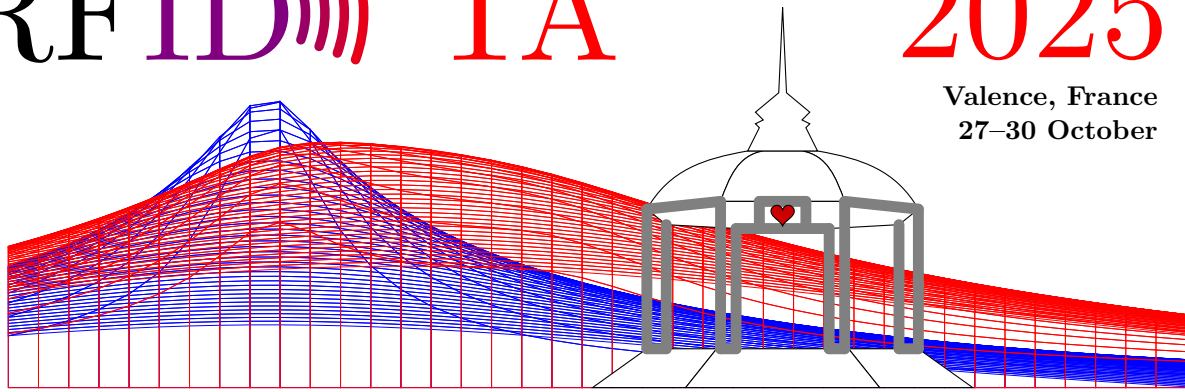


IEEE RFID TA

2025

Valence, France
27–30 October



Student Competition

The *IEEE RFID-TA 2025* provides a forum for advancing RFID technologies and practices, and aims at strengthening relations between industries, research institutions, and academia. It gives attendees a unique opportunity to share, discuss, and witness research results in all areas of RFID technologies and their applications.

This competition is open to any student (undergraduate, graduate & Ph.D. students). Teams can be composed of maximum 3 students.

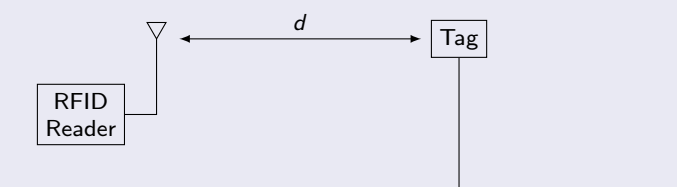
Objective

The objective of the student competition is to design a passive UHF RFID tag that can be read at the longest possible range.

Constraints

- Maximum tag's size: $20\text{cm} \times 20\text{cm} \times 20\text{cm}$
- Maximum tag's weight: 200 g
- Passive tag only (no battery allowed).
- Tag have to be compliant with EPC Gen2.

Configuration



- UHF RFID reader
 - Reference: JADAK ThingMagic M6e
 - Location: Fixed
 - Frequency: 868 MHz
 - ERP: +33 dBm
 - Sensibility: -75 dBm
 - Antenna:

Type:	Patch
Polarization:	Vertical (linear)
Height:	1.10 m (center of the antenna)
- Test protocol
 - ✓ Experimental setup:
 - Tags are evaluated one at a time.
 - Tag is placed on a support one metre high carried by a rover.
 - Tag orientation is chosen by the team before the measurement.
 - Tag is translated along a single direction (increasing d) by the rover.
 - Tag is inventoried at 100 times per second by the reader.
 - ✓ Evaluation criteria:
 - Any given distance is validated if the tag is read at least 10 times per second.
 - Measurement stop when the tag is not detected anymore.
 - The maximum distance is recorded.
 - Winning tag corresponds to the tag which can be read at the longest range.

Important dates

- Application deadline:
30th of September, 2025
- Conference:
from 27th to 30th October, 2025

Application

- Registration must be completed before 30th of September.
- To register, send an e-mail to the organizers with all the following information:
 - Team name.
 - Name, e-mail, level study, affiliation of each student.
 - Name, e-mail, affiliation of the supervisor(s).
 - 1 page abstract (IEEE template) describing the proposed tag.
- During the conference, each proposed tag will be measured in real environment in accordance with the evaluation setup.

Ranking

The ranking of registered teams is based on :

- 25%: 1-page abstract provided on registration.
- 25%: 1 additional page presenting the tag characterization, to be provided by 27th October.
- 50%: Maximum read range measured during the conference.

Awards

Best teams will received awards during the conference.

Additional information

Visit the conference website at:
<https://2025.ieee-rfid-ta.org/>

Organizers

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