



# SHO 2020

INTERNATIONAL SYMPOSIUM

**OCCUPATIONAL SAFETY AND HYGIENE**

16<sup>th</sup> AND 17<sup>th</sup> july

PORTO PORTUGAL

PROGRAM VIRTUAL EVENT

[sho2020@sposho.pt](mailto:sho2020@sposho.pt)

Registration		08:30
		09:00
		09:15
<b>Opening Session</b> <i>Chair: Pedro Arezes</i>	<b>José Aidos Rocha</b> Os novos paradigmas da segurança contra incêndio	09:30
		09:45
		10:00
<b>Fifteen minutes break</b>		<b>10:15</b>
<b>Occupational and Environmental Safety</b> <i>Chair: Fernanda Rodrigues</i>	43 <b>Maintenance and fire safety regulation in Spain and Portugal</b> <i>Francisco Salguero-Caparrós and Juan Carlos Rubio-Romero</i>	10:30
	44 <b>Intervention in OSH for SMEs employers: Influence in knowledge and prevention activities</b> <i>André M. Lopes, Rita A. Costa, Artemisa R. Dores and Matilde A. Rodrigues</i>	10:45
	62 <b>Local information system on occupational accidents: subsidies for the development of public policies on occupational health</b> <i>Luiz Gonzaga Chiavegato Filho, Danilo de Brito Garcia and Marta Santos</i>	11:00
	49 <b>Best methods and means of raising awareness of road safety in the opinion of drivers</b> <i>Hamou Boudrija, Abdelkarime Guellati and Rabah Boudebaba</i>	11:15
	127 <b>Continuous monitoring of fatigue through a physiological assessment algorithm during military training events</b> <i>Denisse Bustos, J. C. Guedes, Mário Vaz, J. Santos Baptista, José Torres Costa, Raul Sousa Pinto and Luis Pereira</i>	11:30
	11 <b>FRAM-AHP: A Resilience Engineering Approach for Sustainable Prevention</b> <i>Lucio Rosa, Paulo Carvalho and Assed Haddad</i>	11:45
<b>Lunch / Posters time</b>		<b>12:00</b>
<b>Occupational and Environmental Safety</b> <i>Chair: Néelson Costa</i>	<b>Franco Dutto</b> How to create a Sustainability “monoculture” in a multinational and multiethnic Company	14:00
		14:15
<b>Five minutes break</b>		<b>14:30</b>
13	<b>Labour production of persons with disabilities in the construction industry in Brazil</b> <i>Bruno Guimarães, Béda Barkokebas Junior and Laura Bezerra Martins</i>	14:35
38	<b>Organizational maturity models: Trends for the future</b> <i>Carolina Ferradaz, Aneta Kucińska-Landwójtowicz, José Pedro Teixeira Domingues, Paulo Sampaio and Pedro Arezes</i>	14:50
1	<b>Safety Score Permit (SSP) to enhance safety performance</b> <i>Alda Fundo, Manuel Carrasqueira, Bruno Dias, João Santos, Dalila Antunes, Joana Dias and Celeste Jacinto</i>	15:05
10	<b>Cost-benefit analysis of occupational health and safety: a case study</b> <i>Delfina Ramos, Paulo Afonso and Rosa Costa</i>	15:20
88	<b>Importance of the 5S methodology to occupational safety and health: A case study in a Branch of the Asian Commercial Bank in Vietnam</b> <i>Trần Cao, Susana Costa and Paula Carneiro</i>	15:35
<b>Five minutes break</b>		<b>15:50</b>
<b>Occupational and Environmental Safety</b> <i>Chair: Pedro Arezes</i>	<b>Waldemar Karwowski</b> Human Interactions with Artificial Intelligence and Occupational Safety	15:55
		16:10
<b>Five minutes break</b>		<b>16:25</b>
57	<b>Automatic identification of hand-held vibrating tools through commercial smartwatches and machine learning</b> <i>Luis Francisco Sigcha Guachamin, Ignacio Pavón Garcia, Stefania Trinidad Nisi Valencia and Guillermo De Arcas Castro</i>	16:30
37	<b>Human-centered approach for the design of a collaborative robotics workstation</b> <i>Ana Colim, Paula Carneiro, Néelson Costa, Carlos Faria, Luís Rocha, Nuno Sousa, Márcio Silva, Ana C. Braga, Estela Bicho, Sérgio Monteiro and Pedro Arezes</i>	16:45
36	<b>Data digitalisation in the Open-Pit Mining: preliminary results</b> <i>J. Duarte, M. Fernanda Rodrigues and J. Santos Baptista</i>	17:00
85	<b>Building Information Modeling normative analysis applied to occupational risk prevention</b> <i>Daniel Braganca, Manuel Tender and João Pedro Couto</i>	17:15

**Occupational and Environmental Health**

Chair: *Ema Leite*

30	<b>Prevalence of musculoskeletal symptoms among workers of a Portuguese textile industry: association with body mass index and work position</b> <i>Joana Azevedo, Sofia Costa, Isabel Moreira-Silva, Sandra Rodrigues, Nuno Ventura, Ricardo Cardoso and Adérito Seixas</i>	09:00
46	<b>An Analysis of Aptness and Comfort in Healthcare Units and Patient Safety in the scope of Occupational Health and Safety</b> <i>Teresa Lajinha and Miguel Tato Diogo</i>	09:15
58	<b>Assessment of urinary 1-hydroxypyrene and 3-hydroxybenzo(a)pyrene in barbecue grill workers</b> <i>Marta Oliveira, Sílvia Capelas, Cristina Delerue-Matos, Isabel Pereira and Simone Morais</i>	09:30
56	<b>Evaluation and Control of Professional Risks in Intensive Care Units</b> <i>Ana Ferreira, João Paulo Figueiredo, Mariana Girão and Ana Lança</i>	09:45
131	<b>Cardiovascular risk factors in a sample of workers from a Portuguese public university</b> <i>Tânia Silva-Santos, Pedro Moreira, Olívia Pinho, Pedro Norton, Tatiana Varandas and Carla Gonçalves</i>	10:00
2	<b>Long-haul logistic truck drivers' physiological fatigue on low back and shoulder: a primary exploration</b> <i>Teerayut Sa-Ngiamsak, Nantaporn Phatrabuddha, Tanongsak Yingratanasuk and Anamai Thetkathuek</i>	10:15
<b>Fifteen minutes break</b>		10:30

**Ergonomics and Biomechanics**

Chair: *Paula Carneiro*

89	<b>Ergonomic Assessment in Waste Sorting Jobs with Different Methods</b> <i>Jorge Cunha, Paula Carneiro and Ana Colim</i>	11:00
24	<b>Ergonomic analysis of a pathological anatomy service in a private Portuguese hospital</b> <i>Filipa Carvalho, Rita Martins and Rui B. Melo</i>	11:15
68	<b>Association between upper and lower limb flexibility and musculoskeletal symptoms</b> <i>Joana Azevedo, Aderito Seixas, Sandra Rodrigues, Ricardo Cardoso, Nuno Ventura, Jorge Mota and Isabel Moreira-Silva</i>	11:30
73	<b>The effects of a passive exoskeleton on muscle activity and discomfort in industrial tasks</b> <i>João André Cardoso, Ana Colim and Nuno Sousa</i>	11:45
69	<b>Prospective Analysis of Blockchain Applications within the Occupational Health and Safety Management and Wearable-related Ergonomics in Manufacturing Industry</b> <i>Juan Antonio Torrecilla-García, María Del Carmen Pardo-Ferreira and Juan Carlos Rubio-Romero</i>	12:00

**Lunch / Posters time**

**Psychosocial Factors**

Chair: *Pedro Ferreira*

114	<b>Influence of technology on "in itinere" work accidents</b> <i>Cristobal Pita and Gonzalo de Tena</i>	14:00
18	<b>Teachers' Perceptions of the Safety Competence of Process Operator Students</b> <i>Noora Nenonen, Sari Tappura, Sanna Nenonen and Susanna Mattila</i>	14:15
39	<b>Social workers' exposure to psychosocial risks - a case study</b> <i>Rui Azevedo and Maria Manuel Sá</i>	14:30
7	<b>Differences on Work demands, Work organization and Health COPSOQ II dimensions between workers from different hierarchical categories in a Portuguese municipality from 2015 until 2019</b> <i>Camila Ribeiro, Teresa Cotrim, Vitor Reis, Maria João Guerreiro, Suzana Maria Candeias, Ana Sofia Janicas and Maria Margarida Costa</i>	14:45
41	<b>Type II Violence in Portuguese Nursing Homes: Contributions to its Characterization</b> <i>Andreia Ribeiro, Isabel Silva and Pedro Arezes</i>	15:00
86	<b>A diagnostic analysis of absenteeism in a Portuguese cork industry</b> <i>Alfredo Silva, Ana Luísa Ramos, Marlene Brito and António Ramos</i>	15:15

**Fifteen minutes break**

**Occupational and Environmental Health and Safety**

Chair: *Rui Melo*

**Fernando Piedade Carvalho**

**Ionizing Radiations in Occupational Environments and Current Challenges**

**Five minutes break**

15	<b>Thermophysiological Behavior of the Human Body in Ceramic Industrial Environments</b> <i>António Raimundo, Avelino Monteiro and Divo Quintela</i>	16:20
14	<b>Worker Location-Based Safety Performance Indicator</b> <i>Angelica Mufato Reis, Juliana Teixeira, Lizandra Vergara and Sérgio Dinis Teixeira de Sousa</i>	16:35
125	<b>Comparison of protocols defined for the use of passive exoskeletons in automotive industry</b> <i>Gabriela Ferreira, Carlos Fujão, Jacqueline Gaspar and Isabel L. Nunes</i>	16:50
17	<b>Safety Performance Measurement Maturity in Finnish Industrial Companies</b> <i>Aki Jääskeläinen, Sari Tappura and Julius Pirhonen</i>	17:05

Registration

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Ergonomics

Chair: Isabel Nunes

20 **Changes in postures of male drivers caused by long-time driving**

*Marko Cvetkovic, Denise Soares, Pedro Fonseca, Sara Ferreira and J. Santos Baptista*

10:30

60 **Ergonomic analysis in the stamping industry in manufacturing and comparison of results with Nordic Questionnaire**

*Ana Sophia Rosado, Joana C. C. Guedes, J. Santos Baptista, J. Duarte, Alexandre Araujo and Mário A. P. Vaz*

10:45

111 **Exoskeletons for the prevention of work-related musculoskeletal disorders in the automotive industry a bibliographic review**

*Alberto Villarroya López, Jose María Rivas Moar and Rita Louzán Mariño*

11:00

42 **Exposure to musculoskeletal risk of piano teachers**

*Casimira Lima, André Roriz, Andreia Leite, Ana Colim and Paula Carneiro*

11:15

15 **Thermophysiological Behavior of the Human Body in Ceramic Industrial Environments**

*António Raimundo, Avelino Monteiro and Divo Quintela*

11:30

27 **Musculoskeletal disorders and skin temperature variations in solid waste collectors**

*Pamela Castro, Eliane Maria Gorga Lago, Felipe Mendes, Tomi Zlatar, Bianca Vasconcelos, Ana Rosa B. Martins, Laura B. Martins, Marcus Costa de Araújo and Beda Barkokebas Junior*

11:45

Lunch / Posters time (@ Webinar room 1)

12:00

14:00

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14:30

Occupational and Environmental Health

Chair: Susana Viegas

95 **Climate change influence in occupational exposure to chemical substances**

*Susana Viegas*

14:35

31 **Thermal Comfort in Bus Cabins: A Review of Parameters and Numerical Investigation**

*Matheus das Neves Almeida, Antonio Augusto de Paula Xavier, Ariel Orlei Michaloski and André Luiz Soares*

14:50

3 **The relevance of hand-mouth contact in occupational exposure to metals**

*Susana Viegas*

15:05

55 **Air quality assessment in kitchens and effects on workers health**

*Ana Ferreira, João Paulo Figueiredo, Fábio Pêgo, António Loureiro and Silvia Seco*

15:20

34 **Incidence and Risk Factors of Toxoplasma gondii in Workers that Occupationally Handle Animals: A Systematic Review**

*Maria Fernandes and Marcelo M. Ribeiro*

15:35

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Occupational and Environmental Safety

Chair: Carla Viegas

152 **Antropometric study in the Fire Fighting Vehicle**

*Ana Ferreira, Cátia Pinto, Maria Miranda, Ana Colim and Marta Sousa*

16:30

93 **Personal protective equipment used as sampling methods to assess exposure to bioburden. An added value to be considered?**

*Carla Viegas, Marta Dias, Beatriz Almeida and Elisabete Carolino*

16:45

115 **Effectiveness of an ergonomic intervention to reduce musculoskeletal discomfort**

*Barbara Cardoso, Catarina Mateus and Matilde Rodrigues*

17:00

173 **Perspective of the near-miss in the manufacturing industry: A systematic review**

*Maria Helena Pedrosa and Joana Guedes*

17:15

133 **Estresse e Saúde do Trabalhador Docente**

*Pedro Carrana, Larissa Seabra, Ana Oliveira, Márcia Fernandes and Ricardo Pocinho*

17:30

150 **Gamma Radiation Rates Thermal Establishments – A Case Study**

*Ana Sofia Silva and Maria de Lurdes Dinis*

17:45

**Occupational and Environmental Health**

Chair: Ana Colim

94	<b>Hearing Health Risks in the indoor Firing Range</b> <i>Assar Luha, Eda Merisalu, Margit Oja, Siim Kinnas and Hans Orru</i>	09:15
29	<b>Health Monitoring and Intervention Plan on Oil Industry Workers: results from a case-study</b> <i>Gisela Marta Oliveira, Diogo Guedes Vidal, Lilian Monteiro Ferrari Viterbo, André Santana Costa and Maria Pia Ferraz</i>	09:30
170	<b>Bacterial Bioburden assessment and MRSA colonization in the context of occupational exposure in Portuguese swine productions</b> <i>Edna Ribeiro and Ana Monteiro</i>	09:45
47	<b>Experimental assessment of thermal sensation and thermal comfort of sedentary subjects: a scoping review</b> <i>Daniele Costa, Joana C. Guedes and João Santos Baptista</i>	10:00
		10:15

**Fifteen minutes break**

**Occupational and Environmental Health**

Chair: Denis Coelho

71	<b>Occupational exposure to wood dust</b> <i>Beatriz Duarte and Maria Luisa Matos</i>	10:45
167	<b>A brief reflection on interior noise attenuation and impact protection technologies for aircrafts</b> <i>Susana Patricia Bastos Sousa, Ricardo Jorge Rocha, Paulo Reinier Gonçalves and Luís Miguel Pereira Pina</i>	11:00
104	<b>Health and Safety Policy for Geoscientists during Field activities</b> <i>Marco Silva, Marco Braga, Lorena Oliveira, Camilla Rodrigues, Calvin Ferreira, Claudia Morgado and Victor Esteves</i>	11:15
174	<b>Construction Safety - Coordinator; Technical and Animator</b> <i>António Teodoro</i>	11:30
66	<b>Noise management in the construction industry using Building Information Modelling methodology (BIM): a tool for noise mapping simulation</b> <i>Antonio Jesús Aguilar Aguilera, María Luisa de la Hoz Torres, María Dolores Martínez-Aires and Diego P. Ruiz</i>	11:45
153	<b>Management systems integration and Industry 4.0: a prospective insight</b> <i>Carolina Ferradaz, José Pedro Teixeira Domingues, Paulo Sampaio and Pedro Arezes</i>	12:00

**Lunch / Posters time (@ Webinar room 1)**

**Ergonomics**

Chair: Filipa Carvalho

81	<b>Safety Cargo Lifting</b> <i>António Teodoro</i>	14:00
119	<b>Ergonomic assessment of musculoskeletal risks in postal workers through motion capture (Xsens), a case report</b> <i>Lincoln Silva, Carolina Schutz Rosa, Irandir Izaquiel Paulo, Natália Mattos, Cesar Giracca, Giselle S. A. D. Merino and Eugenio A.D. Merino</i>	14:15
50	<b>Heuristic evaluation of the labor bra wearability</b> <i>Rosiane Alves and Laura Martins</i>	14:30
123	<b>Analysis of assessments for non-compliance with NR 18 in Construction Industry in Rio de Janeiro / Brazil from 2013 to 2017 and fatalities decrease numbers</b> <i>Soraya F.C. Oliveira, Victor P. P. Esteves, Justino Nóbrega, Karida L.S.E. Santo and Ana Carolina Rosa</i>	14:45
23	<b>Ergonomic assessment of musculoskeletal hazards in waste bag removal from containers</b> <i>Lincoln da Silva, Franciele Forcelini, Thiago Varnier, Giselle Schmidt Alves Díaz Merino and Eugenio Andrés Díaz Merino</i>	15:00
12	<b>Association between Manual Handling of Loads and Occupational Low Back Pain: A Case-control Study with Brazilians Workers</b> <i>Luciano Fernandes Monteiro, José Wendel dos Santos and Odelsia Leonor Sanchez de Alsina</i>	15:15

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**Segurança e Saúde Ocupacional e Ambiental**

Chair: Francisco Silva

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|-----|--|-------|
| 148 | <b>Varicela: protocolo de atuação num Hospital Português</b><br><i>Paulo Pinho, Nuno Saldanha, Pedro Moura Guedes, Pedro Matos and Pedro Norton</i>  | 10:30 |
| 157 | <b>Meningite meningocócica: protocolo de atuação num Hospital Português</b><br><i>Paulo Pinho, Nuno Saldanha, Pedro Moura Guedes and Pedro Norton</i>  | 10:45 |
| 135 | <b>Acidentes de trabalho com risco biológico confirmado ou por fonte desconhecida num centro hospitalar universitário português: estudo retrospectivo de cinco anos</b><br><i>João Raposo, Jorge Soares, Luís Mendonça-Galaio and Ema Sacadura-Leite</i> | 11:00 |
| 120 | <b>Análise do Risco de Lesões Músculo-Esqueléticas Relacionadas com o Trabalho na Indústria Químico-Farmacêutica</b><br><i>Inês de Santos, Teresa Patrone Cotrim and Cecília Ganilho</i>   | 11:15 |
| 61  | <b>How the environment affects the residential property values?</b><br><i>Lígia Silva, Cristina Reis, Carlos Oliveira and Jose Silva</i>   | 11:30 |
| 80  | <b>Safety in Urban Rehabilitation Works</b><br><i>Cristina Reis, Carlos Rafael da Silva Oliveira, Paula Braga, Lígia T. Silva and José F. Silva</i>  | 11:45 |

**Lunch / Posters time Poster time (@ Webinar room 1)**

**Segurança e Saúde Ocupacional e Ambiental**

Chair: José Carvalhais

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| 155 | <b>Avaliação do risco de desenvolvimento de LMERT pelo método KIM-PP num Hospital Português</b><br><i>Paulo Pinho, Pedro Moura Guedes, Nuno Saldanha and Pedro Norton</i>  | 14:35 |
| 102 | <b>Análise da sonolência através da monitorização do condutor em simulador de condução</b><br><i>Tiago Monteiro, Sonia Soares, Sara Ferreira and Liliana Cunha</i>   | 14:50 |
| 91  | <b>Saúde ocupacional e treinamento de visão indireta pré-clínico: percepção de estudantes de Odontologia</b><br><i>Pugliesi P. M. S., Neves T. C., Pazos J. M., Wajngarten D. and Garcia P. P. M. S.</i>   | 15:05 |
| 158 | <b>Análise ergonômica do trabalho de técnicos de enfermagem e enfermeiros: um estudo de caso em postos de saúde e em um hospital do centro oeste de Minas Gerais, Brasil</b><br><i>Laine De Cássia Teixeira, Carlos Roberto de Sousa Costa, Shirley Lima Silva and Shayene Alves</i> | 15:35 |

**Segurança e Saúde Ocupacional e Ambiental**

Chair: Teresa Cotrim

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| 106 | <b>Saúde Ocupacional de Mulheres Trabalhadoras de Universidades, Condição ou não de Conflito: Revisão Sistemática</b><br><i>Maria Inez Santos, Marcelo Ribeiro and Maria M. C. Fernandes</i>   | 16:30 |
| 101 | <b>Comparação da percepção dos factores psicossociais de risco entre 2017 e 2019 em Operacionais de Água, Saneamento e Resíduos</b><br><i>Ana Pereira and Teresa Cotrim</i>  | 16:45 |
| 151 | <b>Escalas de avaliação de riscos domésticos para idosos: uma revisão sistemática</b><br><i>Túria Maia and Laura Martins</i>   | 17:00 |
| 116 | <b>Perigo no ar: Análise de acidentes aéreos ocorridos no Nordeste do Brasil entre 2006 e 2016 na perspectiva dos fatores organizacionais e humanos</b><br><i>Anderson Rogério Albuquerque Pontes Pinto, Anastácio Pinto Gonçalves Filho, Talita Maria Gomes de Moraes and Armando José Vasconcellos Costa</i> | 17:15 |
| 142 | <b>A Uberização do Trabalho no Brasil: Histórico e Evolução com foco na Segurança do Trabalho</b><br><i>Alcina Debora França, Justino S.W. Nóbrega, Josue França and Victor P.P Esteves</i>  | 17:30 |

**Segurança e Saúde Ocupacional e Ambiental**

Chair: *Hernâni Veloso Neto*

149	Clima de segurança numa indústria de espumas <i>Rafaela Pereira and Hernâni Veloso Neto</i>	09:00
171	Plano de gestão em biossegurança para necrotérios: um estudo de caso implementado em um necrotério de um estado do nordeste do Brasil <i>Victor Leonardo de Sousa Noqueira and Iran Marques de Lima</i>	09:15
141	Acessórios de Elevação de Cargas - Lingas <i>Antônio Teodoro, Susana Guerreiro, Maria Pereira and Vivian Carlech</i>	09:30
143	Condições de segurança e saúde em obras de construção civil na perspectiva da coordenação de segurança em obra <i>Ricardo Rocha, Carlos Carvalhais and Joana Santos</i>	09:45
137	Implementação de um programa de detecção de álcool e drogas na Aviação Civil - Quais os desafios? <i>Carlos Ochoa Leite, Marta Tavares da Costa and Marta Abrantes</i>	10:00
96	E depois das férias? Desenvolvimento e construção de uma escala de ajustamento ao trabalho após as férias <i>Gabriela Gonçalves, Cátia Sousa, Sandra Silva and António Sousa</i>	10:15

**Fifteen minutes break**

**Segurança e Saúde Ocupacional e Ambiental**

Chair: *Rui Azevedo*

112	O Retalho em Portugal: Estudo das Condições de Trabalho <i>Layza Maio, Claudia Gomes, Sacha Prado and Claudia Sebastião</i>	10:45
161	Acidentes de trabalho e absentismo num hospital português <i>Paulo Pinho, João Amaro, Pedro Moura Guedes, Nuno Saldanha and Pedro Norton</i>	11:00
117	O Impacto do Stress e do Burnout na Qualidade do Sono em Profissionais de Saúde e Docentes <i>João de Figueiredo, Ana Amaral, Inês Batista and Sara Pereira</i>	11:15
163	Efeito de uma intervenção de segurança numa indústria do gás no nível de clima de segurança <i>Raquel Monteiro, Márcia Balazeiro, Manuela V. Silva and Matilde A. Rodrigues</i>	11:30
100	Impacto dos Agrotóxicos Agrícolas na Saúde Ocupacional: Uma Revisão de Literatura <i>Jessica Priscila Silva Lima, Talita Maria Gomes de Moraes and Anderson Rogerio Albuquerque Pontes Pinto</i>	11:45
90	Hand tools characteristics in slave and modern slave labour <i>Gairo Garreto, J. Santos Baptista, Antônia Mota and António Marques</i>	12:00

**Lunch / Posters time (@ Webinar room 1)**

**Segurança e Saúde Ocupacional e Ambiental**

Chair: *Susana Costa*

121	Avaliação do ruído ocupacional: comparação das normas ocupacionais de Brasil, Estados Unidos e Portugal <i>Roberto Revoredo, Rafael Manta, Eliane Lago, Bianca Vasconcelos, Béda Barkokébas Junior and Tomi Zlatar</i>	14:00
118	Controle do Ruído Ocupacional: Comparação das normas do Brasil, Estados Unidos e União Europeia <i>Sabrina Santiago Oliveira, Rafael Manta, Felipe Mendes da Cruz, Ana Rosa Bezerras Martins, Béda Barkokébas Junior and Tomi Zlatar</i>	14:15
122	Lombalgia associada às condições ergonômicas na atividade de enfermagem – Artigo de revisão <i>Francisco Edison Sampaio and Mário Vaz</i>	14:30
165	Análise da segurança das vias de cruzamentos do transporte público sobre trilho - vlt no interior do Ceará, Brasil <i>Andrêza Leite de Araujo, Jefferson Heráclito Alves de Souza, Bruno Fagundes Rodrigues and Wandenusia Oliveira Silva</i>	14:45
108	Estudo de caso: vibração de corpo inteiro no elevador cremalheira na construção civil em Pernambuco <i>Evandro José da Silva, Pedro Paulo Dantas, Felipe Cruz, Béda Barkokébas Junior and Pedro Arezes</i>	15:00

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Registration

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Occupational and Environmental

Health And Safety

Chair: Liliana Cunha

136 **A Systematic Review on exploring and prioritizing factors affecting on the human errors in health care environment**

*Sara Shahedi Ali Abadi, João Santos Baptista and Sara Maheronaghsh*

10:30

134 **Important factors in the effectiveness of interventions for decreasing occupational sedentary behavior (short review)**

*Sara Maheronaghsh, Mario Vaz, Joana Santos and Sara Shahedi Ali Abadi*

10:45

82 **Safety at Rehabilitation Works of the Cavez Bridge over Tâmega River**

*Felipe Schroeder Meretti, Cristina Reis, João Jorge Ferreira Baptista, Luis Filipe Sanches Fernandes and Carlos Rafael da Silva Oliveira*

11:00

65 **Practical use of noise mapping to reduce noise exposure in construction industry**

*Maria Luísa de la Hoz Torres, Antonio J. Aguilar Aguilera, Maria Dolores Martínez-Aires and Diego P. Ruiz Padillo*

11:15

32 **Impact of psychosocial risk factors on workers' health: contributions of a subjective health indicator**

*Carla Barros, Pilar Baylina and Liliana Cunha*

11:30

54 **Risk assessment and control in a small chemical industry in Brazil**

*Wander Vilela Andrade, Alexandre Lúcio Dantas, Nívia de Araújo Lopes and Pedro Câncio Neto*

11:45

Lunch / Posters time (@ Webinar room 1)

12:00

14:00

14:15

14:30

Psychosocial Factors

Chair: Delfina Ramos

63 **Psychosocial hazards evaluation in ICU workers**

*Diana França, Pietro Scaramuzzo and Ema Sacadura-Leite*

14:35

76 **Shift Work: Work ability and quality of life of professionals from IPSS**

*João Rito, Helder Simões, Joaquim Pereira, João Paulo Figueiredo and Teresa Cotrim*

14:50

126 **Evaluation of occupational safety and health conditions in a Brazilian private hospital**

*Katia P Souza, Justino Nobrega, Carla F Freire, Rogerio Espirito Santo, Antonio Carlos Sarquis and Victor P.P Esteves*

15:05

92 **Aspect of Cognitive Neuroergonomics and Human Factors in the Operators of Electric Power Control and Operation Centers**

*Miguel Melo, Luiz Bueno, Nelson Torro and Erivaldo Souza*

15:20

130 **Beagle Localization Mobile App Project**

*Thais Helena de Lima Nunes*

15:35

15:50

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16:10

16:25

Occupational and Environmental

Health and Safety

Chair: Luísa Matos

51 **Indoor radon levels in thermal spas and the compliance with the European BSS Directive: a Portuguese case study**

*Ana Sofia Silva, Maria De Lurdes Dinis and Alcides Pereira*

16:30

72 **Indoor air quality in classroom labs**

*João Montezuma de Carvalho, Ana Ferreira, João Paulo Figueiredo and António Loureiro*

16:45

77 **Ambulatory blood pressure monitoring in bakery professionals**

*Joaquim Pereira, Andreia Margarido, Helder Simões and Telmo Pereira*

17:00

25 **CSETIR – Construction Safety with Education and Training using Immersive Reality**

*Alfredo Soeiro, Joao Poças Martins, Nicolaos Theodossiou, Peter Meszaros, Ivica Zavrski and Adeeb Sidani*

17:15

87 **The impact of implementing hygiene and Safety measures on absenteeism – a case study in a small metallurgical company**

*Marlene Brito, Maria Antónia Gonçalves, Nuno Caravava, Henrique Teixeira and Miguel Esperança*

17:30

154 **Identifying Beryllium Exposure Risk**

*Kathryn Creek and Robert Winkel*

17:45



**Psychosocial Factors**

Chair: Catarina Silva

70	<b>Emerging risks in Contact Center sector: a review</b> <i>Pilar Delgado-Martínez, Alba Nieto-Hernández, Ventura Pérez-Mira, Fernando Vidal-Barrero, Luis Onieva and Jesus A. Carrillo-Castrillo</i>	09:00
59	<b>Self-Harm and Suicide in the Army: Systematic Review</b> <i>Marcelo Ribeiro, Maria Fernandes and Maria Santos</i>	09:15
48	<b>Depression and loneliness among workers exposed to noise</b> <i>Hamou Boudrifa</i>	09:30
156	<b>The influence of psychosocial risks in an educational establishment – Case study</b> <i>Bruno Dinis, Paulo Oliveira, Ana Mateus and Paulo Teixeira</i>	09:45
160	<b>Comparative study of the influence of psychosocial risks on educational establishments: 2016 vs 2019</b> <i>Bruno Dinis, Paulo Oliveira, Paulo Teixeira and Ana Mateus</i>	10:00
22	<b>Methodological Proposal For Quality Assessment of Urban Pedestrian Galleries</b> <i>José Alberto Barroso Castanon, Pâmela Souza da Silva, Paula Alvarenga Pereira Martins, Raquel Rodrigues Bernardes and Vicente Rosse</i>	10:15

**Fifteen minutes break**

**Occupational and Environmental Safety and Health**

Chair: Nelson Rodrigues

79	<b>The impact of lean tools on safety – Case Study</b> <i>Paula Cordeiro, José Carlos de Sá, Arminda Pata, Maria Antónia Gonçalves, Gilberto Santos and Francisco J. G. Silva</i>	10:45
16	<b>Guidelines for the use of quality engineering tools to improve occupational safety. The case of Polish construction companies</b> <i>Adam Gorny</i>	11:00
33	<b>Evaluation of the Thermal Environment Influence on Cognitive Performance in Students in Northeast Brazil</b> <i>Pedro Filipe Conceição Pereira, Evandro Eduardo Broday, Antônio Augusto de Paula Xavier and Adriana da Silva Simões</i>	11:15
21	<b>The invisibility of occupational diseases: the relationship between working conditions and the diagnosis of prostate cancer</b> <i>Mariana Macedo and Liliana Cunha</i>	11:30
110	<b>A systematic review of health, safety, environmental and socio-technical aspects of mining</b> <i>Bruna Cristina Ramos Faustino, Luana Fernanda Marques Santos, Daniele Costa, Victor Paulo Peçanha Esteves and Cláudia Do Rosário Vaz Morgado</i>	11:45
75	<b>Worker Visual Concentration as Risk Factor of Work on Scaffolding</b> <i>Elzbieta Czarnocka, Hubert Bojar, Katarzyna Szaniawska and Krzysztof Czarnocki</i>	12:00

**Lunch / Posters time**

**Occupational and Environmental Safety**

Chair: Matilde Rodrigues

67	<b>Management of acoustic comfort in learning spaces using Building Information Modelling (BIM)</b> <i>Antonio Jesús Aguilar Aguilera, María Luisa de la Hoz Torres, María Dolores Martínez-Aires and Diego P. Ruiz</i>	14:00
26	<b>Risk analysis of water blasting activity in the automobile industry</b> <i>Bruno Dobbins de Azevedo, Tomi Zlatar, Felipe Mendes, Bianca Vasconcelos, Ana Rosa Bezerra Martins, Beda Barkokebas Junior and Eliane Maria Gorga Lago</i>	14:15
28	<b>OSH Empowerment of Portuguese Agri-Food MSEs through the Application of Computational Tools of Risks Assessment</b> <i>Pedro D. Gaspar and Tânia M. Lima</i>	14:30
45	<b>Strategies for an OSH intervention in SMEs: An exploratory study focused on the role of employer</b> <i>Rita A. Costa, André M. Lopes, Artemisa R. Dores and Matilde A. Rodrigues</i>	14:45
64	<b>Prediction Model of Construction Accidents during the execution of structures using Decision tree Technique</b> <i>María Martínez-Rojas, Juan Antonio Torrecilla-García and Juan Carlos Rubio-Romero</i>	15:00
140	<b>Directiva- Seveso III em Portugal- Uma Revisão bibliográfica</b> <i>Catarina Rainho</i>	15:15

		15:30
		15:45
		16:00
		16:15

day  
16**Effectiveness of an Oral Health Program Among Brazilian Oil Workers***Lilian Monteiro Ferrari Viterbo, Diogo Guedes Vidal, André Santana Costa and Maria Alzira Pimenta Dinis***Physical and Psychosocial Safety Climate Scales: Psychometric evidence and invariance measurement in a Portuguese sample***Cátia Sousa, Gabriela Gonçalves and António Sousa***Health risk assessment in oil industry in Bahia, Brazil: the Worker's Health Risk Index (WHRI)***Lilian Monteiro Ferrari Viterbo, Maria Alzira Pimenta Dinis, Diogo Guedes Vidal, André Santana Costa, Pedro Vinícius Gomes Oliveira, Jardel Gomes Nascimento and Hélder Simões***Communication of environmental risks to potentially exposed workers: an experience in the oil industry, Bahia, Brazil***André Santana Costa, Lilian Monteiro Ferrari Viterbo, Diogo Guedes Vidal, Maria Alzira Pimenta Dinis and Hélder Simões***Medical Emergency Resource Classification Instrument (MERCII) in the Oil Industry, Brazil***Denise Bonato, André Santana Costa, Lilian Monteiro Ferrari Viterbo, Diogo Guedes Vidal and Maria Alzira Pimenta Dinis***Sustainable Development and the Changes in Organizations***Cristina Reis, Carlos Rafael da Silva Oliveira, Paula Braga, José F. Silva and Lígia T. Silva*day  
17**A Componente Psicossocial na Atividade dos Trabalhadores de Supermercados***Ana Dias and Lúcia Simões Costa***Avaliação de riscos na metalmecânica: revisão bibliográfica dos métodos***Carolina Garreto, Jacqueline Castelo Branco and Joana Guedes***Fatal occupational poisoning due to Nitrogen gas***Gabriel Martí-Amengual, Beatriz Calvo-Cerrada, Pere Sanz-Gallen, Santiago Nogué and Anselmo López-Guillén***Increased urine Chromium concentrations in a worker exposed to Lead Chromate due to the intake of medicinal herbs***Gabriel Martí-Amengual, Beatriz Calvo-Cerrada, Marisa Ruiz, Pere Sanz-Gallen, Eva Marín and Anselmo López-Guillén***Forklift Study in Response to Ergonomic Problems***José Barbosa, Natacha Cunha, Ana Mendes, Ana Costa, Ana Pinto, Ana Quinteiro, Carla Coelho, Carla Oliveira, Isac Pereira, Jorge Marinho, Rui Miranda, Ana Colim and Nuno Sousa***Reducing 3M by improved layouts and ergonomic intervention in a Lean journey in a cork company***Tânia Melo, Anabela Alves, Isabel Lopes and Ana Colim*