

Department of Electrical Engineering Summary of Comments on Interim ARC Report

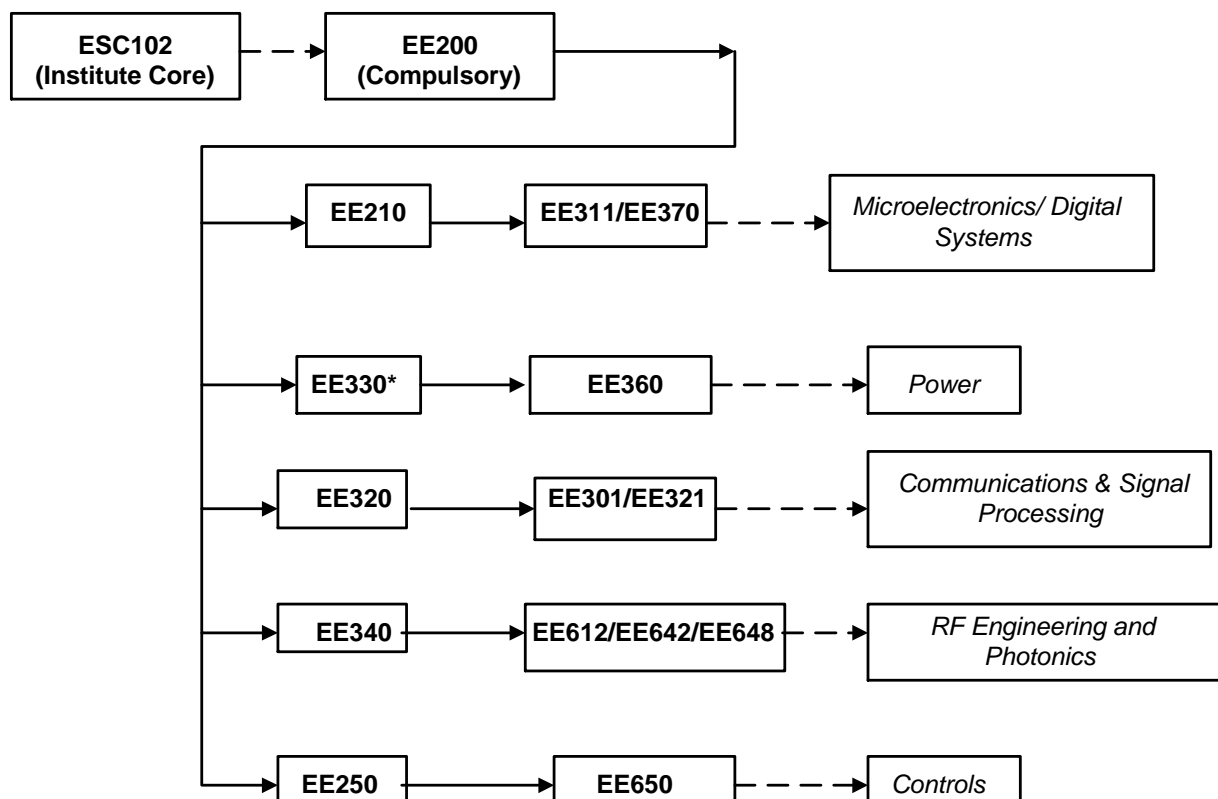
1. Departmental Minors

Minor is a sub-specialization within Electrical Engineering department and will consist of 27-36 credits (three courses). It should be encouraged in principle. However, minors will increase faculty load. Hence some limit on the number of students has to be imposed.

The student opting for minor in Electrical Engineering will have to take **EE200** as a *compulsory course*. He can take *any other two* EE courses subjected to prerequisite fulfillment out of which at least one course should be at *300 or higher level*.

Some *suggested* minor courses are give as follows. The figure given here is only for a guideline. The student is free to choose two remaining courses from EE courses (other than EE200).

Course Structure for Minor in Electrical Engineering



* ESO210 is a prerequisite for EE330

The Minor system cannot be implemented unless the *Timetable* permits the student to take these courses. Timetable is the responsibility of DOAA. It is advisable to have centralized timetable for all courses and the timetable should be fixed for the next five years.

Repercussion of fixing the timetable in advance is that the timetable decides the faculty courses. This may be unpleasant at times. However, flexibility should be allowed in the timetable of PG (600 level) courses.

2. Interdisciplinary Minors

Offering interdisciplinary minors is not very straightforward. The background (prerequisite) for such minors should be fulfilled.

There is a need of blending the existing courses of two departments or structuring new courses in two different departments to offer these minors.

3. Second B.Tech. degree in Electrical Engineering

Considering that EE Dept. will be offering minor courses, the second degree in Electrical Engineering will increase the faculty load. The possibility of second B.Tech. program was extensively discussed in the faculty meeting. It was felt that the minor courses should be offered and tried successfully before undertaking the second B.Tech. degree. Hence the second B.Tech. degree in Electrical Engineering will not be offered by EE Dept.

4. Suggested ESO courses for Electrical Engineering

(max.: 35 credits or 3 courses; min.: 10 credits or one course)

Compulsory:

ESO210 (Introduction to Electrical Engineering)

ESO209 (Probability and Statistics)

One out of three:

ESO202 (Thermodynamics)

ESO211 (Data Structures and Algorithms-I)

ESO214 (Nature and Properties of Materials)

5. Should there be an option for B.Tech. (Honours) degree?

The criteria of awarding a B.Tech. (Honours) degree are not very clear. One option is to make the B.Tech. (Honours) degree based on good performance in BTP. However, in the proposed ARC report, BTP is optional, and hence performance in BTP cannot be a criterion for awarding B.Tech. (Honours) degree. B.Tech. (Honours) degree based on CPI does not have much merit. Hence EE Dept. is not in favour of a separate B.Tech. (Honours) degree.

6. Passing CPI of 4.0

Passing CPI of 4.0 will degrade the standard. In major universities, the total passing percentage is more than the passing percentage in individual courses.

It is suggested to retain the passing CPI as 5.0. The structure of WR and AP should be maintained.

7. Should there be an exit option for students who consistently under-perform during core programme at IIT Kanpur? If so, what form should this exit option take?

It is suggested to retain the passing CPI as 5.0. The structure of WR and AP should be maintained.

A student enrolled for a B.Tech./ M.Tech.(dual)/ M.Sc. programme will not be happy with a degree less than what he/she has enrolled for. Awarding a Diploma of IIT after three years is one of the options discussed as this will ensure some employability to the student. However, awarding a Diploma after 3 years will create confusion as IITs are known for awarding B.Tech./ M.Tech.(dual)/ M.Sc. degrees to JEE entrants. Any certificate from IITK without having some employability will not serve any purpose.

Thus there should be no exit option.

8. In what ways can your department integrate communication skills as necessary evaluative criteria in some of your departmental course?

Many EE faculty members offering 600 level courses for final year B.Tech. students introduce presentation as a part of the course evaluation. Students opting for BTP will have to present their work and submit a technical report of the BTP. Thus, the communication skill test is implicitly implemented in many final year courses. Students opting for UGR courses will have to present their work before the faculty advisor.

Hence, no separate communication skill course is required for the students.

9. Switch from two midterms and one end-term to one midterm and one end-term exam.

The two mid-semesters and one end-semester system is better as the students study and are evaluated uniformly throughout the semester. The student has better chance to recover. In view of increased number of students, more student tutors can be inducted. This will help in reducing the load of grading the answer scripts.

10. 80% compulsory attendance

Making 80% attendance is difficult to implement. Issues regarding the students who fall marginally below 80% of attendance need to be addressed. It is often difficult to take attendance for very large classes.

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