

## **Why and why not to choose EEE (Electrical & Electronic Engineering)???**

If you feel convinced that you should do EEE after this, don't go forward with it. Take some time to think about it. But if you feel that EEE aligns best with what you aspire to attain as an engineering undergraduate and then afterwards (in the industry or academia), that's awesome. Whatever you choose, make sure you choose it because you feel it best fits you. You being good at it- maybe an ok reason- but not the best. If your friend is doing it- completely a no no. Selection by elimination is fine. If you are on the verge of EEE or Com -if you are like me- you probably would better fit into ECE as in most foreign universities. But let's face reality, so choose one of these two. You can bridge that gap to a certain extent towards overlapping fields with quite some effort from either one of them. So choose one of them and go forth with it. Make sure you like what you choose. It will be 3 more years, and you will be needing that motivation to go those 3 years. Well that goes without saying....

Go through these web links on the course structure and specializations.

It's all here - <http://eng.pdn.ac.lk/deee/academic/undergraduate.php>

Course flow - <http://eng.pdn.ac.lk/deee/academic/undergraduate/Courseflow.php>

Disclaimer: The FAQ is structured on the **personal opinion** of myself, Yasiru, Sanjaya and Umar about the department based on facts and our experience.

## **FAQ!**

### **1) EEE amaruda? How is the workload?**

This is what it mostly is like ;). [Click here](#)

In EEE, the start of the semester is smooth and later on the work gets intense. So toward the end of the semester, you get a lot of work that is due.

Is it math intensive? See Q11.

### **2) How are the job opportunities in EEE? Do all 4 specialization fields have job opportunities?**

First off, specialization is a very mild factor. What people describe as their specialization is usually which core course they chose in the final semester, or what technical electives they mostly chose. (the second factor might be okay to some extent)

But yes, there are job opportunities in all fields of specialization. However it is not perfectly balanced and it is competitive as in all other departments and what not.

Power - CEB, LTL, DIMO, renewable energy, Water board, some construction companies, Orange, Kelani cables etc..., and more...

Communication - all telcos, networking(banks, at UOP)

Controls, Robotics - Zone24x7, MAS

Electronics, Embedded Systems - Vega, Zone24x7, WarioSystems, Synopsys, Paraqum, Veroxlabs

AI/ML - Veracity AI, TengriUAV, ore IT, Octave, arimac

there are plenty more, keep your search radar good and apply. Also consider internships at foreign companies. *Will upload a link to this in the future.*

### **3) In which year is the specialization as Electrical or Electronic chosen?**

Refer Q2 intro.

Upto 4th year (with little flexibility since 2020) all EEE students only take core courses (I'm skipping facts about General electives). If you want to make a stronger academic background towards a field, technical electives is the way, which happens mostly in the final year.

Side note: Some electives will not entirely fall into a specific sub domain but they are useful depending on your interests and pathway.

#### **4) Do you need a basic knowledge of EEE to choose EEE?**

No. The knowledge base you need is introduced in the 1st year. Everything else will be taught to you along the way. Regardless, self learning is an incredibly useful (and important) factor which you can do early on, or during your time at EEE.

*Personal comment- Try to develop your programming and computer science skills just to give you an edge.*

#### **5) Is it possible to do Biomedical Engineering from EEE?**

Yes! If your interest is towards biomedical engineering in the sense of sensors and device manufacturing, EEE is a good choice. We have 5 core courses in Electronics and Instrumentation, 1 core course in Embedded systems. You could further take the 4th year core course in electronics and choose Biomedical Engineering technical elective. Please check the second link at the top. Furthermore, the exposure to Signal Processing is excellent in EEE, which will help a lot towards biomedical engineering *IF that is the avenue in biomed that you have in mind*. However, *IF you prefer towards genome sequencing or ML*, EEE is not the stronghold. But you can somewhat work on your ML knowledge through online resources and the technical elective.

#### **6) Does UOP having Electrical and Electronics as one department as opposed to separate fields in UOM(Moratuwa) pose a disadvantage to UOP students?**

Pretty late to consider it if you are in UOP choosing your field, don't you think? :P JK

In my(and few others) opinion, slightly, yes. They spend 3 years in a more focused area hence have a slight edge. But it has been only noticed in Electronics. However, the job or the payment does not depend on your degree alone. What will mainly contribute is how you handle the interview and what are the projects and research you have carried out. If you can showcase your skills, you have levelled the playing field.

But in addition, a UOP degree offers you a broader spectrum of knowledge. This gives you an edge towards higher studies. Some universities often look into your knowledge in a broader spectrum (known as breadth of knowledge) which is easily proved from your academic transcript.

#### **7) Do you need a 1st Class to get into CEB?**

TO get a very concrete answer, talk to some lecturers in Power at UOP.

First off, CEB hirings has been after quite some time(nearly 3 years) at the writing of this (May 2021). So chances of getting into CEB as you graduate is low, since people in the industry will be applying to CEB. To answer the question, 1st class can add some points to your application, but hirings now are based on an exam.

Additional note: Internship at CEB(your 2nd internship after 3rd year) will count for extra points in your application

#### **8) What are the possible jobs that Electrical students can go to, if you do not get CEB?**

See Q6 then see Q2 intro then see Q2 latter part. Almost all EEE graduates (regardless of specialization (not really)) can enter all jobs in the SL industry. You can later transition to CEB if you really want. There are people who worked in Telecommunication companies for a few years and transitioned to CEB. It is common- at least not uncommon.

**9) Do Electronic students and Computer engineering students apply to the same job? If so do Com students have an upper hand?**

EEE students and Computer Eng students apply to the same company at times, but very rarely to the same job role. It happens mostly if EEE students want to shift towards software engineering. In this case, unless you have a proven track record towards SE, Computer Eng students will have an advantage. If not, they are independent.

Not at all. Only if electronic ppl apply to SE. Even the same companies have different roles. So no competitive advantage.

**10) Is EEE in UOP math intensive?**

No it is not. However, the math usage compared to other departments is higher. This does not mean that it is math intensive. Mostly you will encounter Linear algebra and Calculus. You will require maths throughout, but it is not intensive in that sense.

**11) Do EEE students obtain scholarships for higher studies?**

Yes. EEE students are in the USA, Canada, Finland, Australia as of our knowledge.

Mostly, PhD opportunities are fully funded. Often MSc in North America is also with a stipend. There are enough opportunities for higher studies if you build a good academic background.

**12) Is the EEE syllabus up to date?**

To our knowledge, Yes. Most EEE courses focus on laying the fundamental concepts in a solid manner. These are covered very well. As we see it, you are not introduced to State-of-the-art (SOTA) tools because that will change drastically. Hence, you need to learn the fundamentals well and ensure you utilize the tools and techniques in your projects to build solid hands on skills.

**Some additional OPINIONS from me.**

Take part in a lot of competitions. Doesn't matter what your passion is, there are competitions, take part in them. You are not gonna win in the first attempt, but take part in it. It will improve your skills and hands on skills more than anything.

If some1 tells you that having good grades and a good FYP will do, not really... Competitions will build the skills and hands on skills for the industry and research too.

Apply for internships by applying to companies yourself by sending in your CVs. Try for overseas opportunities. Reach out to alumni overseas in companies and also in universities. You have a 10week internship, try to make it 12 with the holiday weeks before and afterwards. Apply earlier than usual- perhaps 4-8 weeks before.

During FYP projects, often the department (by lecturers) put up a list at the end of the 6th semester. Try to do some of your own research and propose your ideas to lecturers by the end of 6th semester. This is rarely seen in EEE, do it anyway.

Higher Studies is not about ending up in academia. Most highly technical jobs (overseas) require an MSc or PhD. So if you want to do a R&D kind of job, higher studies will pave the way for it. Sri Lankan industry is also slowly budding into R&D, hence the opportunities will be better here too.