

LIPE Ground Rules and Protocols*

Ali Mehrizi-Sani • mehrizi@wsu.edu
School of Electrical Engineering and Computer Science
Washington State University

January 1, 2019

I hope you have a good start at WSU. Here are a few reminders and ground rules for our group. Earning a graduate degree requires lots of initiative on your side. Enjoy your journey! added in 2019: **The most recent edits are highlighted.**

EECS Graduate Handbook. Please learn the departmental policies. Read the Graduate Student Handbook. Look for it on the EECS website, under Graduate Study.

Graduate School Forms and Deadlines. Your progress toward your degrees requires filling several forms throughout your program. The Graduate School has several requirements and deadlines for filing your Program of Study (typically mid third semester), your Preliminary Exam (PhD students), your ABD waiver, your final defense, and submission of thesis. Please see the deadlines and forms at <http://gradschool.wsu.edu/facultystaff-resources/18-2/>.

Plagiarism. I take plagiarism VERY seriously. Not knowing the rules does not justify a case of plagiarism. When writing (which you will do a lot), be very careful about plagiarism. You should not copy any material (even a sentence) from any other previously published material, e.g., books, papers, websites, including your own publications. If you want to mention a concept that is taken from another publication, you have to (1) rephrase it and (2) cite it. If you mention it verbatim, it has to be enclosed within quotation marks and clearly cited. IEEE (and I) is very strict about this; if IEEE catches a plagiarism case, even after being published, they will attach a note to the paper that it violates the IEEE policies and that note will remain on IEEEExplore forever and seriously affects your career. I report such cases to WSU officials as well. For more information, please see http://www.ieee.org/publications_standards/publications/rights/plagiarism_FAQ.html. WSU provides free access to two of the best available services for plagiarism check (iThenticate and Turnitin) so you can check your work before submitting it; please see <https://news.wsu.edu/2014/11/06/tools-for-faculty-students-save-time-promote-integrity>. For any new paper you write, please check it with iThenticate and email me the similarity check report. If similarity with any single paper is more than 8% (TPWRD's guideline), you will need to rewrite or rephrase.

Hours. You are expected to be at the University during regular business hours. Note that this is the minimum: graduate school is not a 9 to 5 job; rather it is a life style.

Personal Travel. If you plan to go on a personal travel, let me know in advance. If you are planning to work on your research (and get paid), we need to discuss an itemized list of what you expect to accomplish while away.

Conferences. Our emphasis is on journal papers, but sometimes conference publications can provide a good dissemination and networking venue. I will only consider tier-one conferences: Power and Energy Society General Meeting (PESGM), Industrial Electronics Annual Conference (IECON), Applied Power Electronics Conference (APEC; essentially PELS's General Meeting), and a few others. I will try to send you to relevant conferences (pending availability of funds and acceptance of your papers).

*PDF available at http://eecs.wsu.edu/~mehrizi/LIPE_GroundRules.pdf

WSU has certain policies for official travel (even if not paid by a WSU account) and for the reimbursement process—these policies are the same for faculty and students; therefore I will not request an exception if you do not follow these policies and you will not get reimbursed. You will have to be proactive about conferences, paper submission, and making travel arrangements; here are the steps you need to take; All the forms (and more guidelines) are available at <https://vcea.wsu.edu/faculty-staff/business-center/travel/>.

1. Before the Trip

- (a) Submit the paper!
- (b) Submit the Travel Authority (TA) form. This form needs my signature; it also need to include the the project from which I pay for this trip.
- (c) Register for the meeting before the early registration deadline. Also apply for student support program if available, e.g., PES General Meeting.
- (d) Explore and purchase the most economical travel option (as required by State of Washington).
- (e) Send me your presentation and/or poster for review at least two weeks before the travel date. Poster printing is done here at WSU.

2. During the Trip

- (a) Keep all receipts.
- (b) Enjoy your trip. Make connections. Go and talk to people. At the minimum, introduce yourself, say one sentence about your work, thank them for their time, and end with “Just wanted to introduce myself.” This is perfectly fine and will build the ground for a longer conversation the next time you see that person.

3. After the Trip

- (a) Prepare the Travel Worksheet. Send it to me for review before you send it to Travel. Do not include per diem.
- (b) Receive your reimbursement.

I provide a certain maximum amount of funds (reimbursement-based, allowable costs) for each trip. This will typically cover a certain portion of the trip costs. I prefer this method to micromanaging your travel arrangements. Many times it is more reasonable to stay at a nonconference hotel. Please check travel websites such as hotels.com, booking.com, hotwire.com, and kayak.com for options. Do look for “inns” too; they don’t necessarily mean inn in the traditional sense: think Holiday Inn.

IEEE Membership. If you are not already an IEEE member, please do become a member. As electrical engineers in academia, you are expected to be IEEE student members. The membership fee is very low (about \$32 in 2013) and the savings you will get in conferences and other benefits more than offset this fee.

L^AT_EX. If you don’t already use L^AT_EX, learn it and use it. It has a learning curve, but saves you from frustration down the road. Think of it as a well-invested time. Your papers, reports, and dissertation/thesis *must be* done using L^AT_EX. There are only very few exceptions that I accept a non-L^AT_EX document. I post several links for L^AT_EX on the website of each course I teach, e.g., EE 525 and EE 486. Also be nice to yourself and use TikZ for your graphics. Visio and Illustrator can’t do all the engineering diagrams.

Software. We have licenses for many software tools. WSU provides licenses from many general tools such as Microsoft Office and Microsoft Windows for free.

PDF Files. Always send me our documents in PDF unless I ask for another format. Never use RAR. Both Windows and Mac have native support for ZIP files. Installing WinRAR or the like is so last decade.

File Naming Convention. Please choose a file naming convention and stick to it consistently. Don’t name your abstract simply abstract.pdf as it will come back and haunt you later (when you start writing

your thesis, if not earlier). Include date (YYYYMMDD style or with dashes: YYYY-MM-DD) and a descriptive name. One suggestion is to name the file as [date of this version]_[conference or journal name]_[file function], e.g., 2012-11-02_ISGT_abstract.pdf. Include the date at the beginning of the file name so your operating system can sort the files correctly. Always store PDF versions of the files that are important. No other format is consistent across platforms (Windows and Mac) or across different versions. If you send anything like an assignment or course project report, make sure you include your name as well. Simply use your judgment. (As a tip, I never change the name of the \TeX file I am editing; I use something like PESGM_SPACE.tex for the paper file name. Then whenever I have to have a new version, I make a copy of the \TeX and PDF files and add the date designators to those. This saves me the hassle of loading/unloading files in WinEdt.)

Phone Number. Please email me your cell phone number for emergencies.

Email. As a reminder and good business etiquette, please acknowledge emails I send you so I know that you have received them and are working on them. A simple response such as “Yes,” “thank you,” and “sure” suffices most of the time. Also from now on I will send emails to your WSU email accounts. You can use Gmail as your email client to have everything in one place and to be able to check it easily on your phone (I do this myself). I’m sure you are tech savvy enough, but if you need any information, e.g., port numbers, use Google (and somehow based my experience, it seems googling is itself a rare skill). ALWAYS check your spam folder; many times emails from IEEE and even WSU end up in your spam.

Weekly Meeting. We will have weekly half-hour individual meetings. Come to the meetings with an agenda. Write down the itemized agenda; never trust your memory. Let me know beforehand if in any week you can’t make it to the meeting.

My Calendar. Here’s the link to my calendar (also on my website): <http://goo.gl/CMbYN>. It’s always as up-to-date as it can be, so you can know where I’m at any time if you want to see me outside our weekly meetings. If my door is closed but my calendar shows that I am free, it’s probably because the outside is too noisy. Just knock. Wait a few minutes (i.e., 10 min) if I’m late; sometimes I’m tangled up in a prior meeting.

Website. Please make a website for yourself on your WSU space and then give the link to me. At the minimum (and in the interim) send me a pictures of yours and a short bio (IEEE style) mentioning your previous degree(s), your research interests, and your other activities. I’ll include this information on my website and add a link to yours.

Papers. Here’s the bare minimum expectation, and you should plan on doing way more than this.

- For PhD, an average of one journal paper per year. Conference papers are up to yourself, but there should be one submitted at the end of first year and a journal paper ready for submission at the same time. *You must have at least three accepted journal papers before I sign your dissertation.*
- For MSc, one journal paper. First conference paper end of the first year.

Academic Writing. Your thesis (in Master’s), dissertation (in doctoral), scholarly papers, or industry reports are the hallmark of your work at WSU. While clearly your research has to be technically sound and valid, your write-up also needs to be clear and conform to the standards of the community. The LIPE Guide on Academic Writing is a set of best practices compiled to help you prepare such documents. This list will be updated regularly; please check before starting to write.

Proofreading. We typically go through a few iterations (drafts and corrections) until your paper is ready for submission. *Proofread your paper before giving it to me* for mistakes such as subject-verb agreement, typos, capitalization, and singular/plural words. I usually make corrections on a hard copy. Please mark every single one of the corrections that you implement so I know you have seen them. If you don’t agree with a correction, simply mention why. Return the copy with my corrections to me. Do this always. Technical writing is different from other types of writing and it can be difficult. Naturally your writing will improve with submission of more papers. I expect you to proofread after each iteration.

PSCAD. You will have to install PSCAD on your computer for simulation studies. Follow the guide (by Chris Stone) at http://eecs.wsu.edu/~mehrizi/LIPE_PSCAD.pdf.

Logbook. I expect you to keep a logbook. If you haven't had a logbook before, it's simply a book in which you write your daily reports. It could contain anything from equations, derivations, tips about writing a piece of code, a code snippet (or better yet, printouts of your codes), and of course, the agenda for your weekly meetings. See me for a sample of a perfect logbook.

added in 2019: **Ethics in Research and LIPE Membership.**

Take ownership of your research. Your research problem is a problem you need to genuinely try to solve. In PhD research, you are not going to redo what other people have done—so you don't even know if your proposed solution might work. You have to solve a challenge; otherwise, it would be only a glorified homework problem. PhD research is supposed to be difficult, is supposed to be something others haven't tried, is supposed to take long, and is supposed to be frustrating at times. Of course, there are clearly some problems that are very difficult to solve, e.g., the four-color map problem (interestingly, the first proof for this problem was found only 10 years later to be wrong and the actual proof followed only about a century later), but engineering problems are normally not of this sort.

You are not expected to do magic in your research. Your methods should naturally have limitations (and if they don't, there is something wrong). Be open and investigate such limitations. Any system will fail.

If you make a claim in your report, make sure your results support it. This seems obvious but is unbelievably commonly overlooked, especially when an improvement in A causes awful performance in B. This also means that you need to show enough evidence of the superior performance of your methods.

Improve your standards over time. The fact that there are papers that are *previously* published (by other researchers or by LIPE) that do not fully adhere to our *current* standards is no justification for not following higher standards “oh but you didn't ask me to do this for our previous paper”). Even in modern history, there have been cases that a whole theory or even field of science (and hundreds of related papers) are debunked a few decades later. Two examples, purposefully not from EE to not cause any heartburn, are the learning styles theory (in pedagogy) and the heart-based stem cells (in biology) that are very recently shown to be myths.

Expect yourself to always improve your writing. Naturally, a paper you write toward the end of your program has to be of much higher quality than a paper written in your first year. This also means that I expect the number of iterations for your final papers to be 4-5, while 12-14 iterations might be okay for your first one or two papers. Therefore, the quality of your write-ups should continually increase and you should move toward an independent researcher/writer, rather than relying on me for correcting your papers and making sure these (and other) guidelines are followed. In the past, I have unfortunately had to return papers without review to be checked for some obvious mechanical errors and for not following the advice given in the Writing Guide. And the most common mistake? Surprisingly, not following subject-verb agreement (using a plural verb for a singular subject or vice versa).

Share results with me early on. Your weekly reports should be more than “I tried X and the results were good” Show me those results before it's too late and you realize your “good” is not really “good.”

Asking is caring. If you are unsure about anything (a technique, best practices, results), please ask me. In general, if something is taking too much time (say creating figures in \LaTeX) and you start wondering why I need it, you are doing it wrong.

Don't blame PSCAD. PSCAD is trusted and used by industry, government, and academic community. So if your resistor is consuming negative power, it is not PSCAD's fault—it is quite unlikely that PSCAD developers didn't know how to calculate real power.

Be professional. The power community (and the world) is too small:

- Please do not lie to me (and I thought I never had to mention this. Sigh.).
- You are under no obligation to accept a job offer and you can always negotiate a later start date or a later deadline. However, if you accept a job offer, the expectation is that you will start working there. While clearly typically you can move between places, not starting a job for which you have accepted an offer essentially means you do not respect your signature. What's worse is that it leaves a lasting impression on LIPE (or even your country of origin) as a whole. Unfortunately, humans always create stereotypes and have implicit biases.
- I completely understand the current visa/work situation. If it makes you feel better, I have lost *several* admission offers, job interviews, job offers, and projects over the last 15 years merely due to such issues that were out of my control. This also means that I will never accept "if you were in the same situation, you would do the same" as an excuse. I was and I didn't. "Other people do it too" is not a valid justification either. In fact, this is an alarming way of reasoning studied in psychology under "self-justification" and rationalism: <https://en.wikipedia.org/wiki/Self-justification>
- In the past, I have made exceptions about not strictly following some policies, e.g., travel. In the university environment, many time faculty (including myself) shield our students from the consequences of them not following the rules. In the long run, this works to the disadvantage of everybody involved. For those of you with industry/internship experience, you know that most of the time your first mistake will also be your last mistake regardless of the length of service. I expect the same standards from you as are expected from me by WSU. WSU is tightening its policy safeguarding and so am I. **Going forward, no exceptions will be made.**