

PUSL3190

Computing Individual Project



Assessment Criteria

Semester 1

Project Plan, Project Initiation Document

Semester 2

Interim Document, Completed project, Demonstration

Assessment Criteria

Coursework (C1) – 60%

Stages	Marks
Project Plan / PID	5
Interim Report / Interim Defense	10
Final Product Successful Conclusion, Meeting Project Aims, Coding Standards, Good methodologies, Testing Methods, Security Concerns, Coding Proficiency	50
Report Submission / Thesis Submission Professional Style, Background Research, Algorithms Used, Technical Diagrams (UML, ER, Flow charts, etc.), Evaluation and Conclusion	20
Report Presentation Informative and Flawless Presentation, Effective written communication of ideas, Addressing Arguments	15
Total	100

Assessment Criteria

Presentation (P1) – 40%

Stages	Marks
Planning / Participation Discussing matters, and giving ideas and solutions in the planning stage with the supervisor	10
Presentation Active participation for the presentation.	20
Presentation Skills Measuring individual's presentation skills	20
Content Delivered Presenting own work during the demonstration	25
Addressing issues raised by the audience (Panel)	25
Total	100



The Project Idea



How to generate the project idea

Start it today, You can talk with people at NSBM and you can implement a system to help their duties and lifestyle.

- **You can meet cleaning staff and identify a particular problem.**
- **You can meet security staff and identify a particular problem.**
- **You can meet students and identify a particular problem.**

Then you can develop a system to provide the solution.



How to generate the project idea

Start it today, You can go to the community around the university and talk with people and you can implement a system to help their duties and lifestyle.

- **You can meet business persons and identify a particular problem.**
- **You can meet drivers, farmers and identify a particular problem.**
- **You can meet public service providers and identify a particular problem.**

Then you can develop a system to provide the solution.



How to generate the project idea

You can address a public issue and provide a solution to overcome them.



How to generate the project idea

You can provide a solution to save human and other animal lives.



How to generate the project idea

You can help people with different needs through your project.



How to generate the project idea

You can develop brand new, creative and innovative invention as your project.



Your Project Should Not Be

A copy or clone of an existing software solution. But you can identify drawbacks of existing system and innovate new system.

A generic project idea. Examples - Vehicle Tracking System, HR management System, Inventory management System, etc. But you can increase the scope and implement a specific platform which can provide better outcome. Example - Generate Alternative Route by using Real Time Traffic Data Through Vehicle Tracking

A copy or clone from github or any 3rd party database.

Offensive to any group of people in the society.

Violate any government or NSBM rules and regulations.





Technology



Technologies

You can develop a fully functioning software system with user authentications, data processing, input output handling, databases etc. Your scope should cover wide area and you may use

- **Mobile Application Development Technologies**
- **Web Application Development Technologies**
- **Desktop Application Development Technologies**
- **Or Combination of All**

Or you can use innovative and futuristic technology



Futuristic Technologies

IOT

The Internet of Things (IoT) refers to a system of interrelated, internet-connected objects that are able to collect and transfer data over a wireless network without human intervention.

-video-

Your project

IOT solution + mobile/web/desktop application

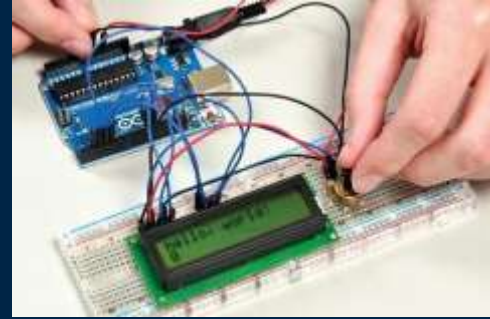


Futuristic Technologies

For IOT

You may use

- Arduino
- Raspberry Pi [-video-](#)



Futuristic Technologies

Robotics

You can develop robots by using arduino, raspberry and other hardware components. Robots can be robot arms, drones, wheeled robots etc.

-video-

Your project

Robotic solution + mobile/web/desktop application



Futuristic Technologies

Image Processing

Digital image processing deals with manipulation of digital images through a digital computer.

-video-

Your project

Software solution using image processing



Futuristic Technologies

Speech recognition

Speech recognition is the ability of a machine or program to identify words and phrases in spoken language and convert them to a machine-readable format.

Your project

Software solution using speech recognition



Futuristic Technologies

Augmented Reality

A combination of real world scene and a virtually generated scene by a computer.

-video-

Your project

Software solution using AR



Futuristic Technologies

Virtual Reality

Virtual reality (VR) refers to the computer-generated simulation in which a person can interact within an artificial three-dimensional environment using special electronic devices, such as special goggles with a screen or gloves fitted with sensors.

-video-

Your project

Software solution using VR



Futuristic Technologies

Network G Cybersecurity

You can develop a system which has innovative network and security features.

-video-

Your project

Software network/security solution



Futuristic Technologies

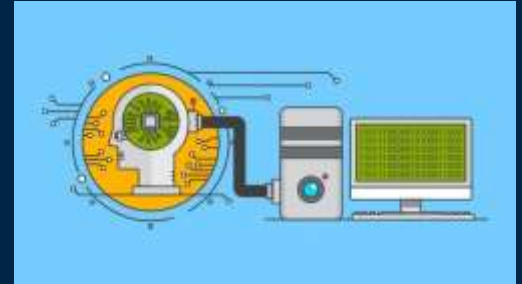
AI / Machine Learning

Machine learning is an application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed.

-video-

Your project

Software solution using AI/ML



Ultimate Goal

Final outcome of your project should have a valuable impact on the University, Society, Country, Computer/Software/Network Industry, Nature and Mankind.

