THE ECONOMIC TIMES

Flora & Fauna



Artificial intelligence used to combat poaching

By PTI | 22 Apr, 2016, 06.14PM IST

Post a Comment

READ MORE ON » artificial intelligence

LOS ANGELES: Scientists, including one of Indian origin, are using artificial intelligence to solve the problems of poaching and illegal logging, in order to protect endangered animals, especially in large national parks.

"In most parks, ranger patrols are poorly planned, reactive rather than pro-active, and habitual," according to Fei Fang, a PhD candidate at the University of Southern California (USC).

The research builds on the idea of green security games - the application of game theory to wildlife protection.

Game theory uses mathematical and computer models of conflict and



the system can also take into account the natural transit paths that have the most animal traffic - and thus the most poaching creating a "street map" for patrols. (Representative photo)

Google has made massive strides with refining its Al. In January, Google's Al beat a human at the complex game of Go for the very first time.

Google's AI was also capable of learning to play and win Atari 2600 games without any prior instructions in 2015. More recently, the company's AI system was able to successfully navigate a maze on a computer game the same way a human

ET SPECIAL: Love visual aspect of news? Enjoy this exclusive slideshows treat!

cooperation between rational decisionmakers to predict the behaviour of adversaries and plan optimal approaches for containment.

"This research is a step in demonstrating that artificial intelligence (AI) can have a really significant positive impact on society and allow us to assist humanity in solving some of the major challenges we face," said Milind Tambe, professor at USC.

The researchers first created an Al-driven application called PAWS (Protection Assistant for Wildlife Security) in 2013 and tested the application in Uganda and Malaysia in 2014. Pilot implementations of PAWS showed some limitations, but also led to significant

PAWS uses data on past patrols and evidence of poaching. As it receives more data, the system "learns" and improves its patrol planning.

Already, the system has led to more observations of poacher activities per kilometre.

Its key technical advance lies in its ability to incorporate complex terrain information, including the topography of protected areas.

SPOTLIGHT

Wake Up Call



Apple's iPhone juggernaut stops with 1st sales drop

The company's sales dropped by more than a quarter in China, its most important market after the US, and it also forecast another bad quarter.

- iPhone sales grew 56% in India during Mar quarter: Cook
- Online or offline, iPhone may cost the same







Most Most Most Commented Read Shared VVIP chopper scam: Christian Michel - the man who flew away with Rs 330 crore PN Vasudevan, MD, Equitas: The model millionaire Donald Trump sweeps 5 states; Hillary Clinton Telenor threatens to exit India, runs up huge operating loss Greece's debt crisis returns More » That results in practical patrol routes that minimise elevation changes, saving time and energy.

Moreover, the system can also take into account the natural transit paths that have the most animal traffic - and thus the most poaching - creating a "street map" for patrols.

"We need to provide actual patrol routes that can be practically followed," Fang said.

"These routes need to go back to a base camp and the patrols can't be too long. We list all possible patrol routes and then determine which is most effective," Fang said.

The application also randomises patrols to avoid falling into predictable patterns.

"If the poachers observe that patrols go to some areas more often than others, then the poachers place their snares elsewhere," Fang said.

The team recently combined PAWS with a new tool called CAPTURE (Comprehensive Anti-Poaching Tool with Temporal and Observation Uncertainty Reasoning) that predicts attacking probability even more accurately.

In addition to helping patrols find poachers, the tools may assist them with intercepting trafficked wildlife products and other high-risk cargo, adding another layer to wildlife protection.

Stay on top of business news with The Economic Times App. Download it Now!



Not to be Missed



India can give returns of up to 30% this year: Brian Jacobsen, Wells Fargo Funds Management



Hasty introduction of Euro VI fuel norms triggers a slugfest between automakers, oil companies



India-bound 2016 Renault Koleos makes world premiere at Auto China



Carbon fiber noodles could save a building from an earthquake



How cognitive will redefine customer experience

Hyundai unveils Verna Concept at Auto China 2016



Find Apartments Near You

Free Apartment Listings Online! Search by Area, Price, Type, etc. : www.apartmentguide.com

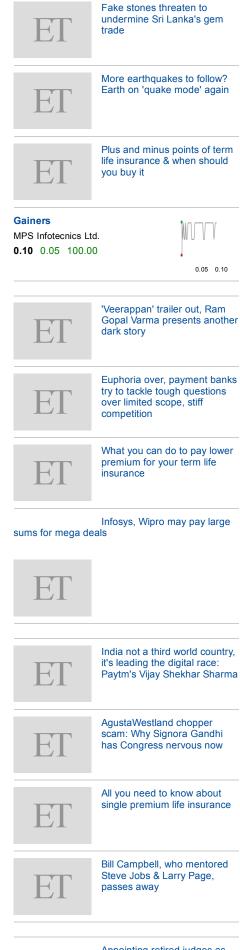
Ads by Google

READ MORE ON » artificial intelligence

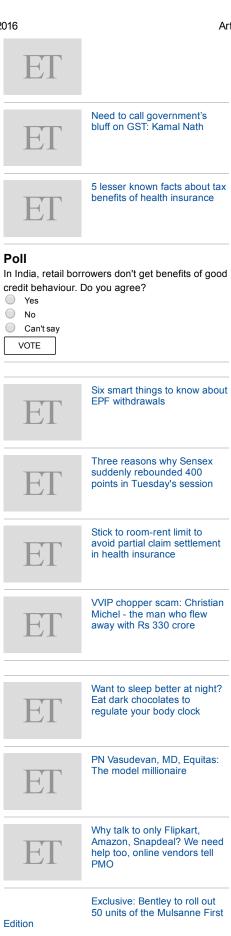
Follow this section for latest news on Flora & Fauna



Add your comment here



Appointing retired judges as ad hoc hailed 'revolutionary'



Adopt a Village: After MPs lose interest,

government to tap India Inc



ET

World Bank raises crude oil price outlook



Apple's 9-year iPhone juggernaut stops with first sales decline



Now, Google launches new version of Chromecast for Rs 3,399

Get a Quote

Type Company Name

Get Quote

Browse Companies

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z | 1 2 3 4 5 6 7 8 9

Browse Mutual Funds

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Live Market	News	Portfolio	Mobile	Live TV	Newsletter	Commodities	Speed	QnA	Blogs	Alerts	RSS
Other Times Group news sites		Living and entertainment		Hot	Hot on the Web		Services				
Times of India इक्नॉमिक टाइम्स ઈકોનોમિક टाઈમ્સ Mumbai Mirror Times Now Indiatimes नवभारत टाइम्स महाराष्ट्र टाइम्स ವಿಜಯ ಕರ್ನಾಟಕ Lifehacker		Timescity iDiva Bollywood Zoom Luxpresso Online Songs Travel Guides Hotel Reviews Cricbuzz.com Prepaid Mobile Recharge		Weat Horo Xiaor	News – TOI Daily Horoscope Weather in Delhi Mumbai Map Horoscope 2016 Hotels in Delhi Xlaomi Mobile Phones		Book print ads Online shopping Matrimonial Astrology Jobs Property Buy car Bikes in India Used Cars Online Deals Restaurants in Delhi Movie Show Timings in Mumbai Remit to India Buy Mobiles Listen Songs Voice Greetings Technology News Augmented Reality Mobile Recharge Compare Mobile Phones				
Gizmodo Eisamay IGN India NavGujarat Samay		Networking itimes Mens									

About us / Advertise with us / Terms of Use & Grievance Redressal / Privacy Policy / Feedback / Sitemap / Code of Ethics / / Disclaimer Copyright © 2016 Bennett, Coleman & Co. Ltd. All rights reserved.