

Advanced projects



Presentation

During the first semester of the second year of the IMDEA programme (semester 3), students have to do a project from September to December (defence beginning of January).

This project is done in collaboration either with a company or with a public laboratory.

This project should include:

- * Literature review
- * Analytical model of the system AND / OR
- * Numerical simulation (Matlab or equivalent) of the system AND/OR
- * Numerical model of the system (FEM, BEM) AND / OR
- * Experiments performed on the system

Organisation of collaboration with companies

Within these projects, the collaboration between Le Mans University and companies is defined as follow:

- * **Non Disclosure Agreement:** if necessary a NDA is signed between the company, the students and the university. Each company has to indicate the need of a NDA when proposing the project.
- * **For the company:** as the project is free (usually it can cost around 5000 € in engineering schools or universities), **the company undertakes to provide with all the prototypes** and to send them at Le Mans University. At the end of the project **the company undertakes to take them at Le Mans University**. If necessary, the company referee and the university referee define together what is precisely provided by the company.
- * **For the university:** the students and teachers undertake to do simulations, measurements, analysis and to communicate regularly the results to the company. During the oral presentations of the results, **students are allowed to listen to all presentations** according that they sign a confidentiality agreement at the beginning of each oral presentation (intermediate, final).

Are you interested?

If you are working in a company and if you are interested in studying a new concept (simple feasibility study), please [✉ contact us](#).

Student's work

Only the public projects are presented here (the projects done in collaboration with a company are not given).

AES publications

- * Mouterde, T. & Perrot, J. & Lihoreau B., and Corteel E., " [Simulating low frequency noise pollution using the parabolic equations in sound reinforcement loudspeaker systems](#)," Paper 10617, (2022 October.), In Audio Engineering Society Convention 153. Audio Engineering Society.
- * Cadavid, J., & Novak, A. (2019, March). [Practical Problems in Building Parametric Loudspeakers with Ultrasonic Piezoelectric Emitters](#). In Audio Engineering Society Convention 146. Audio Engineering Society.
- * Kakonyi, B., Abdul Jaleel, R., & Novak, A. (2018, May). [Balloon Explosion](#). In *Audio Engineering Society Convention 144*. Audio Engineering Society.

Reports and presentations

- * 2022 [Link to public projects](#)
- * 2021 [Link to public projects](#)
- * 2020 [Link to public projects](#)
- * 2019 [Link to projects](#)
- * 2018 [Link to projects](#)
- * 2017 [Link to projects](#)
- * 2016 [Link to projects](#)