compsoc.tex, which are "bare bones" example (template) files of an IEEE Computer Society conference and journal paper, respectively. Authors can quickly obtain a functional document by using these files as starters for their own work. A more advanced example featuring the use of optional packages along with more complex usage techniques, can be found in bare\_ad

It is assumed that the reader has at least a basic working knowledge of LATEX. Those so lacking are strongly encouraged to read some of the excellent literature on the subject [4]-[6]. In particular, Tobias Oetiker's The Not So Short Intro-

#### See http://www.michaelshell.org/ for current contact information.

Manuscript created February 25, 2002; revised August 26, 2015. This work was supported by the IEEE. This work is distributed under the UTEX Project Public License (LPPL) ( http://www.latex-project.org/ ) version 1.3. A copy of the LPPL, version 1.3, is included in the base BTeX documentation of all listributions of LTEX released 2003/12/01 or later. The opinions expr here are entirely that of the author. No warranty is expressed or implied. User

1. Note that it is the convention of this document not to hyphenate command or file names and to display them in typewriter font.
Within such constructs, spaces are not implied at a line break and will be explicitly carried into the beginning of the next line. This behavior

WITH a recent IEEEtran class file, a computer running duction to UTEX2€ [5], which provides a general overview of UTEX, and a basic understanding of the UTEX lanworking with UTEX, and Stefan M. Moser's How to Typeset Equations in ETEX [6], which focuses on the formatting of IEEE-style equations using IEEEtran's IEEEeqnarray com-

> General support for LATEX related questions can be obtained in the internet newsgroup comp.text.tex. There is also a searchable list of frequently asked questions about LATEX

Please note that the appendices sections contain information on installing the IEEEtran class file as well as tips on how to avoid commonly made mistakes.

There are a number of class options that can be used to control the overall mode and behavior of IEEEtran. These are specified in the traditional LATEX way. For example,

is used with correspondence/brief/technote papers. The various categories of options will now be discussed. For each category, the default option is shown in italics. The user must specify an option from each category in which the default is not the one desired. The various categories are totally orthogonal to each other-changes in one will not affect the defaults in the others.

#### 2.1 9pt, 10pt, 11pt, 12pt

There are four possible values for the normal text size. 10pt is used by the vast majority of papers. Notable exceptions are technote papers, which use 9pt text and the initial submissions to some conferences that use 11pt.

Be aware that IEEE Computer Society publications use "PostScript" (i.e., "big point", bp) point sizes (i.e., 72bp = 1in) rather than the traditional typesetters' point (i.e., 72.27pt = 1in). Also, "10pt" IEEE Computer Society journal papers actually use a slightly smaller, 9.5bp, font size (probably to compensate for the slightly wider nature of the Palatino font). IEEEtran will automatically tweak the selected font size as needed depending on the mode.

#### What can you get from this course?

#### **Listening and Understanding**



#### **Oral Presentation**

#### **Poster Communication**

• 请用英语描述勾股定理 (Pythagorean theorem)

$$a^2+b^2=c^2$$

$$c$$

$$a$$

#### Schedule

- Introduction, English for Math (Week 8)
- Reading (Week 9/10)
  - RM1: Deep Learning, a Nature paper
- Writing (Week 11/12)
- Listening (Week 13/14)
- Speaking (Week 15)
- Final Exam (Week 16)



https://cihlab.github.io/course/peng.html

Course Website and QR Code

#### Score

20% Attendance

- 20% Quiz
  - Any word on the slides/RMs can appear on the Quiz.
- 40% Final Exam

- 20% Presentation (optional) / Paper Writing ->
  - Writing: one-page survey on your field

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Abstract—This article describes how to use the IEEEtran class with LaTeX to produce high quality typeset papers that are suitable for submission to the Institute of Electrical and Electronics Engineers (IEEE). IEEEtran can produce conference, journal and technical note (correspondence) papers with a suitable choice of class options. This document was produced using IEEEtran in Computer Society

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#### 1 INTRODUCTION

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\documentclass[9pt,technote] {IEEEtran

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#### **About Presentation**

• The context is desired to be entry level, and 5-8 min.

- It is suggested to introduce a basic idea in your field.
  - For example, "Neural Network", "Von Neumman Architecture"
- Only 16 vacancy for presentation
  - Plz send your topic to <a href="mailto:cxchen@fudan.edu.cn">cxchen@fudan.edu.cn</a> ASAP, first come first serve

### Vocabulary for Math

Please take notes.

# add, plus subtract

# multiply, times product

# Divide, divided evenly dividend, divisor

### quotient, remainder

# factorial, power, square root, cube

How to say:

### round

## integer, positive/negative number

## even, odd real, image, irrational

# Inverse, prime reciprocal

### common divisor

# binary, decimal, hexadecimal digit

## Proper/improper fraction

### numerator, denominator

How to say:

 $\frac{5}{9}$ 

## quarter

# arithmetic/ geometry mean average

## exponent, logarithm

# constant, variable parameter, coefficient

## Linear, polynomia

### factorization

### absolute value

# Inequality, approximate greater/less than

## range, domain

### substitute

### clockwise, counterclockwise

## proportion, ratio

## Parentheses, brackets, braces

## Permutation, combination

# Angle, vertical angle acute angle, obtuse angle right angle

equilateral triangle, right triangle, lsosceles triangle

## Quadrilateral, pentagon hexagon, polygon

# Parallelogram, rectangle regular polygon, rhombus trapezoid

## Cube, cylinder, cone sphere

### circumference, perimeter

#### Radian, radius, diameter

#### Area, volume

### diagonal

#### Hypotenuse, base, side

#### Cordial coordinate

## Origin, intercept, axis slope

## foot/feet inch

1 foot = 0.3048m=12 inch 1 inch = 0.0254m

#### mile

1m = 1609.344m

Ferrari F430 top speed = 196 mph

#### Celsius Fahrenheit

F=C\*5/9+32

#### Ounce / oz

1 oz=0.0283 kg 3.6oz/106ml \$3









#### Libra (lb)

1 lb= 0.4536 kg =16oz



Height: 9.50 inches (241.2 mm)

Width: 7.31 inches (185.7 mm)

Depth: 0.37 inch (9.4 mm)

Weight: 1.44 pounds (652 g)