

### Imam Mohammad ibn Saud Islamic University College of Engineering Mechanical Engineering Department

## Name of Supervisor:

Student Names	<b>University IDs</b>

	Course Contents		
Week	<b>Topics to be Covered</b>	Phase	Semester
1-3			ar: er
4-7			emic Year: Semester [ 2 ]
8-9		GP-I	Academic 1445 Sem [2]
10-11			cad 1445
			4,4
13-16			010 -
17-20		GP-II	demic :144 neste 3]
21-23		GP-II	Academic Year:1445 Semester [3]
24-25			4,500

<u>Simple Description of Graduation Project:</u> (Write the project statement briefly)

**Expected Outcomes:** (List down possible outcomes of the project)

Main characteristics: (Select all possible properties of the project)

□ Applied - Real-life application
□ Novelty - Potential of publication
□ Intellectual property - Potential of patenting

☐ Prototyping - Physical model development

### Form-1

### Related to Global and Local Sustainable Development Goals (Select all possible options)



## Related to National Research Priorities (Select all possible options)

Health & Wellness
Sustainable Environment & Affordable Supply of Essential Needs
Energy & Industrial Leadership
Economies of the Future

# Conform to NASA Technology Readiness Level (TRL) (Select all possible options)

Link to	TRL	Definition	Description
	1	Basic principles observed and reported	Scientific research begins, generating foundational knowledge for future applications
	2	Technology concept and/or application formulated	Initial ideas are developed; however, they remain speculative without experimental proof
	3	Analytical and experimental critical function and/or characteristic proof of concept	Active research leads to proof-of-concept models through laboratory studies and simulations
	4	Component and/or breadboard validation in a relevant environment	Components are integrated and tested together in a controlled environment
	5	System/component validation in a relevant environment	A breadboard system is tested in conditions that simulate real operational environments
	6	System/sub-system model or prototype demonstration in an operational environment	A fully functional prototype is demonstrated in conditions that reflect actual operational scenarios
	7	System prototype demonstration in an operational environment	A high-fidelity prototype is tested in the actual operational environment, demonstrating its capabilities
	8	Actual system completed and "flight qualified" through test and demonstration	The final product is tested and validated for its intended operational use, ensuring all systems are integrated
	9	Actual system flight proven through successful mission operations	The technology has been successfully deployed in missions, demonstrating its reliability and effectiveness

Source: https://www.un.org/sustainabledevelopment/ https://www.nasa.gov/