

PCS214 ENGINEERING DESIGN PROJECT

Course Description: The design project is a post-graduate level course generally consisting of a team-based semester-long project and emphasizes on both technical and managerial skills. The computer science is very fundamental core discipline with having balanced execution of theoretical and practical concepts of all computer subjects and hence there is an emphasis on hands-on development, process, and usage of various fundamental tools in addition to theory and basic concepts. Students will be involved in examining; analyzing and reporting different kinds target oriented projects. In this project student can get more exposure to work in various advanced areas of algorithm, database, artificial intelligence, big data, parallel computing etc. The major domain consists of machine learning, natural learning processing, predictive analysis, business intelligence etc.

Course objectives:

- Application of advanced programming techniques in project.
- Encourage group working and project planning.
- Introduce the principles of software systems design including user interface design.
- Analyse the design and optimise it with respect to requirements.
- Introduce the requirements of project documentation.
- Technical report writing.

Course Learning Outcomes (CLO):

Upon completion of this project, students will (be able to):

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| CLO1 | Possess knowledge of concept of core fundamental subjects of computer. |
| CLO2 | Possess knowledge of various analysis tools and their working. |
| CLO3 | Design and develop module for the different domain project. |
| CLO4 | Apply the engineering process of problem solving. |
| CLO5 | Awareness of design methodologies & its implementation. |
| CLO6 | Demonstrate organised and concise report writing skills. |

Teaching strategies: The instructors will deliver lectures as well as demonstrate practical in the laboratory. The student as individuals and as groups will also have to undertake extensive independent research and development work on the project.

Assessment: The performance and learning of the students on individual basis as well as group work will be monitored regularly by the instructors. The assessment will be based on this interim performance (40%) and final assessment, by a panel of examiners, where students will have to present a final demonstration (40%) and report (10%), which will further be accompanied by an oral assessment (10%).