

FINAL PROGRAM FOR THE 4TH INTERNATIONAL SYMPOSIUM ON MULTIBODY SYSTEMS AND MECHATRONICS (MUSME 2011)

TIME

Nº

TUERSDAY 25th October 2011

9:00-10:00		REGISTRATION
10:00-11:00		OPENING ACT
		SESSION 1: ROBOTS AND MICROMACHINES Chairman: Pietro Fanghella
11:00-11:30	1	INVERSE AND FORWARD DYNAMICS OF THE BIPED PASIBOT Eduardo Corral , Jesús Meneses and Juan Carlos García Prada
11:30-12:00	2	ROBOT TRAJECTORY PLANNING USING CUBIC B-SPLINES IN JOINT SPACE Werley Rocherter Borges Ferreira, João Carlos Mendes Carvalho
12:00-12:30	3	OMNIBOLA: A SPHERICAL ROBOT Mariano Jaimez, Juan A. Cabrera, Juan J. Castillo and Francisco García
12:30-13:00	4	WIRELESS TELEOPERATED OF A ROBOTIC MANIPULATOR BASED IN IMU SENSOR AND CONTROL ANTHROPOMORPHIC MOVEMENT Alejandro Jofré Moreno and Diego Álvarez Villegas
13:00-13:30	5	A TOPOLOGY SEARCH FOR A NEW LARM LEG MECHANISM Tao Li and Marco Ceccarelli
13:30-15:00		LUNCH
		SESSION 2: DYNAMICS OF MULTIBODY SYSTEMS I Chairman: Javier Cuadrado
15:30-16:00	6	EXPONENTIAL INTEGRATION SCHEMES IN MULTIBODY DYNAMICS Javier Ros, Xabier Iriarte, Roberto Yoldi and Jorge Ángeles
16:00-16:30	7	MULTIBODY MODELLING OF A HIGH SPEED ROUTING SYSTEM FOR AUTOMATED LETTER HANDLING Pietro Fanghella and Andrea Sintich
16:30-17:00	8	COMPARISON OF METHODS TO DETERMINE GROUND REACTIONS DURING THE DOUBLE SUPPORT PHASE OF GAIT Urbano Lugrís, Jairo Carlín, Rosa Pàmies-Vilà and Javier Cuadrado
17:00-17:30		COFFE BREAK
17:30-18:00	9	INVERSE DYNAMICS SIMULATION OF HUMAN MULTIBODY DYNAMICS García-Vallejo, Daniel and Schiehlen, Werner
18:00-18:30	10	DYNAMIC ANALYSIS OF A FIVE-BAR LINKAGE MECHANISM IN TRACTION Arinola B. Ajayi
18:30-19:00	11	DYNAMICS MODELING OF THE SAAB SEA EYE COUGAR ROV Alessandro Cammarata, Mario Musumeci and Rosario Sinatra

TIME**Nº****WEDNESDAY 26TH OCTOBER 2011**

		SESSION 3: DYNAMICS OF MULTIBODY SYSTEMS II AND EXPERIMENTAL VALIDATIONS Chairman: Werner Schiehlen
9:00-9:30	12	NEWTON-EULER FORMULATION OF A PAN-TILT GIMBAL José A. Colín-V, Carlos S. López-C, Moisés G. Arroyo-C and José A. Romero-N
9:30-10:00	13	ANALYSIS OF WEAR IN GUIDE BEARINGS FOR PNEUMATIC ACTUATORS AND NEW SOLUTIONS FOR LONGER SERVICE LIFE Guido Belforte, Andrea Manuello Bertetto, Luigi Mazza and Pier Francesco Orrù
10:00-10:30	14	CONTROL SYSTEM AND DATA ACQUISITION FOR A RECIPROCATING COMPRESSORS FRICTION TEST STAND Luigi Mazza, Andrea Trivella and Roberto Grassi
10:30-11:00	15	A HYDRAULIC SHAKE TABLE FOR VIBRATION TESTING: MODEL PARAMETERS ESTIMATION AND VALIDATION Giandomenico Di Massa, Stefano Pagano, Salvatore Strano and Francesco Timpone
11:00-11:20	COFFE BREAK	
		SESSION 4: SIMULATION PROCEDURES Chairman: Carlos Munares
11:20-11:45	16	AN EXPERIMENTAL VALIDATION OF COLLISION FREE TRAJECTORIES FOR PARALLEL MANIPULATORS G. Carbone , F. Gómez-Bravo and O. Selvi
11:45-12:10	17	COMPUTER SIMULATIONS OF THE COAL WAGON LABORATORY EXCITATION AND INFLUENCE OF THE SWEEP LOAD TEST PARAMETER Pavel Polach and Michal Hajžman
12:10-12:35	18	TRAJECTORY GENERATION THROUGH THE EVOLUTION OF THE OPTIMAL PATH Francisco Rubio, Francisco Valero and Josep Ll. Suñer
12:35-13:00	19	EFFECT OF COOPERATIVE WORK IN OBJECT TRANSPORTATION BY MULTY-AGENT SYSTEMS IN KNOWN ENVIRONMENTS Renato Miyagusuku, Jorge Paredes, Santiago Cortijo and José Oliden
13:00-13:45	QUICK LUNCH	
13:45-17:00	VISIT TO FORD ´S CAR ASSEMBLY AND ENGINE PLANT	

TIME	Nº	THURSDAY 27TH OCTOBER 2011
		SESSION 5: MECHATRONICS Chairman: Javier Ros
9:00-9:30	20	HUMAN COMPUTER INTERFACE BASED ON HAND TRACKING Pedro Achancaray, Cristian Muñoz, Luis Rojas and Ricardo Rodriguez
9:30-10:00	21	ON THE BIOMECHANICAL DESIGN OF STANCE CONTROL KNEE ANKLE FOOT ORTHOSIS (SCKAFO) Pedro Moreira, Pedro Ramôa, Luís F. Silva and Paulo Flores
10:00-10:30	22	DEVELOPMENT OF A CONTROL SYSTEM FOR MODELLING A 5MW WIND TURBINE AND CORRELATION BETWEEN DIFFERENT EXISTING CODES José Manuel Yepes Rodriguez and Dr. Omar Aït-Salem Duque
10:30-11:00	23	MECHATRONICS DEVELOPMENT AND DYNAMIC CONTROL OF A 3 DOF PARALLEL MANIPULATOR Marina Vallés, Miguel Díaz-Rodríguez, Ángel Valera , Vicente Mata and Álvaro Page
11:00-11:30		COFFE BREAK
		SESSION 6: MECHATRONICS AND KINEMATICS I Chairman: Manfred Husty
11:30-12:00	24	FLEXIBLE PNEUMATIC ACTUATION FOR BLOOD PRESSURE RECOVERY Andrea Manuello Bertetto, Silvia Meili, Alberto Concu and Antonio Crisafulli
12:00-12:30	25	OBJECT ORIENTED MODELING FOR WALKING MACHINES Mauricio Alba, Juan Carlos García Prada and Cristina Castejon
12:30-13:00	26	COMPARISON OF DIFFERENTS METHODS TO CALCULATE COMPLIANT DISPLACEMENTS OF MULTIBODY SYSTEMS Rogério Sales Gonçalves and João Carlos Mendes Carvalho
13:00-13:30	27	NUMBER SYNTHESIS OF METAMORPHIC MECHANISMS USING SUBGRAPH CONSTRAINTS Martín Pucheta, Agostino Butti, Valerio Tamellini, Alberto Cardona and Luca Ghezzi
13:30-15:00		LUNCH
		SESSION 7: MECHATRONICS AND KINEMATICS II Chairman: João Carlos Mendes Carvalho
15:30-16:00	28	DYNAMICS OF SENSITIVE EQUIPMENTS ON WRS ISOLATORS Giandomenico Di Massa, Stefano Pagano, Ernesto Rocca and Salvatore Strano
16:00-16:30	29	OPTIMAL DIMENSIONAL SYNTHESIS OF LINKAGES USING EXACT JACOBIAN DETERMINATION IN SQP ALGORITHM Ramon Sancibrian, Ana de Juan, Angel Sedano, Pablo Garcia, Miguel Iglesias, Fernando Viadero and Alfonso Fernandez
16:30-17:00	30	ASSEMBLY MODE CHANGE OF SPHERICAL 3-RUPUR PARALLEL MANIPULATOR Mónica Urizar and Manfred L. Husty
17:00-17:30		COFFE BREAK
17:30-18:00	31	FAILURE IN THE FRONT SUSPENSION MECHANISM. MITSUBISHI L-200 CASE Carlos Munares
18:00-18:30	32	MODELING AND CONTROL OF A BIPED ROBOT BASED ON THE CAPTURE OF HUMAN MOVEMENT PATTERNS Elvis O. Jara, Cristian Cisneros, Edison Alfaro and José Oliden
18:30-19:00	33	UNIFIED THEORY OF FIELDS IN SWARM BASED OPTIMIZATION METHODS Alexandr Stefek
19:00-20:00		SCIENTIFIC COMMITTEE MEETING
21:00-24:00		CONFERENCE DINNER

TIME**Nº****FRIDAY 28TH OCTOBER 2011****SESSION 8: STUDENT SESSION****Chairman: Carlos Lopez Cajún**

TIME	Nº	
		SESSION 8: STUDENT SESSION Chairman: Carlos Lopez Cajún
9:00-9:20	34	THE ORIGINAL DOUBLE-GOLDBERG 6R LINKAGE AND ITS BIFURCATION ANALYSIS Chaoyang SONG and Yan CHEN
9:20-9:40	35	INVERSE AND DIRECT KINEMATICS OF AN UNDERWATER PARALLEL ROBOT Hector A. Moreno, Roque Saltaren, Eugenio Yime and Isela Carrera
9:40-10:00	36	ON THE INFLUENCE OF ANTI-ROLL STIFFNESS ON VEHICLE STABILITY AND PROPOSAL OF AN INNOVATIVE SEMI-ACTIVE MAGNETORHEOLOGICAL FLUID ANTI-ROLL BAR Flavio Farroni, Daniele Giordano, Michele Russo, Mario Terzo and Francesco Timpone
10:00-10:20	37	A HISTORY OF ARTIFICIAL HANDS Ettore D'Aliesio and Marco Ceccarelli
10:20-10:40	38	A DYNAMIC ANALYSIS OF THE ROBOT CAPAMAN (CASSINO PARALLEL MANIPULATOR) AS SOLAR TRACKER Elisabet Jiménez, Marco Ceccarelli and Giuseppe Carbone
10:40-11:00		COFFE BREAK
11:00-14:00		VISIT TO THE HISTORICAL CENTRE OF VALENCIA
14:00-16:00		LUNCH