NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE

DESIGN AND INNOVATION PROJECT (DIP)

EE3180 DESIGN AND INNOVATION PROJECT

EEE DIP CHAIRMAN: Hung Dinh NGUYEN

OUTLINE

Introduction

Selection of Projects

DIP Assessment

Budget and Claims

Thematic Programs

Lecture on Project Management

DIP Competition

Important Timelines

INTRODUCTION

Compulsory for all full-time third year EEE students

Units
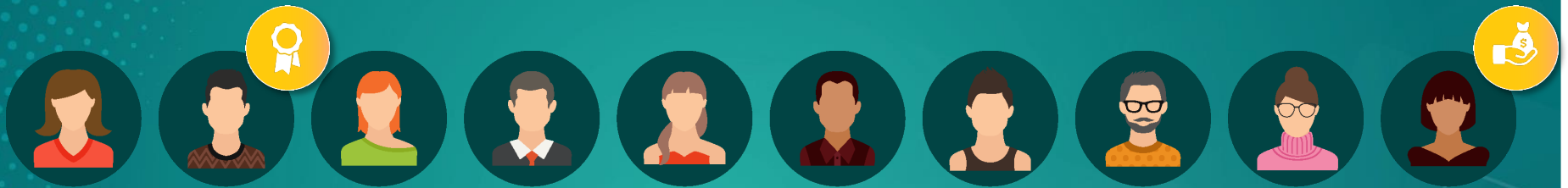
3-AU

Sem 1
Sem 2

Carried out in Semester 1 and 2

Design → Simulate → Prototype → Test
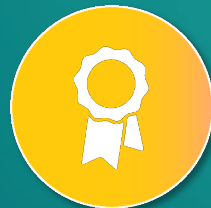
Project Group between 5 - 10 students

Nominate
Project manager

Nominate
Treasurer

Project Group between 5 - 10 students

Assigned a lab

Supervised by up to 2 faculties

💡 INTRODUCTION

Project Group between 5 - 10 students

Students are required to work on DIP for 6 hours per week over the 13 weeks

MANDATORY 1.30pm – 4.30pm Every Wednesday In Assigned Lab.

FLEXIBLE Determined by project supervisor and students

★= THEMATIC PROGRAMMES

TP01: Smart and Micro Grids for Integration of Renewable Energy Sources

Coordinator: Prof Amer Ghias

TP02: Smart Electronics

Coordinator: Prof Poenar Daniel Puiu

TP03: Cyber Security

Coordinator: Dr Chan Chee Keong

TP04: UAVIONICS

Coordinator: Prof Lim Meng Hiot

https://entuedu-my.sharepoint.com/:x:/g/personal/ewphau_staff_main_ntu_edu_sg/ERo-t61hLIpDkL4-o-1mUoIBQPyAeEG3ra3gtOgIaArsSg?e=VULaIT&wdLOR=c0CBAE88A-6AA0-EB43-841D-AAF979BCFC0C

★= THEMATIC PROGRAMMES

TP05: Photonics

Coordinator:
Prof Wong Liang Jie

TP06: Robotics & Intelligent Systems

Coordinator:
Prof Soh Yeng Chai

TP07: Machine Learning and Data Analytics

Coordinator:
Prof Jiang Xudong

★= THEMATIC PROGRAMMES

TP08: Escape Game Design & Implementation

Coordinator: Prof Hu Guoqiang

TP09: Smart Mobile Apps (SMAPPS)

Coordinator: Dr Tan Chee Wah Wesley

TP10: Radar and Satellite Systems

Coordinator: Prof Abdulkadir C. Yucel

TP11: Electromedical and Microelectronics

Coordinator: Prof Kim Munho

LECTURE ON PROJECT MANAGEMENT

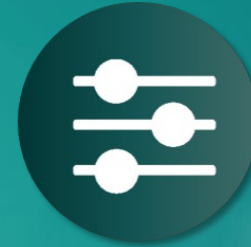**TEL- Project Management** — **Complete, Friday of Week 3**

Initiate → **Plan** → **Execute** → **Monitor and Control** → **Close**

3 Hour Lecture

Compulsory

DIP ASSESSMENT

Supervisor

A+

Overall Individual Grade

Moderator

- ✓ **Progress Blogs – Individual & Group**
- ✓ **Project Charter**
- ✓ **Project Report**
- ✓ **Oral & Video Presentation**
- ✓ Class Participation and Engagement

- ✓ **Logbook/Interview**
- ✓ Video Presentation & Demonstration
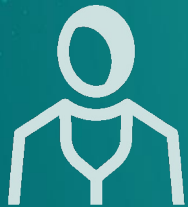- ✓ **Project Report**

DIP ASSESSMENT

Progress Blog — https://blogs.ntu.edu.sg/ee3180-2324s2-eXXX

PROGRESS BLOG — Complete by 23:59, Friday of Week 13

Individual Blog

Each student in the group will post their individual contribution to the project from week 1 to week 13.

Group Blog

Discussion forum for all team members in the group to interact and contribute from week 1 to week 13.

Project Charter template is available on the EEE DIP website

DIP ASSESSMENT

Project Charter **Submit report by 23:59, Friday of Week 4**

Project Description

Milestone

Project management / Budget

Risk

Project Charter template is available on the EEE DIP website

DIP ASSESSMENT

Final Group Project Report

Submit report by 23:59, Monday of Week 13

Each student needs to contribute to ONE final group report. Group leader will consolidate & submit the group report to NTULearn for assessment.

40-50 pages (excluding appendices)

Group Leader to submit as Assignment in NTULearn under DIP project group Course ID for plagiarism check

Project Report template is available on the EEE DIP website

DIP ASSESSMENT

Compulsory Peer Review for All Group Members — SUBMIT REVIEW FRIDAY OF WEEK 13

- ✔ Information gathering
- ✔ Initiative/motivation to learn and participate responsibly
- ✔ Positive collaboration with team members
- ✔ Application of creative/innovative ideas
- ✔ Technical knowledge & skills

- ✔ Problem solving ability
- ✔ Achievement and work quality
- ✔ Personal discipline
- ✔ Attendance
- ✔ Etc.

Peer review is available on Studentlink

DIP ASSESSMENT

Compulsory Peer Review for All Group Members **SUBMIT REVIEW FRIDAY OF WEEK 13**

⚠️ Every student should do the peer review ranking seriously and independently

⚠️ Students who purposely manipulate the peer review outcome will face serious consequence including disciplinary action from the School

⚠️ Do NOT rank yourself

⚠️ During assessment by supervisor and moderator, the following results will be considered as references:
- DIP Competition Result
- Ranking in Peer Review

🌐 **Peer review is available on Studentlink**

🏆 DIP COMPETITION

DIP COMPETITION DATE ▶ Monday of Week 14

Projects within respective thematic programmes will compete against each other

Competition results will be used as reference for final assessment results

BUDGET AND CLAIMS

Existing resources in labs should be utilised

Total budget for each thematic programme
= S$1000 x No. of Projects (excluding GST)

Every purchase should be approved by Project Supervisor. Overspending without prior approval at the school level will **NOT** be reimbursed.

Purchasing and claim

SOP

Resources available

Claimable

Non-claimable

Link to reimbursement SOP:
https://entuedu.sharepoint.com/sites/Student/cs/eee/Shared%20Documents/Forms/AllItems.aspx?id=%2Fsites%2FStudent%2Fcs%2Feee%2FShared%20Documents%2FUndergraduate%2FFull%2DTime%2FCourse%20Information%2FDIP%2Freimbursement%2Epdf&parent=%2Fsites%2FStudent%2Fcs%2Feee%2FShared%20Documents%2FUndergraduate%2FFull%2DTime%2FCourse%20Information%2FDIP

IMPORTANT TIMELINES

1 BRIEFING SESSION
17TH January
(1:30PM-3:00PM)

2 PROJECT MANAGEMENT LECTURES
Complete Online
2nd February (Fri, Wk3)

3 DEADLINE FOR PROJECT CHARTER REPORT
9th February (Fri. Wk4)

4 DEADLINE FOR REPORT SUBMISSION
15TH April (Mon. Wk13)

5 DEADLINE FOR PEER REVIEWS

6 DEADLINE FOR PROGRESS BLOG
19TH April (Fri. Wk13)

7 OFFICIAL DATE OF DIP COMPETITION
22nd April
(Mon. Wk 14)

DISCLAIMER STATEMENT

NTU/School of EEE will not be liable for any damage or loss of personal items used in the project.

RESOURCES

More information and updates at DIP website:

https://entuedu.sharepoint.com/:u:/r/sites/Student/cs/eee/SitePages/Undergraduate/Full-Time/Course%20Information/Design%20and%20Innovation%20Project%20-%20Introduction.aspx?csf=1&web=1&e=lyCPcN