## Technical Report Writing using LATEX

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## **OUTLINE**

- ► Why LATEX?
- ► Introduction to LATEX
- ► Documents Structure of LATEX
- ► Few Basics (EXAMPLE: 1 (Simple Document) & EXAMPLE: 2 (Two Column Document of IEEEtran class))
- ► Mathematical Equation in LATEX
- ► Mathematical Equation in LaTeX(EXAMPLE: 3)
- ► Creating Tables in LATEX(EXAMPLE: 4 & EXAMPLE: 5)
- ► Importing Figures in LaTeX(EXAMPLE: 6 & EXAMPLE: 7)
- ► Reference & Citation (EXAMPLE: 8)
- ► How to write proofs of theorems (EXAMPLE: 9)
- ► How to write Algorithms (EXAMPLE: 10)

## WHY LATEX?

- 1. It's **free** and **portable**.
- 2. You can use the editor of your choice (Even MS Word).
- 3. Including **mathematical expressions** in LaTeX involves typing a few appropriate characters. By contrast, including mathematics in Word requires Equation Editor, a cumbersome and slow graphical user interface
- 4. Style changes are neater in LATEX. Style files for many periodicals exist.
- 5. Almost all mathematical and scientific **notations** are easily achievable in LaTeX.
- 6. **Repetitive tasks** can more easily be **automated**.
- 7. Don't bother about the **format**, concentrate on the **content**.