Promoting academia-industry alliances
for R&D through collaborative and
open innovation platform - All4R&D

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1. General information about course

Software Design and Testing

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Basic concepts

- **SOFTWARE DESIGN** is a process to transform user requirements into some suitable form, which helps the programmer in software coding and implementation.

- **SOFTWARE TESTING** is defined as an activity to check whether the actual results match the expected results and to ensure that the software system is Defect free.

2. Description of the course

Software Design Concept	Design process, Software technologies, Design methodology, Software design approaches
Fundamentals of Testing	Why is Testing necessary? What is Testing? General Testing Principles, The Fundamental Test Process
Testing Throughout the Software Lifecycle	Software Development Models, Test Levels, Test Types, Maintenance Testing
Static Techniques	Static Techniques and the Test Process, Review Process, Static Analysis by Tools
Test-cases and Bug-reports	Test case and its life cycle, Attributes of the test case, Bug-report and its life cycle, Attributes of the bug-reports

3. Target group and prerequisites

Target group/Learners profile

General public, beginner in IT, but not familiar with testing, young researchers and teachers.

Prerequisites (required pre-knowledge and experiences)

No previous knowledge or experience required,
analytical thinking and competencies and
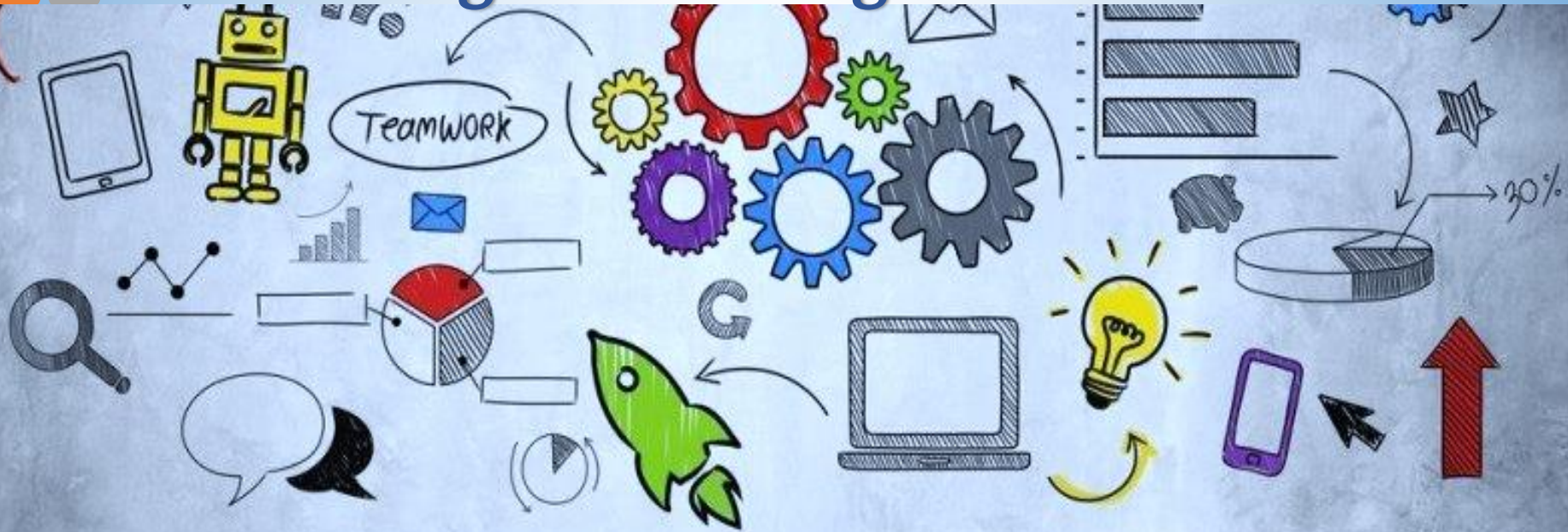desire to work in IT.

4. Learning outcomes

By the end of the course, the student will:

➢ Get knowledge about software technologies and design methodology.

➢ Be able to use basic principles of software testing.

➢ To have the necessary skills for elaborate test-cases and bug-reports.

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5. Training and learning methods

- ✓ Subject Oriented Terminology,

- ✓ Teamwork,

- ✓ Interactive lectures,

- ✓ Reading material.

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Thank you for your attention