**LaTex typesetting environment setup guide:**

All software tools referred in this guide are freeware. Use a search engine to find them and have them downloaded.

1. Install LaTex. For Windows, install MikTex. For Linux, install TexLive. I suggest you to use Windows, since it is campus-default OS.
2. Install Texmaker. It is a cross-platform LaTex editor and integrated development environment (IDE).
3. Install Inkscape. It is drawing software. It can output eps (encapsulated postscript) figures that can be used in your LaTex documents. When you draw a figure, make sure to use the default svg file format for later editing.
4. Install gnuplot. It is an interactive plotting software. Also, can generate eps plots. When you plot something, keep the source code and data file(s) for later editing.
5. Install ghostscript and gsview for postscript file handling and viewing.
6. Install JabRef. It is BibTex (bibliographical tool for LaTex) reference manager. It is based on Java. So, install Java first. If you need to add a reference, visit scholar.google.com. Then, click on settings and have “show links to import citations into BibTex” checked. Then, find the paper you want to reference. Click on “Import into BibTex” link underneath of the searched paper. Then, Google scholar will show you a bibtex entry that can be copied and pasted to JabRef.

Setup installed tools:

1. TexMaker:
   1. Options -> Configure Texmaker.
   2. Click on Commands and have ghostscipt and ps viewer properly configured with correct directory paths.
   3. Click on Quick Build and check Latex + dvipdfm + view PDF. Then, also check “Don’t launch a new instance…” on the bottom.
   4. Click on Editor. Change font size to 18. Also, click on “Dark theme” for better color scheme.
2. JabRef:
   1. JabRef has a setting that will automatically wrap all capital letters for certain fields in { } - this will make sure they are preserved in the LaTeX output. Under Options -> Preferences -> General -> File -> "Store the following fields with braces around capital letters", make sure the title field is included. To do this for several fields, write e.g. "title;abstract" (without the quotes). This setting automatically adds braces when saving the bib file, but you won't see the braces within JabRef. This option is necessary to preserve capitalization of capital letters.

How to compilesample LaTex document:

1. Decompress Siva-Paper.7z file.
2. Open TDSC-init.tex file with Texmaker. This paper is being prepared to be submitted to IEEE transactions on dependable and secure computing (TDSC) journal.
3. To compile a pdf output, you can press F1 (quick build).
4. When you change .bib file (such as you add one more reference), you should fully recompile your LaTex document by pressing F2 -> F11 -> F2 -> F2, where F2 invokes latex command and F11 invokes bibtex command. This procedure is required to resolve cross-references. Then, press F1 to do “quick build” and generate pdf output.

How to learn LaTex:

1. There is a website dedicated to LaTex documentations and tools and so much. It is [www.ctan.org](http://www.ctan.org).
2. <http://www.ctan.org/starter.html> has some useful links you can use to learn how to use LaTex and how to insert math equations and how to include graphics.
3. LaTex guide: <http://www.ctan.org/tex-archive/info/lshort/english/>
4. Math typesetting guide: <ftp://ftp.ams.org/pub/tex/doc/amsmath/amsldoc.pdf>
5. Include graphics guide: <http://www.ctan.org/tex-archive/info/epslatex/english>