Issue 50 *(September 2016)*

SPOTLIGHT

WSH Institute signs MOU with NTU Singapore, renews MOUs with FIOH and IFA

The WSH Institute and NTU Singapore signed an MOU during the Singapore WSH Conference 2016. Under the MOU, both organisations will set up the new NTU-WSH Institute Research Centre. The Centre will focus on three key areas, namely developing effective communication methods to raise WSH awareness and to inculcate a Vision Zero mindset; data analytics and predictive methods for improved prevention of work accidents and ill health, as well as identifying mitigating measures for WSH risks from new technologies. For more information, click here.

WHAT'S TRENDING

Interim guidance for protecting workers from occupational exposure to Zika virus

(Source: OSHA)

Outdoor workers who are exposed to mosquitoes, and healthcare workers who are exposed to contaminated blood or other body fluids of infected individuals, are among those at risk for occupationally acquired Zika virus infection. This interim guidance provides employers and workers with information and guidance on preventing occupational exposure to the mosquito-borne disease.

More...

Relevance: Useful guidance on preventing occupational exposure to the Zika virus.

These are the top 10 emerging technologies of 2016

(Source: World Economic Forum)

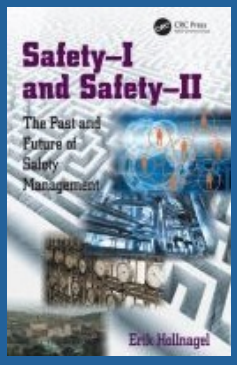
The Top 10 Emerging Technologies 2016 list, compiled by the Forum's Meta-Council on Emerging Technologies and published in collaboration with Scientific American, highlights technological advances its members believe have the power to improve lives, transform industries and safeguard the planet.

More...

The WSH Institute also renewed two MOUs on 24th August 2016, with the Finnish Institute of Occupational Health (FIOH) and the Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA). Renewal the MOU with FIOH will allow both organisations to continue with the cross-sharing of WSH knowledge and experts to further build capability in workplace health. For IFA, the MOU will enable continuous exchanges of experience in the management and enhancement of OWL, our WSH risk observatory, and co-develop an international database of Vision Zero case studies to encourage a Vision Zero mindset change in Singapore. For more information, click here.

Relevance: Technology has a critical role to play in WSH and it would be crucial to stay up to date with emerging technologies and developments.

RECOMMENDED READING FROM THE WSH INSTITUTE COLLECTION*



TITLE:
Safety-I and safety-II: the past and future of safety management

AUTHOR:
Erik Hollnagel

AREA OF INTEREST:
Industrial safety, management, psychological aspects, Aeronautics, safety measures, Medical care

Please use your QR code scanner to access the recommended reading titles on **Challenges in the New Workplace**

Click here to access WSH Institute's e-books collection.

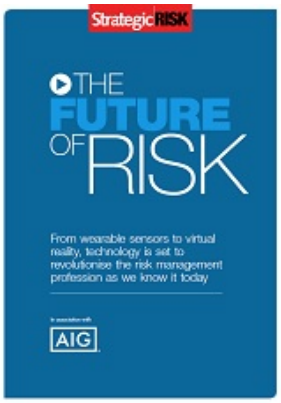
* The WSH Institute Collection is a compilation of WSH-related resources accessible to the public through our collaboration with the National Library Board (NLB).

OWL HIGHLIGHTS

1 The future of risk

Date of publication: 2016
Source: Strategic Risk

This report features a series of articles to look at the impact of how wearable technology, virtual reality, and autonomous vehicles on the risk management profession.



Wearable technology helped to improve worker safety and reduce workplace injuries, thereby improving their operational efficiency. It allows risk managers to acquire a deeper understanding of their company's risk profile and helps them predict and avoid dangerous situations, as well as measure employee performance and trends to identify training and remediation areas.

Virtual reality (VR) brought new details and precision to risk forecasting. It assists risk managers in visualising crisis through experiencing risk scenarios that were too dangerous or expensive to be re-created in the real world, It also enables them to be more aware and identify elements that cause harm. The effectiveness of VR would depend on how well the content and interactivity is designed and how well users' needs were taken into consideration.

Autonomous vehicles could potentially make transportation safer, faster, and more efficient. However, risk managers need to have early involvement in its development so as to manage the cyber, liability, and privacy risks.

To read more, click here

2 Effectiveness of a multilevel workplace health promotion program on vitality, health, and work-related outcomes


Effectiveness of a Multilevel Workplace Health Promotion Program on Vitality, Health, and Work-Related Outcomes

Date of publication: June 2016
Source: Journal of Occupational & Environmental Medicine

Workplace health promotion programme (WHPP) is a popular strategy in improving lifestyle, health, and work-related outcomes. Recently, a new WHPP that focuses on "energy" – an important element in individual vitality - and "performance" – an important element of employability - was developed. This study seeks to investigate the effectiveness of WHPP on 4 primary outcome measures: employees' vitality, work performance, presenteeism, and sickness absence. It also examines how organisational support and supervisors' roles influence these outcomes.

Employees of a Dutch insurance company participated in this study which include a 5-month intervention programme. Results reveal that WHPP significantly improved vitality (long-term), work performance (after the intervention and on the long-term), sickness absence (long-term), and self-management (after the intervention and on the long-term). The results also indicate a positive link between lower sickness absence and good organisational support with involved supervisors' involvement.

To read more, click here

3 Safer and healthier work at any age: Analysis report of workplace good practices and support needs of enterprises

Date of publication: 2016
Source: European Agency for Safety and Health at Work

This report looked at the good workplace practices of 36 companies (both large and small) that have implemented a wide range of measures to address the challenges of an ageing workforce. This included changes to the work environment, organisational structure, company's culture, and measures that target individual behavioural change. The report aims to identify the motivations behind these workplace practices, their success factors and challenges associated with their implementation.

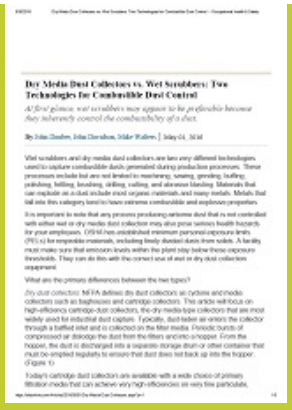
The main driving factors for companies to take action were employee productivity, avoiding sickness absence, and early retirement. While the target groups differ, measures were always initiated by the management, who often worked in partnership with the human resource departments, health and safety representatives, and workers' representatives. A majority of the companies financed the measures themselves, with some receiving partial funding from various external sources. Large companies also developed in-house evaluation systems to assess the effectiveness of the measures. The success of development and implementation is dependent on factors such as involvement and commitment of employees and management, strategic and flexible approach and diverse measures. Obstacles highlighted include the lack of financial and human resources to implement measures, lack of anchoring of OSH measures into company culture and lack of consultation and involvement of employees in initial design and implementation.

To read more, click here

4 Dry media dust collectors vs wet scrubbers: Two technologies for combustible dust control

Date of publication: May 2016
Source: Occupational Health & Safety

Production processes such as machining, sawing, grinding, polishing and drilling generate combustible dusts which pose explosion risks and serious health hazards to employees. Hence, facilities need to ensure that emission levels within the plant are kept below the established personal exposure limit thresholds.



Dry media dust collectors and wet scrubbers are technologies that can be used to capture these dusts. For dry media dust collectors, dust-laden air is drawn in via an inlet, filtered and then discharged into a hopper. In contrast, wet collectors work by having water droplets collide with the dust and separated subsequently in a settling tank. This article suggestsed that while wet scrubbers may appear to be preferable as they inherently control the combustibility of dust, dry collectors offered many operational advantages such as higher particle removal efficiencies, using less energy to capture fine dust particles, and simplified maintenance and disposal.

To read more, click here

Other Useful Resources

- **Lightning safety when working outdoors *(OSHA)***
- **Efficiency evaluation of N95 FFRs under cyclic and constant flows *(IRSST)***
- **Practical guidelines for the information and training of workers involved with asbestos removal or maintenance work *(European Commission)***

OWLinks *is brought to you by* ***Workplace Safety and Health Institute, Singapore. OWLinks*** *enables leaders and professionals to keep abreast of the latest WSH development and trends from around the world.*

For enquiries or feedback, please email us at *contact@wshi.gov.sg*
Visit the *WSH Institute website* for updates on WSH-related matters, information and events.

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

An Initiative of

The Observatory for WSH Landscape (OWL) is a function of Workplace Safety and Health Institute. OWL aims to observe, analyse and communicate changes in the workforce, workplace and working life to researchers, policy makers and industries in Singapore and Asia.


OWL
OBSERVATORY FOR
WSH LANDSCAPE