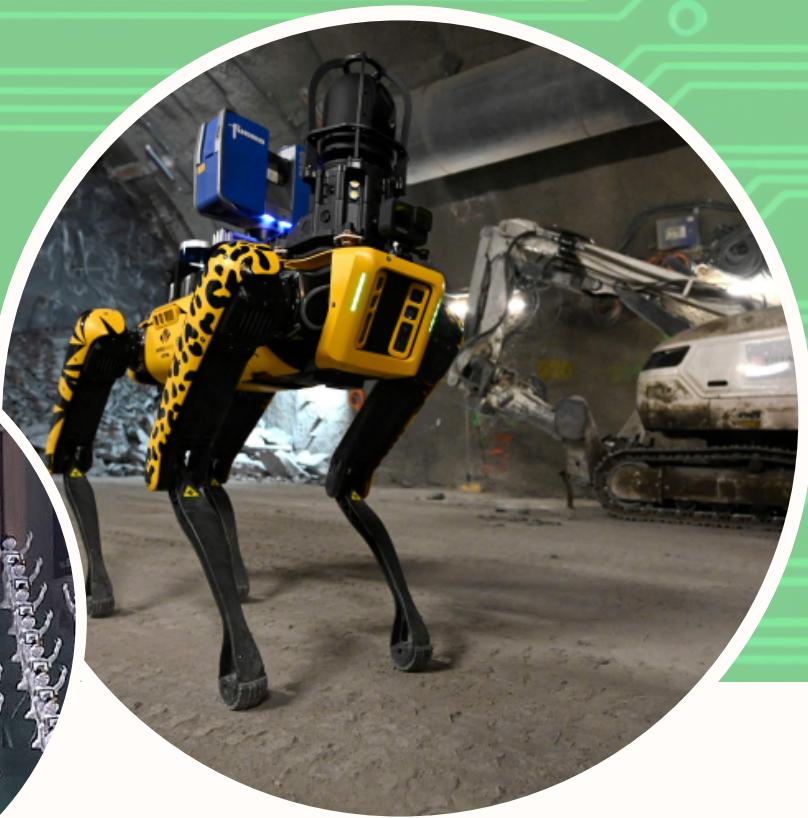


MAY 2021

SCAR ROBO

THE LATEST NEWS AND EVENTS FROM SCAR ROBO



FEATURED ON THIS MONTH'S NEWSLETTER:

"Royal Institute of Technology. "Robots can be more aware of human co-workers, with system that provides context."

Ever Heard of a Robot Cheerleading Squad!?

Daily Sabah: "French college gets new assistant in shape of robotic dog"

Read below to learn more!

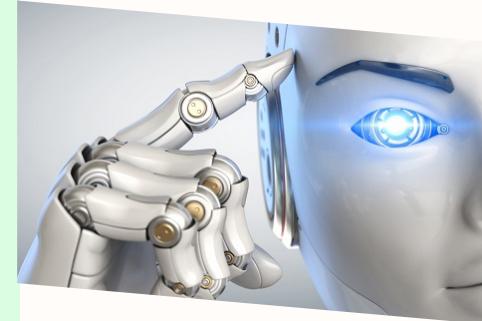
"ROYAL INSTITUTE OF TECHNOLOGY. "ROBOTS CAN BE MORE AWARE OF HUMAN CO-WORKERS, WITH SYSTEM THAT PROVIDES CONTEXT."

Source: KTH, Royal Institute of Technology. "Robots can be more aware of human co-workers, with system that provides context." ScienceDaily. ScienceDaily, 7 April 2021. <www.sciencedaily.com/releases/2021/04/210407124010.htm>

A new study by the KTH, Royal Institute of Technology found a new way of increasing efficiency in workplaces with robots.

According to the research, robots can be provided with a greater sense of awareness and be able to work with humans in the factory floors by understanding the surrounding environment and analyzing co-workers' body shape which includes skeleton structure and the abstract of body volume and overall body movement. They explained the quality as "context of awareness".

The system operation is called transfer learning which will ensure comparatively more efficiency than regular machine learning methods with smaller datasets and less computational power. The research was published in the latest issue of Robotics and Computer-Integrated Manufacturing. Overall, with this new addition, robots can be used more safely and in an efficient manner which will increase the performance in the workplaces as well.



Summarized by: Nandhakishore K.S.

EVER HEARD OF A ROBOT CHEERLEADING SQUAD!?

Source: <https://www.softbankrobotics.com/emea/en/pepper>, <https://observer.com/2020/07/japanese-robot-cheerleaders-baseball-softbank-hawks/>

Due to the Coronavirus Outbreak, the 2020 season of the Nippon (Japanese) Professional Baseball League was played behind closed doors, without any fans in an empty ballpark. Japanese Baseball is known for its unique coordinated chants and thunderous cheering whenever their players are at bat. Unfortunately, due to the pandemic, this aspect of the game was taken away.

However, one team, the Fukuoka Softbank Hawks, have peculiarly created a cheerleading squad made with just robots, known as 'Pepper'! Pepper is a

product of the Softbank Robotics, and it is the world's first social humanoid robot able to recognize faces and basic human emotions. Pepper was optimized for human interaction and is able to engage with people through conversations and its touch screen. It can understand up to 15 languages, can make an array of natural and expressive movements, recognize who is talking to it, and is also fully programmable. It is equipped with infrared sensors, bumpers, an inertial unit, 2D and 3D cameras which helps it process images with shape recognition software to identify objects, and sonars for



omnidirectional and autonomous navigation. According to Softbank Robotics group, "Pepper can identify joy, sadness, anger or surprise and respond appropriately, making interactions with humans incredibly natural and intuitive."

The cheer squad, which consists of around 40 Pepper robots wearing the Hawks Jersey and Hawks cap, offers both encouragement and a variety of impressive dance moves to entertain the fans who are forced to watch from their homes.

DAILY SABAH: “FRENCH COLLEGE GETS NEW ASSISTANT IN SHAPE OF ROBOTIC DOG”

Source: May 12,2021

<<https://www.dailysabah.com/life/science/french-college-gets-new-assistant-in-shape-of-robotic-dog>>

The Ecole des Mines engineering school in Nancy, France were recently amongst the first in utilizing a robotic “dog” for underground testing. The robotic dog nicknamed Scar (or more formally, Advanced Robotic Assistant System) was purchased by the school last September from a US tech company called Boston Dynamics last September. The uniqueness of Scar lies in the fact that it has a potential ability to autonomously detect geological waste underground where there are high levels of radiation. In fact, last Tuesday, a team from the university tested its abilities 500 meters below ground

in a controlled space underneath a small French village of Bure. This underground reservoir is set to become a safe disposal area for tonnes of toxic waste from France’s nuclear plants. Although the robot needed to be controlled via remote control for the most part, it did show some ability to perform certain autonomous tasks in harder to reach areas. For future projects, the students at the university will further improve upon AI capabilities of Scar. This would potentially encompass a lot of geological applications such as getting warnings when geological shifts underground start.

LOOK OUT FOR..
Upcoming
Robotics workshop
in the works!

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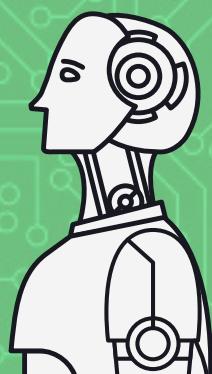


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THERE ARE AN ENDLESS NUMBER OF THINGS TO DISCOVER ABOUT ROBOTICS. A LOT OF IT IS JUST TOO FANTASTIC FOR PEOPLE TO BELIEVE.

- DANIEL H. WILSON

HAPPY SUMMER!



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