



Case Study | Bepass | Biometric ticketing

Palmeiras Eliminates Fraud with Facial Recognition-Based Ticketing

Fraud elimination | 2x faster, seamless, and paperless entry



Bepass, a system integrator specializing in digital identity for big events in sports, entertainment, etc., has integrated Innovatrics Digital Onboarding Toolkit (DOT) into web-based ticketing apps for online purchase

Challenge

- Stop the proliferation of **fraudulent tickets and scalping**
- Provide a **smooth customer experience** to sports fans
- Create a **biometric system** to accurately identify ticket holders

Since the 90s, one of the biggest Brazilian football clubs, Palmeiras, has had issues with fake paper tickets. The situation even got worse after the stadium was modernized 10 years ago to seat 43,000 spectators as thousands more of eager fans kept trying to get into the venue. Several measures were then put into place such as membership programs, card-based ticketing, or using QR codes to little effect. While the club devised ways to stop the rampant sale of fraudulent tickets and scalping, they also

wanted to provide seamless entry to their fans before every match.

The audit in 2022 showed that although priority tickets are now sold only online, there are still problems for fans to get the actual tickets. What's worse, they were resold at inflated prices. Both hurt the club brand, fanbase and the bottom line. The club therefore looked for biometric-based solutions that would reliably identify every ticket holder to prevent scalping and fraud.

Solution

- Identify ticket holders through **facial biometrics** at entry points
- Use **liveness detection** to ascertain the physical presence of the person when the ticket was purchased

Supported by Bepass, the club built a facial recognition-based access control at entry points to the stadium. To reliably connect each visitor with their ticket, the integrator Bepass has opted for Innovatrics DOT to register the ticket holder's face in the system when purchasing the ticket. After logging in the Palmeiras' loyalty app, each ticket holder goes through a quick face capture process combined with liveness

detection. This ensures they are physically present at the time of purchase, thus preventing possible spoofs.

As a result, entry to the stadium is fully paperless. At each entry point, facial recognition turnstiles search through registered faces to find a match and confirm the validity of the tickets. Once a match is found, access is granted, and the ticket holder is allowed to enter.

Results

- **Completely eliminate scalping, reselling and fraudulent tickets**
- **Facial biometrics allows seamless entry to genuine ticket holders**

With the implementation of facial recognition-based access control to the stadium, Palmeiras has become world's pioneer in providing seamless entry to sports fans. Since going live in January 2023, almost a hundred thousand unique enrollments have been made using Innovatrics DOT.

Utilizing data gathered with DOT, the club's access control system is fully automated, with less than 1% of ticket holders requiring manual check mostly due to low-quality onboarding pictures. More importantly, the club got completely rid of scalping, resale, and fraudulent tickets that had greatly affected its bottom line.

Before

Up to 40% of tickets are fraudulent per each match

Time-consuming manual checks at entry points

After

Over 99% fraud reduction in ticketing

Quick and seamless entry based on face recognition technology



Ricardo Cadar,
Founder and CEO at Bepass

“ We fully eliminated ticket frauds, such as reselling and fake tickets. It's also very fast, the entrance times have almost tripled - from the average of 7 people a minute to 18 a minute. Palmeiras is also the first stadium in the world that is 100% controlled by facial recognition access.

Security as a Priority

Innovatrics facial recognition and liveness detection technology eliminates the risks associated with fraudulent identities and activities during the ticket purchasing in real time.

Facial Biometrics Thwarts Ticket Fraud and Resale

Congestion is alleviated at entry points by only letting legitimate ticket holders into the stadium in an orderly fashion through facial recognition-based access control.

Easy Scalability Minus the High Cost

Facial recognition technology, combined with liveness detection, can be used to link a digital ticket to the facial identity of a genuine buyer, ensuring the ticket cannot be transferred or resold.

About Us

We are an independent EU-based provider of multimodal biometric solutions. Our algorithms consistently rank among the fastest and most accurate in fingerprint and face recognition. Since 2004, we have partnered with all types of organizations to build trusted and flexible biometric identification solutions. Our products are being used in more than 80 countries, benefiting more than a billion people worldwide.

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