**Design 2017 - REII/EEII/INEM327**

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | Use appropriate techniques, resources, and modern engineering tools including information technology for the solution of well-defined engineering problems, with an awareness of the limitations, restrictions, premises, assumptions and constraints. | | | | | | **ECSA ELO 5 ASSESSMENT FORM - Engineering methods, skills, tools, including information technology** | | | | | | **ELO 5 - Range statement** | | | | | | 1. Sub-discipline-specific tools, processes or procedures | | | | | | 1. Computer packages for computation, simulation, and information handling | | | | | | 1. Computers and networks and information infrastructures for accessing, processing, managing, and storing information to enhance personal productivity and teamwork | | | | | | 1. Basic techniques from sustainable development, economics, management, and health, safety and environmental protection. | | | | | | **ELO 5 - Assessment** | | | | | | **Specific criteria** | **Result** | | **Internal assessment**  **(🗸)** | **External moderation**  **(🗸)** | | **Fail (x)** | **Pass (x)** | | **Statement 1: Sub-discipline-specific tools, processes or procedures** | | | | | | Clear definition of process / procedure followed during the design process |  |  |  |  | | Correct application of process / procedure (software or hardware) |  |  |  |  | | **Statement 2: Computation, simulation, and information handling**  **(Note: Select either hardware or software - exceptions will be assessed in alignment with process definition)** | | | | | | **Assessment specific to software development / design** | | | | | | Adequate use of state diagrams, software models (UML, database or similar), and flowcharts (as applicable) |  |  |  |  | | Evidence of software tools used to capture, compile, run and debug (test) code |  |  |  |  | | Functional software code as demonstrated (including embedded hardware, where applicable) |  |  |  |  | | **Assessment specific to hardware development / design** | | | | | | Adequate use of simulations, computations and hardware modelling (as applicable) |  |  |  |  | | Evidence of implemented, fault-debugged and tested circuitry |  |  |  |  | | Functional hardware module as demonstrated |  |  |  |  | | **Statement 3: IT to enhance personal productivity and teamwork** | | | | | | Evidenced use of project management tools (Excel, Git, or similar) |  |  |  |  | | **Statement 4: Sustainable development** | | | | | | Evidence that ergonomics, health-and-safety requirements were considered in design |  |  |  |  | | **Consideration of assumptions and constraints (paragraph in ELO 5 report)** |  |  |  |  | | **Internal examination** | | | | | | **Comments:** | | | | | |  | | | | | |  | | | | | | **External moderation** | | | | | | **Comments:** | | | | | |  | | | | | |  | | | | | |

Examiner Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ External Moderator Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: 2017/\_\_\_\_\_\_\_ /\_\_\_\_\_\_\_