

IDENTIFICATION

Course code : ESI-SPI-CI-BE4-S7-UE3-EC5
ECTS : 0.5

DURATION

Lectures : 8
Tutorial classes : 0
Labs : 0
Total : 8

Project :
Personnal work :

ASSESSMENT

1 "Research Memo" (1 to 2 pages max).
Based on a given technical topic, the student must find two reliable sources, cite them correctly, and formulate an associated research problem.

TEACHING MATERIALS

LANGUAGE

English

CONTACT

Mathieu DAVID
mathieu.david@univ-reunion.fr

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UE : UE7-EFFI

COURSE : Introduction to Research

SCOPE OF THE COURSE

OBJECTIVES

Differentiating the engineer's approach from the researcher's approach : Understanding when a standard solution is no longer sufficient and scientific investigation is required.

Mastering reliable information research : Knowing how to identify a high-value scientific source (avoiding web "noise").

Structuring reflection : Knowing how to pose a clear problem in the face of a complex phenomenon (e.g., thermal behavior of a new material).

COMPETENCE AND SKILLS

Extracting the essential from a publication : Reading a scientific article "efficiently" (Abstract, Conclusion, Figures) without getting lost.

Citing sources : Avoiding plagiarism and respecting intellectual property in technical reports.

Arguing with evidence : Supporting technical choices with sourced and verified data.

PROGRAM

Session 1 (4h) : Scientific posture and monitoring

The Engineer and R&D : Why research is essential in tropical construction (material innovation, energy storage).

"Fast-Checking" Workshop : Research on Google Scholar / Rapid documentary monitoring techniques.

Intellectual Property : The basics of patents and copyright.

Session 2 (4h) : Methodology and Analysis

From the question to the problem : Practical exercise on a Building/Energy topic.

Critical reading : Collective analysis of a case study (e.g., performance test on a bio-based insulator in Réunion).

Synthesis : How to write a concise state of the art.

BIBLIOGRAPHY

REQUIREMENTS