



Issue 52 (November 2016)

SPOTLIGHT

National WSH statistics as at end third quarter of 2016

The Workplace Safety and Health (WSH) Institute has recently published the key national statistics on WSH as at end third quarter of 2016. This is to provide timely updates on our WSH performance in addition to the full and half year report. Click [here](#) to download the infographics.

New Memorandum of Understanding between WSH Institute and Institute of Chemical and Engineering Sciences



A Memorandum of Understanding (MOU) between the WSH Institute and Institute of Chemical and Engineering Sciences (ICES) of A*STAR was signed on 20th October 2016 for a period of 5 years during the Major Hazard Installations (MHI) Symposium.

WHAT'S TRENDING

Hacked by Your Fridge: the 'Internet of Things' Could Spark a New Wave of Cyber Attacks



Unless security measures "improve significantly in the next four years, there will be literally billions of devices that could be compromised and used for malicious purposes."

(Source: The Science Explorer)

[More...](#)

Relevance: As automation and 'Internet of Things' devices become more common, malicious hacking, through compromised machines, could add a new dimension to what we consider workplace 'hazards' currently.

NTU scientists create robot that paints walls quicker, improves safety

Scientists from the Robotic Research Centre of Singapore's Nanyang Technological University (NTU) have developed a robot

The two organisations will cooperate to advance chemical and process safety-related research and build technical capability to support WSH hazard management in MHIs. For more information, click [here](#).

[Abstract Submission for XXI World Congress on Safety and Health at Work 2017, Singapore](#)

A Global Vision of Prevention
Global Forum for Prevention
3-6 September 2017
Sands Expo and Convention Centre,
Marina Bay Sands, Singapore



The call for abstracts for symposia (oral) or poster presentation at the [XXI World Congress on Safety and Health at Work 2017](#) in Singapore is now open. For more information, click [here](#).

DEADLINE for abstract submission: 5 December 2016, 1200hrs (GMT +8)



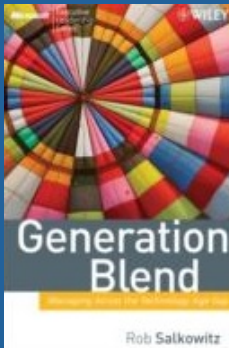
(Source: CIO Asia)

that paints industrial buildings faster, safer and with less manpower.

[More...](#)

Relevance: Eliminating the risk of painters working at height through technological substitution, this robot provides an example where innovation can enhance both productivity and safety.

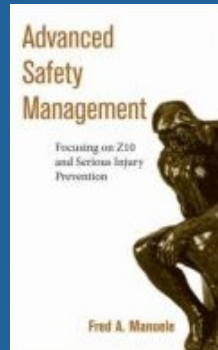
RECOMMENDED READING FROM THE WSH INSTITUTE COLLECTION*



TITLE:
Generation blend: managing across the technology age gap

AUTHOR:
Salkowitz, Rob

AREA OF INTEREST:
Older people, Employment & Attitudes, Technological innovations, Technology and older people



TITLE:
Advanced safety management focusing on Z10 and serious injury prevention

AUTHOR:
Manuele, Fred A.

AREA OF INTEREST:
Wounds and injuries, Prevention, Industrial hygiene, Industrial safety, Management

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 Employers that focus on both operations and safety don't have to sacrifice either

Date of publication: October 2016

Source: Institute for Work and Health

Will focusing on Occupational Health and Safety (OHS) remove organisational operational effectiveness or are the two synergistic? A 2-phase study involving almost 200 manufacturing organisations in Ontario, Canada, found evidence of neither but revealed a complementary relationship instead. Results of the study showed that organisations can achieve operational excellence whilst focusing on OHS through “Joint Management System” (JMS) practices. Organisations adopting the JMS approach, which allowed for coordinated management of both operations and safety, showed superior performance in both aspects.



JMS practices include:

- Focusing on processes and adhering to rules
- Holding everyone accountable for safety
- Explicitly considering safety in the design of work
- Supporting frequent communication from managers about the importance of safe work
- Incorporating safety considerations into the HR processes of performance appraisals and promotions

To read more, click [here](#)

2 Reducing occupational injuries attributed to inattention blindness in the construction industry

Date of publication: October 2016

Source: Safety Science



The construction industry is one of the most hazardous industries with a high risk of occupational injuries. Many accidents occurred due to workers' carelessness or inattentiveness. Inattention blindness in the construction industry occurred when workers were too focused and pre-occupied on a demanding task, which led them to disregard safety issues and become vulnerable to the dangers in their environment.

This study explored the significance of inattention blindness and its influence on safety. Using a video to simulate hazards at a construction site, 335 participants with construction industry experience responded to a questionnaire after watching it.

Results indicated that:

- Almost 90% of participants were unable to immediately find dynamic hazards at construction sites, indicating that dynamic hazards have a large impact on occupational safety
- While most participants found the obvious safety issues and could avoid general inattentive blindness in the environment, 30-40% were unable to avoid this type of hazard
- Workers who possess a safety license had significantly greater safety awareness
- Safety presented a greater threat to female workers, older workers, workers with lower levels of education and workers with little experience
- Most workers overestimated their awareness of hazards
- Safety training played a critical role in safety awareness

To read more, click [here](#)

3 Innovative warning lights for mobile equipment and overhead cranes

Date of publication: August 2016
Source: Safety First

This article explored the use of warning spotlights broadcasted on the floor by mobile equipment in a steel plant environment, forewarning workers of their approach. While audible alarms were already in use, they only serve as a general warning of equipment in the area. Furthermore, the high volume of a steel mill and the continuous use of mobile equipment or overhead crane sirens throughout a workday can desensitise workers who then became immune to these audible alarms. The lights did not take the place of audible alarms, however; they provided an additional visual warning that indicated the proximity of the hazard. In addition, the movement of the light further helped in alerting employees to an oncoming mobile equipment.

Due to the differences in natural lighting and flooring, the author urged those who were interested in this technology to experiment with different coloured lights to determine which best meets their needs.



To read more, click [here](#)

4 Zero Accident Vision based strategies in organisations: Innovative perspectives



Date of publication: October 2016

Source: Science Direct

Zero Accident Vision (ZAV) is an approach based on the assumption that all accidents are preventable. However, ZAV had been misunderstood to focus on 'zero incidents' as a goal, instead of a vision, which had given rise to criticisms by some who view ZAV as "unjustified and misleading pretention that is counter-productive for safety". However, this paper argued that the focus should be on the processes of innovating to zero and the consequences of ZAV. This included commitments that generated actions and programmes to develop greater safety, often through the use or development of innovative means. The paper classified ZAV companies as those that were committed to explore innovative ways to improve safety and develop a learning-driven safety culture. The paper also presented 6 synergetic and innovative perspectives of ZAV.

They were:

- A commitment strategy for safety
- A way of doing safe business
- Triggering innovation
- Serving as the basis for the development of a prevention culture
- Implying business ethics and corporate social responsibility, and,
- Requiring networking and co-creation.

The paper highlighted ZAV serving as an umbrella to unite isolated innovations into a consistent framework and prompting developments such as Vision Zero, which had in turn enabled the promotion of OSH policies in both the national and international arenas.

To read more, click [here](#)

Other Useful Resources

- [Healthy Workplaces for all Ages](#) (*European Agency for Safety and Health at Work*)
- [Recommended Practices for Safety and Health Programmes](#) (*OSHA*)
- [Incident Investigations](#) (*Safety+Health*)
- [Controlling your plant's combustible dust hazards](#) (*Powder and Bulk Engineering*)
- [Occupational exposure to crystalline silica and gastric cancer: A systematic review and meta analysis](#) (*Occupational & Environmental Medicine*)

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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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