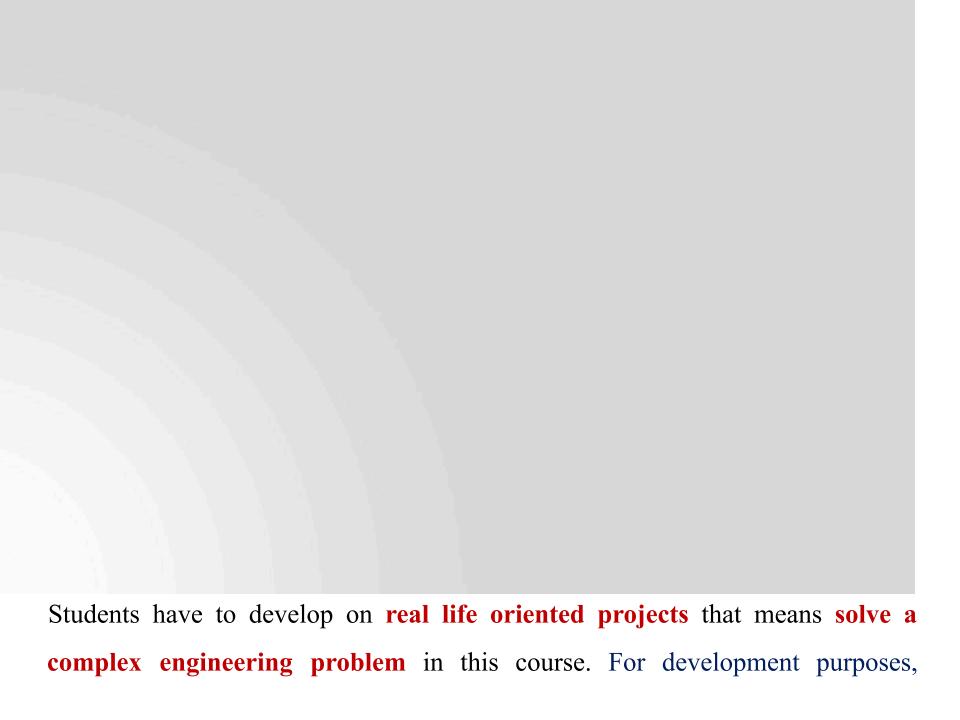


CSE- 410 Software Development

Md. Mubtasim Fuad Lecturer, Dept. of CSE

E-mail: mubtasim@uap-bd.edu

Course Synopsis



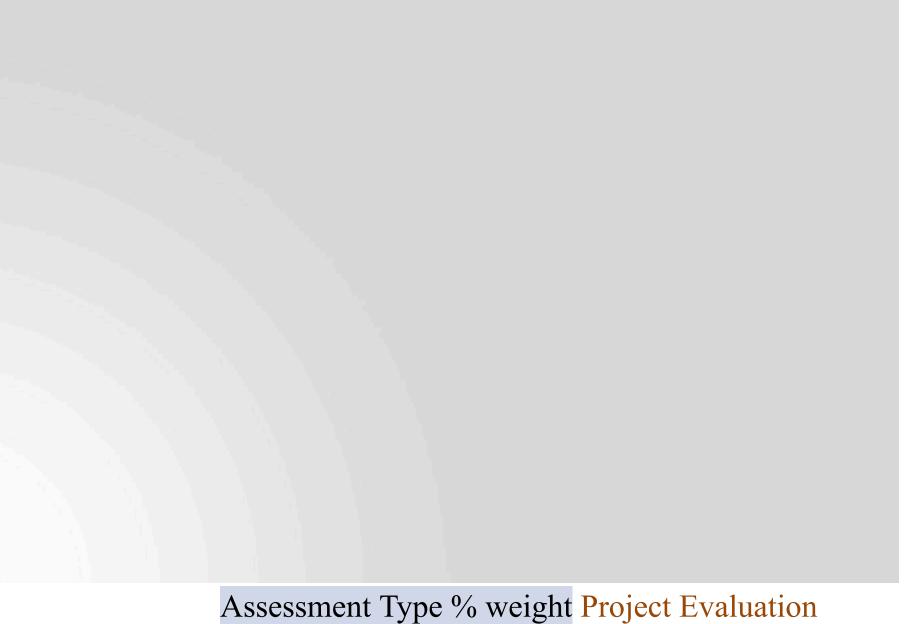
modern technologies are preferred, including frontend frameworks (React.js, Angular, Vue.js, etc.), backend platforms (Node.js, ASP.NET Core, Django, etc.), full-stack solutions (Next.js, Laravel, Ruby on Rails, etc.), and a variety of database systems (MySQL, PostgreSQL, MongoDB, Oracle, etc.). Open Source projects are also preferred as Open source code is typically created through a collaborative effort in which programmers improve upon the code and share the changes within the community. Moreover, documentation is a major concern for the project to ensure the Software Quality Assurance (SQA). Hence at the end of semester students submit their projects including the documentation.

Project Groups

Maximum 2 or 3

members

Assessment



(Assessment) 70%

❖ Continuous Evaluation in Lab 30% ❖ Presentation 20%❖ Viva 20%

Report (Doc + Video) and CEP Mapping 30% Total 100%

CO-PO

CO No.

CO Statements:

Upon successful completion of the course,

students should be able to: Corresponding POs

CO1 Apply the S/W Engineering knowledge to provide a working solution on a real world problem

CO2 Identify, formulate, and analyze a real world problem based on requirement

analysis.

CO3 Design/Develop a working solution on a real world problem using s/w designing

tools.

CO4 Use modern development tools which are popular among s/w developers.

3-Design/ development of solutions

5-Modern Tool Usage 6-The Engineer and

CO5 Identify societal, health, safety, legal and cultural issues related to the project.

Society

1-Engineering Knowledge 2-Problem Analysis

CO-PO

CO

No.

CO Statements: students should be able to:

Upon successful completion of the course, CO6 Practice professional ethics and

work on the

CO8 Communicate effectively through presentation and write effective reports and documentations

project.
CO9 Apply project management principlesusing Version

Control System, and produce cost value analysis. CO10 Recognize the need for, and 12-Lifelong learning have the preparation and ability to engage in independent and life-long learning in the broadest context of requirement changes and introduction of modern development tools 10-Communication

11-Project Management and Finance



Weighting COs with Assessment methods

Assessment

Type

```
Presentation followed Viva Report and CO8 CO9 CO10 40% 10 15 15 % weight CO1 CO2 CO3 CO4 CO5 CO6 CO7
```

```
CEP Mapping 30% 5 5 3 5 2 5 5 Continuous

Project 30% 5 10 5 5 5

Evaluation (Assessment)
```

```
100%
Total 5 15 15 5 18 5 5 17 10 5
```

Final Year Project

Final Year

First Year Courses First Year

Final Year Courses

Third Year



IEA and CEP

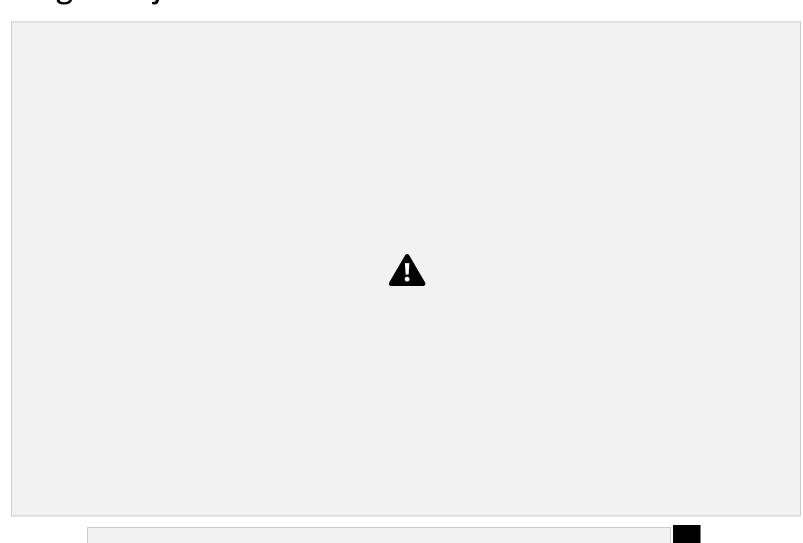


According to Washington Accord

- •Knowledge Profile (K)
 - Level of Problem Solving(P)
 - •Attributes(A)

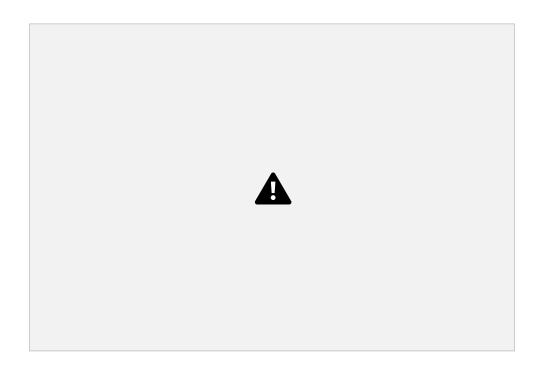


Complex Engineering Problems How to Demonstrate through Projects?











Complex Engineering Problems





Complex Engineering Problem Solving (P)





Complex Engineering Activities (A)





Complex Engineering Problems





Complex Engineering Problems **Project Idea**



This are not complex engineering problem (CEP), try to make it into CEP

1. https://nevonprojects.com/year projects-for-computer-engineering/ 2. https://1000projects.org/



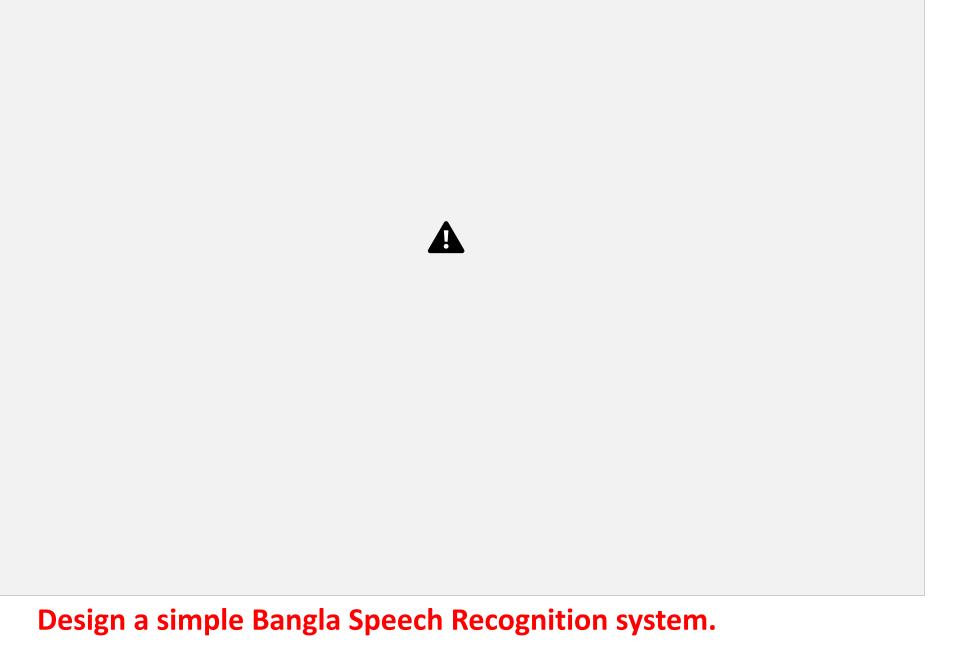
Complex Engineering Problem











Such a system can be incorporated with a wheelchair to make it voice controlled and

thus enables a physically handicapped person to move freely without the help of a constant care- giver. Moreover, the ability to give commands in Bangla will make the system more user- friendly in the context of Bangladesh.

The system should be speaker-independent, i.e. it is required that the Bangla speech recognition system should work satisfactorily irrespective of sex, age-group, or dialect of the speaker.

Students are required to explore different methodologies to investigate the problem through design of experiment and data analysis and select or develop an optimal methodology for design of the system.









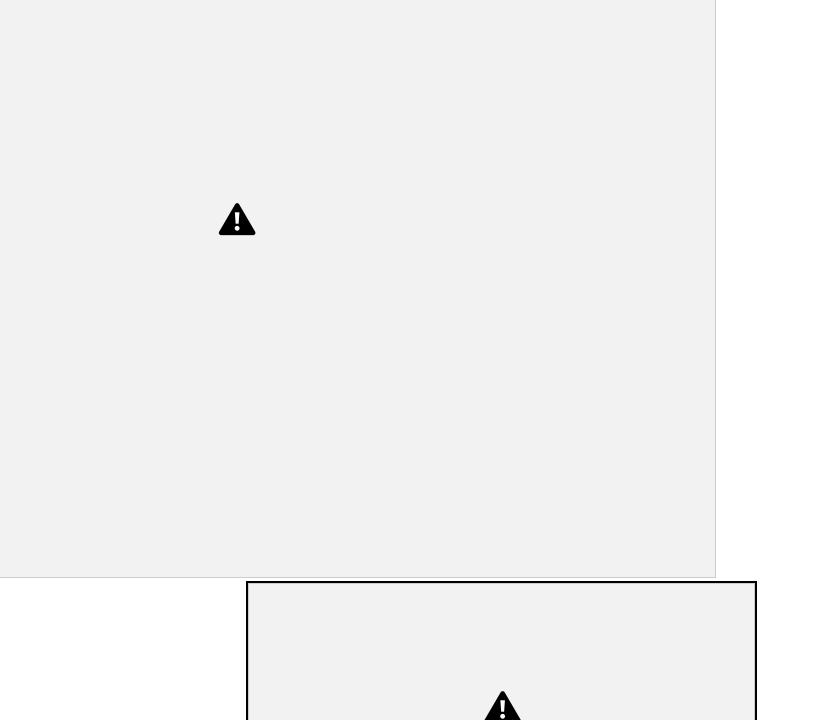
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Project Title
2. Project Member's

- 3. Motivation
- 4. Problem Definition
- 5. Objective, Solution & Project Outputs
- 6. Impact on Society
- 7. Critical challenges
- 8. Conflicting requirement (Optional)
- 9. How P and K s are addressed through the project and mapping 10. Project Management (Time-table) and Cost analysis



Thanks to All

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