

BIOMDLORE 2018 – Conference Programme

June 28 – 30: Białystok, Poland



THURSDAY, June 28	
Room 107	
15.00 – 18.00	REGISTRATION
16.00 – 16.30	OFFICIAL OPENING Zdzisław Gosiewski Chairman of the Scientific Committee
16.30 – 17.00	INVITED LECTURE “The role of saliva in oral cavity” Joanna Mystkowska
17.00 – 17.15	COFFEE BREAK
Poster Session	Chairs: Pauk J., Shippen J.M.
17.15 – 18.15	<ol style="list-style-type: none"> Dzierżek K., Buczyłowski A., Kamieński K., Rólkowski P., Tylman I., Rećko M., Ostaszewski M., Turycz P.: Design and static tests of an all-terrain suspension system for electric wheelchair Ignatiuk K., Dardzińska A.: The closest incomplete medical information systems Kasperczuk A., Dardzińska A., Daniluk J.: Recommender system for diagnosis of colon diseases Kuc B.: The concept of a spectrophotometer for soil sample testing Łukowska A.: Simple human walking modelling Tomaszuk P.: Standalone integrated wheel drive module for use in electric powered wheelchair Zdrodowska M., Dardzińska A., Chorąży M., Kułakowska A.: Action rules as a useful tool in selected neurological disorders diagnosis Ostaszewski M., Pauk J.: Estimation of ground reaction forces and joint moments on the basis on plantar pressure insoles and wearable sensors for joint angle measurement Ostaszewski M., Gosiewski Z.: A dynamic model of device with parallel-serial structure to support the human lower limb Banach M., Wasilewska A., Długosz R., Pauk J.: Novel techniques for a wireless motion capture system for the monitoring and rehabilitation of disabled persons for application in smart buildings Bębas E.: Fractal dimensions in the texture analysis of MRI liver images Parfieniuk M.: EMG signal processing in frequency domain
18.15 – 19.00	Visit to Laboratories at Department of Mechanical Engineering
19.00	Welcome Party at the restaurant “Trzy po Trzy” (ul. Mickiewicza 47)

FRIDAY, June 29	
Room 107	
7.30 – 12.00	REGISTRATION
Plenary session A1, Room 107 Chairs: Griškevičius J., Maknickas A.	
<i>NUMERICAL MODELLING AND SIMULATIONS OF BIOMEDICAL PROCESSES</i>	
8.00 – 9.15	<ol style="list-style-type: none"> 1. Staškūnienė M., Kačeniauskas A., Maknickas A., Starikovičius V., Stupak E., Pacevič R.: Investigation of the backflows and outlet boundary conditions for computations of the patient-specific aortic valve flows 2. Sosunkevič S., Rapalis A., Marozas M., Pluščiauskaitė V., Surgautė L., Lukoševičius A.: Assessment of multimodal reactions on specific stimulation tests for revealing early risk of diabetic foot 3. Birkenmaier C., Steiger T., Philipp A., Lehle K., Krenkel L.: Flow-induced accumulations of von Willebrand factor inside oxygenators during extracorporeal life support therapy 4. Gaidulis G., Votta E., Selmi M., Aidietienė S., Aidietis A., Kačianauskas R.: Numerical simulation of transapical off-pump mitral valve repair with neochordae implantation 5. Kilikevičius A., Balčiūnas E., Kilikevičienė K., Maknickas A., Bukelskienė V., Baltriukienė D., Kačianauskas R.: Modelling of silk-reinforced PDMS properties for soft tissue engineering applications
Plenary session A2, Room 107 Chairs: Daunoravičienė K., Shippen J.M.	
<i>SIGNAL ACQUISITION AND PROCESSING IN BIOMEDICAL APPLICATIONS</i>	
9.15 – 10.15	<ol style="list-style-type: none"> 1. Jungtäubl D., Aurbach M., Melzner M., Spicka J., Süß F., Dendorfer S.: EMG-based validation of musculoskeletal models considering crosstalk 2. Lai S-C., Hung Y-H., Chang Y-T.: Low-cost prototype design of biomedical sensing device for ECG and EMG signal acquisition system 3. Jafarifarmand A., Badamchizadeh M.A.: Real-time cardiac artifact removal from EEG using a hybrid approach 4. Bubulis A., Venslauskas M., Navickas J., Abramavičius S., Stankevičius E.: Experimental investigation of the determination for the safe operating regime of ultrasound tube-shaped waveguide wire for internal blood vessel debulking
10.15 – 11.00	COFFEE BREAK
Plenary session A3, Room 107 Chairs: Gosiewski Z., Griškevičius J.	
<i>IMAGE ACQUISITION AND PROCESSING IN BIOMEDICAL APPLICATIONS</i>	
11.00 – 12.15	<ol style="list-style-type: none"> 1. Azimi M., Pacut A.: Race dependency of the facial mood expressions effects on face biometric recognition system reliability 2. Shlykov V., Kotovskyi V., Višniakov N., Šešok A.: The IR-thermal imaging method for evaluation of the status of myocardial coronary vessels under the condition of artificial blood circulation 3. Kurochka K.S., Trubenok D.N.: Generation of the three-dimensional finite-element model based on the images of the surroundings of the object contours 4. Wasilewska A., Pauk J., Jeżewski S., Banach M., Dlugosz R.: Selected factors affecting active thermographic measurement of human response to cold stress in RA patient 5. Trinkūnas J., Tuinylienė E., Purnaitė R.: Research on hospital information systems integration to national electronic health record system

Plenary session A4, Room 107		Chairs: Michnik R., Lai S-C.
<i>BIOMECHANICAL ANALYSIS OF HUMAN POSTURE</i>		
12.15 – 13.15	<ol style="list-style-type: none"> Domeika A., Aleknaitė-Dambrauskienė I., Poškaitis V., Zaveckas V., Grigas V., Žvirionienė A.: A pilot study on the influence of exercising on unstable training machine on balance control and trunk muscles activity Domeika A., Aleknaitė-Dambrauskienė I., Grigas V., Kazlauskienė K., Saučiūnaitė V., Krutulytė G.: The effect of prolonged sitting on different unstable chairs on trunk muscles activity and posture for individuals with sedentary work Wodarski P., Michnik R., Chrzan M., Bieniek A., Gzik M., Rduch J., Mitas A.: Analysis of the course of displacements of the center of mass while using a chair with a spherical base Pauk J., Swinarska D.: The impact of body mass on spine alterations in pregnant women: A preliminary study 	
13.15 – 14.30	LUNCH	
Plenary session A5, Room 107		Chairs: Pauk J., Šešok A.
<i>BIOMECHANICAL ANALYSIS OF HUMAN LOCOMOTION AND UPPER EXTREMITY MOVEMENT</i>		
14.30 – 15.45	<ol style="list-style-type: none"> Shippen J.M., May B.: Shoulder torques resulting from luggage handling tasks in non-inertial frames Lukšys D., Jatužis D., Kaladytė-Lokominienė R., Bunevičiūtė R., Sawicki A., Griškevičius J.: Differentiation of gait using principal component analysis and application for Parkinson's disease monitoring Bednorz R., Cygoń K., Maliszewski J., Roziak J.: Postural perturbation training as a novel approach to fall risk prevention Bednorz R., Cygoń K., Maliszewski J., Roziak J.: Portable gait analysis - practical application of inertial system in clinical practice Daunoravičienė K., Žižienė J., Griškevičius J., Pauk J., Ovčnikova A., Kizlaitienė R., Kaubrys G.: Quantitative assessment of upper extremities motor function in multiple sclerosis 	
15.45 – 16.15	COFFEE BREAK	
Plenary session A6, Room 107		Chairs: Maknickas A., Jafarifarmand A.
<i>REHABILITATION ENGINEERING</i>		
16.15 – 17.30	<ol style="list-style-type: none"> Daunoravičienė K., Adomavičienė A., Grigonytė A., Griškevičius J., Juocevičius A.: Effects of robot-assisted training on upper limbs functional recovery during rehabilitation of poststroke patients Bibrowicz K., Szurmik T., Michnik R., Wodarski P., Myśliwiec A., Mitas A.: Application of Zebris dynamometric platform and Arch index in assessment of the longitudinal arch of the foot Hilal M., Berthin C., Martin L., Humeau-Heurtier A.: Skin alterations in pseudoxanthoma elasticum patients highlighted by the bi-dimensional sample entropy algorithm Marozas M., Zykus R., Sakalauskas A., Kupčinskas L., Lukoševičius A.: Investigation of non-invasive attributes for classification of patients with portal hypertension Seefried C., Aurbach M., Wyss C., Dendorfer S.: Achilles tendon lengthening alters stresses in the growth plate 	
17.30 – 17.40	Best presentation Award for Young Scientist	
19.00 – 20.30	Białystok sightseeing tour by historic bus	
20.30	Dinner at the restobar "Inna Bajka" (ul. Akademicka 10/1) 	

SATURDAY, June 30

10.00 – 14.00 | Tour to Tykocin (Tykocin Castle, Baroque Tykocin Synagogue) including lunch



GUIDELINES FOR PRESENTERS:

- **Oral presentation is 15 minutes**, including discussion.
- Presentation room is equipped with screen and laptop with PDF Reader and MS Power Point. Presentations must be prepared as **power point** or **pdf files**.
- **Poster** board space provided is 100 × 120 cm. Please ensure your **poster** fits within the provided area.