



**iea 2012**  
**Recife, Brazil**

18<sup>th</sup> World Congress on Ergonomics | February 12-16 2012 | Recife, Brazil

**Poster Sessions (updated January, 4<sup>th</sup>)**

**Date: 13/02**  
**Congress Hall**  
**Time: 01:00 – 06:00pm**

**Area: Activity Theories for Work Analysis and Design**

Safety Barrier-Operator interaction in Health-Care Systems  
Tiziana C. Callari | Re, A | Di Franco, M

**Area: Aerospace Human Factors and Ergonomics**

The passing of the shift in aircraft maintenance - a task that produces deaths  
Campos, Reginaldo.<sup>1</sup>, MARTINS, Edgard<sup>2</sup>; SOARES, Marcelo<sup>3</sup>  
<sup>1</sup> Department of Design, Federal University of Pernambuco, Brazil <sup>2</sup>Department of Design,  
Federal University of Pernambuco, Brazil <sup>3</sup>Department of Design, Federal University of  
Pernambuco, Brazil

**Area: Aging**

A individually tailored programme decreased long-term sickness absence among aging food  
factory workers  
Nygard, C | Siukola, A | Huhtala, H | Virtanen, P

Influences of Tactile-Dot Height and Tip Radius of Curvature on the Operational Performance  
of Cellular Phones  
Wataru Toyoda<sup>a</sup>, Kouki Doi<sup>b</sup> and Hiroshi Fujimoto<sup>c</sup>  
<sup>a</sup>Waseda University, Japan <sup>b</sup>Department of Teacher Training and Information, National  
Institute of Special Needs Education, Japan <sup>c</sup>Waseda University, Japan

Influences of the Edge Radius of Curvature of Tactile Dots and Bars on their Discriminability  
Wataru Toyoda<sup>a</sup>, Kouki Doi<sup>b</sup> and Hiroshi Fujimoto<sup>c</sup>  
<sup>a</sup>Waseda University, Japan, <sup>b</sup>Department of Teacher Training and Information, National  
Institute of Special Needs Education, Japan <sup>c</sup>Waseda University, Japan

A literature review of major perceptual, cognitive, and/or physical test batteries for older  
drivers  
Marc D. Gentzler<sup>a</sup> and Janan A. Smither<sup>b</sup>  
<sup>a</sup>Department of Psychology, University of Central Florida, USA <sup>b</sup> Department of Psychology,  
University of Central Florida, USA

Examining the Impact of Age and Multitasking on Motorcycle Conspicuity

Jonathan L. Ledbetter, Michael W. Boyce, Drea K. Fekety, Ben Sawyer, and Janan A. Smither Ph.D.

University of Central Florida, Orlando, U.S.A.

Movement-in-Depth, Cognitive Impairment, and Crash Risk

Janan Al-Awar Smither<sup>a</sup>, Marc C. Gentzler<sup>a</sup> and Robert S. Kennedy<sup>b</sup>

<sup>a</sup>Department of Psychology, University of Central Florida, USA <sup>b</sup> RSK Assessments, USA

### **Area: Agriculture**

Study of postures in sugarcane cutters in the Pontal of Paranapanema-SP, Brazil

Iracimara de Anchieta Messias<sup>a</sup>, Emico Okuno<sup>b</sup>

<sup>a</sup>Department of Planning, Paulista State University, Brazil <sup>b</sup>Department of Nuclear Physics, University of São Paulo, Brazil

Postural analysis of workers in a typical meat processing company in Brazil

Wemerton Luis Evangelista <sup>a</sup>, Ilda de Fátima Tinoco <sup>b</sup>, Amaury Paulo de Souza- M.S., Ph <sup>c</sup> Luciano José Minette- M.S, D.S <sup>d</sup>; Fernando da Costa Baeta<sup>e</sup> ; Emilia Pio da Silva- M.S, D.S <sup>f</sup> , Luciana Aparecida de Oliveira- B.S. in Home Economics <sup>g</sup>

<sup>a</sup>Federal Institute of Minas Gerais, Brazil <sup>b,c,d,e</sup>Federal University of Viçosa, Brazil <sup>f,g</sup>Forest Engineering Department, Federal University of Viçosa, Brazil

The Ergonomics Analysis of Work: a case study in a Experimental Farm

Maria de Lourdes Santiago Luz<sup>a</sup>, Syntia Lemos<sup>a</sup>

<sup>a</sup>Departament of Industrial Engineering, State University of Maringá, Brazil

Implementation of a Strategic Model for Mitigating Hardship of Indian women farmers through Technology Intervention.

<sup>a</sup>Dr Suman Singh, <sup>b</sup>Dr Hemu Rathore, <sup>c</sup>Dr Kailash Brijwasi

<sup>a</sup>FRM Department, Maharana Pratap University of Agriculture and Technology, India <sup>b</sup>FRM Department, Maharana Pratap University of Agriculture and Technology, India <sup>c</sup>Jatan NGO, India

Pesticide exposure and sprayer design: ergonomics evaluation to reduce pesticide exposure

Sonia Grimbuhler<sup>a</sup>, Mandy Lambert<sup>a</sup>, Julien Nelson<sup>c</sup> and James Richardson<sup>a,b</sup>

<sup>a</sup>Cemagref: Research Unit - Technologies for safety and performance of agricultural equipment, France <sup>b</sup>University Paris Sud XI, France <sup>c</sup>Arts et Metiers ParisTech, France

### **Area: Anthropometry**

On the road toward the development of clothing size standards and safety devices for Chilean workers

Esteban Oñate <sup>a</sup>, Felipe Meyer <sup>a</sup> and Jorge Espinoza <sup>a</sup>

<sup>a</sup>University of Concepcion, Chile.

Metrology and Ergonomic Mensuration Parameters

Cardoso, C<sup>a</sup> and Drucker, L<sup>a</sup>

<sup>a</sup>National Institute of Metrology, Quality and Technology; Inmetro; Brazil

A study of automotive workers anthropometric physical characteristics from México northwest

Karla Lucero-Duarte<sup>a</sup>, Enrique de la Vega-Bustillos<sup>b</sup>, Francisco López-Millán<sup>a</sup>

<sup>a</sup>Department of Industrial Engineering, Technological Institute of Hermosillo, Mexico  
<sup>b</sup>Technological Institute of Hermosillo, Mexico

Anthropometric data of adult wheelchair users for mexican population

Karla Lucero-Duarte<sup>a</sup>, Enrique de la Vega-Bustillos<sup>b</sup>, Francisco López-Millán<sup>a</sup>, Selene Soto-Félix<sup>b</sup>

<sup>a</sup>Department of Industrial Engineering, Technological Institute of Hermosillo, Mexico  
<sup>b</sup>Technological Institute of Hermosillo, Mexico

Analysis of the Suitability of Furniture University - Anthropometric Characteristics of User

Amanda S. Castilho<sup>a</sup>, Camila de Cássia A. Leme<sup>a</sup> and Rosimeire S. Padula<sup>ab</sup>

<sup>a</sup>University of São Francisco, Brazil. <sup>b</sup>University Center of São Paulo, Brazil

A Practical Approach to the Assesment of Manual Handling Equipment for Cargo: Multinational Abrasives in Brazil

João Barbosa Neto<sup>a</sup>, Eduardo Aparecido Centeio<sup>a</sup>, Fernando de Sampaio Siqueira<sup>a</sup>, Rosimeire Simprini Padula<sup>a,b</sup>

<sup>a</sup>Senac, Brazil <sup>b</sup>City of São Paulo University, Brazil

Anthropometry of Algerian elderly

Bouabdallah, L.

Psychology Department, Setif University (Farhat Abbas), Alkgeria

### **Area: Auditory Ergonomics**

A study on the influence of headphones in auditory perceptual function

Yoshinori HORIE and Takashi TORIIZUKA

Nihon University, JAPAN

Effects of placement point of background music on shopping website

Chien-Jung Lai and Chia-Chi Chiang

Department of Distribution Management, National Chin-Yi University of Technology, Taiwan

### **Area: Building and Construction**

Critical analysis about solutions and models of solar shades in non-residential buildings from tropical regions.

Castañon. J.A.B., Caldeira, L.F.D., Gervásio, M.F., Brum, F.M.

Department of Engineering, Federal University of Juiz de Fora, Brazil

Mass of materials: The impact of designers on Construction Ergonomics

John Smallwood<sup>a</sup>

<sup>a</sup>Department of Construction Management, Nelson Mandela Metropolitan University, South Africa

Ergonomic study in furniture manufacturing facilities

Maury Souza | Minetti, L | de Moraes, A | Zama e Santiago, M

Abandonment and accessibility in railway historical buildings: Central do Brasil and Leopoldina Railstation

BRASIL, C.C.G., COSTA, A.M., CASTAÑON, J.A.B.

Department of Transport, Federal University of Juiz de Fora, Brazil

Ergonomics in built environment: wayfinding and airports  
Lucia Ribeiro | Mont'Alvão, C

The question of the ergonomic use of virtual models  
CASTAÑON, J.A.B., SARAIVA, T.S., ARAUJO, T.T.  
Department of Transport, Federal University of Juiz de Fora, Brazil

### **Area: Ergonomics Analysis of Work and Training**

Differences in cashiers work technique regarding wrist movements when scanning groceries  
Palm Peter<sup>a,b</sup>, Johansson Elin<sup>c</sup>, Kjellberg Katarina<sup>c</sup> and Josephson Malin<sup>a</sup>  
<sup>a</sup>Department of Medical Sciences Occupational and Environmental Medicine, Uppsala University, Sweden. <sup>b</sup>Department of Occupational and Public Health Sciences, University of Gävle, Sweden. <sup>c</sup>Department of Public Health Sciences, Karolinska Institute, Sweden.

Differences in workstyle behaviors between cashiers regarding use of idle time  
Peter Palm | Kjellberg, K | Josephson, M | Johansson, E

Ergonomics analyses of five joineries located in Florianópolis-SC, using the LEST Method.  
Lizandra Lupi Garcia Vergara<sup>a</sup>, Carolina Schwinden Garcia<sup>a</sup>, Felipe Vergara Miranda<sup>a</sup>  
<sup>a</sup>Production and Systems Department, Federal University of Santa Catarina, Brazil

Experimental indicators of ergonomic wellness and quality of life: salivary and hair cortisol.  
P. L. Esposito<sup>a</sup>, A. Comin<sup>b</sup>, T. Peric<sup>b\*</sup>, M. Montillo<sup>b</sup>, M. Mascolo<sup>c</sup>, G. Tubaro<sup>d</sup> and A. Prandi<sup>b</sup>  
<sup>a</sup>University of Udine, Italy <sup>b</sup>Department of Food Science, University of Udine, Italy <sup>c</sup>Department of Neurology, Hospital of San Giorgio, Italy <sup>d</sup>Department of Civil Engineering and Architecture, University of Udine, Italy

Increased of brazilian productivity in the slaughterhouse sector: a review  
Márcia Rosângela Buzanello<sup>a,b</sup> and Antônio Renato Pereira Moro<sup>c,d</sup>  
<sup>a</sup>Federal University of Santa Catarina, Brazil <sup>b</sup>State University of West of Paraná, Brazil <sup>c</sup>Federal University of Santa Catarina, Brazil <sup>d</sup>Federal University of Santa Catarina, Brazil

The ergonomic process of an automotive company in Brazil: a study case  
Carolina Bustos<sup>a</sup>, Daniela Fischer<sup>a</sup>, Lucimara Ballardin<sup>a</sup> and Rudolf Nielsen<sup>a</sup>  
<sup>a</sup>Processes and Environments Ltda.

Ergonomic risks in mining companies: A study in Paraíba/Brazil  
Morais, S. F. A.<sup>a</sup>, Santos, A. C. Q.<sup>a</sup>, Gonçalves, W. P.<sup>a</sup>, Albuquerque Neto, H. C.<sup>b</sup>, and Sanjinéz Argandoña, E. J.<sup>c</sup>  
<sup>a</sup>Department of Industrial Engineering, Federal University of Campina Grande, Brazil  
<sup>b</sup>Department of Industrial Engineering and Management, University of Porto, Portugal  
<sup>c</sup>Department of Food Engineering, Federal University of Grande Dourados, Portugal

The challenges of interdisciplinary education and its application on teaching ergonomics  
Letícia Holtz Barbosa<sup>a</sup> and Maria Helena Câmara Pinheiro<sup>b</sup>  
<sup>a</sup>Physiotherapy Department, University Center Barão de Mauá, Brazil <sup>b</sup>Psychology Department, University of Ribeirão Preto, Brazil

Job satisfaction among control room operators of electrical systems

Amanda A Silva Macaia<sup>a</sup>, Elaine C Marqueze<sup>a</sup>, Lúcia Rotenberg<sup>b</sup>, Frida Marina Fischer<sup>a</sup>, Claudia R C Moreno<sup>a</sup>

<sup>a</sup>Environmental Health Department, University of São Paulo, Brazil <sup>b</sup>Oswaldo Cruz Institute, Brazil

Analysis of the Ergonomic Usage of the ARMflex® in the Odontological Area

Cynthia Casagrande Matos<sup>a</sup>, Alda Milagres de Assis<sup>b</sup>, Lucas Viana Quites<sup>c</sup> and Daniela Casagrande Matos<sup>d</sup>.

<sup>a</sup>University of Ouro Preto, Brazil <sup>b</sup>University of Minas Gerais, Brazil <sup>c</sup>University of Minas Gerais, Brazil <sup>d</sup>State University of Minas Gerais, Brazil

The Structuring of an Ergonomics Program as a Center of Occupational Health Component in a Public Health Institution

Suzana S. M. Lugão<sup>a</sup>, Simone L. S. I. Ricart<sup>b</sup>, Renata M.S. Pinheiro<sup>c</sup>, and Waldney M. Gonçalves<sup>d</sup>  
<sup>a, b, c, d</sup>Oswaldo Cruz Foundation (FIOCRUZ), Brazil

Analysis of working conditions focusing on biological risk: firefighters in Campo Grande, MS, Brazil

Luciana Contrera-Moreno<sup>a</sup>, Sonia Maria Oliveira de Andrade<sup>a</sup>, Ana Rita Coimbra Motta-Castro<sup>a</sup>, Alexandra Maria Almeida Carvalho Pinto<sup>b</sup>, Frederico Reis Pouso Salas<sup>c</sup> and Alcione Cavalheiros Faro Stief<sup>a</sup>

<sup>a</sup>Federal University of Mato Grosso do Sul, Brazil <sup>b</sup>Federal University of Mato Grosso do Sul, Brazil. <sup>c</sup>Fire Brigade of Mato Grosso do Sul, Brazil

Ergonomic analysis of the work conditions of porters and owners of the Supply Center of Campinas, SP

Tatiana Giovanelli Vedovato<sup>a</sup>, Maria Inês Monteiro<sup>a</sup>, Valéria Aparecida Masson<sup>a</sup>

<sup>a</sup>State University of Campinas, Brazil

Validity of heart-rate based measurements of oxygen consumption during work with light and moderate physical activity

Eva Bernmark<sup>a</sup>, Mikael Forsman<sup>a</sup>, Gunilla Pernold<sup>a</sup> and Christina Wiktorin<sup>a</sup>

<sup>a</sup>Department of Public Health Sciences, Karolinska Institute, Sweden

Regulation in work and decision-making in the activity of Public Prosecutors in SC

Beatriz Marcondes de Azevedo<sup>a</sup>, Roberto Moraes Cruz.<sup>b</sup>

<sup>a</sup>Department of Production Engineering, Santa Catarina Federal University, Brazil <sup>b</sup>Department of Psychology, Santa Catarina Federal University, Brazil

Finding the Team for Mars: A Psychological and Human Factors Analysis of a Mars Desert Research Station Crew

Benjamin D. Sawyer<sup>a</sup>, P.A. Hancock<sup>a</sup>, John Deaton<sup>b</sup> and Peter Suedfeld<sup>c</sup>

<sup>a</sup>Psychology Department, University of Central Florida, USA <sup>b</sup>Florida Institute of Technology, USA <sup>c</sup>UBC Department of Psychology, Vancouver

ERGONOMIC ANALYSIS FOR INTEGRATION OF INDUSTRIAL CHAIRS: A CASE STUDY IN A PERNAMBUCO'S SWIMWEAR MANUFACTURER

Carlos Vilar | Soares, M

Wood, management and dust: Analysis of the Context of Production of Goods and Services (CPGS) of an academic woodwork

Isabella von Mühlen Brandalise<sup>a</sup>, Paula Macedo César<sup>b</sup> and Clara Cristina de Souza Rêgo<sup>c</sup>

<sup>a</sup>Industrial Design Department, University of Brasilia, Brazil. Industrial Design Department, University of Brasilia, Brazil. <sup>c</sup>Industrial Design Department, University of Brasilia, Brazil.

Maximum force levels in different positions of shoulder and elbow.

Castro C. <sup>a</sup>, De la Vega E. <sup>b</sup>, Báez G. <sup>c</sup> and Carrasco F. <sup>d</sup>.

<sup>a</sup>Indigenous Autonomous University of Mexico, Mexico. <sup>b</sup>Technological Institute of Hermosillo, Mexico. <sup>c</sup>Autonomous University of Sinaloa, Mexico. <sup>d</sup>Technological Institute of Hermosillo, Mexico.

Development of the Workflow Line Systems for Support on KAIZEN

Yuki MIZUNO <sup>a,b</sup>, Toshihiko ITO <sup>c</sup>, Toru YOSHIKAWA <sup>b</sup>, Satoshi YOMOGIDA <sup>c</sup>, Koji MORIO <sup>d</sup>, Kazuhiro SAKAI <sup>b</sup>

<sup>a</sup>Toyo Gakuen University Center for Liberal Arts, Japan <sup>b</sup> Department of Research, The Institute for Science of Labour, Japan <sup>c</sup> DSS Co., Ltd., Japan <sup>d</sup>Institute for Medical Engineering Integration, Japan

Lean Six Sigma applied to Ergonomics

Eduardo Santos | Lima, C

Ergonomics and the Inclusion of Disabled People in the Brazilian job market

Martins, L. B. <sup>a</sup>, Cabral, A. K. P. S. <sup>b</sup>

<sup>a</sup>Department of Design, Federal University of Pernambuco, Brazil. <sup>b</sup>Department of Occupational Therapy, Federal University of Pernambuco, Brazil.

Ergonomic Intervention Methods for Inclusion of People with Disabilities at Work: Brazilian Scene

Cabral, A. K. P. S. <sup>a</sup>, Martins, L. B. <sup>b</sup>,

<sup>a</sup>Department of Occupational Therapy, Federal University of Pernambuco, Brazil <sup>b</sup>Department of Design, Federal University of Pernambuco, Brazil

New guidelines for health care for alcohol and drug users and the real work: possible contributions of ergonomics to the restructuring of work and competence development

Daniela Tonizza de Almeida <sup>a</sup> e Eliza Helena de Oliveira Echternacht <sup>b</sup>

<sup>b</sup>Department of Production Engineering, Federal University of Minas Gerais, Brazil <sup>b</sup>Department of Production Engineering, Federal University of Minas Gerais, Brazil

SUPPORT SYSTEM FOR MANAGEMENT OF SHARES ERGONOMIC

Raphael Pacheco da Rocha <sup>a</sup>, Mario Cesar Rodriguez Vidal <sup>a</sup>

<sup>a</sup>Department of Production Engineering, COPPE, Federal University of Rio de Janeiro, Brazil

Ergonomic evaluation of the preparation of cuttings and minicuttings for eucalyptus seedling production, with the use of scissors

Eduarda Gabriela Santos Cunha <sup>a</sup>; Amaury Paulo de Souza <sup>b</sup>; Luciano José Minette <sup>c</sup>

<sup>a,b,c</sup>Forest Engineering Department, Federal University of Viçosa, Brazil

Slope effect on pushing forces

Turpin-Legendre E., Meyer J.P.

Work Physiology Laboratory, France

Statistical precision of categorical PATH observations of trunk posture.

Jennie Jackson <sup>a</sup>, Laura Punnett <sup>b</sup> and Svend Erik Mathiassen <sup>a</sup>

<sup>a</sup>Department of Occupational and Public Health Sciences, University of Gävle, Sweden

<sup>b</sup>Department of Work Environment, University of Massachusetts Lowell, USA

Ports Restructuring: What Has Changed after the Brazilian Law 8.630/93

Isaac Andrade | Maciel, R | Fontenelle, M | Matos, T

Analysis of the workload of bank tellers of a Brazilian public institution

Simoni S. Serikawa<sup>a</sup>, Ana Carolina S. Albieri<sup>a</sup>, Gustavo P. Bonugli<sup>a</sup>, Marina F. Gregghi<sup>a</sup>

<sup>a</sup>SENAC UNIVERSITY CENTER, Brazil

Body postures versus production requirements - the case of a fiberglass parts factory

Silva, V<sup>a</sup>; Pereira, B<sup>a</sup>; Maria, R<sup>b</sup> and Chagas, T<sup>c</sup>

<sup>a</sup>University Center of Patos de Minas, Brazil <sup>b</sup>Federal Institute of Education, Science and Technology of Minas Gerais, Brazil <sup>c</sup>Federal University of Ouro Preto, Brazil

A novel wearable measurement system for ambulatory assessment of joint loading in the occupational setting

Gert Faber<sup>a,b</sup>, Chien-Chi Chang<sup>c</sup>, Idsart Kingma<sup>b</sup>, Jack T. Dennerlein<sup>a</sup>

<sup>a</sup>Department of Environmental Health, Harvard School of Public Health, USA <sup>b</sup>VU University, The Netherlands <sup>c</sup>Liberty Mutual Research Institute for Safety, USA

Using practical ergonomic evaluations in the restaurant industry to enhance safety and comfort: A case study

Marc D. Gentzler<sup>a</sup> and Janan A. Smither<sup>b</sup>

<sup>a</sup>Department of Psychology, University of Central Florida, USA <sup>b</sup>Department of Psychology, University of Central Florida, USA

Ergonomic Assessment of Porridge Roaming Sale System

Braga<sup>a</sup>, J.; Cardoso<sup>b</sup>, V.; Abreu<sup>c</sup>, A.; Didoné<sup>c</sup>, L.; Evangelista<sup>c</sup>, M. and Serra<sup>c</sup>, F.

Federal University of Amazonas, Brazil

Effects of a Labor Gym program in mental workload of workers from rectory of UNIOESTE

Isabele Maia Galvão<sup>a</sup>; José Mohamud Vilagra<sup>b</sup>; Helenara Salvati Bertolossi Moreira<sup>c</sup>; Antônio

Renato Pereira Moro<sup>d</sup>; Roberto Moraes Cruz<sup>d</sup>; Pedro Ferreira Reis<sup>e</sup>; Mauricio Bertolossi

Moreira<sup>f</sup>

<sup>a</sup>State University of West of Paraná – UNIOESTE <sup>b</sup>State University of West of Paraná –

UNIOESTE and Assis Gurgacz – FAG <sup>c</sup> State University of West of Paraná – UNIOESTE <sup>d</sup>Federal

University of Santa Catarina – UFSC <sup>e</sup>PPGEP/ UFSC <sup>f</sup> Physical educator acting at Labor Gym area

## **Area: Ergonomics for Children and Educational Environments**

Analysis on the relationship between the school furniture and the work surface lighting and the body posture of public Middle School students from João Pessoa, Paraíba, Brazil

Luiz Bueno da Silva<sup>a</sup>, Eliza Juliana da Costa Eulálio<sup>a</sup>, Antonio Souto Coutinho<sup>a</sup>, Elaine Victor Gonçalves Soares<sup>a</sup> and Roberta de Lourdes Silva dos Santos<sup>a</sup>

<sup>a</sup>Industrial Engineering Department, Federal University of Paraíba, Brazil.

The "Posture Pad": An Ergonomic Posture Feedback Device

Rhonda Epstein | Epstein, E | Colford, S | Walsh, M | Loye, B | Jakobs, K

Ergonomic Considerations in School Environments - The Need for Widening the Scope

Kapila Jayaratne<sup>a</sup>

<sup>a</sup>Ministry of Health, Sri Lanka

#### FURNITURE DIMENSIONS AND POSTURAL OVERLOAD FOR SCHOOLCHILDREN'S NECK AND UPPER LIMBS

Mariana Batistão | Coury, H | Moriguchi de Castro, C | Hansson, G | Sato, T | Sentanin, A

Ergonomic adequacy of the baby nursery of child development center located in UFSC - Florianópolis

Lizandra Garcia Lupi Vergara<sup>a</sup> and Lucie Elisa Ribet<sup>b</sup>

<sup>a,b</sup>Production and Systems Engineering Department, Federal University of Santa Catarina, Brazil

Sleep patterns and sleepiness of working college students

Liliane Teixeira<sup>a</sup>, Arne Lowden<sup>b</sup>, Andrea Aparecida da Luz<sup>c</sup>, Samantha Lemos Turte<sup>c</sup>, Daniel Valente<sup>a</sup>, Roberto Jun Matsumura<sup>c</sup>, Leticia Pickersgill de Paula<sup>c</sup>, Meire Yuri Takara<sup>c</sup>, Roberta Nagai-Manelli<sup>b</sup> and Frida Marina Fischer<sup>c</sup>

<sup>a</sup>National School of Public Health, FIOCRUZ, Brazil <sup>b</sup>Stress Research Institute, Stockholm University, Sweden <sup>c</sup>Department of Environmental Health, School of Public Health, University of São Paulo (USP), Brazil.

Global Healthy Backpack Initiatives

Kapila Jayaratne<sup>a</sup>, Karen Jacobs<sup>b</sup> and Dulitha Fernando<sup>c</sup>

<sup>a</sup>Ministry of Health, Sri Lanka <sup>b</sup>Department of Occupational Therapy, Boston University, USA

<sup>c</sup>Department of Community Medicine, University of Colombo, Sri Lanka

**Date: 14/02**

**Congress Hall**

**Time: 01:00 – 06:00pm**

#### **Area: Ergonomics in Design**

##### MANUAL BAMBOO CUTTING TOOL

Mariana Pereira Bezerra (1) Walter Franklin Marques Correia (2) Fabio Ferreira da Costa Campos (3)

(1)Federal University of Pernambuco, Brazil; (2)Federal University of Pernambuco, Brazil; (3)Federal University of Pernambuco, Brazil

The correlation between thermal comfort in buildings and fashion products

Aline Giesel<sup>a</sup>, Patrícia de Mello Souza<sup>b</sup>

<sup>a</sup>Department of Design, State University of Londrina, Brazil <sup>b</sup>Department of Design, State University of Londrina, Paulista State University, Brazil

The Incubator Hospital from the viewpoint of Ergonomic

Sthephany Martins de A. Souza<sup>a</sup>; Vânia Maria Batalha Cardoso<sup>b</sup>.

<sup>a</sup>Federal University of Amazonas, Brazil <sup>b</sup> Federal University of Amazonas and Ergodesign Service of University Hospital Getúlio Vargas, Brazil

Usability of Car Stereo

Razza, Bruno Montanari<sup>a</sup>, Paschoarelli, Luis Carlos<sup>b</sup>

<sup>a</sup>Department of Design and Fashion, Maringa State University, Brazil <sup>b</sup>São Paulo State University, Brazil

## THE SUITABILITY OF THE DESIGN OF HANDBAGS TO THE TROPICAL CLIMATE

Camila Osugi Cavalcanti de Alencar<sup>1</sup> and Jorge Boueri<sup>2</sup>

<sup>1</sup>University of São Paulo, Brazil <sup>2</sup> University of São Paulo, Brazil

## Seniors and Technology, ergonomic needs and design considerations

Claudia Isabel Rojas Rodríguez

Pedagogical and Technological University of Colombia, Colombia

## Inclusive design in the implementation of projects for schools modernization in Portugal - case studies

Lígia Lopes<sup>a</sup>, Carlos Aguiar<sup>b</sup>, Fernando Moreira da Silva<sup>c</sup>

<sup>a</sup>CIAUD, Research Centre in Architecture, Urban Planning and Design, Faculty of Architecture, Technical University of Lisbon <sup>b</sup>FEUP, Faculty of Engineering, University of Porto <sup>c</sup>CIAUD - Research Centre in Architecture, Urban Planning and Design, Faculty of Architecture, Technical University of Lisbon

## User-Centered Design (UCD) applied to the Identification and Modification of Unustainable Practices.

Mercado Colin Lucila<sup>a</sup>, Rodea Chávez Alejandro<sup>b</sup>

<sup>a</sup>Department of Design Theory and Process, Autonomous Metropolitan University, Mexico

<sup>b</sup>National Autonomous University of Mexico, Mexico

## Perceptual aspects of the use of faucets (taps)

Lívia F. de A. Campos<sup>a</sup>, Luis Carlos Paschoarelli<sup>a</sup>

<sup>a</sup>Paulista State University, Brazil

## Colour, Vision and Ergonomics

Cristina Pinheiro<sup>a</sup>, Fernando Moreira da Silva<sup>b</sup>

<sup>a</sup>Technical University of Lisbon, Portugal <sup>b</sup>Technical University of Lisbon, Portugal

## A proposal for an ergonomic redesign for a mixer Mondial B-02

SILVA JUNIOR, Adilson J.<sup>a</sup> and BARROS, Bruno<sup>b</sup>

<sup>a</sup>Federal University of Pernambuco, Brasil <sup>b</sup> Federal University of Pernambuco, Brazil

## Cognitive Ergonomics and Production Information Systems under the gaze of interdisciplinary Design or Industrial Design

Luciene Bulhões Mattos<sup>a</sup>

<sup>a</sup>Federal Institute of Education, Science and Technology of Bahia – IFBA, Bahia, Brazil

## Postmen Activity's Analysis

Fabíola Reinert<sup>a</sup>, Cristina Lucio<sup>b</sup>

<sup>a</sup>Department of Mechanical Engineering, Santa Catarina Federal University, Brazil <sup>b</sup>Design and Fashion Department, Maringa State University, Brazil

## Analysis of ergonomic furniture made of wood and sub-products from renewable forests

Luciana Aparecida de Oliveira, B.S. in Home Economics<sup>a</sup>, Amaury Paulo de Souza, Ph.D.<sup>b</sup>, Patrícia Bhering Fialho, D.S.<sup>c</sup>, Luciano José Minette, D. S.<sup>d</sup>, Fernanda Freitas Costa de Torres, D. S.<sup>e</sup>

<sup>a,c,d</sup>Forest Engineering Department, Federal University of Viçosa, Brazil <sup>b</sup>Federal Center of Technological Education of Minas Gerais, Brazil <sup>e</sup>Farroupilha Federal Institute, Brazil

Design considerations to improve cognitive ergonomic issues of unmanned vehicle interfaces utilizing video game controllers

P. Oppold; M. Rupp; M. Mouloua; P.A. Hancock; and J. Martin  
Psychology Department, University of Central Florida, USA

An Evaluation of Keyboard Interface Types on Driver Distraction

Audrey Fok | Sawyer, B | Hancock, P | Mouloua, M

### **Area: Ergonomics in Manufacturing**

Macroergonomic intervention for work design improvement and raw materials waste reduction in a small footwear components company in Rio Grande do Sul-Brazil<sup>1</sup>

Renata Cornelli<sup>a</sup> and Lia Buarque de Macedo Guimarães<sup>b</sup>

<sup>a, b</sup> Graduate Program in Industrial Engineering, Federal University of Rio Grande do Sul, Brazil

Study about upper limb on highly repetitive work in maquila operations

Lopez-Millan Francisco<sup>a</sup>; De la Vega, Enrique<sup>b</sup>; Rodriguez, Manuel<sup>a</sup>; Ayala, Armando<sup>a</sup>

<sup>a</sup>Technological Institute of Cd. Juarez, Mexico <sup>b</sup>Technological Institute of Hermosillo, Mexico

ERGONOMIC STUDY OF AN OVEN OPERATOR WORK POST IN AN OVEN CERAMIC INDUSTRY IN PERNAMBUCO

Carlos Vilar | Colaço, G | Silva, J | Oliveira, J

Ergonomics aspects and productivity in a Production line: a case study

João Camarotto | Vanalle, R | Lopes, M

Preponderance and possible factors associated to musculoskeletal symptoms in metals industry workers

Eunice Tokars<sup>a</sup>, Antonio Renato Pereira Moro<sup>a</sup>, Gabriel Grabner dos Santos<sup>b</sup>

<sup>a</sup>Federal University of Santa Catarina, Brazil <sup>b</sup>Physiotherapist in Curitiba, Brazil.

The Ergonomics Approach for Thin Film Transistor-Liquid Crystal Display Manufacturing Process

Chih-Wei Lu<sup>a</sup>, Chia-Chun Yao<sup>b</sup>, Chein-Wen Kuo<sup>b</sup>

<sup>a</sup>Industrial and systems Engineering Department, Chung Yuan Christian University, Taiwan

<sup>b</sup>Graduate Institute of Occupational Safety and Health, Kaohsiung Medical University then University, Taiwan

### **Area: Healthcare Ergonomics**

Interface of drug use

N.O. Ludescher<sup>a</sup>, R.R. Vergilio<sup>a</sup>, C.C. Lucio<sup>a, b</sup>, J.E.G. Santos<sup>b</sup>

<sup>a</sup>Design and Fashion Department, Maringa State University, Brazil <sup>b</sup>São Paulo State University, Brazil

The Effect of Visualization Method on the Performance of Simulated Microsurgery Tasks

Denny Yu<sup>1</sup>, Michael E. Sackllah<sup>1</sup>, Charles B. Woolley<sup>1</sup>, Steven J. Kasten<sup>2</sup>, Daniel Kim<sup>1</sup>, Cooper Green<sup>1</sup> and Thomas J. Armstrong<sup>1</sup>

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<sup>1</sup>IOE Department, University of Michigan Center for Ergonomics, United States of America  
<sup>2</sup>Department of Surgery, University of Michigan, USA

Static load in the nursing profession; the silent killer?

Knibbe, J.J., N.E.Knibbe  
LOCOmotion, The Netherlands.

An International Validation Study of the Care Thermometer: a tool supporting the quality of ergonomic policies in health care

Knibbe, J.J., N.E.Knibbe  
LOCOmotion, The Netherlands.

Flying through the Hospital: efficiency and safety of an ergonomic solution

Knibbe, J.J., N.E.Knibbe, E.Waaijer  
LOCOmotion, The Netherlands

The gap between prescribed work and real work.

Andréa Trierweiler | Azevedo, B | Silveira, A | Sepúlveda, G

Ergonomics in the operating room

Jenny Greemark Simonsen, Inger Arvidsson and Catarina Nordander  
Department of Occupational and Environmental Medicine, University Hospital, Sweden

COMPARISON OF INDEX OF ABILITY TO WORK (ICT) AMONG WORKERS OF FIXED SHIFTS AND SHIFTS WITH RELAY

Luciana Duarte Satler de Oliveira<sup>a</sup> and Sarina Occhipinti Magalhães<sup>b</sup>  
<sup>a</sup>FUMEC University, Brazil <sup>b</sup>Federal University of Minas Gerais, Brazil

EVALUATION OF THE HEALTH RISKS TO GARMENT WORKERS IN THE CITY OF XAMBRÊ – PR, BRAZIL.

Marco Antônio Sant'Ana<sup>a</sup> and Fabrício Kovalechen<sup>b</sup>  
<sup>a</sup>ERGOSALUTE, Brazil <sup>b</sup>Paranaense University, Brazil

Designing the Care Environment in Hospitals and Nursing homes: a pilot for a new and reliable method for determining the optimum space to live in and work in

Knibbe, J.J., E.Waaijer  
LOCOmotion, The Netherlands.

THE EFFECTS OF TYPES OF VISUALIZATIONS ON THE PERFORMANCE AND LEVEL OF DISCOMFORT OF MICROSCOPIC SURGEON

Daniel Kim | Yu, D | Armstrong, T | Woolley, C | Sackllah, M | Kasten, S | Green, C

The influence of an abdominal support for a dental stool in the distributions and electrical activity of the longissimus and the superior trapezius muscle in dentists

Custódio RAR<sup>a</sup>, Brandão JGT<sup>a</sup> and Amorim JBO<sup>b</sup>  
<sup>a</sup>Department of Mechanical, State University of São Paulo, Brazil <sup>b</sup>Department of Biosciences and Oral Diagnosis, State University of São Paulo, Brazil

Assessments of patients with a 5-category or a 3-category practical classification system: validity and practicality

Knibbe, J.J., N.E.Knibbe, E.Waaijer  
LOCOmotion, The Netherlands.

The Businesscase for Ergonomic Changes in Health Care: calculating and predicting financial outcome for ergonomic changes and innovations in health care: interactive businesscase modelling

Knibbe, J.J., N.E.Knibbe

LOCOmotion, Research in Health Care, The Netherlands.

Study on workloads of human care worker with the introduction of IT system - The characteristics of work loads by observational research and the suggestions for KAIZEN -

Yuki MIZUNO <sup>a,b</sup>, Toru YOSHIKAWA <sup>b</sup>, Fumiko MATSUDA <sup>b</sup>, Yuriko TAKEUCHI <sup>b</sup>, Nobuyuki MOTEGI <sup>b</sup>, Thor IKEGAMI <sup>c</sup>, Kazuhiro SAKAI <sup>b</sup>

<sup>a</sup>Toyo Gakuen University Center for Liberal Arts, Japan <sup>b</sup>Department of Research, The Institute for Science of Labour, Japan <sup>c</sup> ITI Consultancy, Japan

Experimental study of assistant aids and new nursing method in nursing care work

Nobuyuki MOTEGI<sup>a</sup>, Fumiko MATSUDA<sup>a</sup>, Yuriko TAKEUCHI<sup>a</sup> and Tetsuo MISAWA<sup>b</sup>

<sup>a</sup>Institute for Science of Labour, Japan <sup>b</sup> Chiba Institute of Technology, JAPAN

Human Factors Methods to Reduce Medication Error: Using Task Analysis in a Pediatric and Adult Pharmacy

Nicole E. Werner, Erik T. Nelson,<sup>a</sup> and Deborah A. Boehm-Davis<sup>a</sup>

<sup>a</sup>Psychology Department, George Mason University, United States.

Ergonomics Assessment of Dental Clinic Room at Public Health System.

Eliel Soares Orenha<sup>a</sup>, Suely Mutti Carvalho Naressi<sup>a</sup>, Symone Cristina Teixeira<sup>a</sup>, Enzo Rosetti<sup>a</sup>, José Carlos Plácido da Silva<sup>b</sup>, Mariana Falcão Bormio<sup>b</sup>, Artemis Rodrigues Fontana<sup>b</sup>, Marcelo de Castro Meneghi<sup>c</sup>, Angélica Critiane Búlio Soares<sup>c</sup> and Jerome Rotgans<sup>d</sup>

<sup>a</sup>Social and Infante Clinics Department, Paulista State University, Brazil <sup>b</sup>Department of Industrial Design, Paulista State University, Brazil <sup>c</sup>Department of Social Dentistry, University of Campinas, Brazil <sup>d</sup>RWTH Aachen University, Germany

The ambivalence of the work of the hotel managers: an approach to ergonomics

Cyntia Maria de Gois Leite<sup>a</sup>, Ricardo José Matos de Carvalho, DSc.<sup>b</sup>

<sup>a,b</sup>Federal University of Rio Grande do Norte, Brazil.

### **Area: Human Factors and Sustainable Development**

Emotions and leadership. Reasons and impact of emotions in organizational context

Meike Siebert-Adzic

Department of Human and Organizational Engineering and System Design, University of Kassel, Germany

Harassment at work? Empowerment and autonomy as coping strategies of young workers

Samantha Lemos Turte<sup>a</sup>, Maria Eduarda Cavadinha Correa<sup>b</sup>, Andrea Aparecida da Luz<sup>a</sup> and Frida Marina Fischer<sup>a</sup>

<sup>a</sup>Department of Environmental Health, University of São Paulo, Brazil <sup>b</sup>Department of Maternal and Child Health, University of São Paulo, Brazil

The relationship between heart rate as an indicator of work hardness and results of dynamometry

Nasrin Sadeghi<sup>a</sup>, Hamidreza Tolide-ie<sup>b</sup>, Fatemeh Ghaderi<sup>c</sup>

<sup>a</sup>Department of Occupational hygiene, Gonabad University of Medical Sciences, Iran

<sup>b</sup>Department of Public health, Gonabad University of Medical Sciences, Iran <sup>c</sup>Shiraz University of Medical Sciences, IRAN

The Municipal Solid Waste and the quality of life of collectors of recyclable materials in Juiz de Fora, Minas Gerais

Aline de Barros Pimenta<sup>a</sup>, Sueli Maria dos Reis Santos<sup>b</sup>, Maria Cristina Pinto de Jesus<sup>b</sup>, Marcos Mantins Borges<sup>c</sup>, Geraldo Luciano de Oliveira Marques<sup>d</sup> e José Gustavo Francis Abdalla<sup>e</sup>

<sup>a</sup>Federal University of Juiz de Fora, Brazil <sup>b</sup>Federal University of Juiz de Fora, Brazil <sup>c</sup>Federal University of Juiz de Fora, Brazil <sup>d</sup>Federal University of Juiz de Fora, Brazil <sup>e</sup>Federal University of Juiz de Fora, Brazil

### **Area: Human Simulation and Virtual Environments**

Cognitive-ergonomics and instructional aspects of e-learning courses.

Rodrigues, Martha<sup>a</sup>; Castello Branco, Iana<sup>a</sup>; Shimioshi, José<sup>b</sup>; Rodrigues, Evaldo<sup>b</sup>; Monteiro, Simone<sup>a</sup> and Quirino, Marcelo<sup>a</sup>

<sup>a</sup>University of Brasília, Brazil <sup>b</sup>University of Brasília, Brazil

Task Analysis using an Inexpensive Marker Tracking System-Clinical Application

Russel Corvese | Armstrong, T | Nicholas, J | Woolley, C

The Ambient Intelligence for the sake of accessibility in residential projects: a proper study to the Brazilian scene

Castañon J.A.B., Maia, M.P.F., Silva, M.C.C.

Federal University of Juiz de Fora, Brazil

Augmented Reality Platform for Vehicle Interior Ergonomics Evaluation

Jing Xu, Fan Xiumin, Qiu Shiguang

Shanghai Jiao Tong University, China

Proposal of Digital Interface for the System of the Air Conditioner's Remote Control: analysis of the system of feedback

Raisa da Silva de Queiroz Pierre<sup>a</sup>, Tarô Arthur Tavares Kawada<sup>b</sup> and André Guimarães Fontes<sup>c</sup>

<sup>a</sup>Instituto de Ensino Superior FUCAPI – CESF, Brazil. <sup>b</sup>Instituto de Ensino Superior FUCAPI – CESF, Brazil. <sup>c</sup>Instituto de Ensino Superior FUCAPI – CESF, Brazil.

### **Area: Musculoskeletal Disorders**

The effects of exercise reminder software program on office workers' perceived pain level, work performance and quality of life.

IRMAK A.<sup>a</sup>, BUMÍN G.<sup>b</sup> and IRMAK R.<sup>c</sup>

<sup>a</sup>Hacettepe University, Turkey <sup>b</sup>Department of Ergotherapy, Hacettepe University <sup>c</sup>Ahi Evran University

Effect of finger interaction on individual finger: index finger

Yong-Ku Kong, Min-Tae Seo, Hyun-Sung Kang and Dae-Min Kim

Sungkyunkwan University, South Korea

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Psychosocial indicators among aircraft maintenance workers with and without neck and shoulder musculoskeletal symptoms

Oliveira, A<sup>a,b</sup>; Nogueira, H<sup>a\*</sup>; Diniz, A<sup>b</sup> and Barbieri, D<sup>a</sup>

<sup>a</sup>Federal University of São Carlos, Brazil <sup>b</sup>Federal University of São Carlos, Brazil

Risk Factors, Clinical Features and Outcome of Treatment of Work Related Musculoskeletal Disorders in On-Site Clinics among IT Companies in India

Deepak Sharan<sup>1</sup>, Ajeesh PS<sup>1</sup>, Rameshkumar R<sup>1</sup> and Jeena Jose<sup>1</sup>

<sup>1</sup> RECOUP Neuromusculoskeletal Rehabilitation Centre, India.

Ergonomic recommendations when texting on mobile phones

Ewa Gustafsson

University of Gothenburg, Sweden

Applying a time-limit model of movement frequency to field data: is it possible?

Emmanuelle Turpin-Legendre, Jean-Pierre Meyer

National Institute for Safety and Research, France

Prevalence of cervicobrachial discomforts in elementary school teachers

Bruna Angela Antonelli,<sup>a</sup> Antonio Augusto de Paula Xavier,<sup>b</sup> Paulina Oenning,<sup>b</sup> Michel Henrique Baumer,<sup>b</sup> Tarcísio Fulgêncio Alves da Silva<sup>b</sup> and Luiz Alberto Pilatti<sup>b</sup>.

<sup>a</sup>Post Graduate Program in Production Engineering: Ergonomics in production processes, Brazil. <sup>b</sup>Federal Technological University of Paraná, Brazil

Prevalence of discomfort/pain complaints and related factors in dental professionals of the public health service in Araucária, Paraná state, Brazil

Rosimeire Sedrez Bitencourt<sup>a</sup> and Maria Isabel Ricardo<sup>b</sup>

<sup>a</sup> Federal University of Rio Grande do Sul, Brazil <sup>b</sup> Federal University of Paraná, Brazil

Exposure assessment in different occupational groups at a hospital using Quick Exposure Check (QEC) – A pilot study

Pernilla Ericsson<sup>a</sup>, Martin Björklund<sup>b,c</sup> and Jens Wahlström<sup>d</sup>

<sup>a</sup>Umeå University Hospital, Sweden <sup>b</sup>Department of Occupational and Public Health Sciences, University of Gävle, Sweden <sup>c</sup>Department of Community Medicine and Rehabilitation, Physiotherapy, Umeå University, Sweden <sup>d</sup>Department of Public Health and Clinical Medicine, Umeå University, Sweden

Musculoskeletal symptoms and work ability among agricultural machinery operators

Daniela Milani<sup>a</sup> and Maria Silvia Monteiro<sup>b</sup>

<sup>a</sup>University of São Carlos, Brazil <sup>b</sup>Nursing Department, Federal University of São Carlos, Brazil

MUSCULOSKELETAL SYMPTOMS IN WORKERS OF A TELECOM COMPANY

ANTUNES, Evelise Dias<sup>a</sup>, ARAÚJO, Célia Regina Alves de<sup>b</sup> and ABAGE, Zilda<sup>c</sup>

<sup>a</sup>Retory Department, Institute of Parana, Brazil <sup>b</sup>Retory Department, Institute of Parana, Brazil

<sup>c</sup>Phisioterapy Deparment, UNIANDRADE, Brazil

Musculoskeletal symptoms and workers' perception about job factors in a pulp and paper industry

Marina Zambon Orpinelli Coluci<sup>a</sup>, Neusa Maria Costa Alexandre<sup>a</sup> and Thais de Freitas Pedrini<sup>a</sup>

<sup>a</sup>Department of Nursing, University of Campinas, Brazil

Physical Variation in Low-Load Work – Physiological Effects During Exposure & Recovery  
Marcus Yung<sup>a</sup> and Richard Wells<sup>a,b</sup>

<sup>a</sup>Department of Kinesiology, University of Waterloo, Canada <sup>b</sup>Centre of Research Expertise for the Prevention of Musculoskeletal Disorders (CRE-MSD), Canada

The Relationship between Cognitive Load and Musculoskeletal Disorders: a Case Study.  
Andréa Trierweiler | Cruz, R | Peixe, B | Azevedo, B | Silveira, A

Raising awareness of psychosocial factors in the occurrence of low back symptoms in developing countries

Baiduri Widanarko<sup>a,d</sup>, Stephen Legg<sup>a</sup>, Jason Devereux<sup>b</sup>, Mark Stevenson<sup>c</sup>

<sup>a</sup>Massey University, New Zealand <sup>b</sup>Department of Psychology, University College London, UK  
<sup>c</sup>EpiCentre, Massey University, New Zealand <sup>d</sup>Department of Occupational Health and Safety, Indonesia University, Indonesia

Low back injuries related to nursing professionals working conditions: a systematic review

Roberta Schlossmacher<sup>a</sup> and Fernando Gonçalves Amaral<sup>b</sup>

<sup>a</sup>Federal University of Rio Grande do Sul, Brazil. <sup>b</sup>Federal University of Rio Grande do Sul, Brazil.

The physical workload analysis method : application of ergonomics standards for companies of any size

ZANA J-P\*, MEYER J-P\*\*, Turpin-Legendre E.\*\*,

\*INRS Technical Expertise & consulting department, France \*\*Working Life Department, Work Physiology Laboratory, France.

Application of European and international standards in ergonomics for manual handling for lifting, moving and pushing/pulling

ZANA J-P\*, MEYER J-P\*\*, Turpin-Legendre E.\*\*,

\*INRS Technical Expertise & consulting department, France \*\*INRS, Working Life Department, Work Physiology Laboratory, France

Cardiovascular and subjective strain during upper limb endurance tests

Turpin-Legendre E., Meyer J.P.

Working Life Department, Work Physiology Laboratory, France

Field data for "acceptable" frequency of repetitive task: data to support standardization work

Emmanuelle Turpin-Legendre, Jean-Pierre Meyer

National Institute for Safety and Research, France

Stress and musculoskeletal discomfort among hydrocarbon industry workers in Mexico

R. Avila-Chaurand<sup>a</sup>, L.R. Prado-León and E.L. González-Muñoz

<sup>a</sup>University of Guadalajara, Mexico.

Analysis of the compensatory postures adopted by day caregivers through OWAS-Ovako Working Posture Analysing System

Helenara Salvati Bertolossi Moreira<sup>a</sup>, Mauricio Bertolossi Moreira<sup>b</sup>, José Mohamud Vilagra<sup>c</sup>,  
Isabele Maia Galvão<sup>d</sup> Abel Santos de Oliveira Júnior<sup>e</sup> Andrea Cristina de Lima<sup>f</sup>

<sup>a</sup>State University of West of Paraná – UNIOESTE, Brazil <sup>b</sup>Physical educator acting at Labor Gym area <sup>c</sup>State University of West of Paraná – UNIOESTE <sup>d</sup>State University of West of Paraná – UNIOESTE <sup>e</sup>State University of West of Paraná – UNIOESTE, Brazil <sup>f</sup>Physiotherapist

**Date: 15/02**  
**Congress Hall**  
**Time: 01:00 – 06:00pm**

THE IMPORTANCE OF ERGONOMICS IN THE DESIGN CONCEPTUAL PROCESS: Daciano da Costa  
– A Case Study on Practicing and Teaching

MOREIRA DA SILVA, Ana<sup>a</sup>

<sup>a</sup>Technical University of Lisbon, Portugal

**Area: Organizational Design and Management**

Ergonomic and organizational analysis of an association of collectors of recyclable waste  
Maria, R<sup>a</sup>; Chagas, T<sup>b</sup> and Silva V<sup>c</sup>

<sup>a</sup>Federal Institute of Education, Science and Technology of Minas Gerais, Brazil <sup>b</sup>Federal  
University of Ouro Preto, Brazil <sup>c</sup>University Center of Patos de Minas, Brazil

Consequences of Organizational Commitment in Abolished Company Sports Team -A Case  
Study in Japan-

Yuki HONDA<sup>a</sup>, Yasuyuki HOCHI<sup>a</sup>, Motoki MIZUNO<sup>a</sup>

<sup>a</sup>Juntendo University Graduate School of Health and Sports Science, Japan

A Study on the Relationship between Commitment of Club Activity and Vocational Readiness  
among University Students

takashi MIZUSAWA<sup>a</sup>, yasuyuki HOCHI<sup>a</sup> and motoki MIZUNO<sup>a</sup>

<sup>a</sup>Juntendo University Graduate School of Health and Sports Science, Japan

Relationship between Collective Efficacy and Contextual Performance among University  
Athletes in Japan

Yasuyuki HOCHI<sup>a</sup>, Motoki MIZUNO<sup>a</sup>, Takahiro NAKAYAMA<sup>a</sup>, Ikuyo KANNEKO<sup>a</sup> and Kaoru  
KITAMURA<sup>a</sup>

<sup>a</sup>Juntendo University Graduate School of Health and Sports Science, Japan

A Longitudinal Study on the Effects of Team Building for University Baseball Team in Japan :From  
the View Point of Team-Vitalization

Yasuyuki HOCHI<sup>a</sup>, Motoki MIZUNO<sup>a</sup>, Takahiro NAKAYAMA<sup>a</sup>, and Kaoru KITAMURA<sup>a</sup>

<sup>a</sup>Juntendo University Graduate School of Health and Sports Science, Japan

Relationship between State Anxiety and Success Rate in Game Performance, Coach's  
Evaluation among Japanese University Volleyball Players

Kai YAMADA<sup>a</sup>, Yujiro KAWATA<sup>b</sup>, Nobuyuki NAKAJIMA<sup>a,c</sup> and Masataka HIROSAWA<sup>a,c</sup>

<sup>a</sup>Juntendo University Graduate School of Health and Sports Science, Japan <sup>b</sup>Tokyo Future  
University, Department of Child Psychology, Japan <sup>c</sup>Juntendo University School of Health and  
Sports Science, Japan

Construction of the integrated model for practical career support to the professional athletes

Motoki MIZUNO<sup>a</sup>, Yasuyuki HOCHI<sup>a</sup>, Mami INOUE<sup>b</sup>, Ikuyo KANNEKO<sup>c</sup>, Yasuyuki YAMADA<sup>d</sup>

<sup>a</sup>Juntendo University Graduate School of Health and Sports Science, Japan <sup>b</sup>Hitachi Brain  
Co.,Ltd., Japan <sup>c</sup>Juntendo University School of Health and Sports Science, Japan <sup>d</sup>Nagoya City  
University Graduate School of Medical Sciences, Japan

Using Balanced Scorecard (BSC) approach to improve Ergonomics Programs

Fernandes, Marcelo Vicente Forestieri

Tersso Design, Brazil

Proposal for an integrative methodology to development the ergonomic program

Lopez-Millan Francisco<sup>a</sup>, De la Vega Enrique<sup>b</sup>, Lucero Duarte Karla<sup>b</sup>, Diaz Muro Martha<sup>b</sup>

<sup>a</sup>Technological Institute of Cd. Juarez, Mexico <sup>b</sup>Technological Institute of Hermosillo, Mexico

Ports Modernization and its Influence on Trade Unions

Regina Heloisa Maciel<sup>a</sup>, Taise Araújo Lopes<sup>a</sup>, Rosemary Cavalcante Gonçalves<sup>a</sup>

<sup>a</sup>University of Fortaleza, Brazil.

The Relationship between Perceived Quality and Divulcation Strategies of Products in the Electronic Marketplace

João Costa<sup>a</sup> and Milton Horn<sup>b</sup>

<sup>a</sup>Federal University of Santa Catarina, Brazil <sup>b</sup>Federal University of Santa Catarina, Brazil

Cognitive and Organizational Ergonomics in the Transition of the New Integrated Center of Control of an Oil Refinery: Human Reliability and Administration of Changes

Lucy M. S. Bau<sup>a,b</sup>, Magda S.E.S. Puquirre<sup>a,b</sup>, Sandro A. Buso<sup>a</sup>, Érika L. Ogasawara<sup>b</sup>, Carolina R. Marcon Passero<sup>a,b</sup>, Marcos C. Bianchi<sup>a</sup>

<sup>a</sup>Petrobras, Petróleo Brasileiro SA., Brazil. <sup>b</sup>Fisiotrab Ergonomia, Brazil

### **Area: Psychophysiology in Ergonomics**

Mind reading through the eyes: an fMRI study

Yujiro Kawata<sup>a, c</sup>, Eiji Kirino<sup>b</sup>, Motoki Mizuno<sup>c, d</sup> and Masataka Hiroswawa<sup>c, d</sup>

<sup>a</sup>Department of Child Psychology, Tokyo Future University, Japan <sup>b</sup>Juntendo University Shizuoka Hospital Department of Psychiatry, Japan <sup>c</sup>Juntendo University School of Health and Sports Science, Japan <sup>d</sup>Juntendo University Graduate School of Health and Sports Science, Japan

Daily rhythm of salivary IL-1 $\beta$ , cortisol and melatonin in day and night workers

Érica Lui Reinhardt<sup>a,b</sup>, Pedro Augusto Carlos Magno Fernandes<sup>c</sup>, Regina Pekelmann Markus<sup>c</sup>, and Frida Marina Fischer<sup>a</sup>

<sup>a</sup>Department Environmental Health, University of São Paulo, Brazil <sup>b</sup>Fundacentro, Brazil

<sup>c</sup>Department of Physiology, University of São Paulo, Brazil

Association between repetitive work and occupational cold exposure

Márcia Rosângela Buzanello<sup>a,b</sup> and Antônio Renato Pereira Moro<sup>c,d</sup>

<sup>a</sup>Federal University of Santa Catarina, Brazil <sup>b</sup>State University of West of Paraná, Brazil <sup>c</sup>Federal University of Santa Catarina, Brazil <sup>d</sup>Federal University of Santa Catarina, Brazil

Physical health and work environment among farriers

Löfqvist, E | Pinzke, S

An Epidemiological Profile of Cashiers holders Carpal Tunnel Syndrome in a Grocery Store Chain<sup>1</sup>

Costa. R.; Barros, R<sup>a</sup>.; Campos, D.; Lima, D.; Barbosa, Geórgia

<sup>a</sup>Salgado de Oliveira University, Brazil

### **Area: Safety & Health**

Economic incentives and the epidemiological indicators can contribute to the reduction of occupational hazards?

Maria Luiza C.Comper<sup>a,b</sup> and Rosimeire S. Padula<sup>b</sup>

<sup>a</sup>Metropolitan Union of Education and Culture, Brazil <sup>b</sup>City of São Paulo University, São Paulo, Brazil

Assessment of quality of sleep and sleepiness in workers with rotating shifts

Rosimeire Simprini Padula<sup>a</sup> and Graciela Junqueira de Abreu<sup>b</sup>

<sup>a,b</sup>City of São Paulo University, Brazil

DEVELOPMENT AND VALIDATION OF A SAFETY CLIMATE SCALE FOR THE TRUCKING INDUSTRY

Yueng-hsiang Huang, Dov Zohar, Michelle Robertson, Jin Lee, Angela Garabet, Lauren Murphy

Ergonomic Initiatives at Inmetro: measuring occupational health and safety

Drucker, L<sup>1</sup>, Amaral, M<sup>1</sup> and Carvalheira, C<sup>1</sup>

<sup>1</sup>National Institute of Metrology, Quality and Technology; Inmetro; Brazil

Quality of diet of working college students

Bartira Gorgulho<sup>a</sup>, Dirce Maria Lobo Marchioni<sup>a</sup>, Adriana Balian da Conceição<sup>b</sup>, Josiane Steluti<sup>a</sup>, Marina Hurga Mussi<sup>b</sup>, Roberta Nagai-Manelli<sup>c</sup>, Liliane Reis Teixeira<sup>d</sup>, Andréa Aparecida da Luz<sup>b</sup>, Frida Marina Fischer<sup>b</sup>

<sup>a</sup>Department of Nutrition, University of Sao Paulo, Brazil <sup>b</sup>Department of Environmental Health, University of São Paulo, Brazil. <sup>c</sup>Stockholm University, Sweden <sup>d</sup>FIOCRUZ, Brazil

Ergonomic risks on the operational activities of Firefighters from Rio de Janeiro

Flávia Curi Vitari<sup>a</sup>, Hilmar Soares Francisco<sup>b</sup>, Márcia Gomide da Silva Mello<sup>a</sup>,

<sup>a</sup>Federal University of Rio de Janeiro, Brazil <sup>b</sup> Fire Brigade of the State of Rio de Janeiro, Brazil

The ruler of inclusion in the process people learning with visual disability

Eliane Mafra<sup>a</sup>, Eduardo Concepcion Batiz<sup>b</sup> and Marcelo Macedo<sup>c</sup>

<sup>a</sup>Tupy Superior Institute, Brazil <sup>b</sup>Tupy Superior Institute, Brazil <sup>c</sup>Tupy Superior Institute, Brazil.

Teachers' sick leave due to mental and behavioral disorders and return to work

Amanda Aparecida Silva<sup>a</sup>, Frida Marina Fischer<sup>a</sup>

<sup>a</sup>Environmental Health Department, University of São Paulo, Brazil

Work of gravediggers and health

Fernando Pinheiro<sup>a</sup>, Frida Marina Fischer<sup>a</sup> and Claudio José Cobianchi<sup>b</sup>

<sup>a</sup>Department of Environmental Health, University of São Paulo, Brazil <sup>b</sup>Department of Psychology, Cruzeiro do Sul University, Brazil

Cognitive representation of the comprehension test of safety warnings using multivariate methods

Cardoso-Junior, M.M.<sup>a</sup> and Scarpel, R.A.<sup>b</sup>

<sup>a</sup>Technological Institute of Aeronautics, Brazil <sup>b</sup>Department of Industrial Organization, Technological Institute of Aeronautics, Brazil

Changes in human cervical and lumbar spine curves while bicycling with different handlebar heights

Yi-Lang Chen and Kuo-Chang He

Department of Industrial Engineering and Management, Mingchi University of Technology, Taiwan

Identification of the mental workload of public employees in the administrative sector at a public university

Andressa Aline Sontag<sup>a</sup>; José Mohamad Vilagra<sup>b</sup>; Helenara Salvati Bertolossi Moreira<sup>c</sup>; Antônio Renato Pereira Moro<sup>d</sup>; Roberto Moraes Cruz<sup>d</sup>; Pedro Ferreira Reis<sup>e</sup>; Isabele Maia Galvão<sup>f</sup>

<sup>a</sup> State University of West of Paraná – UNIOESTE <sup>b</sup>State University of West of Paraná - UNIOESTE and Assis Gurgacz Faculty – FAG <sup>c</sup>State University of West of Paraná – UNIOESTE <sup>d</sup>Federal University of Santa Catarina – UFSC <sup>e</sup> Student of PPGEP/ UFSC <sup>f</sup>State University of West of Paraná – UNIOESTE

What is safety culture and risk-taking like at a large steel manufacturing company?

Hasse Nordlöf<sup>a</sup>

<sup>a</sup>Department of Occupational and Public Health Sciences, University of Gävle, Sweden

Attention Deficit/Hyperactivity Disorder's Effects on Individuals' Scan Paths During a Simulated Drive

J.R. Michaelis, D.S. McConnell, and J. A. Smither

Psychology Department, University of Central Florida, USA

Comparison of five approaches to keeping power line maintainers' hands warm during work in the cold

Hunt, S<sup>a</sup>, and Wells, R<sup>b,c</sup>

<sup>a</sup>Toronto Hydro, Canada <sup>b</sup>Department of Kinesiology, University of Waterloo, Canada <sup>c</sup>University of Waterloo, Canada

A Method to Access Safety and Resilience in Radiopharmaceuticals Production Process

Cláudio H. S. Grecco<sup>a</sup>, Mario C. R. Vidal<sup>b</sup>, Isaac J. A. L. Santos<sup>c</sup> and Paulo V. R. Carvalho<sup>d</sup>

<sup>a,c,d</sup>Institute of Nuclear Engineering (IEN – CNEN/RJ), Brazil <sup>b</sup>COPPE, Federal University of Rio de Janeiro, Brazil

Screening stress factors survey in an institute of advanced studies: health and safety integrated plans

C.S. Fonseca<sup>a</sup>; C.N. Gomes<sup>a</sup>; F.S.Barros<sup>a</sup>

<sup>a</sup>Brazilian Air Force Command, Aeronautical Institute of Psychology, Brazil

Administrative rationality and coping strategies in shift work

Renato Rocha Lieber<sup>a</sup>, Rodrigo Neiva Kvieska<sup>a</sup> and Maurício Cesar Delamaro<sup>a</sup>

<sup>a</sup>Department of Industrial Engineering UNESP University Estadual Paulista, Brazil.

QUANTITATIVE NOISE ANALYSIS AT TWO MARBLE FINISHING PLANTS IN OLINDA, PERNAMBUCO, BRAZIL

MELO NETO, Rútilo P. de<sup>a</sup>; KOHLMAN RABBANI, Emilia R.<sup>b</sup>, BARKOKÉBAS JUNIOR, Béda<sup>c</sup>; LAGO, Eliane M. G.<sup>d</sup> and FREITAS, Jonathas B. de A.<sup>e</sup>

<sup>a</sup>University of Pernambuco, Brazil <sup>b</sup>University of Pernambuco, Brazil <sup>c</sup>University of Pernambuco, Brazil <sup>d</sup>University of Pernambuco, Brazil <sup>e</sup>University of Pernambuco, Brazil University of Pernambuco, Recife, Brazil

APPLICATION OF PRELIMINARY RISK ANALYSIS AT MARBLE FINISHING PLANTS IN RECIFE'S METROPOLITAN AREA

MELO NETO, Rútilo P. de<sup>a</sup> and KOHLMAN RABBANI, Emilia R.<sup>b</sup>

<sup>a</sup>University of Pernambuco, Brazil. <sup>b</sup>University of Pernambuco, Brazil

Pulmonary Function and exercise capacity in metal industry workers

Mônica V. Gonçalves<sup>a</sup>, Rosane F. Bernardes<sup>a</sup>, Luciana D. Chiavegato<sup>a</sup>, Rosimeire S. Padula<sup>a</sup>

<sup>a</sup>City of São Paulo University, Brazil

Study of Activities of Postmen Motorcyclists: a Look at Motorcycle Accidents

Lícia Maria Barreto do Nascimento <sup>a</sup>, Gracielle Aparecida Orlando Bortolotto <sup>b</sup>

<sup>a</sup>Social Service for Industry of Bahia – SESI <sup>b</sup> Social Service for Industry of Paraná – SESI

### **Area: Slips, Trips and Falls**

Fatigue and Postural Instability in the Railroad Industry

Chip Wade | Andres, R | Garner, J

Use-Related Risk Analysis for Medical Devices Based on Improved FMEA

Long Liu<sup>a</sup>, Shuai Ma<sup>b</sup>, ZhuWang<sup>b</sup> and Ping Li<sup>c</sup>

<sup>a</sup>Tongji University, China <sup>b</sup>Tongji University, China <sup>c</sup>Shanghai East Hospital, China

### **Area: Transport**

The profile of cyclists in the city of Juiz de Fora

Ugo Castañon<sup>a</sup>, José A. B. Castañon<sup>a</sup> and Marcio P. S. Santos<sup>b</sup>

<sup>a</sup> Federal University of Juiz de Fora, Engineering Faculty, Brazil <sup>b</sup> Federal University of Rio de Janeiro, (COPPE/ UFRJ), Brazil

In-depth analysis of road crashes involving powered two-wheelers vehicles: typical human functional failures and conditions of their production

Pierre Van Elslande<sup>a</sup> Jean-Yves Fournier<sup>a</sup> and Magali Jaffard<sup>a</sup>

<sup>a</sup>IFSTTAR-MA, France

Mobility and Accessibility in Historic Cities

CARVALHO, Ana Carla, PASCHOALIN, Rachel Filgueiras and CASTAÑON, José Alberto

Department of Transportation, Federal University of Juiz de Fora, Brazil

Distractions N' Driving: Video game simulation educates young drivers on the dangers of texting while driving

Haneen Saqer<sup>a</sup>, Ewart de Visser<sup>a</sup>, Jonathan Strohl<sup>a</sup>, and Raja Parasuraman<sup>a</sup>

<sup>a</sup>Psychology Department, George Mason University, United States

Determining skill transferability of action games as a method to reduce in-vehicle phone distractions

M. Rupp, D.S. McConnell, and J.A. Smither

Psychology Department, University of Central Florida, USA

The effects of iPod and Text-Messaging Use on Driver Distraction: A Bio-Behavioral Analysis

M. Mouloua<sup>a</sup>; A. Ahern<sup>a</sup>; A. Quevedo<sup>d</sup>; D. Jaramillo<sup>a</sup>; E. Rinalducci<sup>a</sup>; J. Smither<sup>a</sup>; P. Alberti<sup>b</sup>; and C. Brill<sup>c</sup>

<sup>a</sup>Psychology Department, University of Central Florida, USA <sup>b</sup>Department of Technology and Human Sciences, University of Technology of Compiègne, France <sup>c</sup>Department of Psychology, Old Dominion University, USA <sup>d</sup>Optimal Electro Physiology, USA

### **Area: Visual Ergonomics**

Use of color lights for the detection of anomalies in quality systems

Báez G<sup>a</sup>, De la Vega E<sup>b</sup>, Castro C<sup>c</sup> and Elizarraras R<sup>d</sup>

<sup>a</sup>Autonomous University of Sinaloa, Mexico. <sup>b</sup>Technological Institute of Hermosillo, Mexico.

<sup>c</sup>Indigenous Autonomous University of Mexico, Mexico. <sup>d</sup>Technological Institute of Hermosillo, Mexico