

PERSONAL INFORMATION

Name SYMEONIDIS, IOANNIS
Address Centre for Research & Technology Hellas/ Hellenic Institute of Transport
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Nationality Hellenic
Date of birth 16 DECEMBER 1980
Work experience 7 years

PRESENT POSITION 2012- present

Name of employer Centre for Research and Technology Hellas/ Hellenic Institute of Transport
Type of position Researcher
Main activities and responsibilities Motorcycle safety research, simulations, vehicle simulators, experiments with volunteers.

EDUCATION

Dipl. Mechanical Engineer, Aristotle University of Thessaloniki, Greece
MSc Biomechanics, Ecole Nationale Supérieure d'Arts et Métiers, Paris France
MSc Informatics, Hellenic Open University, Patras, Greece
Ph.D. Student in Biomechanics, Ludwig Maximilian's University, Munich, Germany

TECHNICAL SKILLS AND COMPETENCES

SYNTHESIS AND ANALYSIS OF MECHANISMS, MEDICAL IMAGING, PROGRAMMING, BIOMECHANICS, CONDUCTION OF EXPERIMENTS FOR BIOMECHANICS RESEARCH, COMPUTER VISION, COMPUTER SIMULATION OF MECHANICAL MODELS, VEHICLE SIMULATORS, 3D MODELING, VIRTUAL REALITY

MEMBER IN SOCIETIES

ELEMBIO, ESB, ISB, SAE

LANGUAGES

GREEK
ENGLISH, EXCELLENT
FRENCH, VERY GOOD
GERMAN, AVERAGE

WORK SECONDMENTS

ELEPAP, THESSALONIKI, GREEK SOCIETY FOR PROTECTION AND REHABILITATION OF CHILDRENS WITH DISABILITIES, CHILDREN REHABILITATION CLINIC
IMFS, STRASBOURG, INSTITUT DE MECANIQUE DES FLUIDES ET DES SOLIDES, BIOMECHANICS GROUP
TNO AUTOMOTIVE, EINDHOVEN, HUMAN SAFETY
INRETS- ALTAIR, MARSEILLE, SIMULATION SOFTWARE DEVELOPMENT, HUMOS
UNIVERSITY OF FLORENCE, RESEARCH CENTER FOR INNOVATION AND SAFETY OF POWERED TWO WHEELERS
UNIVERSITY OF NAVARA, EUROPEAN CENTER FOR INJURY PREVENTION
UNIVERSIDAD POLITÉCNICA DE MADRID, CENTRO DE AUTOMÁTICA Y ROBÓTICA

LIST OF PUBLICATIONS

Peer reviewed journal publications

1. Development of a method to simulate injury mechanisms in motorcycle crashes, Symeonidis I., Kavadarli G., Brenna C., Zhao Z., Fraga F., van Rooij L., Peldschus S., Schuller E., Journal of Biological Physics and Chemistry
2. Analysis of the stability of PTW riders in autonomous-braking scenarios. Symeonidis I., Kavadarli G., Schuller E., Graw M., Steffen P., Accident Analysis and Prevention

Peer reviewed conference publications

1. MYMOSA – Towards the simulation of realistic motorcycle manoeuvres by coupling multibody and control techniques, Moreno D., Brenna C., Symeonidis I., Kavadarli G., 2008 ASME International Mechanical Engineering Congress and Exposition, 2-6 November, 2008, Boston, Massachusetts, USA
2. Development of a test set-up for the analysis of motorcyclist's head-neck kinematics during braking, Symeonidis, I. Kavadarli G., Fraga F., 3DMA conference, 26-31 October 2008, Amsterdam
3. Development of a Virtual Rider, Pierini M., Baldanzini N., Brenna C., Symeonidis I., Schuller E., ISMA Conference 15-17 September 2008, Leuven, Belgium.
4. MYMOSA – Towards a virtual motorcycle rider for realistic simulations of motorcycle manoeuvres, Brenna C., Moreno D., Symeonidis I., Kavadarli G., IFZ Conference 6-7 October 2008, Cologne, Germany.
5. Laboratory set-up for the analysis of motorcyclists' behaviour during deceleration, Symeonidis I., Kavadarli G., Peldschus S., Schuller E., Fraga F., van Rooij L., INFATS Conference, 1-4 December 2008, Xiamen, China
6. Volunteer lab-testing for the analysis of motorcyclists' behaviour during braking Symeonidis I., Kavadarli G., Peldschus S., Schuller E., Fraga F., van Rooij L. Marseille Plateforme Integratrice 2RM, 5 March 2009, Marseille France
7. Development of a method to simulate injury mechanisms in motorcycle crashes, Symeonidis I., Kavadarli G., Brenna C., Zhao Z., Fraga F., van Rooij L., Peldschus S., Schuller E., SIMBIO-M, 1 July 2009, Marseille, France
8. Development of a motorcycle rider model with focus on head and neck biofidelity, recurring to line element muscle models and feedback control, Fraga F., van Rooij L., Happee R., Wismans J., Symeonidis I., Peldschus S., 21st ESV, November 2009, Stuttgart, Germany
9. Symeonidis I., Kavadarli G., Schuller E., Peldschus S., 2010, Capturing human motion inside a moving vehicle, that obstructs the camera field of view. CMBBE conference, 24 February 2010, Valencia Spain
10. Simulation of a biomechanical experiments in OpenSim, Symeonidis I., Kavadarli G., Schuller E., Peldschus S., 12th MEDICON, May 2010, Chalkidiki, Greece
11. Kinematic motion analysis of the human arm during a manipulation task, Zanchettin A., Rocco P., Bascetta L., Symeonidis I., Peldschus S., ISR 2010, June 2010, Munich, Germany
12. Hybrid method combining Direct Linear Transformation and Pose Estimation algorithm for motion capture with optoelectronic systems, Symeonidis I., Kavadarli G., Schuller E., Peldschus S., Graw M., 17th ESB, September 2010, Edinburgh, UK
13. Characterisation of motorcyclist's upper body motion during braking manoeuvre Symeonidis I., Kavadarli G., Fraga F., van Rooij L., Schuller E., Peldschus S., IRCOBI September 2010, Hanover, Germany
14. Linking Active and Passive Safety of Motorcycles Peldschus S., Symeonidis I., Kavadarli G., Schuller E. Baldanzini N., Pierini M., ifz 5 October 2010, Cologne Germany

15. Symeonidis I., Kavadarli G., Schuller E., Peldschus S., Capturing human motion inside a moving vehicle, that obstructs the camera field of view, Infats, December 2010, China
16. Use of Musculoskeletal simulation methods in the analysis of volunteer test for occupant safety I. Symeonidis, G. Kavadarli, E. Schuller and S. Peldschus Canadian Multidisciplinary Road Safety Conference, 8 May 2011, Halifax, Nova Scotia, Canada
17. Andrea Maria Zanchettin, Paolo Rocco, Luca Bascetta, Ioannis Symeonidis, Steffen Peldschus Kinematic analysis and synthesis of the human arm motion during a manipulation task, ICRA, May 13 2011, Shanghai China
18. Symeonidis Ioannis, Peldschus Steffen, Zanchettin Andrea Maria, Rocco Paolo, Bortot Dino, Bengler Klaus Database of human reach motions in work environment DHM, 14 June 2011
19. Symeonidis Ioannis, Schuller Erich, Peldschus Steffen Experimental study of motorcycle maneuvers DHM, 14 June 2011, Lyon, France
20. Deriving modeling parameters for motorcyclists' behaviour during braking from volunteer tests, Symeonidis Ioannis, Schick, Sylvia, Schuller, Erich, Graw, Matthias, Peldschus, Steffen AAAM, 2 October 2011, Paris France
21. Symeonidis I., Peldschus S., Protocol for the study of detailed arm motion during reaching, grasping and releasing action of a seated human , 4th ELEMBO, June 2010, Ioannina, Greece
22. Kavadarli, G., Symeonidis I., Peldschus S., Schuller E., Graw M., Mehrkörper-Simulation von PKW-Motorrad-Kollisionen, Tagung der deutschen Gesellschaft für Rechtsmedizin, Region Süd, Februar 2010, Heidelberg, Germany
23. S. Peldschus, N. Chousel, I. Symeonidis, S. Schick, W. Hell, F. Fischer, S. Lochner, M. Graw , Grundlagen für die Generierung biomechanischer Simulationsmodelle des kindlichen Körpers auf Basis radiologischer Bilddaten, 28 September 2010, Berlin, Germany
24. I. Symeonidis, S. Peldschus, E. Schuller, M. Graw , G. Kavadarli, Simulation von Pkw-Motorrad-Kollisionen mit Starrkörpermodellen , 89. Jahrestagung der Deutschen Gesellschaft für Rechtsmedizin, 28 September 2010, Berlin, Germany

International workshops

1. Joint PISA MYMOSA workshop, February 2010 Eindhoven, The Netherlands

EU Project desiderables

1. Virtual and experimental testing of motorcyclist MYMOSA
2. Development of intelligent safety devices and human-machine interface (HMI) MYMOSA
3. Assessment of human body modeling and volunteer testing from automotive and pedestrian area/perspective. MYMOSA
4. First report on classification of human-centric trajectories ROSSETTA

Participation in workshops

1. MYMOSA workshop on Biomechanics
2. MYMOSA workshop on personal skills
3. MYMOSA workshop on Stochastic Mechanics & Optimisation
4. Advance course on motorcycle riding
5. CREATE Workshop, Knowledge transfer - key process for development and innovation, 2009, March, Munich, Germany
6. PISA-MYMOSA, joint workshop, 2010, Februar, Helmond-Eindhoven, The Netherlands
7. MYMOSA Accident Reconstruction course at DEKRA, Jan. 2008

8. First Joint Workshop on PTWs Integrated Safety, the consortia of PISa and SIM projects, 29 Mai 2008, Bologna
9. Short-Course on Biomechanics of Crash Injury and Vehicle Crashworthiness organized by Monash University Accident Research Centre and Vehicle Safety Research Centre, July 2008, Prato
10. pre-IRCOBI Workshop Sep. 2008, Bern
11. MYMOSA PTW Design courses and visits

Participation in conferences

1. 3DMA conference, 26-31 October 2008, Amsterdam, The Netherlands
2. TÜV Whiplash 1st International Conference, 18 November 2008, Munich, Germany
3. IRCOBI Conference, September 2008, Bern, Swiss
4. Meditech conference, 6 November 2008, Birmingham, UK
5. Plateforme Integratrice 2RM, 5 March 2009, Marseille France
6. ESV Conference 15 June 2009, Stuttgart, Germany.
7. IFZ Conference, 6-7 October 2009, Cologne, Germany
8. SIMBIO-M 1-2 July 2009, Juan- Les- Pins, France
9. CMBBE conference, February 2010, Valencia Spain
10. MEDICON, 27 May 2010, Chalkidiki, Greece
11. ELEMbio, June 2010, Ioannina, Greece
12. ISR 2010, June 2010, Munich, Germany
13. ESB, September 2010, Edinburg, UK
14. IRCOBI Conference, September 2010, Hannover, Germany
15. IUTAM- Analysis and simulation of human motion, September 2010, Leuven, Belgium
16. 4th ESAR Conference, September 2010, Hanover, Germany