Project (E) 448 Assessment Form **Internal Examiner's Report** **Ver1.0**

Each examiner must complete this form independently, and then hand it over to the convener.

Student

Initials and surname		SU number	
Project title			

Internal examiner

Initials and surname	Signature	Role (*tick one*)
		☐ Supervisor ☐ 2nd examiner

Grading assessment

*Tick in case the **oral presentation slides** provide **necessary evidence** in order to achieve certain ELOs, and list those ELO numbers (in this case a mark of ≤50% must be awarded)* ☐ ELO(s): _____	
Preliminary mark • *Provide a percentage, or percentage range* • *Failed ELO(s) ⇒ ≤45%*	
Comments in support of the preliminary assessment: _____ _____ _____ _____ _____ _____ _____ _____	

Exit level outcome (ELO) assessment

Recorded evidence requirements, for ELO achievement at the level expected of a recent graduate	*Tick one in each row*			
	Student satisfies the ELO criteria, taken as a whole		Student fails to satisfy the ELO criteria, taken as a whole	
	Satisfied	Marginally satisfied	Marginally not satisfied	Not satisfied

• ***ELOs 1–5, 8 and 9:***
  ○ *Case 1: The project report provides the evidence. The internal oral exam's contribution is only to aid internal examiners' understanding of the evidence on record (i.e. the report).*
  ○ *Case 2: Some ELOs are not achieved with the report, but the presentation slides provide evidence for their achievement. These ELOs may be marked as achieved, provided that a copy of the slides is attached to the report. A maximum mark of 50% applies.*
• ***ELO 6:** The project report (written communication) AND a satisfactory oral (oral communication)*				

ELO 1: Problem solving (identify, formulate, analyse and solve complex engineering problems creatively and innovatively) • Solving complex engineering problems requires in-depth fundamental and specialized engineering knowledge; and problems have one or more of the characteristics: 1. are ill-posed, under- or over-specified, or require identification and refinement; 2. are high-level problems including component parts or sub-problems; 3. are unfamiliar or involve infrequently encountered issues; • The solutions have one or more of these characteristics: 1. are not obvious, require originality or analysis based on fundamentals; 2. are outside the scope of standards and codes; 3. require information from variety of sources that is complex, abstract or incomplete; 4. involve wide-ranging or conflicting issues: technical, engineering and interested or affected parties.	☐	☐	☐	☐
ELO 2: Application of scientific and engineering knowledge (apply knowledge of mathematics, natural sciences, engineering fundamentals and an engineering speciality to solve complex engineering problems) • Mathematics, natural science and engineering sciences are applied in formal analysis and modelling of engineering situations, and for reasoning about and conceptualizing engineering problems.	☐	☐	☐	☐
ELO 3: Engineering design (perform creative, procedural and non-procedural design and synthesis of components, systems, engineering works, products or processes) • The design problem must conform to the definition of a complex engineering problem (refer to ELO 1) and should be a major electrical and/or electronic engineering design problem.	☐	☐	☐	☐
ELO 4: Investigations, experiments and data analysis (demonstrate competence to design and conduct investigations and experiments) • The balance of investigation and experiment should be appropriate to electrical and/or electronic engineering. Research methodology to be applied in research or investigation where the student engages with selected knowledge in the research literature of electrical and/or electronic engineering.	☐	☐	☐	☐
ELO 5: Engineering methods, skills and tools, including information technology (demonstrate competence to use appropriate engineering methods, skills and tools, including those based on information technology) • A range of methods, skills and tools appropriate to electrical and/or electronic engineering including: 1. Discipline-specific tools, processes or procedures; 2. Computer packages for computation, modelling, simulation, and information handling; 3. Computers and networks and information infrastructures for accessing, processing, managing, and storing information to enhance personal productivity.	☐	☐	☐	☐
ELO 6: Professional and technical communication (demonstrate competence to communicate effectively, both orally and in writing, with engineering audiences and the community at large) • Material to be communicated is in an academic or simulated professional context. The audience for the report and presentation is engineering peers and management, while the poster is aimed at lay persons, using appropriate academic or professional discourse. The long written report (10 000 to 15 000 words plus tables, diagrams and appendices) covers material at exit-level. Methods of providing information include the conventional methods of electrical and/or electronic engineering.	☐	☐	☐	☐
ELO 8: Individual work (demonstrate competence to work effectively as an individual)	☐	☐	☐	☐
ELO 9: Independent learning ability (demonstrate competence to engage in independent learning through well-developed learning skills) • Operate independently in complex, ill-defined contexts requiring personal responsibility and initiative, accurately self-evaluate and take responsibility for learning requirements; be aware of social and ethical implications of applying knowledge in particular contexts.	☐	☐	☐	☐

Project (E) 448 Assessment Form **Internal Convener's Report** **Ver1.0**

After receiving the two examiner reports the convener facilitates a discussion between the two examiners, with the aim of establishing a consensus assessment, which is documented here.
In case consensus ELO succeed/fail assessment(s) differ from one/both examiner's report(s), or no consensus occur, then the convener must document the examination panel's motivations.
The convener returns the completed convener and two examiner reports to the module administrator.

Student

Initials and surname		SU number	
Project title			

Internal examination panel

Initials and surname	Signature	Role
		Supervisor (and 1st examiner)
		2nd examiner
		Convener

Date		Time	

Grading consensus assessment

*Tick only in case of slide-based ELO achievement **and/or** failed ELOs **and/or** failure to achieve consensus*

☐ *Tick and list, if ELO(s) are achieved by consensus, on **presentation slide evidence.*** ELO(s): _____	☐ *Tick in case **consensus was reached** that one or more ELOs are **not** achieved.*	☐ *Tick in case **consensus was not reached** on one or more ELOs.*	☐ *Tick in case **consensus was not reached** on the mark.*

Recommended mark • *In case of slide-based ELO evidence, ≤50% must be awarded* • *In case of consensus on ANY failed ELO(s), ≤45% must be awarded* • *In case of NO mark consensus, provide both internal examiner marks (no ranges, supervisor first, 2nd examiner second)*	

Comments in support of the recommended mark –OR– Reason(s) for no mark consensus (only needed if these are different from the provided reasons for ELO non-consensus):

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Exit level outcome (ELO) consensus assessment

Recorded evidence requirements, for ELO achievement at the level expected of a recent graduate • ***ELOs 1–5, 8 and 9:*** ○ *Case 1: The project report provides the evidence. The internal oral exam's contribution is only to aid internal examiners' understanding of the evidence on record (i.e. the report).* ○ *Case 2: Some ELOs are not achieved with the report, but the presentation slides provide evidence for their achievement. These ELOs may be marked as achieved, provided that a copy of the slides is attached to the report. A maximum mark of 50% applies.* • ***ELO 6:*** *The project report (written communication) AND a satisfactory oral (oral communication)*	*Tick one in each row*				
		Student satisfies the ELO criteria, taken as a whole		Student fails to satisfy the ELO criteria, taken as a whole	
	No consensus	Satisfied	Marginally satisfied	Marginally not satisfied	Not satisfied
ELO 1: Problem solving (identify, formulate, analyse and solve complex engineering problems creatively and innovatively)	☐	☐	☐	☐	☐
ELO 2: Application of scientific and engineering knowledge (apply knowledge of mathematics, natural sciences, engineering fundamentals and an engineering speciality to solve complex engineering problems)	☐	☐	☐	☐	☐
ELO 3: Engineering design (perform creative, procedural and non-procedural design and synthesis of components, systems, engineering works, products or processes)	☐	☐	☐	☐	☐
ELO 4: Investigations, experiments and data analysis (demonstrate competence to design and conduct investigations and experiments)	☐	☐	☐	☐	☐
ELO 5: Engineering methods, skills and tools, including information technology (demonstrate competence to use appropriate engineering methods, skills and tools, including those based on information technology)	☐	☐	☐	☐	☐
ELO 6: Professional and technical communication (demonstrate competence to communicate effectively, both orally and in writing, with engineering audiences and the community at large)	☐	☐	☐	☐	☐
ELO 8: Individual work (demonstrate competence to work effectively as an individual)	☐	☐	☐	☐	☐
ELO 9: Independent learning ability (demonstrate competence to engage in independent learning through well-developed learning skills)	☐	☐	☐	☐	☐

Motivation for every ELO where succeed/fail consensus differs from examiner report(s), or with no consensus:

_____

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Project (E) 448 Assessment Form External Moderator's Report Ver1.0

The external moderator makes an assessment of the work, based upon the internal examination panel's reports, the project report (possibly with attached oral presentation slides) and the poster.

Student

Initials and surname		SU number	
Project title			

External moderator

Initials and surname	Signature	Date

Grading assessment

Are all ELOs achieved? ☐ Yes ☐ No			
Internal, recommended consensus mark (from convener form)		External, final mark • *Slide-based ELO evidence ⇒ ≤50%* • *Failed ELO(s) ⇒ ≤45%*	
Comments:			

Exit level outcome (ELO) assessment

Recorded evidence requirements, for ELO achievement at the level expected of a recent graduate
• ***ELOs 1–5, 8 and 9:***
  ○ *Case 1: The project report provides the evidence. The external poster session's contribution is only to aid external moderators' understanding of the evidence on record (i.e. the report).*
  ○ *Case 2: Some ELOs are not achieved with the report, but the presentation slides provide evidence for their achievement. These ELOs may be marked as achieved, provided that a copy of the slides is attached to the report. A maximum mark of 50% applies.*
• ***ELO 6:*** *The project report (written communication) AND satisfactory internal oral + satisfactory external poster (oral communication)*
	Tick one in each row
	Student satisfies the ELO criteria, taken as a whole
		
		Student fails to satisfy the ELO criteria, taken as a whole

ELO 1: Problem solving (identify, formulate, analyse and solve complex engineering problems creatively and innovatively) • Evaluation criteria as on internal examiner form	☐	☐
ELO 2: Application of scientific and engineering knowledge (apply knowledge of mathematics, natural sciences, engineering fundamentals and an engineering speciality to solve complex engineering problems) • Evaluation criteria as on internal examiner form	☐	☐
ELO 3: Engineering design (perform creative, procedural and non-procedural design and synthesis of components, systems, engineering works, products or processes) • Evaluation criteria as on internal examiner form	☐	☐
ELO 4: Investigations, experiments and data analysis (demonstrate competence to design and conduct investigations and experiments) • Evaluation criteria as on internal examiner form	☐	☐
ELO 5: Engineering methods, skills and tools, including information technology (demonstrate competence to use appropriate engineering methods, skills and tools, including those based on information technology) • Evaluation criteria as on internal examiner form	☐	☐
ELO 6: Professional and technical communication (demonstrate competence to communicate effectively, both orally and in writing, with engineering audiences and the community at large) • Evaluation criteria as on internal examiner form	☐	☐
ELO 8: Individual work (demonstrate competence to work effectively as an individual)	☐	☐
ELO 9: Independent learning ability (demonstrate competence to engage in independent learning through well-developed learning skills) • Evaluation criteria as on internal examiner form	☐	☐