

8th Conference of the International Sports Engineering Association - Vienna 2010 - 12th to 16th July

from		to		Wednesday 14th			
09:00	09:45	Keynote Lecture (hall GH) - Benno Nigg - Impact Forces, Soft Tissue Vibrations and Muscle Tuning - Keynote Chair: Alan Bramley , Anton Sabo					
		hall GH	hall I	hall K			
		topic	topic	topic			
09:45	10:00	SMART-SYSTEM: PAST AND FUTURE (Mr. Chikara Miyaji)	Unsteady Aerodynamic Force on a Knuckleball in Soccer (Mr. Sungchan Hong)	SNOWBOARD STIFFNESS PREDICTION MODEL FOR ANY COMPOSITE SANDWICH CONSTRUCTION (Mr. Patrick Clifton)		Chair: Veit Semmer	
10:00	10:15	A METHOD FOR MONITORING REACTIVE STRENGTH INDEX (Mr. Matt Patterson)	A Comparative Study of Football Aerodynamics (Mr. Firoz Alam)	OPTIMISATION OF THE SKIER'S TRAJECTORY IN SPECIAL SLALOM (Mr. Oleg Ilyev)		Chair: Veit Semmer	
10:15	10:30	Examining the effect of real-time visual feedback on the quality of rowing technique (Mr. Simon Fothergill)	Aerodynamics of modern soccer balls (Mr. Luca Oggiano)	Computation of the Trajectory and the Reaction Force for a Turn in Luge (Mr. Martin Müssner)		Chair: Veit Semmer	
10:30	10:45	COMPARING THREE METHODS FOR MEASURING THE MOVEMENT OF THE BOW IN THE AIMING PHASE OF OLYMPIC ARCHERY (Mr. Nico Gantner)	MEASUREMENT OF AERODYNAMIC FORCES AND FLOW FIELD OF A SOCCER BALL IN A WIND TUNNEL FOR KNUCKLE EFFECT (Mr. Masahide Murakami)	SIMULATION OF TURNS WITH A 3D SKIER MODEL (Mr. Ulrich Filipp Obereggen)		Chair: Veit Semmer	
10:45	11:30	ISEA Annual General Meeting		Morning Tea			
		hall GH	hall I	hall K			
		topic	topic	topic			
11:30	11:45	Optimal hand position for individual pursuit athletes (Mrs. Lindsey Underwood)	SYSTEMATIC DESIGN CUSTOMIZATION OF SPORT WHEELCHAIRS USING THE TAGUCHI METHOD (Mr. Mike Burton)	Development of a method for monitoring clubhead path and orientation through impact (Mrs. Kirsty Ellis)		Chair: John McPhee	
11:45	12:00	THE WIND-AVERAGED AERODYNAMIC DRAG OF COMPETITIVE TIME TRIAL CYCLING HELMETS (Mr. Leonard Brownlie)	IDENTIFICATION OF DESIGN REQUIREMENTS FOR RUGBY WHEELCHAIRS USING THE QFD METHOD (Mrs. Clara C. Usma A.)	Development of a golf robot for simulating individual golfer's swings (Mr. Jonathan Roberts)		Chair: John McPhee	
12:00	12:15	An Experimental Study of Thermal Comfort and Aerodynamic Efficiency of Recreational and Racing Helmets (Mr. Firoz Alam)	Real-Time Tracking of Game Assets in American Football for Automated Camera Selection and Motion Capture (Mr. Michael Collins)	IMPACT RESPONSE OF SPORTS MATERIALS (Mr. Lioud Smith)		Chair: John McPhee	
12:15	12:30	DOWNHILL SKATEBOARD AERODYNAMICS (Mr. John Hart)	Validated dynamic analysis of real sports equipment using finite element: a case study, using tennis rackets (Mr. Tom Allen)	VIBRATION AT THE WRIST AND ELBOW JOINTS DURING THE GOLF SWING REVEALS SHAFT-SPECIFIC SWING KINEMATICS (Mr. Sean Oasa)		Chair: John McPhee	
12:30	12:45	MAXIMUM RANGE OF FLYING DISCS (Mr. Mont Hubbard)	VALIDATION OF A LIVE AUTOMATIC BALL VELOCITY AND SPIN RATE FINDER IN TENNIS (Mr. John Kelley)	DEVELOPMENT AND PERFORMANCE OF A SHOOTING MACHINE (Mr. Shinchiro Ito)		Chair: John McPhee	
12:45	13:00	AERODYNAMIC PERFORMANCE EVALUATION OF SPORTS TEXTILE (Mr. Harun Chowdhury)	PROPERTIES OF FRICTION DURING THE IMPACT BETWEEN TENNIS RACKET SURFACE AND BALL (Mr. Hiroshi Maeda)	Effects of Baseball Bat mass and Position of Center of Gravity on Batting (Mr. Masato Maeda)		Chair: John McPhee	
13:00	14:00	Lunch					
		hall GH	hall I	hall K			
		topic	topic	topic			
14:00	14:15	VISUALIZATION AND MOTION ANALYSIS OF SWIMMING (Mr. Shinchiro Ito)	Preliminary Development of a Wearable Device for Dynamic Pressure Measurement in Garments (Mr. Jason McLaren)	DYNAMIC MODELLING AND SIMULATION OF A GOLF DRIVE (Mr. John McPhee)		Chair: Konstantin Fuss	
14:15	14:30	PERFORMANCE VALIDATION OF SWIMSUITS BY MECHANICAL TESTING (Mr. Jens Buder)	CASE STUDY: USING MONITORING OF BODY COMPOSITION DATA OBTAINED BY BIOIMPEDANCE IN TRAINING OF AN HIGH LEVEL RUNNER (Mr. Julien Rebeyrol)	CHARACTERIZATION OF THE MATERIALS IN GOLF BALL CONSTRUCTION FOR USE IN FINITE ELEMENT ANALYSIS (Mr. Alistair Pugh)		Chair: Konstantin Fuss	
14:30	14:45	A HYDRODYNAMICS-BASED MODEL OF A ROWING STROKE SIMULATING EFFECTS OF DRAG AND LIFT ON OAR BLADE EFFICIENCY FOR VARIOUS CANT ANGLES (Mr. Andrew Sillasas)	EVALUATION OF PRESSURE INSOLES DURING RUNNING (Mr. Rene El Kati)	GOLF BALL LANDING, BOUNCE AND ROLL ON TURF (Mr. Woo-Jin Roh)		Chair: Konstantin Fuss	
14:45	15:00	MEASUREMENT OF DYNAMIC FORCES EXPERIENCED BY AN ASYMMETRIC YACHT DURING A GYBE. FOR USE WITHIN SAIL SIMULATION SOFTWARE (Mr. Stephen Turnock)	Influence of Pedalling with the Metatarsus on Running Characteristics in Triathlon Competition (Ms. Sandrina Ilies)	EXPERIMENTAL AND FINITE ELEMENT ANALYSES OF A GOLF BALL COLLIDING WITH SIMPLIFIED CLUB DURING A TWO-DIMENSIONAL SWING (Mr. Katsumasa Tanaka)		Chair: Konstantin Fuss	
15:00	15:15	Contribution of Swimsuits to Swimmer's Performance (Mr. Hazim Moria)	THE USE OF PHOTOELASTICITY TO IDENTIFY SURFACE SHEAR STRESSES DURING RUNNING (Mrs. Heather Driscoll)	Putter features that influence the rolling motion of a golf ball (Mr. Martin Brouillette)		Chair: Konstantin Fuss	
15:15	15:45	Poster Session #2: Evaluation of American football helmet performance using finite element modelling ; Virtual & inertial sensors to detect illegal cricket bowling ; Characterization of grip force during badminton strokes ; Pressure measurement on Badminton racket ; Mobile Multimedia Learning And Basketball Coaching ; How the swimmer could improve his track start using new Olympic plot ; A study on improving performance in vertical jump motion considering bi-articular muscle function ; Cinalysis: A New Software For Swimming Races Analysis ; Development of a new product for unrestrained heart rate measurement in swimming: a user centered design approach ; ; The effect of developing the explosive power and speed endurance on promoting some kinematical and physiological characteristics for 400 m hurdles runners				ISEA EC-Meeting (Hall K)	
15:45	16:30	Afternoon Tea					
		hall GH	hall I	hall K			
		topic	topic	topic			
16:30	16:45	A MULTIMODAL APPROACH FOR INSOLE MOTION MEASUREMENT AND ANALYSIS (Mr. Harald Jaaps)	DEVELOPMENT OF LOW COST ON-BOARD VELOCITY AND POSITION MEASUREMENT SYSTEM FOR WHEELCHAIR SPORTS (Mr. Hai Xu)	AUTOMATED VIEWER-CENTRIC PERSONALIZED SPORTS BROADCAST (Mr. Michael Chuang)		Chair: Fozzy Moritz	
16:45	17:00	DEVELOPMENT OF AN AUTOMATED SCORING SYSTEM FOR AMATEUR BOXING (Mr. Allan Hahn)	ROLLING FRICTION OF A RUGBY WHEELCHAIR (Mr. Julian Jang Ching Chua)	MOBILE MOTION ADVISOR - A FEEDBACK SYSTEM FOR PHYSICAL EXERCISE IN SCHOOLS (Mr. Emanuel Preuschl)		Chair: Fozzy Moritz	
17:00	17:15	Design and Development of Interactive Textiles for Impact Detection and use with an Automated Boxing Scoring System (Mr. Allan Hahn)	WHEELCHAIR RUGBY: FAST ACTIVITY AND PERFORMANCE ANALYSIS (Mr. Julian Jang Ching Chua)	WIND TUNNEL TESTING OF A NOVEL WINGSUIT DESIGN (Mr. Kim B. Blair)		Chair: Fozzy Moritz	