

TKE214101

Capstone Projects 2

Proyek Perancangan Teknik Elektro 2

BASIC INFORMATION

Course Credit	3 / 150 minutes per Week
Course Type	Required
Course Classification	Engineering Topics
Prerequisites	Electrical Engineering Junior Projects; Capstone Projects I

STUDENT AND LEARNING OUTCOMES

Covered Student Outcomes

Engineering Design (c)	Data and Experiments (d)
Modern Tools Utilization (e)	Multidisciplinary Teamwork (h)

Learning Outcomes

- LO1** Students are able to design Electrical Engineering solutions given a general problems
- LO2** Students are able to present the idea in adequate level of technical details
- LO3** Students are able to apply modern tools and IT in their works
- LO4** Students are able to design experiments to verify their solutions
- LO5** Students are able to compose a detailed technical report

COURSE DESCRIPTION

The second part of capstone design is emphasized to the design part, evaluation and verification. Students has to be able to implement their proposal in the previous semester into a complete engineering design as well as its evaluation and verification (if necessary). In the end of the project, a DTETI Expo will be conducted to disseminate the solution offered by the students.

TOPICS

Implementation of the proposal submitted in semester 6. In Capstone 2 students in group will utilized all of their skills and knowledges obtained from the previous semesters to develop solution that is technically eligible with many constraints either engineering or non-engineering such as economics/budgeting, social and politics, environmental issues, SHE, etc. In the end of the project students has to write a complete technical report about their engineering solution as well as participate the DTETI Expo to prove their ideas to community. Students have to be able to defend their choice of design in a seminar conducted by the department.

REFERENCES

- [1] J. Abarca, A.J. Bedard, D.W. Carlson, L.E. Carlson, J. Hertzberg, B. Louie, J. Milford, R. Reitsma, T. L.Schwartz and J.F. Sullivan, "Introductory Engineering Design: A Projects-Based Approach," Third Edition.
- [2] Alan D. Wilcox, Engineering Design for Electrical Engineers, 1st Edition, Pearson