ADVANCED ROBOTICS AND AI-BASED SYSTEMS FOR THE AUTOMATION OF TASKS – OSH CONSIDERATIONS

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14th September 2021
14 September 2021 | 10:00 - 15:00 CET

Moderator
+ Ioannis Anyfantis, EU-OSHA

10:00-10:15  Welcome and Introduction
+ Ioannis Anyfantis, EU-OSHA

10:15-10:25  Presentation: Digitalization and AI in the new EU OSH Strategic Framework 2021-2027
+ Jesús Francisco Álvarez Hidalgo, European Commission

10:25-10:40  Presentation on the new EU Initiative on AI Regulation
+ Matthias Fritz, European Commission

10:40-11:10  Setting the scene: AI-based systems for the automation of tasks and OSH
+ Dr. Sascha Wischniewski, Federal Institute for Occupational Safety and Health (BAuA), Germany

11:10-11:30  Q&A

11:30-11:45  Short break
Agenda

11:45-12:15 Breakout room 1
Assessment of OSH challenges and opportunities associated with AI-based systems for the automation of cognitive tasks.
+ Robert Donoghue, University of Leicester (UL), UK
+ Dr. Sascha Wischniewski, (BAuA)

12:15-12:45 Q&A - Discussion

11:45-12:15 Breakout room 2
Assessment of OSH challenges and opportunities associated with the state of knowledge on advanced robotics.
+ Patricia Helen Rosen, (BAuA)
+ Eva Heinold, (BAuA)

12:15-12:45 Q&A - Discussion

12:45-13:45 Lunch break

13:45-14:00 Panel
Presentation of discussion results from breakout room 1
+ Robert Donoghue, University of Leicester (UL), UK

14:00-14:15 Presentation of discussion results from breakout room 2
+ Patricia Helen Rosen, (BAuA)

14:15-14:45 Joint discussion of all results (round table)
+ Dr. Sascha Wischniewski, (BAuA)

14:45-15:00 Summary and outlook

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Digitalisation

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Foresight research
Current work

OBJECTIVE:
- To provide in-depth information into the consequences of digitalisation on OSH - challenges and opportunities - for research, prevention, policy and practice.

SCOPE:
- PROJECT 1: Advanced robotics and AI-based automation of tasks (Sept 2020–Apr 2023)
  - Automation of physical and cognitive tasks, changed job contents and OSH
  - Cobots
- PROJECT 2: New forms of worker management through AI-based systems (Q4 2020-2023)
  - incl. algorithmic management, people analytics, gamification, app-driven management, etc.
- PROJECT 3: OSH in the online platform economy (Q4 2020–Q4 2021)
  - Up-date of EU-OSHA’s regulatory and policy developments, incl. case studies
- PROJECT 4: New monitoring systems for workers’ safety and health (Q3 2021-2023)

EU-OSHA Digitalisation Team:
Emmanuelle Brun, Annick Starren, Maurizio Curtarelli, Ioannis Anyfantis
The 4-year OSH overview on digitalisation and OSH will be followed by an EU-wide Healthy Workplaces Campaign dedicated to the same topic commencing in 2023.

Included in EU strategic framework on health and safety at work 2021-2027
Challenges

Cobots

AI for automation of tasks

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Project objectives

- Carry out an overview of policies, research and practices in relation to advanced robotics and AI-based systems for the automation of physical and cognitive tasks and to assess their implications for OSH.
- Examine the potential consequences for workers’ safety and health and identify the main challenges and opportunities for prevention, policy and practice.
WP1: The state of play – Comprehensive review

- Kick-off meeting September 2020
- Duration: 14 months

Objectives:
- Set the scene: definitions, mapping of uses and overview of policies, strategies and programmes in relation to AI-based systems for the automation of tasks and OSH
- Assessment of the OSH challenges and opportunities associated with AI-based systems for the automation of tasks

Methods:
Literature review (scientific and grey), FOPs consultation, interviews with key informants

Outputs:
Reports, Policy Briefs
WP2: Field research on the implementation of AI-based systems and intelligent cobots at the workplace level

- Kick-off meeting took place in July 2021.
- Duration: 22 months

Objectives:
- Investigate the practical implementation of AI-based systems for the automation of physical and cognitive tasks and of intelligent cobots in the workplace, their impact on workers, how OSH is managed in relation to such systems, and to gain a better understanding of the drivers, barriers and success factors for a safe and healthy implementation of these systems

Methods:
Interviews, focus groups or surveys with employers, workers and their representatives, HR departments, OSH practitioners, Occupational Health services, OSH intermediaries, Labour Inspectorates, designers and manufacturers of AI-based automation systems and other relevant actors.

Outputs:
A comprehensive report, at least 10 case study reports suitable for publication and up to 3 policy briefs

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Thank you

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