



**DIPARTIMENTO DI INGEGNERIA  
CIVILE, EDILE E AMBIENTALE**  
DEPARTMENT OF CIVIL, ENVIRONMENTAL  
AND ARCHITECTURAL ENGINEERING



**DIPARTIMENTO  
DI INGEGNERIA  
INDUSTRIALE**



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# 1ST INTERNATIONAL SAFETY WORKSHOP: IMPACTS OF NEW TECHNOLOGIES ON WORKERS' SAFETY AND HEALTH

**28TH APRIL 2025**

 **AULA ARCHIVIO ANTICO  
PALAZZO BO, PADUA**

8:45 REGISTRATION

9:00 WORKSHOP OPENING

9:30 **"ADVANCEMENTS IN VR AND AR FOR SAFETY TRAINING"**

RUGGIERO LOVREGGIO

FULL PROFESSOR AT MASSEY UNIVERSITY (AUCKLAND, NEW ZEALAND)

10:15 **FIRST SESSION** - CHAIR PROF. CHIARA VIANELLO

11:15 COFFE BREAK

11:45 **SECOND SESSION** - CHAIR PROF. DAVIDE TARDIVO

12:45 **THIRD SESSION** - CHAIR PROF. LIVIO PETRICCIONE

13:30 SOFT LUNCH

14:30 **FOURTH SESSION** - CHAIR PROF. DAVIDE TARDIVO

15:30 **FIFTH SESSION** - CHAIR PROF. CARLO ZANCHETTA

16:30 CLOSING CONSIDERATIONS

**Scientific Committee:** Prof. Angelo Bertolazzi, Prof. Daniela Boso, Prof. Giorgio Croatto, Dr. Giulia De Cet, Prof. Rossana Paparella, Prof. Carlo Pellegrino, Prof. Chiara Vianello, Prof. Mariano Angelo Zanini

**Registrations:** <https://forms.gle/mTKjiAgKzVr8McRYg>

# 1ST INTERNATIONAL SAFETY WORKSHOP: IMPACTS OF NEW TECHNOLOGIES ON WORKERS' SAFETY AND HEALTH

## PROGRAMME

### ADVANCEMENTS IN VR AND AR FOR SAFETY TRAINING

**RUGGIERO LOVREGGIO**

FULL PROFESSOR AT MASSEY UNIVERSITY (AUCKLAND, NEW ZEALAND)

### FIRST SESSION (10:15-11:15)

CHAIR PROF. CHIARA VIANELLO

**SELF-EVOLVING MACHINES AND RISK ASSESSMENT ACCORDING TO EN ISO 12100 AND REGULATION (EU) 2023/1230. AN EXAMPLE OF A FIRST APPLICATION APPROACH**

U. FONZAR, L. BARALDO, E. SAVIO

**DIGITAL ASSISTANTS AND ROBOTIC INTERFACES: OPPORTUNITIES FOR INTEGRATION AND SOCIAL WELL-BEING**

G. FRARE

**THE FUTURE OF INDUSTRIAL SAFETY: REMOTE-CONTROLLED ROBOTS IN HIGH-RISK ENVIRONMENTS**

A.GEROTTO, A.FELETTO, E. MARANGONI, L. BARALDO

**ARTIFICIAL INTELLIGENCE IN MACHINE SAFETY FUNCTIONS**

B. KALOUT, D. DAINESE

**THE ADOPTION OF A P-CONNECT GATEWAY TOGETHER WITH A SYSTEM OF ELECTROMECHANICAL AND ELECTRONIC SAFETY DEVICES: ADVANCED SAFETY ACCOMPANIED BY NETWORK PROTECTION FROM EXTERNAL THREATS**

F. LO GIUDICE, S. MATTERAZZO, L. BARALDO

### SECOND SESSION (11:45-12:45)

CHAIR PROF. DAVIDE TARDIVO

**RISK ASSESSMENT, HUMAN VARIABILITY AND THE POSSIBLE NEW FRONTIERS OF ARTIFICIAL INTELLIGENCE**

R. SOMMA

**THE POWER OF DIGITAL PORTALS IN SUPPLIER MANAGEMENT: TRANSFORMING SAFETY COMPLIANCE THROUGH A CASE STUDY**

G. PEGORARO, G. MARDEGAN, M. MORO, G. COSTANTINI

**RISK ASSESSMENT AND MANAGEMENT AT HEALTH AUTHORITY OF ALTO ADIGE: A SUSTAINABLE APPROACH**

P. AUER, F. ORGANAI, M. DE STEFANI

**INDUSTRIAL PAVEMENTS SKID RESISTANCE EVALUATIONS FOR WORKERS SAFETY CHECK AND IMPROVEMENT**

M. PASETTO, G. GIACOMELLO

### THIRD SESSION (12:45-13:30)

CHAIR PROF. LIVIO PETRICCIONE

**FIRE SAFETY ENGINEERING AND DIGITAL AI TECHNOLOGIES FOR EVACUATION DESIGN**

P. VALERIO, G.CASSELLA, A. BOSCO

**ORGANIZATION OF WORKING HOURS AND WORKER SAFETY**

P. MUNERETTO, M. STRINNA

**THE SILENT INTRODUCTION OF PEOPLE COUNTING SYSTEMS BASED ON VIDEO CAMERA IMAGE ANALYSIS IN FREE ENTERTAINMENT EVENTS IN LARGE-CAPACITY PUBLIC OPEN SPACES: OPPORTUNITIES AND RISKS**

V. PUCCIA

**THE IMPACT METHODOLOGY FOR THE PROTECTION OF INDUSTRIAL FACILITIES AND TERTIARY SECTOR**

R. BARRO, F. ZORZINI, A. DUSSO, M. SANAVIA

### FOURTH SESSION (14:30-15:30)

CHAIR PROF. DAVIDE TARDIVO

**WEARABLE TECHNOLOGY: INTERSECTIONS BETWEEN HEALTH AND SAFETY AND PRIVACY PROTECTION**

D. TARDIVO

**NEW DIGITAL RESOURCES AT THE UNIVERSITY OF TRENTO FOR THE ADVANCEMENT OF HEALTH AND SAFETY**

M. BRUNELLI, R. CECCATO

**REVOLUTIONIZING WORKPLACE SAFETY WITH COMPUTER VISION AI: THE INTENSEYE SOLUTION**

D. KARAKAŞ, F. SAYIN, R. BORGHETTO

**THE IMPACT OF NEW TECHNOLOGIES IN COLLISION AVOIDANCE: AN APPLIED EXPERIENCE OF SPEED CONTROL AND IMPACT DETECTION IN MATERIAL HANDLING WITH FORKLIFT TRUCKS**

A. VICENTIN, P.VISCIANO, E. TOVO

### FIFTH SESSION (15:30-16:30)

CHAIR PROF. CARLO ZANCHETTA

**DIGITAL TECHNOLOGIES FOR THE MANAGEMENT OF CONSTRUCTION SITES**

G. CASSELLA

**BUILDING INFORMATION MODELING FOR ADVANCING OCCUPANT'S HEALTH THROUGH GREEN CERTIFICATIONS AND INDOOR ENVIRONMENTAL QUALITY**

G. PARISI, S. CASCONI, R. CAPONETTO

**OPTIMIZATION OF CONSTRUCTION SITE SAFETY: AN ONTOLOGICAL APPROACH THROUGH THE INTEGRATION OF TIME AND COSTS**

J. CASSANDRO, C. MIRARCHI, A. PAVAN

**IMPLEMENTATION OF CONSTRUCTION SITE MANAGEMENT SOFTWARE WITH DIGITAL CHECKLISTS FOR QUALITY CONTROL**

E. LAURINI, C. MARCHIONNI, M. ROTILIO

**SAFETY COORDINATION OF CLASHING ACTIVITIES WITH TOTAL FLOAT ALLOCATION FOR THE COVERED MARKET OF FORLI CASE STUDY**

M.A. BRAGADIN, B. BALZANI