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YOGA PROGRAM

Importance of Yoga for Students-

From first graders to college seniors, students may have youth on their side — but that doesn't mean their lives are pressure-free. Hours a day sitting at desk or computer monitor and more hours doing homework cause a young body to tense up. Social and family pressures and, unfortunately, anxiety, abuse and bullying also take their toll. It all adds up to the same high stress levels that have caused the grown-up world to flock to yoga classes to find Zen



Overall Academic Improvement-

Stress is a major obstacle to academic achievement, and yoga's stress relief powers have been shown to boost student performance. A 2009 International Journal of Yoga study of 300 students looked at yoga's effect on the stress levels of adolescent students. After seven weeks of practicing asanas, breathing exercises and meditation, the students registered lower stress levels and higher academic performance. A 2015 study in the journal Evidence-Based and Complementary Medicine of 95 high school students found that yoga was superior to regular physical education classes in protecting against a slide in GPA as the school year wore on.

Improved Memory-

Yoga has been shown to improve memory in both adults and children, a benefit that would seem certain to improve academic performance. In a 2003 study in the Indian Journal of Physiology and Pharmacology, 30 children were divided into three groups: yoga camp, fine arts camp or control group. The yoga group trained in asanas, breathing exercises, meditation and cleansing rituals for 10 days. The result was a 43 percent improvement in spatial memory test scores in the yoga group. (By comparison, the fine arts and control groups showed no changes.) In another study by the journal Paediatric Physical Therapy, 108 school children were divided into 4 groups, each of whom practiced a different style of pranayama (breathing exercises). Each of the four groups saw spatial memory scores improve by an average of 84 percent.



Improved Attention Span-

Which control the power of attention, mature later than some other functions. Yoga requires attention, which can be a challenge for younger yogis, but it has also been found to enhance the ability to control attention, even in hyperactive children. In fact, studies of yoga as a palliative for ADHD have shown promise across the board. In several studies reviewed by the journal Psychiatry, children with ADHD showed decreased symptoms and in some cases were able to lower dosages of medication. Controlling attention is a challenge for children, partly because the brain's frontal lobes,



-YOGA ROOM
C- BLOCK
1st FLOOR

Are **DRONES** the future of marine surveying?



Improving safety, cutting costs, speeding up processes, making access challenges a breeze...just some of the benefits of using Unmanned Aerial Systems (UAS), more commonly known as drones.

For these reasons, [drones](#) are quickly becoming a staple of the maritime industry and whilst drones were initially developed for government and military operations, over the next five years, growth in the commercial and civilian market of the drone industry is generally predicted to surpass that of the defence industry. As the development of drone technology gathers momentum, we are likely to see them used in more maritime applications than ever before.

This year, the European Maritime Safety Agency (EMSA) issued the largest ever civilian maritime drone contract, valued at €67M. Under the contract, drones will be used to assist with border control activities, search & rescue operations and monitoring of pollution, as well as the detection of illegal fishing and drug and people trafficking. Drones in the maritime industry are clearly big business, but to what extent are drones being used in marine surveying and what does the future hold for the drone surveying industry?

External vessel inspections

Big names in the maritime industry such as DNV-GL, Lloyds Register & Maersk have all shown strategic intent to revolutionise their operations by embracing drone technology and many maritime operators are now following suit. All shipowners know that traditional methods of external vessel inspection can be a costly affair. Now that high definition, camera-equipped drones are widely available and affordable, using them for external vessel inspections to assess that the structural condition remains effective, is becoming more common. Identifying substantial corrosion, significant deformation, fractures, damage, or other structural deterioration can be done quickly, easily and cost-effectively using drones.

external inspection typically involves an initial screening of the vessel by the drone. This identifies any areas that require closer inspection, without the need for any access equipment. To do this, the drone is flown over the surface of the vessel using an automatic flight control system controlled by a human pilot. The drone automatically captures survey data, such as video and high resolution images automatically during the flight. The survey data, in addition to payload data, is then transmitted to the system user, who then reviews the information to check for defects on the vessel's exterior, such as peeling paintwork and dents.

The benefits of drone surveys and inspections are unmatched: acquiring data for external inspections takes a fraction of the time when compared against traditional methods and vessel downtime for inspection is greatly reduced.

Tank inspections-

The visual inspection of cargo tanks was traditionally performed by workers suspended on ropes to inspect the tank structure. Inspections, which are required on a regular basis, focus on areas of high stress such as; stiffeners; brackets; bracing; webs and stringers and assess the coating condition and check for corrosion and damage within the tank. The sheer size of modern-day vessels however, means that access methods including staging, rafting and climbing are often used by surveyors to access tanks in order to carry out their observations.

Traditional approaches to tank surveys therefore have three main drawbacks: high set-up costs; lengthy inspection times and a high level of personal danger for the worker. For the surveyor, the task typically involves high rope access, working within a confined space, often for extended periods of time. In contrast, drone surveys require no human access to the tank and since no access equipment is required, there are no setup costs and inspections can be completed within a quicker timeframe. For a survey of critical components of a tank, it's not unusual for shipowners to see a reduction in survey times from three or four days, to completion within one day.

Another key advantage to shipowners, is that by using a drone over conventional staging inside the tank, the risk of damage to the coating from staging is eliminated. Thanks to these benefits, tank surveys using drones are becoming increasingly popular and drone surveys are offered on all large internal tanks, on vessels such as Floating Production, Storage and Offloading (FPSO) units, bulk carriers and tankers.

OTHER PLACES WHERE DRONES ARE UNDER USE, ARE AS FOLLOWS:-

- Bathymetric survey
- Flare tip inspections on floating production facilities
- Offshore wind energy sector ETC.



Fully autonomous drones: The future of maritime surveying?

As drone technology gathers momentum, leading drone experts are suggesting that fully autonomous drones are the “next big thing” coming our way when it comes to maritime surveying.

When you think about it, it's not dissimilar to a commercial jet flying on autopilot! Fully autonomous drones are pre-loaded with a 3D model of the ship. This allows the drone to autonomously work its way around the vessel, stopping at point of interest to obtain more detailed video, or image data.

Advancing this further, it wouldn't be unrealistic to think that the drone will be designed to create its own 3D map of the vessel, before carrying out the survey independently.

Maersk wants to use delivery drones with 10 kg payload and 10 km range



ETHNIC DAY - 2K17

Date : 02.11.2017 Time : 2.00 pm to 4.00 pm
Venue : Shri Janakiraman Auditorium

