



GENERAL QUESTIONS AND DOUBTS (ELECTRICAL ENGINEERING)

Link to site : <https://www.iitk.ac.in/ee/>

Department Guide:

<https://heyzine.com/flip-book/52976ce5fc.html>

Q1) What is the structure of the core curriculum in this department?

The curriculum for electrical engineering students is beautifully designed to give students exposure to all the different sub-fields present in electrical engineering. These include-

1. Microelectronics
2. Communication systems and signal processing
3. Control systems
4. Power engineering

Starting from 3rd semester (2nd year) till 6th semester, students undertake roughly two courses in each of the above sub-fields. These courses are covered rigorously, thus helping students build a strong foundation in electrical engineering. Labs are also present in these courses which allows students to implement the theory they learn in courses on real life machines and instruments.

The last one and a half year allows students to dive deeper into any of the sub-fields based on their interest, or even in fields outside electrical engineering such as computer science, economics, statistics and many more.

Additionally, one can also take up undergraduate projects (UGP), where you work on interesting problems under supervision of professors.

Moreover, students are also required to undertake courses in humanities and social sciences for overall development. These courses are very interesting, oftentimes more interesting than your departmental courses!

Exact courses are given below-

1st year (compulsory courses): maths ,physics, chemistry, english ,engineering-drawing ,biology ,computer-science, physical-education ,phy-lab chem-lab (basically intro courses)

2nd year: electronics course, signal processing, control systems, microelectronics, intro to electrical lab

3rd year: core electrical courses and labs: digital electronics, power electronics, communication systems, electrical engineering labs, electromagnetic waves, and a lot of department and open electives options

4th year: under graduate project (can be substituted with courses too, so UGPs are not compulsory yay, but one should take it), no compulsory courses, full flexibility, take department and open electives as you want.

Q2) How flexible is the curriculum of this department in terms of open electives (OEs) and minors?

The curriculum provides strong flexibility , allowing minors and open electives (OEs) to be completed within 8 semesters. A minimum of 6 OEs is required(you can do more) and minors can be comfortably completed with careful planing The final year offers significant flexibility.

Q3)What is the teaching style, and how approachable are the professors in your department?

The department has very talented professors in all the domains of electrical engineering. They are genuinely amazing at teaching and extremely student friendly. teaching style is presentations / board demonstration.. very interactive. professors are great. do not go with the notion iitk is toughest in teaching.. no it is not like that.

Q4)Are there interdisciplinary opportunities in the department?

Yeah, one could take up UGP in different departments which counts to template . Students can do undergraduate projects/ SURGE internships/(Students-Undergraduate Research Graduate Excellence) general projects under profs from different departments. One can always do open electives in different departments.

Q5) How difficult is the coursework in the first two / three years?

Moderately difficult. you have to study and so is the case everywhere, a little while before exams and quizzes will be good enough to get decent to good grades .But there's nothing that is unmanageable.

Q6)What are the typical class sizes and student-to-faculty ratio?

The maximum number of students in any course can reach 200-215, where students are divided into groups of 30-40 for tutorials.

Q7)How easy or difficult is it to branch out of/into this department?

The cpi cutoff is around 9.2-9.3 for branch changes, and usually we get 2-3 students every batch who clear the cutoff and also select the branch. Mind you, few students from other branch are above the cutoff and still dont opt for any branch change, despite their parent branch being non-circuitual

Q8)What advice would you give to me if I aim for a branch change out of this department after the end of my first year? Should I do it, and how could I do it?

Should you or should you not do it is a matter of persons own interest. But there's absolutely no problem/disadvantage in being in electrical engineering. All doors remain open for an electrical engineer. Theres scope for higher studies and job opportunities within and outside electrical engineering.

Q9)Is this department good for pursuing higher studies abroad or go for placements?

yes good for both. a lot of opportunities are there, and almost all tech companies are open for EE at IIT Kanpur in placements

Q10) What are the typical career paths taken by graduates from this branch?

Typically, more than half the students go for software development roles. Rest either take up jobs within electrical engineering or pursue higher studies.

Q11) How is the peer group and competition level in this department?

Peer group is intelligent and competitive, though branch could be pretty competitive but large size compensate and you can get enough support from your peers

Q12)How collaborative or competitive is the environment?

a lot again. very collaborative in terms of projects and team works. students prefer working in teams in tech clubs and in undergraduate projects too. and the healthy competitiveness is also good. you can find people who help, and help a lot to ace the courses

Q13)Are there department-specific clubs, forums, or events?

Yep, there is EEA: electrical engineering association, it holds sessions as well as department projects. It serve as a platform to reach out to the vast alumni base of the Electrical Engineering department of IIT Kanpur.

Q14)How well-equipped are the labs and infrastructure?

very advanced and well furnished! labs got recently modernized so great news for the new batches!

Q15)Are there department trips, seminars, or workshops?

no formal trip as such, but seminars and workshops happen quite frequently.

Q16)General advise about the department

To understand the courses, you can just search "<Course Code/Name> IITK" and also try to go through the entire courses list available at <https://www.iitk.ac.in/doaa/courses-of-study>
Just join EE without a doubt if you don't have any specific interest. You'll be at the centre of all the opportunities.