#T-TeC 2021
(Telespazio Technology Contest 3rd edition)

INTRODUCTION

#T-TeC (Telespazio Technology Contest) is an initiative promoted by **Telespazio and Leonardo** to enhance university research activities within a well-established "*Open Innovation*" process. This process is part of the overall "*Idea Factory*" of Leonardo S.p.A. The contest addresses all students, PhD students and researchers from university departments who are willing to collaborate with Telespazio and Leonardo on innovative technological themes in the Space sector.

Following a first edition held on 2019 when only Italian universities were invited, and a second edition held on 2020 also opened to European universities, this third edition will broaden its scope opening to universities from all over the World. #T-TeC 2021 will be part of the activities planned for "Padiglione Italia" of Expo 2020 in Dubai (UAE).

The contest supports multidisciplinary ideas, proposals and projects concerning technological themes of strategic importance for Telespazio and Leonardo's Space activities.

#T-TeC is a unique opportunity for the participants of different university departments since it offers the opportunity to present some of their cutting-edge research to Telespazio and Leonardo innovation managers, contributing to enhance their high scientific-technological content. It is also an opportunity for students, graduates and non-graduates, to acquire professional growth and visibility for future collaborations.

HOW TO PARTICIPATE

The #T-TeC 2021 is open to STEM (Science, Technology, Engineering, and Mathematics)

- Students (graduated and non-graduated)
- PhD
- Researchers (research fellows are also allowed to participate)

from all Universities in the World.

It will be possible to participate individually or in groups or through team composed by researchers belonging to departments of different universities and countries and with different skills.

It will be possible to download the Proposal Format from the website www.telespazio.com. The **filled Proposal Format** and a **PowerPoint presentation** of the proposal shall be provided in English language.

In the Proposal Format the candidate must briefly describe the project highlighting its strengths and innovation. For what concern the PowerPoint presentation, this must contain a **maximum of 10 slides**. As in the Proposal Format, in the PowerPoint presentation the candidate must describe the project in detail, making also use of pictures and graphics to better explain the proposal content. Candidates are free to use their preferred template.

The deadline for submitting the filled Proposal Format and the relevant PowerPoint presentation is November 14th, 2021 23:59 CET: they must be sent to the e-mail address proposals.ttec@telespazio.com.

TECHNOLOGICAL THEMES

The #T-TeC 2021 technological themes are the following:

- **Space Exploration** (Concepts, Missions, Systems, Robotics, Services)

- **In Orbit Servicing** (Concepts, Missions, Systems, Robotics, Services)

- **GeoInformation Applications and Platforms** (Sensors, Data, Services)

- **Space Situation Awareness & Space Traffic Management** (Sensors, Data, Services)

Universities will have the opportunity to present one or more ideas/projects (each project must have a different team leader and different participants).

It is not allowed to submit ideas/projects already presented in the #T-TeC past editions or related to initiatives/studies linked to collaborations/contracts already in place with Telespazio Group or Leonardo.

The innovations may concern:

- Enabling hardware and software technologies which can be integrated at a higher level and which allow their use in different solutions, environments and scenarios;
- Implementation of physical/mathematical models in tools and algorithms for modelling and simulation of complex operating scenarios;
- high-level architecture view, performance and interfaces among the various system components, providing for an analysis of economic-technological feasibility together with the related usage scenarios

The proposals must have at least one of the innovations described above.

EVALUATION CRITERIA

The presented proposals will be evaluated based on the following criteria:

1) Originality and Innovation of the proposal with respect to the state of the art of the specific domain
2) Sustainability intended as the ability to make solutions more efficient, convenient and compliant with environmental and economic needs
3) Compliance to technological issues and Contribution to the company, meant as the ability to bring a competitive advantage over competitors
4) Technical and scientific contribution of the idea / innovation and ability to convert / apply the proposed technology in different fields
5) Architectural, system and economic feasibility of the proposed solution and synergy among the technological assets involved

For each evaluation criterion a score of 1 to 5 points will be assigned. The following table shows the weights associated with each evaluation criterion.

Evaluation Criterion	Weight (%)
Originality and Innovation of the proposal with respect to the state of the art of the specific domain	20%
Sustainability intended as the ability to make solutions more efficient, convenient and compliant with environmental and economic needs	10%
Compliance to technological issues and Contribution to the company, meant as the ability to bring a competitive advantage over competitors	20%
Technical and scientific contribution of the idea / innovation and ability to convert/apply the proposed technology in different areas	25%
Architectural, system and economic feasibility of the proposed solution and synergy between the technological assets involved	25%

The Evaluation Committee will include representatives of:

- Telespazio Group
- Leonardo S.p.A.
- Italian Space Agency
- European Space Agency
- UAE Space Agency

PROCESS AND AWARDS

#T-TeC 2021 is launched on 1 July 2021.

During the **Expo Space Week (17-23 October 2021)** the Organizing Committee will be available for a Q&A Session for clarification on the Contest: potential participating teams will be then invited to participate live in videoconference, booking to ask their questions. More details will be provided towards the end of **September 2021** on Telespazio and Leonardo social channels.

The week after the deadline (**15-19 November 2021**) will be dedicated to the first screening to short-list those proposals which will participate to the Pitch Contest: short-listed proposals will receive communication via e-mail in due time.

During the week of **22-26 November 2021**, the short-listed proposals will be presented via webconference to the Evaluation Committee during the Pitch Contest. Consequently, the Evaluation Committee will evaluate the proposals presented in accordance with the above mentioned evaluation parameters. There will be three Winners (1st, 2nd and 3rd place) plus four Special Mentions, one for each technological theme.

On **December 1st, 2021** there will be a Virtual Award Ceremony where Winners and Special Mentions will be unveiled. It will be a <u>closed ceremony</u>, where only participants and Evaluation Committee will be allowed to attend. ***All the candidates (including Winners and Special Mentions) are obliged to maintain the confidentiality of the outcome of the contest until the results will be published by Telespazio and Leonardo. A specific release will be signed for this event***. The three Winners will be invited to participate to the Physical Award Ceremony at **Dubai Expo on December 16th, 2021.** Leonardo s.p.a. will pay for travel, hotel accommodation and entrance fees to the Expo for two people (Team Leader and one team member) for each of the three winning teams. Travel and Official Ceremony details will be explained to Winners at due time.

The three Winners will receive a money prize:

- For the First Place award the amount will be € 10,000 (to be divided among the members if the proposal is presented in a team)
- For the Second Place award the amount will be € 6,000 (to be divided among the members if the proposal is presented in a team)
- For the Third Place award the amount will be € 4,000 (to be divided among the members if the proposal is presented in a team)

In case there will be an ex aequo, the prize will be divided among the members of the two winning teams.

The four Special Mentions will receive a Plaque.

In the event that the projects presented by Winners or Special Mentions are particularly innovative, Telespazio and Leonardo will evaluate the possibility of supporting further development (e.g. by identifying the most appropriate funding sources).

For all proposals, the protection of any Background IP will be ensured; in case of further collaboration, the management of eventual Foreground IP will be defined and agreed case by case.

For further information, please contact us to the address proposals.ttec@telespazio.com.