This form must be filled out by the student, signed and handed in to the module administrator early in the semester. Both the student and the supervisor must sign the agreement on main details and mutual responsibilities. The student should discuss their GA achievement plan with the supervisor, before completing this form. Only the student signs their GA achievement plan, as it is their own responsibility. This plan is NOT a guaranteed recipe for passing Project (E) 448. Rather, it serves as a record of the student having considered these important aspects at an appropriately early stage. GA achievement plans should be revised as needed and in consultation with the supervisor, during the course of the project.

## Main details

Mail details					
Student	Initials and surname	Mr. W Viljoen	SU number	22877169	
Supervisor	Initials and surname	Dr. JM Strauss			
Project title	a Modular Battery Management System for LFP Batteries				
Project description, including the aim, scope and envisioned approach (max. 150 words)	The project aims to create a Battery Management System (BMS) for sustainable, efficient energy storage, targeting energy sustainability and growing power demands. The scope includes designing a modular, scalable BMS suitable for large LFP battery banks. The approach starts with assessing existing storage technologies and market needs, then designing a flexible, robust system architecture. This BMS will facilitate technological advancements, ensuring relevance in the evolving energy sector.				

## **Mutual responsibilities**

- 1. It is the responsibility of the student to clarify aspects such as the definition and scope of the project, the place of study, research methodology, reporting opportunities and -methods (e.g. progress reports, internal presentations and conferences) with the supervisor.
- 2. It is the responsibility of the supervisor to give regular guidance and feedback with regard to the literature, methodology and progress.
- 3. The rules regarding submission and evaluation of the project is outlined in the module framework and SUNLearn page and will be strictly adhered to.
- 4. The supervisor conveyed the departmental view on plagiarism to the student, and the student acknowledges the seriousness of such an offence.
- 5. The supervisor certifies that the project as described above has sufficient scope to achieve, in principle, the required GAs.
- 6. It is the responsibility of the student to initiate a discussion with the supervisor on GA achievement prior to filling out and handing in this form.

## Signatures for agreement on main details and mutual responsibilities

Role	Signature	Date		
Student				
Supervisor				

Student's graduate attribute (GA) achievement plan

How will GA 1 (problem solving) be achieved? (<=100 words)				
How will GA 2 (application of scientific and engineering knowledge) be achieved? (<=100 words)				
How will GA 3 (engineering design) be achieved? (<=100 words)				
How will GA 3 (engineering design) be achieved: (<=100 words)				
How will GA 4 (investigations, experiments and data analysis) be achieved? (<=100 words)				
How will GA 5 (engineering methods, skills and tools, including IT) be achieved? (<=100 words)				
How will GA 6 (professional and technical communication) be achieved? (<=100 words)				
The project includes a written report and an oral presentation. These demonstrate competence to				
communicate effectively, both orally and in writing.				
How will GA 8 (individual work) be achieved? (<=100 words)				
The student will take primary responsibility for successful completion of all aspects of the project.				
How will GA 9 (independent learning ability) be achieved? (<=100 words)				
For successful completion of the project, the student is required to acquire knowledge independently				
(from the literature or the internet, for example) and without the context of this required knowledge				
being fully specified in the project definition.				

## Signature acknowledging own responsibility to achieve GAs

	Signature	Date
Student		
Stadent		