



KSSEM
K.S. School of Engineering and Management

KAMMAVARI SANGHAM (R), 1952

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Approved by AICTE-1-5279601, Affiliated to VTU, Belagavi
15, Near Vajarahalli, Mallasandra, off Kanakapura Road,
Bengaluru - 560 019, www.kssem.edu.in

Tel : +91 80 28425012/013/163, Fax : +91 80 28425164, Mob : 8884444408

Department of Electrical and Electronics Engineering

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Dated:08th Oct 2021

To,
The Chairman
Board of Studies -Electrical and Electronics Engg
Visweswaraya Technological University
Belagavi

Sub : Feedback on the draft syllabus of common subjects in 2021 scheme

Course : Basic Electrical Engineering (21ELE13/21ELE23)

We appreciate the concept of the feedback system requested by the university regarding the draft syllabus of Basic Electrical Engineering. Being the core and versatile course, I feel the structure of the modules is very well bifurcated and organized.

- Module 1: under this module, the type of problems to be dealt with, the complexity of those problems are to be specified.
- Module 2: under this module, transformers and 3 phase circuits may be introduced
- Module 3 : Since the concept of machines is introduced in the UG course, there can be a brief overview of all types of machines as the focus of the future technology is towards electric vehicles and brushless DC motors.
- Module 4 : this is an interesting module and the introduction of the concepts of the new age expertise is a good idea.

Electrical Power Generation: Sources of energy – renewable and non-renewable, working principle of hydel, thermal, nuclear, wind and solar power plants through block diagrams, environmental effects, and advantages and disadvantages.

The above topics is repeated in the course Elements of Mechanical engineering (Course code: 21EME15)

➤ Module 5 : this is the module about batteries and electrical safety.

Batteries used in electric and hybrid cars: Basics of lead acid batteries, nickel - iron batteries, lithium - ion batteries, advantages and disadvantages of batteries, rating of batteries in ampere - hour.

The similar topics are found in the course engineering chemistry (course code: 21CHE12)

General Observation:

- * Topics on DC machines to be included. In today's scenario lot of industries still use DC machines. An engineering student in his first year should have the knowledge of DC machines.
- * In Basic Electrical lab "Determination of efficiency of a single phase transformer by direct load test" is included but the same theoretical concepts can be included in Module 3 (where only efficiency is mentioned.)
- * Also, in the opinion from the department, a three credit course with 40 hours of teaching will not suffice to this syllabus which is included in the new scheme.
- * The general framework looks that this can bridge the gap between the academia and industry. But still I strongly would like to recommend the Board of Studies to include the measuring instruments and their basic principles as a part of this syllabus. Batteries can be studied in chemistry and physics but the major understanding of the concepts of instruments like moving iron or moving coil, dynamo, etc. cannot be googled or understood as a part of self-study.

Regards

Faculty : 1.

Sanjula B K
- 8/10/2021

2.

Madh
- 8/10/2021

[Vinutha Srikanth]

Associate Professor and HOD

Associate Professor
Head of the Department
Department of Electrical & Electronics Engineering
K S School of Engineering and Management
Bengaluru-560 109