
Qualification Laboratories Research by means of Electromagnetic Compatibility/Reliability Simulations and Design of Automotive Products Projects Call

1. Scope:

- Collaboration with university experts in Electromagnetic Compatibility (EMC) and Reliability areas for a research project in the automotive EMC domain. One grant will be awarded by Qualification Laboratories (QL), in the conditions specified in this project call.

2. Objectives:

- Increasing the collaboration between QL and university researchers.
- Doing research in EMC and Reliability areas for automotive products relevant for QL.
- Closing the gap between research done in the university and research done by the QL team.

3. Estimated results:

- By financing such a project, QL will benefit from the expertise of researchers from the university.
- Scientific papers will be published, that will increase the visibility of Timisoara as a competence center in EMC and Reliability for automotive products research.
- Competence will be formed for the members of the team from the university, who could then have other collaborations with the QL team.

4. General conditions for participation

- The directors of the projects should be university researchers who have a Ph.D. in Electronics and Telecommunications Engineering/Electrical Engineering, and who have done relevant research in the field of Electromagnetic Compatibility/Microwaves/Antennas in the last two-three years.
- The project team will be formed by the project director, and other researchers or Ph.D./master's/bachelor's students from the same university as the project director. There is no restriction on the number of members in the team.
- The competition will be coordinated by the QL department (Validation and Simulation team), represented by its head of department.

5. Eligibility criteria

- The directors of the projects should be university researchers who have a Ph.D. in Electronics and Telecommunications Engineering /Electrical Engineering, and who have done relevant research in the field of Electromagnetic Compatibility/Microwaves/Antennas in the last two-three years.
- The project theme will be Research in Design Consultancy by means of EMC/Reliability Simulations for automotive products. Only one proposal can be made by one project director.
- No projects that are already financed or are expected to be financed can be entered in the competition.
- The project director has the obligation to assure the fact that the project proposal conforms with Legea nr. 206/2004 regarding good conduct in scientific research, development technology and innovation, with subsequent modifications and completions, as well as other ethical legislative regulations specific to the field of research of the project.

6. Duration

- The duration of the project is 6 months, starting from April 5th, until October 4th 2021.

7. Budget and expenses

- The budget offered by QL is 10.000 EUR (equivalent in RON, and it includes VAT charges).
- The eligible expenses can be: direct expenses (personnel expenses, material expenses, logistics expenses), and indirect expenses.

8. Equal opportunities

- Equal opportunities and gender equality will be ensured for all participants. Applicants must take all measures to promote equal opportunities for men and women in writing and implementation of the financing request and the project. They must aim, as far as it is possible, a balance between women and men for all the positions provided in the project.

9. The project proposal

- The proposal will have the following sections:
- Section A (maximum 1 page), in which the scientific achievements of the project director are presented, which illustrate their ability to independently conduct a research project and highlight how these achievements relate to the project proposal.
- Section B (maximum 4 pages, except *Bibliography*), will contain the following subsections:
 - B1. *Scientific relevance*. The choice of the theme of the project will be motivated by framing the problem addressed in the current scientific context. There will be highlighted: the importance of the topic from a scientific and technological point of view, and for the automotive domain; the difficulty elements of the problem; analysis of the current state of the art related to the theme of the project.
 - B2. *Objectives / Activities of the project*. There will be presented: the concrete objectives of the project and the activities thereof; the elements of novelty and originality that the implementation of the project would bring to the automotive domain, related to the current state of the art.
 - B3. *Results and impact*. The expected results will be highlighted, such as: the realization of models, schemes, new or improved methods, publication of at least one scientific article on the subject of the project, the aspects related to the estimated impact of the project in the context of the scientific field, highlighting: the potential to influence the scientific field through new concepts or approaches and / or through opening of new research directions; the potential impact of the project in the automotive domain; any application directions that will be explored within the project.
 - B4. *Methodology*. The following will be highlighted: the research methods and tools, by reference to the newest approaches in the subject area, as well as how they will be integrated; a work plan in which the proposed activities are detailed over time, describing the organization and planning of the project in relation to the proposed objectives. The role of each member of the research team in the project will be detailed. The research methodology will be presented, specifying, as far as possible, certain intermediary targets. The possible risks of the research and the ways in which these will be removed, will be mentioned. The deliverables will be described.
 - B5. *Resources and budget*. The existing necessary resources in the university will be detailed. The source of the financing for the expenses not covered in the budget of the project will be mentioned. The breakdown for the estimative hours/team to be paid from the project budget will be highlighted.
- B6. *Bibliography (maximum 1 page)*.

10. The competition

- The project proposal will be sent by the project director, until March 29th, by e-mail to the head of department of the QL department (Validation and Simulation team), Ciprian Bleoju (e-mail: a.b “at” continental.com, where a=Ciprian, b=Bleoju).

11. The evaluation process

- The evaluation of the projects will be done by the group leader of the QL Validation and Simulation team, and all the applicants will receive an e-mail regarding the financing/not financing of their proposal, no later than March 31th.
- The projects will start April 5th and will end October 4th 2021.