THEME SHEET - L.EIC

2024 - 2025

Theme	**The Role of Domain-Specific Languages (DSL)**	
	Programming languages are systems of symbols and rules which programmers use to write the instructions to be followed by the computer hardware in order to meet specific goals. Some languages are very specialized, meaning, are to be applied to very specific computational purposes.	
Problems	**What is the impact of DSLs (e.g. (Verilog, VHDL) in hardware design?**	**What is the impact of DSLs (e.g. (MATLAB, R) in computational mathematics?**
Learning outcomes	At the end of the work, regarding the topic and problem studied, students should be able to: • define the main underlying terms • present a clear, illustrated summary with clarifying examples of the underlying concepts • if possible, identify examples of the use of the underlying concepts in academic life (teaching and research) at FEUP (or U.Porto) • if possible, fit the underlying concepts into one or more of the UN Sustainable Development Goals* • present the group's vision, formed after the work has been carried out	
Biblio	Mere examples: • Mernik, M., Heering, J., & Sloane, A. M. (2005). When and How to Develop Domain-Specific Languages. ACM Computing Surveys (CSUR), 37(4), 316-344 • Wikipedia: Domain-specific language	
Team #	1 e 2	3 e 4
Class	1LEIC07	
Teaching team	Supervisor: João Correia Lopes	
	Monitor: Inês Oliveira	
	ProjFE/UP Course Coordinator: Magalhães Cruz	

* https://sdgs.un.org/goals