

Course analysis: MJ2507 HT24 AI applications in Sustainable Energy Engineering (50380 and 50765)

Changes made since previous course offering

- Providing two versions of HWs, as challenging version and normal version
- Changing the grading of HWs from A-F format to Pass and Fail.
- Changing the grading of Midterm exam from Pass and Fail to A-F.
- Changing group forming from random to students-based selection.

Compilation of course evaluation results (required)

- Students found the course topic highly relevant and interesting.
- The AI applications were appreciated, especially practical case studies.
- Lectures were considered clear and engaging; guest lectures added value.
- Some students mentioned the workload distribution could be improved (e.g., clustering of assignments).
- Students felt they gained both *theoretical understanding* and *practical skills in AI for energy applications*.
- Requests for more hands-on coding exercises/tutorials and clearer instructions for project assignments.

Course coordinator's reflections on what has worked well and what can be developed in the course

Worked well:

- The interdisciplinary focus linking AI and sustainable energy.
- Student engagement during discussions and projects.
- The mix of theory, applications, and external speakers.

Needs development:

- Better pacing of assignments to avoid overload.
- Providing more structured support for coding tasks (e.g., tutorials, example notebooks).
- More clarity in assessment criteria for project work.

Summary of changes to be introduced for the next course (required)

- Spread out the deadlines to reduce workload peaks.
- Provide additional tutorial sessions or recorded materials for Python/AI basics.
- Offer clearer guidelines and rubrics for project deliverables.
- Consider extending time for project work or including milestone feedback.
- Maintain and expand the involvement of guest lecturers from industry.

Brief comment on result of examinations

- Overall performance was satisfactory, with the majority of students achieving intended learning outcomes.
- A few students struggled with the more technical AI components, which supports the need for more preparatory tutorials.



- No major concerns with grading fairness or consistency.