Power System Academia 101 – v1.7

A public version of "UH RPG Lab Resources and Student Handbook - Version 1.7" – August 18, 2025

Contents

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Log

- The detailed logs for the full version that is only accessible for the members of UH RPG Lab are no longer included in the public version.

- This log section now only indicates the changes in the public versions.

v1.0 – released on June 20, 2023. It is the very first public version.

v1.7 – released on August 18, 2025. Changes: updated lists of journals and conferences in the power system area; added a subsection of "Free ESIG Student Membership"; added a subsection of "Tips for Paper Writing and Submissions"; added a subsection of "Tips for Review Comment Response and Paper Revision".

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1 Group Information - RPG Lab

RPG Lab: i.e. Renewable Power Grid Lab.

- **R**enewable energy-dominated future **P**ower **G**rids (RPG).

Group Website:

- https://rpglab.github.io

Permanent QR Code to our website:

2 Research and Publications

2.1 List of journals in the power system domain and relevant areas

- *IEEE Transactions on Power Systems (TPWRS)*
  - 10-page limit for initial submission.
- *IEEE Power Engineering Letter*
  - Only accept short paper (letter): 3-page limit initial submission; then 3.5-page.
- *IEEE Transactions on Smart Grid (TSG)*
  - 10-page limit for initial submission.
- *IEEE Transactions on Sustainable Energy*
- *IEEE Transactions on Energy Conversion*
- *IEEE Transactions on Power Delivery*
- *IEEE Open Access Journal of Power and Energy*
  - Open access only, $2,075 up to 11.5 pages in the final accepted version.
  - Review process is quick: ~4 weeks for first round decision.
  - Accept short (letter) paper: 3-page limit initial submission; 4-page for revisions.
- *IEEE Transactions on Industry Applications (TIA)*
  - Must be based on a conference paper; unless there is a special issue.
- *IEEE Transactions on Industrial Informatics*
  - Double blind review; not allow preprint; 8-page limit; 150-word limit for abstract.
- *IEEE Systems Journal*
  - Accept short paper (letter): 4-page limit.
- *Proceedings of the IEEE*
- *IEEE Power and Energy Magazine*

- *IEEE Access* (open access only - expensive)
- *IEEE Control Systems Letters (L-CSS)*
  - Only accept short paper (letter): 6-page limit.
- *IEEE Transactions on Neural Networks and Learning Systems*
- *IEEE Transactions on Industrial Cyber-Physical Systems*
- *IEEE Transactions on Industrial Electronics*
- *IEEE Transactions on Transportation Electrification*
  - Battery/EV related papers may go here.
- *eTransportation*
  - Battery/EV related papers may go here.
- *Nature Energy*
  - Nature series journals.
- *Proceedings of the National Academy of Sciences (PNAS)*
  - A top journal with high impact factor.
  - Papers/topics may broadly span the biological, physical, and social sciences.
- *Journal of Modern Power Systems and Clean Energy (MPCE)*
  - Open access only, currently is free of charge.
  - Accept short paper (letter): 5-page limit.
- *CSEE Journal of Power & Energy Systems (JPES)*
- *Renewable & Sustainable Energy Reviews (RSER)*
  - For review/survey papers only.
- *Energy*
  - *Scope covers cross-sectoral energy systems, NOT sole focus on electricity sector.*
- *Applied Energy*
- *Renewable Energy*
- *Journal of Energy Storage*
- *Sustainable Energy Technologies and Assessments*
  - *Author check list has extra paper formatting requirements.*
- *Sustainable Energy, Grids and Networks*
- *Energy Conversion and Management*
- *Journal of Power Sources*
- *Applied Thermal Engineering*
  - Papers involving thermal management and/or other thermal application elements.
  - E.g., combined heat and power plants, solar-thermal systems.
- *Electric Power Systems Research (EPSR)*
  - *Single-column format, double line spacing, 12 points, 22-page A4.*
- *Energy and AI* (open access only- expensive)
- *Solar Energy* (open access only- expensive)
- *Energy Nexus* (open access only- expensive)
- *International Journal of Electrical Power & Energy Systems* (open access only- expensive)
- *International Transactions on Electrical Energy Systems* (open access only - expensive)
- *IET Generation, Transmission & Distribution* (open access only - expensive)
- *IET Renewable Power Generation* (open access only - expensive)

- *IET Energy Systems Integration* (open access only - expensive)
- *Energies* (open access only - expensive)

2.2 List of conferences in the power system domain and relevant areas

- *IEEE PES General Meeting (PESGM)*
  - Due around November.
  - Conference date: ~Mid-Late July.
- *IEEE PES Transmission and Distribution Conference & Exposition (T&D)*
  - Due around August.
  - Conference date: ~April/May.
  - Once every 2 years (2020, 2022, 2024 *et al*).
  - Many attendees are from the industry.
- *North American Power Symposium (NAPS)*
  - Student-focused conference, free hotel for students, student program/events.
  - Due around June/July.
  - Conference date: ~October.
- *Innovative Smart Grid Technologies Conference (ISGT) – North America*
  - Due around August.
  - Conference date: ~February.
- *IEEE PES Grid Edge Technologies Conference & Exposition*
  - Due around April/June.
  - Conference date: Jan. 2025; Apr. 2023.
  - Once every 2 years (2023, 2025, *et al*).
- *IEEE SmartGridComm*
  - Due around June.
- *IEEE IAS Annual Meeting*
  - Papers presented in this conference can be possibly extended to journal TIA.
  - Due around March.
  - Conference date: ~Sept/Oct, June for 2025.
- *DISTRIBUTECH International*
  - Many attendees are from the industry.
  - Conference date: around March. May *not* have call-for-paper.
- *Texas Power and Energy Conference (TPEC)*
  - Student focused, regional conference.
  - Due around November.
  - Conference date: ~February.
- *Power and Energy Conference at Illinois (PECI)*
  - Student focused, regional conference.
- *Kansas Power and Energy Conference (KPEC)*
  - Student focused, regional conference.
- *IEEE IAS Industrial and Commercial Power System Technical Conference (I&CPS)*
  - Conference date: ~May, annual conference.
- *Hawaii International Conference on System Sciences (HICSS)*
  - Due around June.

  - Conference date: early January.
- *CIGRE Grid of the Future Symposium*
  - Due around July.
  - CIGRE conference in the U.S.
- *ACM International Conference on Future Energy Systems (ACM e-Energy)*
  - Two submissions per year: one in Fall & one in Spring.
  - Due around January or September.
- *Electrical Energy Storage Applications and Technologies (EESAT)*
  - Due around June.
- *IEEE Green Technologies Conference (GreenTech)*
  - Due around November.
- *Offshore Technology Conference (OTC)*
  - It is held in early May in Houston, each year.
  - (Oil & Gas & Offshore Wind Power) Industry-oriented conference.
  - A 1-page abstract is required for submission – The decision will be made on this 1-page abstract. If accepted, you can submit the full paper.
- *IEEE Conference on Decision and Control (CDC)*
  - Due around early March.
  - Possible paper submitted to L-CSS with CDC option.
  - Flagship conference of the IEEE Control Systems Society.
- *American Control Conference (ACC)*
  - Due around August.
  - Possible joint submission/publication to L-CSS and ACC at given time windows.

- *Power Systems Computation Conference (PSCC)*
  - Due around May/June for Abstract (one-year in advance), and due around September for full paper.
  - Conference date: ~June.
  - In Europe, once every 2 years (2020, 2022, 2024 *et al*).
  - Papers presented at PSCC will be published at journal EPSR.
  - E.g. jointly included in both the conference proceedings and in this PSCC 2020 Special Issue of EPSR.
- *Bulk Power System Dynamics and Control Symposium (IREP)*
  - IREP papers will be published in a Special Issue of the journal *Sustainable Energy, Grids and Networks (SEGAN)*, published by *Elsevier* & indexed by *Scopus*.
  - Conference location and date: a European country, ~June.
  - Expensive conference, high registration fee.
- *International Conference on Probabilistic Methods Applied to Power Systems (PMAPS)*
  - Once every 2 years (2020, 2022, 2024, 2026 *et al*).
  - Due around January.
- *IEEE Sustainable Power and Energy Conference (iSPEC)*
  - It was established by the Chinese Society for Electrical Engineering in 2019 to emulate the IEEE PES General Meeting in North America.
  - Selected papers will be considered for publication in JPES.
  - Due around July.

- *IEEE International Conference on Smart Energy Grid Engineering (SEGE)*
  - Location: Oshawa, ON, Canada.
  - Due around June.
- *IEEE Canada Electrical Power and Energy Conference (EPEC)*
  - Due around March.
  - Conference date: ~Oct.
- *IEEE International Conference on Energy Technologies for Future Grids (ETFG)*
  - Location: Wollongong (near Sydney), Australia.
  - Due around March 1.
  - Conference date: December.
- *IEEE PES International Meeting (PESIM)*
  - Due around July.
  - Conference date: ~Jan/Feb.

2.3 List of conferences in the machine learning domain

- International Conference on Machine Learning (ICML)
  - Due around January.
  - Acceptance rate: 20% - 25%.
- International Conference on Learning Representations (ICLR)
  - Due around September.
  - Acceptance rate: 25% - 35%.
- Neural Information Processing Systems (NeurIPS)
  - Due around May.
  - Acceptance rate: 20% - 30%. Require LaTeX format submissions.
- AAAI Conference on Artificial Intelligence (AAAI)
  - Due around August.
  - Acceptance rate: 20% - 25%.
- International Conference on Data Mining (ICDM)
  - Due around June.
  - Acceptance rate: 10%.

Paper submissions and acceptance rates for major ML conferences:

- https://github.com/lixin4ever/Conference-Acceptance-Rate
- https://github.com/yzhao062/data-mining-conferences

2.4 Tips for Paper Writing and Submissions

Some personal tips from my experience:

- It is always better to get an initial full draft done in a week or sooner, no matter how bad the format looks like, no matter how bad the paper flow reads like, no matter how many syntax errors and typos are there, and no matter how ugly the figures/tables would look. Completing the first draft very fast is very important and actually super-efficient.
- Use numbered Bullets to create the reference list; do NOT use the "Citation and Bibliograph" provided by Word; also, do NOT use any third-party reference management tools.

  - When citing a reference, use "Cross-Reference" so that all the reference numbers can be automatically updated (see subsection 3.9 for instructions). You may need to pay special attention to the first reference and the last reference, since they may be cited incorrectly when the first/last reference changes. You can also do "Ctrl + F" to search for 'error' to ensure reference citing auto update is correct.
- For equations, use the "Equation" feature provided by Word; do NOT use MathType.
- For figures and tables, if you have many of them, you can also consider to use "Caption" and "Cross-Reference".
- It is always good and maybe necessary to include benchmark/traditional models/methods for comparison to demonstrate the proposed method.
- The first main section should "*always*" be "Introduction", at least true for most power-related journals/conferences:
  - it starts with a couple of paragraphs on big picture/general research background,
  - then a few paragraphs on relevant literature review (summarizing what have been done, what methods were used, pros/cons; more important, drawbacks/gaps of existing work that are addressed in this paper);
  - then, what a summary of this paper including what methods/models are proposed.
  - A bullet list of contributions (about 2-3 sentences in each contribution) could be useful.
  - It is optional to have a last paragraph explaining the structure of the remaining sections.
  - The Introduction section should typically end on page 2 (NOT on page 1). If a long nomenclature section is included, then, it may end on page 3.
- It is also often good to include sensitivity analysis to enrich the simulations/results and thus demonstrate the robustness of the proposed method.

2.5 Tips for Review Comment Response and Paper Revision

Journal paper review comment response:

- In addition to responding to the reviewers' comments, you must also make the associated changes in the paper accordingly.
  - For instance, if a reviewer doubts the performance of your model under different system scenarios, you may need to: (i) create additional test cases with different scenarios and then conduct the simulations, (ii) analyze the results and evaluate your model performance, (iii) write the response and include the results in the response, AND (iv) include these results in the revised paper and mention where in the revised paper you made such changes in the response.
- If the comments involve figures/tables/equations and their numbers are different in the revised paper, you need to mention the numbers in both paper versions, for instance, "We have updated Fig. 5 (which is Fig. 7 in the revised paper) ..."

Conference paper review comment response:

- For most conferences, there will be a direct final decision to your paper. If it is an Accept, you may or may not have the opportunity to revise the paper per comments; and you often do not need to submit a review comment response. If it is a Revision, typically, you may just need to write a review and revision response but do not highlight the changes made in the paper, depending on the particular conference and requirement.

3 Miscellaneous

3.1 The Power Globe E-mail Forum

http://www.ece.mtu.edu/faculty/ljbohman/peec/globe/

Power Globe is an internet e-mail forum for persons having an interest in electric power engineering, especially the power system engineering. This email list is widely used by power system researchers throughout the entire world.

It is free to register; everyone in our group should register (though you may receive many emails every day).

3.2 Free CIGRE Student Membership

CIGRE is an IEEE-like institute. The student membership for CIGRE is free for full time tertiary students.

https://www.cigre.org/GB/join/how-to-join

3.3 Free ESIG Student Membership

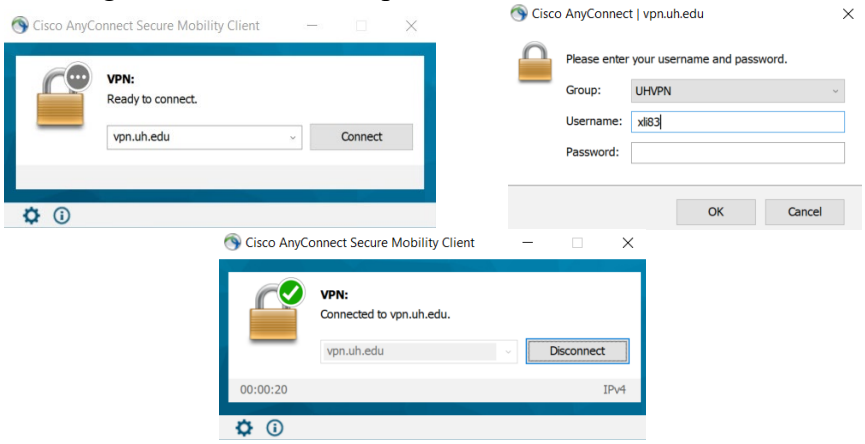
It is free for students to become a member of the Energy Systems Integration Group (ESIG).

https://www.esig.energy/join-as-a-student/

3.4 How to remotely connect the university network (using UH as example)?

You can use VPN - Cisco AnyConnect Secure Mobility Client.

- Type in: vpn.uh.edu
- Enter your CougarNet username and password



3.5 How to remotely connect the server from a Windows machine?

- Click Windows "Start"
- Open Remote Desktop Connection
- Type the IP address (or full name such as "xxxx.xxx.uh.edu") of the computer you want to connect

- Enter university username and password
- Connect

There are a few setting we can change after you click "Show Options".
If you are connected to a non-UH internet, you can still do the remote connection with a VPN such as Cisco AnyConnect Secure Mobility Client.
Note that you are use this method to connect both Windows servers and Linux servers.

3.6 How to download papers remotely (using UH as example)?

When you are connected to a non-UH internet, you can still download papers with UH Library. You may need to log in with your CougarNet account before you can download it.
https://libraries.uh.edu/

3.7 Data/File Backup

It is important to back up the data and files on a regular basis, since there are possibilities that the computer that you use to store important codes, papers, reports, thesis draft, and data may be stolen, lost or damaged. When that happens, it would be a disaster if you do not have a backup. So regular file backup is a resilience enhancement towards your degree and career…

Options to regularly backup data/files include external hard drives and cloud storage. Popular products of cloud storage include Dropbox, One Drive, Box, and Google Drive. They support cloud storage as well as file synchronization that allows you to work on multiple machines without manually updating your files. They provide some free services for personal use, which is sufficient unless you have many Gigabytes data to store. UH also provides some free storage space via One Drive.

I heard a case that a student who was going to take the thesis defense got robbed and the only laptop that contained his codes/data and thesis draft was gone…

3.8 Figure design

It is better to create figures to be compatible in both color print and colorless print.

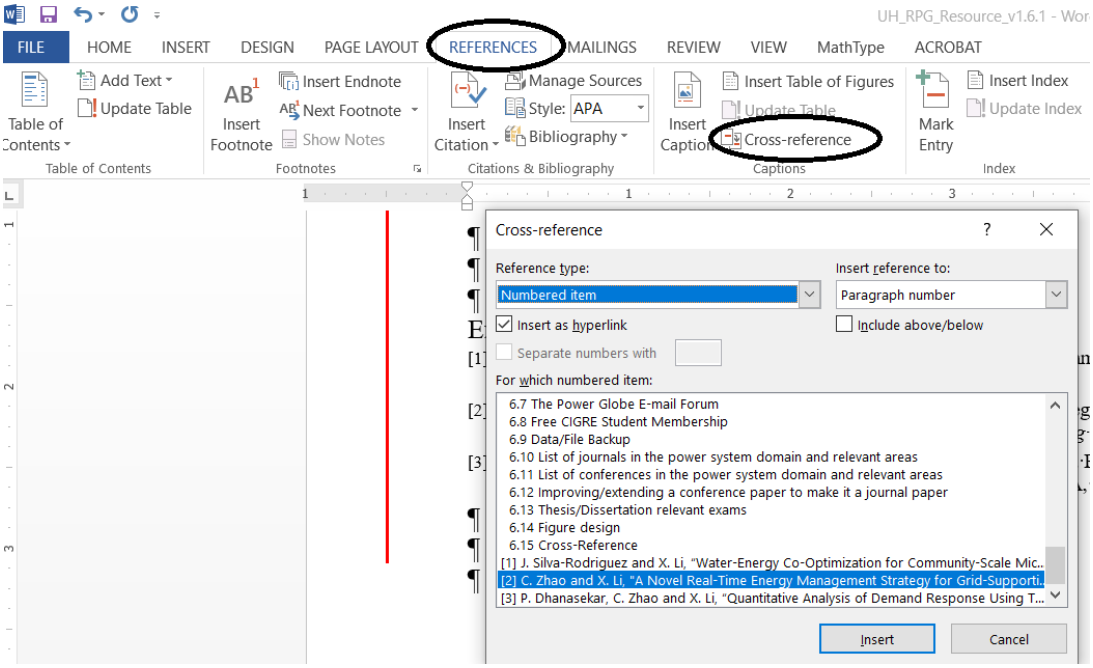
For example, in the same figure, you may use two different colors to represent two different curves or represent two different bars/columns. However, it may lead to a problem when it is print colorlessly. Some solutions are available to address this issue, for example, add different markers for different curves.

3.9 Cross-Reference function in MS-Word

With a list of references (See a sample below)

- Place the cursor in the place for reference citation,
- Go to tab "References" in word, click "Cross-reference",
- select the reference to cite, and then click "Insert".
- If the reference list changes (e.g., add new references, or delete existing references), the order/number of the references cited in the text can be updated automatically by simply Pressing "Ctrl+P" for print in Windows (but do not need to actually print anything).
- Note that, when you add a new reference as the very first reference in the list, error may occur – double check.

Example:



Example list of references:

[1] J. Silva-Rodriguez and X. Li, "Water-Energy Co-Optimization for Community-Scale Microgrids," *IEEE 53rd North American Power Symposium*, College Station, TX, USA, Nov. 2021.

[2] C. Zhao and X. Li, "A Novel Real-Time Energy Management Strategy for Grid-Supporting Microgrid: Enabling Flexible Trading Power," 2021 *IEEE Power & Energy Society General Meeting (PESGM)*, 2021, pp. 1-5.

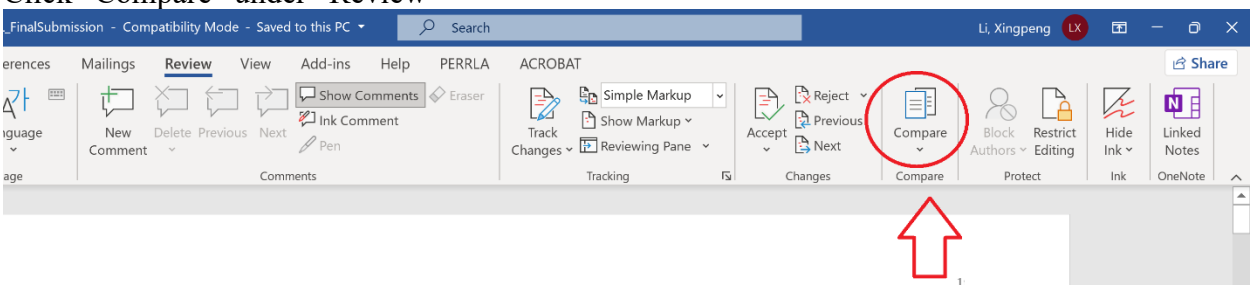
[3] P. Dhanasekar, C. Zhao and X. Li, "Quantitative Analysis of Demand Response Using Thermostatically Controlled Loads", *IEEE PES Innovative Smart Grid Technology*, New Orleans, LA, USA, Apr. 2022.

Note that this cross-reference may also be used for citing figures and tables.

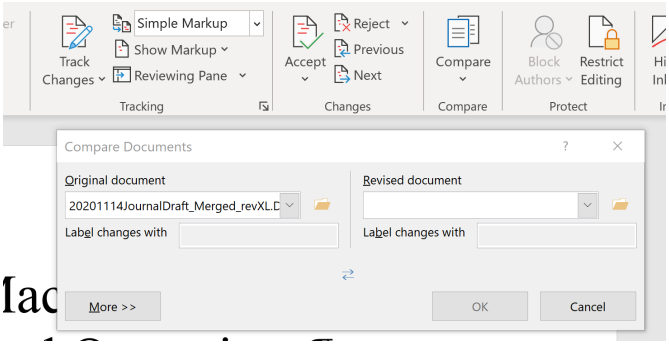
3.10 How to find untracked changes among two versions in MS-Word

Using the "Compare" feature of word, you can identify the changes made among two word files even if "Track Changes" are disabled.

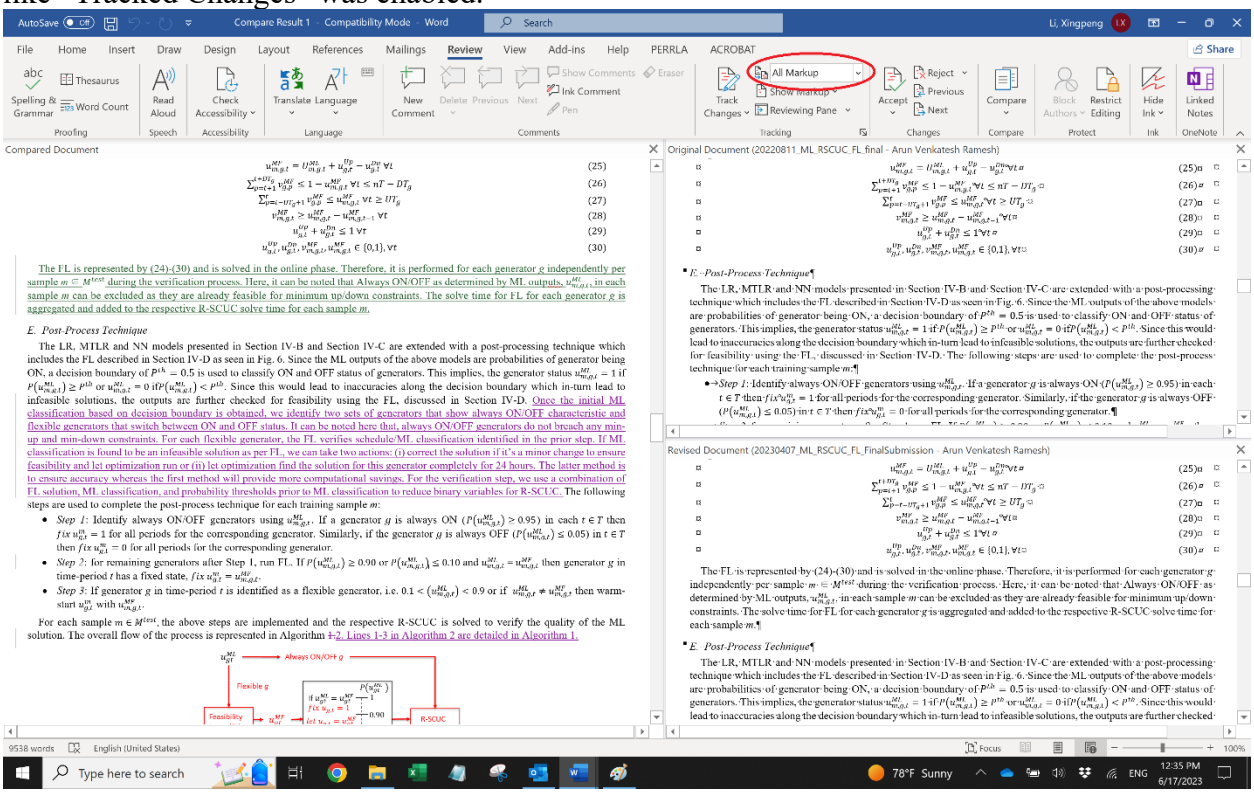
Click "Compare" under "Review"



Then, select two files to be compared.



Last, make sure "All Markup" is selected under "Review" to see the changes in a similar way like "Tracked Changes" was enabled.



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