

**SCIENTIFIC PROGRAM
MUSME 2008**

- **Tuesday 8 April 2008**

Registration of the participants from 4 -8 p.m.

- **Wednesday 9 April 2008**

9 a.m. Opening session (1 hour approx.)

10 - 10:30: a.m. coffee-break

10:30 - 11:30: a.m. plenary conference.

Manfred Hiller; “Common Aspects in the Mechatronic Design of Automotive and Robotic Systems

11:30 -12:00 a.m paper 17

Shinichi Yokota; “Micro-Actuators By Making Use Of Jet Flows Due To Electro-Conjugate Fluid”

12:00 – 12:30 p.m paper 01

Rogério Sales Gonçalves, João Carlos Mendes Carvalho; “A Legged Robot Suspended On Wire For Transposition Of Insulators And Signaling Spheres”

12:30 – 01 p.m paper 02

M. González, J. Cuadrado, F. González and D. Dopico; “Effect Of Body Motion In The Dynamics Of Seated Cyclists Riding Dual Suspension Off-Road Bicycles”

1 – 3 p.m.: lunch.

3 – 3:30 p.m paper 03

Burkhard Corves, Mohannad Tarsha Kordi, Mathias Hüsing, Klaus Henning, Paul Flachskampf ; “Economic Manufacturing Of Fiber Reinforced Composite Structures Using Robot-Supported Automation” Lecture by Sebastian Jursch

3:30 a 04:00 p.m paper 04

Jiwon Yoon, Sungpil Jung ; Taewon Park “Fatigue Analysis Of The Main Frame Of OHT Vehicle Using The Modal Stress Recovery Method”

04:00 a 04:30 p.m paper 06

Mario Alberto Jordán; “Parametric Resonance In Control Systems Of Physical Pendulums With Variable Oscillation Periods”

04:30 – 05:00 p.m.: paper 07

Mario A. Jordán, Sebastian Domini; “Attractive Teleoperation Of Underwater Vehicles Based On Extern Camera”

5 – 5.30 p.m.: coffee-break

5.30 – 06:00 p.m paper 09

Jorge Ambrósio; “Human Spatial Attitude Control By Means Of Zero Momentum Turns”

06:00 – 06:30 p.m paper 12

Cabana Vilchez, Edgar ; Cuellar Loyola, Nilton Alejandro ; Montes Pari, Martín Amadeo ; Molero Fernández, Rudolph Himmbler ; Separovich Murata, Drago Alexis; “Induction Motor Sliding Vector Control Using A DSP TMS320LF2407”

06:30 – 07:00 p.m paper 13

Armando Carlos de Pina Filho, Max Suell Dutra, Omar Lengerke Pérez; “Generation Of Human Locomotion Patterns By Means Of Nonlinear Oscillators”

9.30 p.m.: Dinner and show.

- **Thursday 10 April 2008**

09 - 9:30 a.m paper 16

Sung-Pil Jung, Tae-Won Park, Kab-Jin Jun, Ji-Won Yoon; “An Optimum Design Method Using A Multibody Model And Design Of Experiments”

09:30 – 10:00 a.m paper 18

Alexandre Santos Brand~aoy, Mario Sarcinelli-Filhoy, Ricardo Carelli and Teodiano Freire Bastos-Filho; “Decentralized Navigation Control And Obstacle Avoidance For A Rigid Mobile Robot Formation”

10:00 – 10:30 a.m. paper 21

Manfred Husty and Clément Gosselin; “On The Singularity Surface Of Planar 3-RPR Parallel Mechanisms”

10:30 – 11:00 a.m. coffee-break

11 – 11:30 a.m paper 23

Diego A. Vicente, Rogelio L. Hecker* y Gustavo M. Flores; “Vibration Modes Characterization In A Lead Screw Drive”

11:30 – 12:00 a.m paper 24

Felipe Nascimento Martinsy, Ricardo Carelliz, Mario Sarcinelli-Filhoy and Teodiano Freire Bastos-Filho; “Dynamic Modeling And Trajectory Tracking Control For Unicycle-Like Mobile Robots”

12:00 – 12:30 a.m paper 26

Díaz-Rodríguez M. V Mata, N Farhat, Provenzano; “Identifiability Of The Dynamic Parameters Of A Class Of Parallel Robots In Presence Of Measurement Noise And Modeling Discrepancy”

12:30 – 13:00 p.m paper 30

Gianni Castelli, Marco Ceccarelli, Erika Ottaviano; “An Analytical Design Of Telescopic Manipulator For Prescribed Workspace”

01:00 – 03:00 p.m.: lunch.

03:00 – 03:30 p.m paper 32

Martín A. Pucheta and Alberto Cardona; “Synthesis Of Planar Multi-Loop Linkages Starting From Existing Parts Or Mechanisms: Enumeration And Initial Sizing”

03:30 – 04:00 p.m paper 34

Marcos Ayala, Carlos Soria, Ricardo Carelli; “Visual Servo Control Of A Mobile Robot In Agriculture Environments”

04:00 – 04:30 p.m paper 35

Cristina Tavolieri, Marco Ceccarelli, Jean-Pierre Merlet; “A Workspace Analysis Of A Fullyconstrained Cable-Based Parallel Manipulator By Using Interval Analysis”

04:30 – 05:00 p.m paper 37

Chiara Lanni and Marco Ceccarelli; “Modeling And Evaluation Of Grasp Impact In Two-Finger Grippers With Pneumatic Actuation”

05:00 – 05:30 p.m.: coffee-break

05:30 – 06:00 p.m paper 38

Hyungsuk Han, Bonghyuk Yim , Sukjoon Moon And Namjin Lee; “Stability Analysis Of A Maglev Vehicle Utilizing An Electromagnetic Suspension System”

06:00 – 06:30 p.m paper 39

Rojos Esteban, Penisi Osvaldo, Aguilar Horacio, Galdeano Hugo, Alba Francisco; “Application Of A 3 RPS Manipulator In The Orientation Of A Corner Reflector”

06:30 – 07:00 p.m paper 40

Silvia E. Rodrigo, Jorge A. C. Ambrósio, Miguel P. Tavares da Silva, Osvaldo H. Penisi; “Analisis Of Human Gait Based On Multibody Formulations And Optimizations Tools”

9.30 p.m.: Dinner and show.

- **Friday 11 April 2008**

09:00 – 09:30 a.m paper 05

Rudolph Himmblar Molero Fernández, Martin Amadeo Montes Pari, José Francisco Roca Reyes, Javier Alex Rojas Tintaya; “Nonlinear Control Of Electromagnetic System With Exact Linearization And Sliding Modes Control”

09:30 – 10:00 a.m paper 19

Giuseppe Cannella, Erika Ottaviano, Gianni Castelli; “A Cable-Based System for Aiding Elderly People in Sit to Stand Transfer”

10:00 – 10:30 a.m paper 20

Salvatore Grande, Erika Ottaviano; “A Biped Walking Mechanism For A Rickshaw Robot”

10:30 – 11:00 a.m. coffee-break

11:00 – 11:30 a.m paper 22

Francesco Palmucci, Erika Ottaviano, Marco Ceccarelli; “An Application Of Catrasys, A Cable-Based Parallel Measuring System For A Kinetostatic Analysis Of Human Walking”

11:30 – 12:00 a.m paper 25

Stefano Iannone, Giuseppe Carbone, Marco Ceccarelli; “Regulation And Control Of LARM Hand III”

12:00 – 00:30 p.m paper 27

Andrea Nardelli, Giuseppe Carbone; “An Experimental Characterization Of LARM Hand IV”

00:30 – 01:00 p.m paper 36

Alessandro Di Rienzo, Marco Ceccarelli, Giuseppe Carbone, Piero Torassa; “ A Study On Balance Errors In Pneumatic Tyres”

01:00 a 03:00 p.m lunch.

03 – 03:30 p.m paper 41

Oliva Ignacio, Samat Matias; “Cam Design For Action Of Serial Manipulator With Two D.O.F Actuated By One Motor In Application For Bottles Packaging”

03:30 – 04:00 p.m paper 42

Cano Pablo; “Bipedstation Chair”

04:00 – 04:30 p.m paper 43

Dmitry Vlasenko, Roland Kasper; “Calculation Of Accelerations Using Symbolic Preprocessing Module In VSD Software”

04:30 – 05:00 p.m paper 15

Catacora Ocaña Jim ; Conche Huamán Neils ; Huamaní Baltazar Edy ; Meneses Estrella José Arturo; “Quadruped Robot For Autonomous Exploration Er-12”

05:00 – 05:30 p.m paper 28

Pierre Castillo Abril, Edwin Huamaní Romaní, Luis Liela Marcatinco, Victor Linares Uculmana; “Experiences In The Designed And Building Of One Humanoid Robot Of 26 Degrees Of Freedom”

05:30 – 06:00 p.m coffee break

05.30 - 06:30 p.m. Meeting of the MuSMe Scientific Committee

06.30 - 07:30 p.m. Meeting of the FIBIM Technical Committee of Mechatronics.

7:30 – 8 p.m.: Closing Act

9:30 p.m.: Dinner and show

- **Saturday 12 April 2008**

09:00 – 16:00 Different visits to the city.