

2021 WITSA Global ICT Excellence Awards Nomination Form

The *2021 WITSA Global ICT Excellence Awards* will be presented to select individuals, academic institutions, corporations, NGOs or governments whose use and applications of digital technologies exhibit exceptional achievement within the following broad categories:

Private Sector/NGO	Public Sector
Digital Opportunity/Inclusion Award	Digital Opportunity/Inclusion Award
Smart Cities Award	Smart Cities Award
Sustainable Growth/Circular Economy Award	Sustainable Growth/Circular Economy Award
Innovative eHealth Solutions Award	Innovative eHealth Solutions Award
Public/Private Partnership Award	Public/Private Partnership Award
E-Education & Learning Award	E-Education & Learning Award
Emerging Digital Solutions Award	Startup Ecosystem Award

In addition, a *Chairman's Award* will be presented to a nominee selected from the entire pool of candidates from all award categories.

Candidates for these Awards are nominated by ICT experts from around the world who span over 80 countries/economies. The *2021 WITSA Global ICT Excellence Awards* will take place in conjunction with the November 11-14, 2021 World Congress on IT in Dhaka, Bangladesh (<https://wcit2021.org.bd/>).

Startup Ecosystem Award

Governments often play an important role in countries that have a successful startup ecosystem. When we think of startups and a great startup culture, we only imagine the crucial role that entrepreneurs play. But governments in startup economies have progressively played a critical role in developing a startup culture by creating better policies, reducing tax burden, easing migration of talented workers, having developed infrastructure, etc. Governments have also encouraged a culture of innovation and research by creating programs and educational institutions to create talent and tech developments in an economy. Such governments that have adapted with the times and encouraged startup development have helped raise the standard of living and economies of their countries.

Also, governments must be aware that they need to provide more support locally not centrally. Hence, most state governments play an important role in executing policies and building a local startup ecosystem.

This award will recognize a government authority that has succeeded in making their startup ecosystems successful.

YOUR NOMINEES (limit two nominations per award category):

“nvbird airport”, by NVISIONIST SA

REASONS FOR NOMINATION (please justify why you think your candidate is qualified):

The proposed solution by nvisionist implements the benefits of Artificial Intelligence to the aviation sector. It is a high demand installation, since it helps airport's operators to minimize the risk of bird collision with the airplanes during landing and take-off. The system is built around a unique Machine Learning algorithm, developed in-house, capable of detecting birds, flocks of birds, drones and other objects of interest within the critical areas of the airports.

Brief Description

Nvisionist S.A. is as an Advanced Information Technologies company. Nvisionist designs, creates and offers innovative solutions and services that benefit organisations, communities, the environment and contribute to the quality of life and conservation of resources.

The nominated solution is based on Artificial Intelligence and Machine Learning algorithms. Nvisionist has thorough knowledge of the Renewable Energy market and works closely with energy providers, environmental teams and lately with airport operators. Initially they developed a bird monitoring system for wind turbines and since then the solution has been modified and enhanced accordingly to cover the needs of airports.

They realised that there was a need for a state of the art system for bird deterrence that meet the criteria set by the responsible authorities, since the existing solutions were outdated and unable to meet the high standards for bird monitoring and deterrence suitable for airports.

Nvisionist has developed an innovative Monitoring System for airports "Nvbird airport" that uses RGB cameras in combination with advanced yet inexpensive surface radar, in order to monitor the risk zones of the airport under any circumstances.

The cameras are strategically located along the runway in order to monitor the entire length of

the runway and cover both the approach and take-off areas up to a height of 1,500 feet. The machine learning algorithms and artificial intelligence ensure that birds in critical areas in the flight route of aircraft during take-off and landing are detected and when there is a high risk of collision it can also alarm the control tower operators in order to take appropriate measures.

The value proposition – The challenge and the solutions

The presence of wildlife (birds and animals) on and in the aerodrome vicinity poses a serious threat to aircraft operational safety. Airports are typically located on the outskirts

of large cities with extensive areas of unused, undeveloped land. That undeveloped land is attractive to birds, due to urban expansion and because they view the vast airport area as a safe place for resting, gathering in flocks, or hiding from predators.

Bird Strikes especially during takeoff may seriously damage the aircrafts or even have fatal consequences. Analysts estimate the cost of bird strikes between 1 and 2 billion US dollars per year. A significant 59% of reported strikes occurred below 100 feet (30 m) and 92% below 3,000 feet (900 m). In terms of flight phase, 33% occur on approach, 31% during take-off and 26% upon landing.

All airports need to take measures for the protection of aircraft, the humans onboard and the birds. Airport operators, as part of their certification requirements, must have a Wildlife Hazard Management Plan and are obliged to undertake a birdstrike hazard assessment, in accordance with CAP 772 (Birdstrike Risk Management for Aerodromes) and install appropriate controls.

Currently the majority of airports rely on human patrols to observe and identify bird movements and scare them away by firing air cannons or play distress sounds from vehicles equipped with loud speakers.

Few airports deploy advanced radar systems which are extremely expensive and effective only on flocks of birds or very large birds.

SUPPORTING INFORMATION: Please find attached the Product Description brochure. You are welcome to visit Nvisionist's website at www.nvisionist.com

NOMINEE CONTACT INFORMATION (for award follow up and coordination)

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