# 20/21 Central Event in Spain of the International Day of Light: Outreach and citizen engagement in time of pandemic

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**Abstract:** The 3<sup>rd</sup> central IDL Event in Spain probably gathered the largest number of activities for the 16<sup>th</sup> May commemoration in 2021. Conferences, debates, workshops, exhibitions, light shows, and photo contests, adapted to severe constraints due to the pandemic, achieved the participation of a wide and diverse audience. © 2021 The Author(s)

## 1. Background and motivation

Since the proclamation of May 16 as the date to commemorate the International Day of Light worldwide [1], Spanish academic, scientific and industrial partners related to light science and technologies launched the Spanish Committee of the International Day of Light [2]. The committee promotes, among other actions, an annual IDL flagship event in Spain. Its first edition in 2018 was held in the Universidad Complutense in Madrid, in 2019 the second edition was held in Universidade de Santiago de Compostela and, in 2020, the third edition was to be held at the city of Terrassa, where the School of Optics and Optometry (FOOT) of the Universitat Politècnica de Catalunya (UPC) has its facilities. The FOOT, in its proposal and motivation, set out to give special emphasis to Light, Vision and Visual Health, taking advantage of the unique coincidence of the year 2020 with the term "20/20 vision", which is commonly used to designate the normal visual acuity in eye examinations.

Following the approval by the Spanish IDL committee, a local organizing committee was created, with representatives of the FOOT and its board of trustees, the UPC, the Spanish Society of Optics (SEDOPTICA), and the Terrassa City Council. All of them with great involvement in the organization of the event, and with the joint commitment to achieve a successful celebration.

Terrassa, 220.000 inhabitants, located about 20 Km from the capital, Barcelona, is the third most populous city in Catalonia, and the second city with university presence. Among four different universities, the UPC has an important and historical campus in the city. Additionally, the City Council created the so-called University Service in 2003 to support activities on campus, and promote research and knowledge transfer.

Four main aspects were taken into account during the programming of the activities for the IDL celebration:

- From the constitution of the committee itself to the design of all the events, a balanced participation of women and men was actively promoted.
- Scheduled activities were to remark the transversal impact of light (in science, technology, health, education, entertainment, sustainability, society, and so on) and increase people's awareness of its relevant role in everyday life.
- The IDL event was to reach people of various ages, backgrounds and motivations, from specialists to a general and heterogeneous audience. A key target was the population of students from different educational levels.
- Local engagement and widespread dissemination. In its mission, the central IDL event is meant to be a flagship project for promoting activities and disseminating their results in the country and beyond. Terrassa and its surroundings have a large number of institutions, social entities and companies connected to light and its technologies to various degrees. The third edition of the IDL event entailed also an opportunity to gain visibility among their fellow citizens.

The diversity of committee representatives was a crucial factor in achieving these goals and the participation of multiple organizations established in the city and nearby areas. Unlike previous celebrations, the Terrassa IDL event was planned to occupy different places and allow simultaneous activities.

#### 2. Wide range of activities for a diverse audience

The program covered over a week, with most of their activities concentrated in four days [3]. People's interests are extremely varied and tend to change with age. Thus, the diversification of activities would help to reach a wider and heterogeneous audience. Among the different organizations linked to light in the city, some of them already offered activities for schools, such as visits to their facilities or workshops. The committee offered them the opportunity to increase their visibility by adapting, if possible, their activities to the IDL celebration, emphasizing the importance of light in their daily operation. Finally, 18 different activities were offered to primary schools, high schools, and vocational training. With these activities, the IDL commemoration was spread by holding simultaneous events in different locations and with more than 700 students of various educational levels in attendance.

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Taking advantage of the fields of expertise of the professors and researchers of the UPC campus, as well as the professionals of companies and institutions of the city and surroundings, twelve outreach conferences, debates and round tables were programmed in subjects as optometry and vision science, optics and photonics, aerospace technology, renewable energies, audiovisual and multimedia sciences, astronomy, lighting, security, as well as biomedical or luminescent materials applications. The Youth Area of SEDOPTICA organized a "scientific café" where 15 research works carried out by young scientists were presented and it also allowed informal interaction with experienced senior researchers.

Other topics were the focus of two exhibitions: light pollution especially in urban areas and the contribution of women scientists throughout history in light technologies and space exploration.

FOOT students carried out free eye examinations during two days to the passer-by and interested participants in the central and busy courtyard of the Catalan Museum of Science and Technology in Terrassa, which ceded the space on the occasion of the realization of the IDL.

Leisure and cultural activities were also included in the extensive program of activities of the Central IDL event in Spain: projection with a magic lantern, a dance show and two musical concerts, along with the successful Path of Light, where iconic buildings and monuments of the city were specially illuminated to make the IDL a very participatory citizen party (Fig. 1). A summary video of the events can be found in [4].



Fig. 1. A variety of events in the 3rd edition of the Central IDL event in Spain (12-16 May 2021).

### 3. Reinventing in time of pandemic

The SARS-CoV-2 pandemic forced a strict lockdown from mid-March to mid-April of year 2020, followed by a period of severe restrictions on the general activity of the population that would last far longer than a year. This situation forced the organizers of the flagship IDL event to postpone all the scheduled activities to May 2021 except for those that were compatible with the situation. Thus, for instance, the organizers started an Instagram account to promote a photo contest to celebrate the 2020 IDL by sharing images related to light. About 300 photos were received and 200 new people started following the account. The @DIL20\_21Terrassa account was kept active to promote the activities of the following year. The vast majority of the planned events, succinctly described in Section 2, were basically maintained for the 2021 program, although their format had to be adapted to the new situation. In many cases a hybrid format was adopted (online and in-person), which made it easier to reach distant audience in a geographical sense and allowed them to participate, for instance, in panel discussions, conferences and virtual visits. All in all, it allowed to increase the attendance engagement and the participation numbers. More than 60 entities collaborated and about 1600 people attended the 2021 IDL central event in Spain.

### 4. Acknowledgements

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#### 5. References

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