

**Programme of the EMBEC'05 Conference  
Prague, Czech Republic, 20-25 November 2005**

Prague, 7th November 2005

Peter Kneppo  
Chairman of the EMBEC'05 International Programme Committee

Jiří Hozman  
Chairman of the EMBEC'05 Local Programme Committee

## Wednesday 16<sup>th</sup> - Saturday 19<sup>th</sup> November 2005

Time	Wednesday 16 November	Thursday 17 November	Friday 18 November	Saturday 19 November	Time	
8.00-9.00					8.00-9.00	
9.00-10.30	<p><b>Tutorial TT2</b> Prof. Jaakko Malmivuo Bioelectromagnetism (intensive pre-conference course with requirement to attend conference venue in Kladno where is located Faculty of Biomedical Engineering of the Czech Technical University in Prague, detailed schedule, please see below )</p> <p><b>Wednesday 16.11.2005</b>            09:00-10:00 Registration            10:00-12:00 Lectures            12:00-13:00 Lunch Break            13:00-16:00 Lectures</p> <p><b>Thursday 17.11.2005</b>            09:00-12:00 Lectures            12:00-13:00 Lunch Break            13:00-16:00 Lectures</p> <p><b>Friday 18.11.2005</b>            10:00-12:00 Lectures            12:00-13:00 Lunch Break            13:00-16:00 Lectures</p> <p><b>Saturday 19.11.2005</b>            09:00-12:00 Lectures            12:00-13:00 Lunch Break            13:00-15:00 Lectures            15:00 Closing</p>				<p><b>IFMBE Officers meeting</b> (9.00-18.00), snugery 1.2 (for six persons)</p>	9.00-10.30
10.30-11.00						10.30-11.00
11.00-12.30						11.00-12.30
12.30-14.00						12.30-14.00
14.00-16.00						14.00-16.00
16.00-16.30						16.00-16.30
16.30-18.00						16.30-18.00
18.00-19.00						18.00-19.00
19.00-20.00						19.00-20.00

# Sunday 20<sup>th</sup> November 2005

Sunday 20 November			
8.00-9.00		8.00-9.00	
9.00-10.30	<b>Tutorial TT1</b> Prof. John G. Webster Bioinstrumentation (from 9.00 till 13.00, including 15 minutes break, Czech Technical University, Faculty of Electrical Engineering - TT1 venue)	9.00-10.30	
10.30-11.00		10.30-11.00	
11.00-13.00		11.00-13.00	
13.00-14.00		13.00-14.00	
14.00-16.15	<b>Opening Ceremony</b> 14.00-15.30 <b>Plenary session</b> (one invited speaker) - Forum Hall, 15.30-16.15	Registration 10.00-18.00  Exhibition	14.00-16.15
16.15-16.45	Coffee Break		16.15-16.45
16.45-18.00	<b>Plenary session</b> (one invited speaker) - Forum Hall, 16.45-17.30 <b>Special lecture</b> of the EMBEC Scientific Award winner, 17.30- 18.00		16.45-18.00
18.00-19.00	Welcome Cocktail		18.00-19.00
19.00-20.00			19.00-20.00

# Monday 21<sup>st</sup> November 2005

Monday 21 November						
8.00-9.00						8.00-9.00
9.00-10.30	<b>Invited lectures</b> (two invited speakers consecutive) - Meeting Hall I					9.00-10.30
10.30-11.00	Coffee break					10.30-11.00
11.00-12.30 parallel sessions	SS59 Bioimpedance I. Meeting Hall V <b>SS32 Measurement and Analysis of Biosignals</b> Meeting Hall I <b>SS23 Intelligent Medical Data Analysis</b> Club A <b>SS9 Magnetic Resonance Imaging of Cardio/Cerebrovascular Flow and Cerebral Transport</b> Club B <b>SS1 Mass Transport in Arterial Disease</b> Club C SS55 Artificial Organs and Tissue Engineering Club D <b>SS24 Embedded Systems in Biomedicine</b> Club E <b>SS8 Medical Image Processing and Interpretation</b> Club H					11.00-12.30
12.30-14.00	Lunch break	<b>POSTER sessions 1-94</b> (congress foyer 1st floor, in front of the Club H) 9.00-18.00 <b>SS52 (SS22 II.) Rehabilitation Engineering II.</b> , SS56 (SS55 II.) Artificial Organs and Tissue Engineering II., SS97 (SS89 IX.) Biomedical Signal Processing, SS73 (SS68 VI.) Biomechanics VI., SS80 (SS75 VI.) Biomedical Image Processing VI., SS124 (SS120 V.) Medical Imaging V., SS64 (SS63 II.) Biomathematics II., SS54 (SS53 II.) Medical Informatics II., SS62 (SS59 IV.) Bioimpedance IV., SS108 (SS106 III.) Cardiovascular and Pulmonary Systems III., SS88 (SS85 IV.) Biomedical Measurement IV.				12.30-14.00
	<b>Posters</b> - congress foyer 1st floor (in front of the Club H) <b>mandatory presence of authors</b>					
14.00-16.00 parallel sessions	SS89 Biomedical Signal Processing I. Meeting Hall V SS75 Biomedical Image Processing Meeting Hall I SS120 Medical Imaging I. Club A <b>SS3 ESEM Tissue Engineering for Orthopaedics Applications Symposium</b> Club B SS53 Medical Informatics Club C <b>SS17 Processing of Magnetic Resonance Images</b> Club D <b>SS35 e-Learning in Biomedical Engineering</b> Club E SS68 Biomechanics I. Club H					14.00-16.00
16.00-16.30	Coffee break					16.00-16.30
16.30-18.30 parallel sessions	SS90 (SS89 II.) Biomedical Signal Processing II. Meeting Hall V SS76 (SS75 II.) Biomedical Image Processing II. Meeting Hall I SS121 (SS120 II.) Medical Imaging II. Club A <b>SS22 Rehabilitation Engineering</b> Club B SS106 Cardiovascular and Pulmonary Systems I. Club C SS63 Biomathematics Club D SS85 Biomedical Measurement I. Club E SS69 (SS68 II.) Biomechanics II. Club H					16.30-18.30
18.30-19.00						18.30-19.00
19.00-20.00						19.00-20.00

Registration  
8.00-18.00

Exhibition  
8.00-18.00

**Federation  
Journal  
Committee  
Meeting** (14.30-  
18.00), Meeting  
Hall II. (for 10  
persons)

# Tuesday 22<sup>nd</sup> November 2005

Tuesday 22 November					
8.00-9.00					8.00-9.00
9.00-10.30	<p><b>demo Telemedicine</b> Meeting Hall V (9.00-9.45), <b>presentation IMEKO</b> (9.45-10.30) Meeting Hall V</p> <p><b>presentation WC2006 Seoul - special session - programme, please see below</b>, (9.00-9.45) Meeting Hall I, <b>Invited lecture</b> (one invited speaker) - (9.45-10.30) Meeting Hall I</p>				9.00-10.30
10.30-11.00	Coffee break				10.30-11.00
11.00-12.30 parallel sessions	<p>SS91 (SS89 III.) Biomedical Signal Processing III. Meeting Hall V</p> <p>SS116 Gait and Motion Analysis Meeting Hall I (11.00-13.30)</p> <p><b>SS10 Image Processing and Analysis of Retinal Images I.</b> Club A</p> <p><b>SS6 Nanomechanics and Nanomanipulation of Biological Materials</b> Club B</p> <p><b>SS25 Gene Expression Data Mining</b> Club C</p> <p><b>SS30 Advanced Medical Imaging Modalities</b> Club D</p> <p><b>SS7 Telemedicine: Intelligent Integrated Mobile Care Support Systems</b> Club E</p> <p><b>SS28 Modeling in Electrocardiology</b> Club H</p>	<p><b>POSTER sessions 1-83</b> (congress foyer 1st floor, in front of the Club H) 9.00-18.00 <b>SS40 (SS10 III.) Image Processing and Analysis of Retinal Images III.</b>, SS129 (SS127 III.) Telemedicine and Healthcare III., SS117 (SS116 II.) Gait and Motion Analysis II., SS97 (SS89 IX.) Biomedical Signal Processing IX., SS73 (SS68 VI.) Biomechanics VI., SS80 (SS75 VI.) Biomedical Image Processing VI., SS62 (SS59 IV.) Bioimpedance IV., SS102 (SS98 V.) Biomedical System Modelling and Analysis V., SS108 (SS106 III.) Cardiovascular and Pulmonary Systems III.</p>	<p><b>ESEM Council</b>, 15 persons, from 11 am, Meeting Hall II</p>	<p>Registration 8.00-18.00</p> <p>Exhibition 8.00-18.00</p>	11.00-12.30
12.30-14.00	<p>Lunch break, <b>Satellite Symposium BIO2006 fairs by CzechTrade and CzechInvest</b>, detailed information will be announced during the conference</p> <p><b>Posters</b> - congress foyer 1st floor (in front of the Club H) <b>mandatory presence of authors</b></p>				12.30-14.00
14.00-16.00 parallel sessions	<p>SS92 (SS89 IV.) Biomedical Signal Processing IV. Meeting Hall V</p> <p>SS77 (SS75 III.) Biomedical Image Processing III. Meeting Hall I</p> <p><b>SS26 (SS10 II.) Image Processing and Analysis of Retinal Images II.</b> Club A</p> <p><b>SS31 Signals and Systems in Human Motion I.</b> Club B</p> <p>SS127 Telemedicine and Healthcare I. Club C</p> <p>SS60 (SS59 II.) Bioimpedance II. Club D</p> <p>SS98 Biomedical System Modelling and Analysis I. Club E</p> <p>SS70 (SS68 III.) Biomechanics III. Club H</p>				14.00-16.00
16.00-16.30	Coffee break				16.00-16.30
16.30-18.30 parallel sessions	<p>SS93 (SS89 V.) Biomedical Signal Processing V. Meeting Hall V</p> <p>SS78 (SS75 IV.) Biomedical Image Processing IV. Meeting Hall I</p> <p>SS107 (SS106 II.) Cardiovascular and Pulmonary Systems II. Club A</p> <p><b>SS42 (SS31 II.) Signals and Systems in Human Motion II.</b> Club B</p> <p>SS128 (SS127 II.) Telemedicine and Healthcare II. Club C</p> <p>SS61 (SS59 III.) Bioimpedance III. Club D</p> <p>SS99 (98 II.) Biomedical System Modelling and Analysis II. Club E</p> <p>SS71 (SS68 IV.) Biomechanics IV. Club H</p>		<p><b>Secretaries Committee Meeting</b>, Small Theatre (50 persons), 16.00-19.00, preliminary timetable</p>		16.30-18.30
18.30-19.00					18.30-19.00
19.00-20.00					19.00-20.00

**Programme of the special session WC2006:**

- 26 years of Korean Society of Medical and Biological Engineering. Gon Khang, Kyunghee Univ. , National Secretary of KOSOMBE
- BME Technologies for Healthcare Myungho Lee, Yonsei University, President of KOSOMBE
- Wonju Biomedical Engineering Complex Youngno Yoon, Yonsei University, IEEE EMBS Korea Chapter Chair
- Highlights of World Congress 2006 Kwang Suk Park, Seoul Natl. Univ., Secretary General of WC2006

Q & A Time, app. 45 minutes will covers this meeting

# Wednesday 23<sup>rd</sup> November 2005

Wednesday 23 November					
8.00-9.00					8.00-9.00
9.00-10.30	<b>Invited lectures</b> (two invited speakers consecutive) - Meeting Hall I				9.00-10.30
10.30-11.00	Coffee break				10.30-11.00
11.00-12.30 parallel sessions	<b>SS4 Medical Applications of Electromagnetic Field I. Meeting Hall V</b> SS109 Medical Robotics I. Meeting Hall I <b>SS18 Biomechanics of Joint Replacement Club A</b> <b>SS33 Blind Source Separation / Independent Component Analysis in Biomedicine Club B</b> <b>SS13 Fetal Magnetoencephalography, Fetal Magnetocardiography and Uterine Magnetomyographic Signals Club C</b> <b>SS14 Diagnostic Assessment of Autonomic Nervous Control of the Heart Club D</b> <b>SS34 BIOMEDEA: BME Education and Accreditation in Europe organised by D.W. Slaaf and J. Nagel and endorsed by EAMBES and IFMBE Club E</b> SS81 Biomedical Instrumentation and Biosensors I. Panorama Club H				11.00-12.30
12.30-14.00	Lunch break				12.30-14.00
	<b>Posters</b> - congress foyer 1st floor (in front of the Club H) <b>mandatory presence of authors</b>				
14.00-16.00 parallel sessions	SS94 (SS89 VI.) Biomedical Signal Processing IV. Meeting Hall V SS110 (SS109 II.) Medical Robotics II. Meeting Hall I SS65 Biomaterials I. Club A <b>SS16 Quantification in Medical Imaging (Special Session - round table discussion) Club B</b> SS104 Brain, Neural and Neuromuscular Systems Club C SS86 (SS85 II.) Biomedical Measurement II. Club D SS100 (SS98 III.) Biomedical System Modelling and Analysis III. Club E SS82 (SS81 II.) Biomedical Instrumentation and Biosensors II. Club H				14.00-16.00
16.00-16.30	Coffee break				16.00-16.30
16.30-18.30 parallel sessions	SS95 (89 VI.) Biomedical Signal Processing VI. Meeting Hall V SS122 (SS120 III.) Medical Imaging III. Meeting Hall I SS87 (SS85 III.) Biomedical Measurement III. Club A SS114 Decision Support Systems in Medicine Club B SS118 Healthcare Information Technology Club C SS125 Medical Physics and Radiotherapy Club D SS101 (SS98 IV.) Biomedical System Modelling and Analysis IV. Club E SS83 (SS81 III.) Biomedical Instrumentation and Biosensors III. Club H				16.30-18.30
18.30-19.00					18.30-19.00
19.00-20.00					19.00-20.00

**POSTER sessions 1-93** (congress foyer 1st floor, in front of the Club H) 9.00-18.00

SS105 (SS104 II.) Brain, Neural and Neuromuscular Systems II., SS115 (SS114 II.) Decision Support Systems in Medicine II., SS67 (SS65 III.) Biomaterials III., SS84 (SS81 IV.) Biomedical Instrumentation and Biosensors IV., SS111 (SS109 III.) Medical Robotics III., SS119 (SS118 II.) Healthcare Information Technology II., SS126 (SS125 II.) Medical Physics and Radiotherapy II., SS97 (SS89 IX.) Biomedical Signal Processing IX., SS124 (SS120 V.) Medical Imaging V., SS102 (SS98 V.) Biomedical System Modelling and Analysis V., SS88 (SS85 IV.) Biomedical Measurement IV.

Registration  
8.00-18.00

Exhibition  
8.00-18.00

**Division for Healthcare Technology Assessment Meeting, 15 persons, Meeting Hall II (16.15-19.00, preliminary timetable)**

# Thursday 24<sup>th</sup> November 2005

Thursday 24 November					
8.00-9.00				8.00-9.00	
9.00-10.30	<b>Invited lectures</b> (two invited speakers consecutive) - Meeting Hall I			9.00-10.30	
10.30-11.00	Coffee break			10.30-11.00	
11.00-12.30 parallel sessions	<b>SS2 Instrumentation and Measurement Applied to Biomedical Engineering I. organised by Akos Jobbágy and technically sponsored by IEEE Hungary Section I &amp; M and EMBS Joint Chapter Meeting Hall V</b> SS66 (SS65 II.) Biomaterials II. Meeting Hall I <b>SS21 Electronic Health Record I. (Satellite Symposium) Club A</b> <b>SS12 Microfluidics and Microcirculation I. Club B</b> SS51 Biomedical Engineering Education in Europe Club C <b>SS36 Health Care Technology Assessment I. Club D</b> SS15 Implantable Devices I. Club E <b>SS46 (SS4 II.) Medical Applications of Electromagnetic Field II. Club H</b>			11.00-12.30	
12.30-14.00	Lunch break			12.30-14.00	
	<b>Posters</b> - congress foyer 1st floor (in front of the Club H) <b>mandatory presence of authors</b>	<b>POSTER sessions 1- 46</b> (congress foyer 1st floor, in front of the Club H) 9.00-17.30, <b>SS45 (SS36 IV.) Health Care Technology Assessment IV., SS41 (SS2 II.) Instrumentation and Measurement Applied to Biomedical Engineering II. organised by Akos Jobbágy and technically sponsored by IEEE Hungary Section I &amp; M and EMBS Joint Chapter, SS48 (SS5 III.) Biological Effects of Electromagnetic Field III., SS58 (SS57 II.) Bioelectromagnetism II., SS74 Biomedical Engineering Education, SS103 Biotechnology, SS113 (SS112 II.) Computer Support of People with Special Needs II., SS67 (SS65 III.) Biomaterials III.</b>	Registration 8.00-17.30  Exhibition 8.00-17.00		
14.00-15.30 parallel sessions	<b>SS20 Medical Ultrasonics I. Meeting Hall V</b> <b>SS19 SYMBIOSIS'05 – Analysis of the Cardiovascular System Activity I. (Satellite Symposium) Meeting Hall I</b> <b>SS27 (SS21 II.) Electronic Health Record II. (Satellite Symposium) Club A</b> <b>SS11 Brain Pacemakers for Epilepsy Club B</b> <b>SS29 Lasers in Medicine and Thin Films in Biomedicine and Pharmacy I. Club C</b> <b>SS43 (SS36 II.) Health Care Technology Assessment II. Club D</b> <b>SS37 (SS15 II.) Implantable Devices II. - Applications Club E</b> <b>SS5 Biological Effects of Electromagnetic Field I. Club H</b>				14.00-15.30
15.30-16.00	Coffee break				15.30-16.00
16.00-17.30 parallel sessions	<b>SS39 (SS20 II.) Medical Ultrasonics II. Meeting Hall V</b> <b>SS38 (SS19 II.) SYMBIOSIS'05 - Analysis of the Cardiovascular System Activity II. (Satellite Symposium) Meeting Hall I</b> <b>SS44 (SS36 III.) Health Care Technology Assessment III. Club A</b> <b>SS49 (SS12 II.) Microfluidics and Microcirculation II. Club B</b> <b>SS50 (SS29 II.) Lasers in Medicine and Thin Films in Biomedicine and Pharmacy II. Club C</b> SS57 Bioelectromagnetism Club D SS112 Computer Support of People with Special Needs Club E <b>SS47 (SS5 II.) Biological Effects of Electromagnetic II. Field Club H</b>			16.00-17.30	
17.30-19.00				17.30-19.00	
Thursday 19.00-22.00	Gala evening			Thursday 19.00 onwards	

## Friday 25<sup>th</sup> November 2005

Friday 25 November			
8.00-9.00		Registration	8.00-9.00
9.00-10.30	<b>Invited lectures</b> (two invited speakers consecutive) - Meeting Hall I		9.00-10.30
10.30-11.00	Coffee Break		10.30-11.00
11.00-11.30	<b>Closing Ceremony</b> including <b>Young Investigators Competition Award</b> and <b>ESEM Award</b> - Meeting Hall I		11.00-11.30
11.30-12.30			11.30-12.30