Dr. Amrita Mishra

Aim of Course Research Project

1. Understand various facets of research paper reading and writing
2. Based on an individualistic interpretation, student should be able to explain in his/her **own words** various aspects of the paper namely research problem; related works in literature, their contributions and shortcomings; proposed specific solution and results (if any); conclusion and future scope.
3. Familiarize use of LATEX for research paper writing

Important Instructions

1. The repository contains 94 papers. At most 2 students can select a paper. Try selecting unique papers since selection of the same paper as your mate may invite unwanted comparison.
2. The submission will be based on ONLY one of the IEEE magazine papers selected by the student.
3. Every submission will be checked for plagiarism using Turnitin software. Permissible overall similarity score is 15% with individual reference matches less than 2%. Submissions not following this criterion will not be accepted and directly graded 0.
4. The paper should be written ONLY using the **LATEX** templates shared with the students. Any other formats (e.g., MSWord converted to PDF) shall not be accepted for final submission.
5. Paper should NOT exceed 15 pages in the standard IEEE double column format (including figures, tables, references etc.) No minimum page constraint.
6. Paper MUST contain the following sections
   a. Abstract with index
   b. Introduction/Motivation of the problem statement, Background and Related Works – Why solving the problem at hand is important in the first place? Important related works which have tried solving the problem, their solutions in brief and shortcomings
   c. System Model or Framework (optional include only if relevant to the paper)
   d. Proposed design/approach
   e. Results and discussion
   f. Conclusion and future scope
   Understand each section and express it in your own words. We do not expect you to write a journal paper but try to write grammatically correct sentences with proper punctuation.
7. Type the equations and not copy paste it from the paper.
8. Block diagrams/Flowcharts relevant to the discussion should be drawn by the student using MS PowerPoint/LibreOffice/Visio. **Snipping tool cannot be used for this**. Try limiting the use of diagrams to a maximum of 4 (does not include simulation results/plots) in the paper.
   Exception: Plots/Results relevant to the result section can be reproduced using the snipping tool along with appropriate referencing.
9. Numerical tables (if necessary) should be incorporated in the paper using appropriate commands in Latex
10. The paper must contain at least 10-20 **relevant** references.

11. Grading components
    a. Content and Discussion – 40%
    b. Structure and Readability – 20%
    c. Formatting, Picture quality and length – 20%
    d. Grammar, Punctuation and spelling – 10%
    e. References – 10%

Things to Keep in Mind While Writing

(Disclaimer: Majority of the content a.k.a. advice in this section is reproduced verbatim from https://www.lockhaven.edu/~dsimanek/termpapr.htm)

- Don't write anything you don't understand. Don't fake it and don't force it. Understand first—then write. If you don't understand it, you can't help your readers to understand it.

- Make the focus and organization of your paper clear to the reader. Don't ramble from one thing to another aimlessly.

- Find your natural style—don't imitate the writing style of others. Would you *speak* this way? If your professor gave a pop-quiz, would you *write* this way? One way to avoid this is to sit down at typewriter or word processor without any books, and simply put down your own thoughts on the matter. Then use your notes to fill in specifics, references, quotes, etc., but change the style and structure only if it is obviously inappropriate or clumsy.

- Avoid imitating the language or style of your scholarly sources (here the selected paper), for if you do it reasonably well, the result will have all the appearance of plagiarism. If you do it badly, you'll look ridiculous.

- **If you HAVE to copy *anything* word-for-word from a source** (I am assuming here there is absolutely no other go!), **set it in quotes (if short) or in an indented paragraph (if longer), and always reference it.**

- A paper should be more than a scrap-book or a compilation of notes. You must put *your* personal stylistic stamp on it: a point of view, a method of selection, a central theme.

Latex Resources

1. https://www.overleaf.com/learn/latex/Learn_LaTeX_in_30_minutes
2. http://www.docs.is.ed.ac.uk/skills/documents/3722/3722-2014.pdf
3. http://web.mit.edu/rsi/www/pdfs/new-latex.pdf