

# Computational Models for Embedded Systems

## Laboratory Assignment 01

### Assignment 1: Problem Statement



**Theoretical aspects**  
Software for Sustainability



**Assignment Objectives**  
Define your own SDG-based problem

**Assignments**  
**SDG (Sustainable Development Goals)**  
**UBBGoesGreen**

**Assignment 1. – as part of the lab activities**



#### Assignment 1. - UBB-Goes-Green – problem/solution

- Work in teams of 2-3 members.
- Task 01
  - SDG (Sustainable Development Goals) documentation (provided in the first week)
    - Read them all and select one
    - Read more about the challenges for that selected SDG
    - <https://sdgs.un.org/goals>
    - Tools
      - <https://knowsdgs.jrc.ec.europa.eu>
    - Write maximum 1 page on the selected SDG, challenges and solutions.
  - Green-metric
    - Read about the green-metric
      - <http://greenmetric.ui.ac.id>
    - Read UBBGoesGreen report on 2018/2021
      - <http://green.ubbcluj.ro/>
      - [http://green.ubbcluj.ro/wp-content/uploads/Raport-de-dezvoltare-sustenabila\\_2018.pdf](http://green.ubbcluj.ro/wp-content/uploads/Raport-de-dezvoltare-sustenabila_2018.pdf)
      - [https://green.ubbcluj.ro/wp-content/uploads/Raport-de-dezvoltare-durabila\\_2021.pdf](https://green.ubbcluj.ro/wp-content/uploads/Raport-de-dezvoltare-durabila_2021.pdf)
      - [https://green.ubbcluj.ro/wp-content/uploads/Raport-de-dezvoltare-durabila\\_2022.pdf](https://green.ubbcluj.ro/wp-content/uploads/Raport-de-dezvoltare-durabila_2022.pdf)
      - <https://green.ubbcluj.ro/wp-content/uploads/Raport-de-dezvoltare-durabila-2023.pdf>
    - Write maximum 1 page on the selected university from the list, challenges and solutions in that university and also provide about strategies/solutions for improvement at UBB.
- Task 02
  - Create, based on your findings and provided solutions, the Problem Statement for your lab projects.
  - Actors and communications between them.

Turn in for Assignment 1.:



- (a) 1 Page on SDG
- (b) 1 Page on Green-Metrics and UBB improvements.
- (c) 1 Page with the Problem statement for your lab projects (in natural language).
- (d) An archive with all the above files must be submitted in Teams, under the Assignment 1 (the name of the archive: Name1Name2\_Pb\_1.zip)



#### Assignment and Delivery date for Assignment 1:

1. Assignment date: laboratory 1
2. Delivery date (first): laboratory 2 (maximal grade 300XP: 150 XP for Task 01 and 150 XP for Task 02.  
**Remark: You will need Assignment 1 for the next Assignments (Assignment 2 and Assignment 3).**
3. Delivery date (last): laboratory 7 (maximal grade 300XP: 150 XP for Task 01 and 150 XP for Task 02.  
**Remark: The solutions must be presented in class (during lab hours).**