**iGuzzini shines a new light on the Scrovegni Chapel thanks to an innovative IoT lighting system**

**Giotto’s frescoes can now be enjoyed as they have never been before, thanks to a “perception restoration” project created by a lighting system that also increases energy efficiency**

*Padua, 11 September 2017 -* iGuzzini continues its commitment to enhancing the world’s cultural heritage. After its well-known 2015 project that brought new life to Leonardo Da Vinci’s *The Last Supper*, the company is now about to unveil an innovative IoT lighting system at the Scrovegni Chapel in Padua. This new system is designed to improve both the visitor’s experience of Giotto’s priceless frescoes and the operation of the existing installation thanks to a groundbreaking application of smart lighting to art heritage. The company’s insistence on painstaking analysis and innovation has also led to an on-going relationship with the Chapel, in which iGuzzini will continue to make improvements in the years to come as advances in technology bring about new solutions.

The new IoT lighting system is a “restoration of perception” project that involves integrating LED luminaires, environment sensors and internet protocol software. In an initial phase, sensors designed specifically for the Chapel will measure the variations in natural light. Then, once this data has been processed, a dynamic smart lighting system will be installed that will use a specific and highly advanced algorithm to adapt the artificial light to any changes in environmental conditions. This will benefit both the visual experience and the conservation of the paintings, as the artificial light will interact dynamically with the natural light and automatically adjust the colour temperature and intensity to constantly achieve values that offer the best possible viewing conditions. From the moment it is installed, this system will guarantee better colour rendering and energy savings of up to 60% compared to the previous one.

This project is part of a wider working relationship between iGuzzini and the Municipality of Padua that is conducted under the supervision of the *Interdisciplinary Commission for the Conservation and Restoration of the Scrovegni Chapel* and in close collaboration with the *Photometry section of the High Institute for Conservation and Restoration* with the overall aim of creating a more emotional, true and immersive experience of the magical colours of Giotto’s art.

*“This ambitious project will both benefit the public and honour the town with its record-breaking status. In fact, this is the first time ever that a highly advanced technological system has been applied to a cultural context of this importance in order to allow visitors to better appreciate the unique brilliance of these magnificent, world famous frescoes,”* **commented Sergio Giordani, Mayor of Padua.**

*“Enhancing this country’s major assets of cultural heritage, like the Scrovegni Chapel, is the goal we set ourselves right from the beginning. Once again, here, we have worked together with iGuzzini to select the technological solutions best suited to the conservation and experience of these fourteenth century frescoes,”* **commented Gisella Capponi, Director of the High Institute for Conservation and Restoration.**

The installation of Palco COB and Laser Blade luminaires with a high colour rendering index – and a design that blends perfectly with the chapel’s architectural features – guarantees a better perception of the frescoes’ colours immediately, especially in terms of the warm tones (yellow-orange-red), which enhance the gold leaf used in the haloes and other features. The new system also guarantees immediate improvements to the already optimal conservation conditions of the paintings by zeroing UV and IR emissions to avoid any risk of damage. Using products with Tunable White technology that enables white light tones to be adjusted dynamically as the

intensity of natural light varies, ensures that in a second phase visitors will be able to see these frescoes more clearly no matter what time of day it is.

The asymmetrical distribution of the six windows on the southern facade of the Chapel produces an uneven distribution of sunlight, as the windowed wall enjoys less natural light than the one opposite it. This creates constant changes in the environment’s visual balance and a counterlight effect that troubles visitors. Thanks to the new system, the light variations will be detected and transmitted to the control system that will adjust the luminaires accordingly – in complete compliance with European standards regarding exposure limits for the conservation of artworks – and thereby improving the visitor’s viewing experience. The system operates using internet protocol with a series of sensor nodes that are compatible with the worldwide web. Each sensor node can therefore be reached remotely to view the data measured or change the settings so the artwork can be enjoyed to the full.

*“The lighting project for the Scrovegni Chapel is a challenge that we have taken up with immense enthusiasm. Our knowhow in the lighting sphere has allowed us to contribute to the enhancement of this major asset of artistic heritage through the latest frontier of smart lighting. This enterprise involves us literally adopting these paintings, as on account of the rapid march of technology, we will continue to look after them in the future by informing the Municipality of Padua of any new improvements that technological advances make possible. Just two years ago, in fact, when the lighting system for the Last Supper was unveiled, the level of technology used here was not available,”* **commented Adolfo Guzzini, President of iGuzzini Illuminazione.**

The lighting design for the Scrovegni Chapel is part of a programme aimed at enhancing Padua’s cultural and architectural heritage and improving the town’s energy efficiency. This initiative will also include the installation of new lighting systems for the Specola observatory that celebrates its 250th anniversary this year, and the Palazzo della Ragione, both of which will be unveiled in the near future.

*Established in 1959, iGuzzini Illuminazione is a leading International group that operates in the architectural lighting sector with approximately 1,300 employees. The company is dedicated to researching, designing and producing indoor and outdoor lighting systems in collaboration with the best lighting designers, architects, planners and research centres from around the world. Based in Recanati, in the Marches region of Italy, iGuzzini is active in over 20 countries, spread across 5 continents. The company’s main focus is to use light in cultural, work, retail, urban, infrastructure and hospitality&living contexts to improve the relationship between mankind and the environment, through its research, manufacturing, technology and knowhow. In 2016 the company’s consolidated revenues reached € 231.5 million, equivalent to an increase of 26% over the last 4 years.*

*For more information please visit*

*the iGuzzini website:* [*www.iguzzini.com*](http://www.iguzzini.com)

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