



Issue 60 (January 2018)

SPOTLIGHT

Last call to participate in WSH Institute's HEADSE (Healthy use of New Display Screen Equipment) study!



Are your employees suffering from neck pain and aching shoulders? Is the pain related to their usage of smart phones and tablets?

To find out, we invite organisations to participate in the HEADSE study which WSH Institute has commissioned to the Institute of Occupational Medicine (IOM) Singapore. Employees will answer a 20-minute online questionnaire.

By participating, organisations will receive a summary of the results and recommendations on how to adopt healthy usage of new DSEs (if 10 or more responses are received from the same organisation).

For organisations which are interested to participate, please email Ergonomics@iom-world.sg

WHAT'S TRENDING

The rise of the visual Internet of Things (IoT)



(Source: Information Age)

The IoT, big data, cloud technologies and analytics are generally talked about as being the drivers of our technological future. They're mentioned in the same breath as smart cities, driverless cars and improved healthcare.

[More...](#)



Relevance: *With the rise of video analytics, how might it help to improve safety and health at work?*

Visual performance in the foundry



(Source: Tobii Pro)

To determine methods that result in fewer accidents and increased efficiency in the high-risk environment of industrial manufacturing, H&H Castings, a premier supplier of aluminium castings, partnered with Tobii Pro Insight to make use of wearable eye tracking technology in a foundry in Pennsylvania, U.S. to track and record where someone is looking at a given time, providing new insights to improve work processes and safety.

[More...](#)

Relevance: *How might the use of eye*

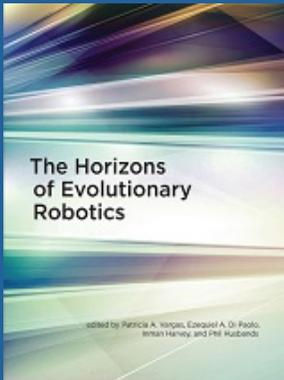
Hurry! Survey closes on 26 Jan 2018



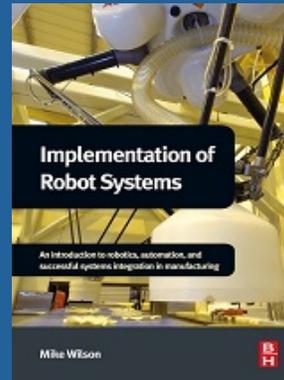
tracking technology improve health and safety in high-risk work environment in Singapore?



RECOMMENDED READING FROM THE WSH INSTITUTE COLLECTION*



TITLE:
The Horizons of Evolutionary Robotics
AUTHOR:
Vargas and Di Paolo
AREA OF INTEREST:
Technology, Robotics, Artificial Intelligence



TITLE:
Implementation of Robot Systems
AUTHOR:
Wilson
AREA OF INTEREST:
Technology, Robots, Engineering

Click [here](#) to access WSH Institute's e-books collection.

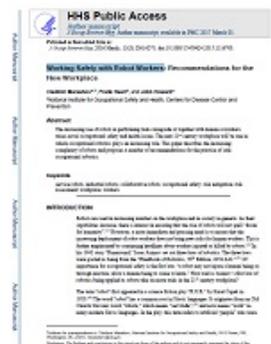
* The WSH Institute Collection is a compilation of WSH-related resources accessible to the public through our collaboration with the National Library Board (NLB).

OWL HIGHLIGHTS

1 Working safely with robot workers: Recommendations for the new workplace

Date of publication: March 2016
Source: Journal of Occupational and Environmental Hygiene

Robots are increasingly used in workplaces to enhance productivity and reduce the costs of products and services. As more robots, especially those who are mobile, come into direct contact with workers, concerns about the safety profile of the worker-robot interaction space has increased. While robots can replace human workers in hazardous operations and lead to improvements in workplace safety, it is important to ensure that the deployment of robot workers does not pose new risks for human workers. The article explores the different types of robots and recommends implementing a proactive risk management approach to



occupational robotic safety and health, with the following measures to ensure that human workers are protected:

- To involve occupational safety and health professionals in the development of international standards aimed at ensuring safety of workplaces with human and robot workers;
- To develop workplace safety standards for the maintenance, operation, and interaction with human workers, of professional, personal service and collaborative (including managerial) robots;
- To develop proactive approaches for establishing the risk profiles of robotic workplaces; and
- To develop and operationalise redundant safety measures to protect human workers while performing maintenance tasks on robot workers.



To read more, click [here](#)

2 The gig economy and contingent work: An occupational health assessment

Date of publication: April 2017

Source: Journal of Occupational and Environmental Medicine



This article highlights the need to address the occupational safety and health needs of the growing gig sector to safeguard worker protection both now and in the future. Contingent work refers to “any work arrangement which does not contain an explicit or implicit contract for long-term employment”. Gig work is a subset of contingent work, with transactions using online platforms or apps.

Workplace safety and health (WSH) risks could be anticipated to be higher in gig work because of the loss of the protective effect of working in a ‘public’ workplace. Compared to their counterparts in traditional employment, gig workers are more vulnerable to hazards such as inadequate use of household cleaning agents, intensive keyboard activity at poorly-arranged workstations and traffic safety issues.



To read more, click [here](#)

3 Implementing an integrated approach: Weaving worker health, safety, and well-being into the fabric of your organization

Date of publication: August 2017

Source: Center for Work, Health & Wellbeing

This guide provides the framework, processes, tips, tools and resources to plan and implement an integrated approach to worker safety, health, and well-being at the workplace. The key characteristics of an effective integrated approach are:

- To have strong leadership commitment to create positive working conditions;
- To have active participation at all levels in the organisation, helping to plan and execute programs to protect and promote worker safety and health;
- To have robust policies, programmes and practices which improve working conditions;
- To engage employees from across the organisation to develop comprehensive health and safety strategies and initiatives; and
- To regularly evaluate and continually improve the safety, health and well-being initiatives.



Implementing an
Integrated Approach
Weaving Worker Health, Safety, and Well-being
into the Fabric of Your Organization
WORKERS COMPENSATION | OCCUPATIONAL HEALTH & SAFETY



To read more, click [here](#)

4 Connect workers and technology for safer, more efficient work sites

Date of publication: November 2017

Source: Occupational Health & Safety Online

Connect Workers and Technology for Safer, More Efficient Work Sites

Improving the level of safety for safety management and monitoring can make a significant difference. The key is connected technology.

By Heidi Sorenson | June 15, 2017

For oil and gas firms working in remote locations, managing safety management and monitoring can make a significant difference—improving efficiency and reducing costs for maintenance and safety compliance. The key is connected technology. Linking worker safety equipment with cloud management software platforms. Besides providing workers with real-time monitoring, safety compliance, and alerting, substantial savings can be realized through the use of connected safety equipment.

Many companies have similar operations in compliance with safety standards. They are also often in remote areas, which makes it difficult to manage safety. Today's connected safety management software is designed to help address this by linking safety management processes and tools, which allows for the efficient use of the workforce and in safety equipment.

The level of connectivity for the world of portable gas detectors makes an excellent case to make.

The Trouble with Standalone Devices

The development of portable gas sensors has long depended on the use of standalone devices to ensure workers have essential reports to use and respond to. The reports can be used to help workers respond to safety issues. The reports can be used to help workers respond to safety issues. The reports can be used to help workers respond to safety issues.

Today's gas sensors have been able to track maintenance and alert workers when they need to be replaced. This is a significant improvement over the use of standalone devices. Today's gas sensors have been able to track maintenance and alert workers when they need to be replaced. This is a significant improvement over the use of standalone devices.

This article examined how connected technology, which links worker safety equipment with shared management software platforms, can make a significant difference in protecting workers, boost productivity and reduce costly downtime and ease administrative burdens. By connecting different devices, such as multiple types of gas detectors with an integrated software platform, maintenance engineers and safety managers were able to manage all their safety systems via one simple tool.

Apart from simplifying tasks such as configuration, testing, and maintenance via one common interface, the software platform also allowed safety managers to streamline compliance administration and generate testing, certification, incident and other key reports with ease. Safety managers were also able to monitor the safety of workers in real-time through safety alerts, two-way communications and geo-location capabilities, with critical data such as toxic gas readings, radiation levels, alerts, and worker whereabouts made available in real time. Over time, the data collected could also provide insights on the workplace exposure to hazardous substances, highlighting potentially harmful patterns so that safety managers can put in place preventive measures timely.



To read more, click [here](#)

Other Useful Resources

- A study on cognitive slips according to contaminants on the floor ([Safety and Health at Work](#))
- Improving worker safety one robot at a time ([Future of Business and Tech](#))
- Return to work after work-related stress: A randomized controlled trial of a work-focused cognitive behavioral intervention ([Scandinavian Journal of Work, Environment & Health](#))
- Work-life imbalance and musculoskeletal disorders among South Korean workers ([International Journal of Environmental Research and Public Health](#))
- Sleep, health and wellness at work: A scoping review ([International Journal of Environmental Research and Public Health](#))

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Vision: A leading Institute for WSH knowledge and innovations.
Mission: Enhancing WSH through knowledge, innovations and solutions.

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