

newsletter

EUROPEAN SOCIETY OF BIOMECHANICS

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EDITORIAL

Scientific Societies' Newsletters are in a profound crisis!

Jan Pieter Clarys complains of the lack of material for publication in the International Society of Biomechanics Newsletter. Carlo J. De Luca, Secretary of the International Society of Electromyographic Kinesiology stated in an open letter: "The involvement of our membership in providing material of common interest to the Newsletter has been less than remarkable during the past few years" -and again- "continual requests for material to be submitted to the Newsletter has usually fallen on deaf ears".

As Editor of this Newsletter I join this chorus of protests.

On the other hand, we are certainly aware of the fact that the Editors have the largest responsibility for not succeeding in producing interesting documents and not soliciting the membership with sufficient strength and convincing arguments.

Let's therefore join the efforts and try hard to improve the information content and enhance the vitality of this publication! This should be a major outcome of our Society.

Come to Davos with novel ideas and we shall effectively work together.

Arrivederci.

Council:	Secretariat:	Treasury:	Editor:
F.Burny, President	R.Huiskes	D.H.van Campen	A.Cappozzo
S.Perren, Vice-President	Biomechanics Lab.	Twente Univ.of Technology	Laboratory of Biomechanics
R.Huiskes, Secretary General	Dept.of Orthopaedics	Dept.Mechanical Engng.	Istituto di Fisiologia Umana
D.v.Campen, Treasurer	University of Nijmegen	P.O.Box 217	Università degli Studi
H.Berme, Membership Committee	6500 HB Nijmegen	7500 AE Enschede	"La Sapienza"
A.Cappozzo, Meeting Committee	The Netherlands	The Netherlands	00185 Roma-Italy
C.Hernandez-Ros	Phone:(0)80-514476	Bank: ABN, Enschede	Phone: (06) 490673
B.Moyen	Telex:48232 aczhs nl	acc.no.59.09.75.242	
J.Wagner		Treasurer E.S.B.	

12.30 Lunch

* * * * *

AFTERNOON SESSIONS

INVITED SPEAKERS:

15.00 - 15.40 G.Rau, Aachen, Germany:
MUSCULAR ACTIVITY AND SURFACE EMG

15.00 - 15.40 A.L.Nachemson, Gothenborg, Sweden:
CLINICAL BIOMECHANICS AS RELATED TO THE HUMAN SPINE

PARALLEL SESSIONS:

15.45 - 19.00 - Biomechanics of Soft Tissues I
- Sports Biomechanics I/II
- Orthopaedic Biomechanics: Spine I/II

16.45 - 17.45 Coffee Break / POSTER SESSION

Tuesday, September 25, 1984

08.00 - 17.00 Registration

MORNING SESSIONS

INVITED SPEAKERS:

08.00 - 08.40 M.Anliker, Zurich, Switzerland:
CARDIOVASCULAR DYNAMICS

08.00 - 08.40 D.C.Picton, London, Great Britain:
PERIODONTAL BIOMECHANICS

PARALLEL SESSIONS:

08.45 - 12.00 - Cardiovascular and Respiratory Biomechanics I/II
- Dental Biomechanics/
Dynamics of the Musculoskeletal System III
- Orthopaedic Biomechanics: Joints I/II

12.00 Lunch

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14.00 GENERAL ASSEMBLY ESB (MEMBERS)

AFTERNOON SESSIONS

INVITED SPEAKERS:

15.00 - 15.40 J.G.Hay, Iowa City, USA:
ISSUES AND TRENDS IN SPORTS BIOMECHANICS

15.00 - 15.40 P.Christel, Paris, France:
THE POTENTIAL APPLICATION OF CARBON-CARBON
COMPOSITE MATERIALS FOR BONE SURGERY

PARALLEL SESSIONS:

15.45 - 19.15 - Biomaterials I/II
- Sports Biomechanics III/IV
- Orthopaedic Biomechanics: Joint Prostheses

16.45 - 17.45 Coffee Break / POSTER SESSION

Wednesday, September 26, 1984

MORNING SESSIONS

INVITED SPEAKER:

08.00 - 08.40 S.L.Woo, La Jolla, USA:
FUNCTIONAL ADAPTATION OF CORTICAL BONE,
TENDONS AND LIGAMENTS

PARALLEL SESSIONS:

08.45 - 12.00 - Biomechanics of Soft Tissues II / Hard Tissues
- Rehabilitation Biomechanics
- Orthopaedic Biomechanics: Bone Biology/
Bone Mechanics / Mechanics of Implants I
- General Topics I / II

12.00 Lunch

* * * * *

AFTERNOON SESSIONS

INVITED SPEAKERS

14.00 - 14.40 P.R.Cavanagh, Penn State, USA:
THE METHODOLOGY AND SIGNIFICANCE OF PRESSURE
DISTRIBUTION MEASUREMENT IN HUMAN LOCOMOTION

14.00 - 14.40 D.Williams, Liverpool, Great Britain:
BIOMATERIAL AND BIOMECHANICAL CONSIDERATIONS ON THE
DEVELOPMENT OF COMPOSITES FOR THE RESTORATION
OF POSTERIOR TEETH

PARALLEL SESSIONS:

14.45 - 18.00 - Biomaterials III / IV
- Sports Biomechanics V
- Orthopaedic Biomechanics:
Mechanics of Implants II / III

16.15 - 17.15 Coffee Break / POSTER SESSION

18.00 - 18.15 CLOSING CEREMONY

* * * * *

20.00 BANQUET (Swiss Farmer's Buffet on Pisch Mountain)

Thursday, September 7, 1984

POST-CONGRESS TOURS

Guided tours through Biomechanics Research Institutions:

- | | |
|---|--------------|
| - BIOMECHANICS LABORATORY
Federal Institute of Technology, Zurich | E. Stuessi |
| - DEPARTMENT OF BIOMECHANICS
Department of Orthopaedic Surgery (Balgrist),
University of Zurich | A. Schreiber |
| - INSTITUTE FOR BIOMEDICAL ENGINEERING
University and Swiss Federal Institute
of Technology, Zurich | M. Anliker |
| - LABORATORY FOR EXPERIMENTAL SURGERY
Swiss Research Institute, Davos | S.M. Perren |
| - MEM-INSTITUTE FOR BIOMECHANICS
University of Bern | S.M. Perren |
| - MOTION ANALYSIS LABORATORY
Department of Orthopaedic Surgery
and Children's Hospital, Basel | J.U. Baumann |
| - RESEARCH INSTITUTE
Swiss School for Physical Education
and Sports, Magglingen | H. Howald |

* * * * *

SOCIAL PROGRAM

- HIKING IN THE SWISS NATIONAL PARK
- VISIT OF LOCAL AND ART MUSEUMS
- VISIT OF ALPINE GARDENS
- BUS RIDE TO THE PRINCIPALITY OF LICHTENSTEIN
- COACH RIDE TO THE MOUNTAIN VALLEYS NEAR DAVOS
- SWISS FARMER BUFFET

SURVEY

The corresponding members of the ESB have been asked to carry out a survey in their own country aiming at giving an overview on the National Scientific and Professional Societies active in Europe which are devoted to Biomechanics or closely related disciplines. Most of the corresponding members have responded. Here is the result of the survey.

BELGIUM (R.Bourgois)

N.1

Denomination

Koninklijke Vlaamse Ingenieursvereniging - Technologisch Instituut (KVIV-TI) - Genootschap Biomedische Techniek en Gezondheidszorg (Royal Society of Flemish Engineers - Technological Institute - Section for biomedical technique and health care).

Year of foundation

1980

Objectives

Stimulation of all kinds of activities in the field of biomedical technique and health care (conferences, symposiums, ...).

Number of members

Approximately 270

President

Prof.Ir.R.Bourgois

Secretary

Dr.R.Van Audekercke

Contact address

K.V.I.V. - T.I.

Jan van Rijswijcklaan, 58

B-2018 ANTWERPEN (Belgium)

N.2

Denomination

Belgian Society for Medical and Biological Engineering and Computing (B.S.M.B.E.C.).

Year of foundation

1977

Objectives

Stimulation of biomedical activities in belgian universities and industry.

Number of members

Approximately 60

President

Prof.Dr.R.Bourgain

Vice Presidents

Prof.Dr.J.Colle

Prof.Dr.W.Sansen

Secretary

Prof.G.Vansteenkiste

Treasurer

Dr.R.Leclercq

Contact address

B.S.M.B.E.C.

Coupure Links, 653

B-9000 GENT (Belgium)

N.3

Denomination

Centre Interdisciplinaire de Biomécanique Osseuse ULB-ERM (C.I.B.O. -
Interdisciplinary Bone Biomechanics Center).

Year of foundation

1971

Objectives

Fundamental and applied research in bone biomechanics.

Number of members

Approximately 25

Coordinator

F.Burny

Council

J.Blaimont, R.Bourgois, P.Halleux, J.Jedwab, J.Wagner, L.Rybowski

Contact address

C.I.B.O.

Dr. F.Burny

Hopital Erasme

Route de Lennick, 808

B-1070 BRUXELLES (Belgium)

N.4

Denomination

Interdisciplinair Centrum voor Onderzoek in de Biomedische en
Ingenieurswetenschappen (I.C.O.B.I. - Interdisciplinary Center for Biomedical
Engineering).

Year of foundation

1975

Objectives

Research activities in the fields of biomechanics, biomaterials and gait analysis.

Number of members

Approximately 60

President

Prof.Dr.ir.P.De Meester

Vice President

Prof.Dr.J.Mulier

Council

Prof.Dr.ir.W.Sansen, Prof.Dr.ir.G.Van Der Perren

Secretary

Dr.R.Van Audekercke

Contact address

I.C.O.B.I.

K.U.L. - F.T.W.

Arenbergkasteel de Croylaan, 1

B-3030 HEVERLEE (Belgium)

DENMARK (A.Viidik)

I have to inform that there is no national society for biomechanics in Denmark. The scientific activities take mainly place in the frame of the "Danish Connective Tissue Club", a member of the "Federation of European Connective Tissue Societies".

Should you wish to have details about this society, which also deals with biochemical, morphological and clinical aspects of connective tissues, please contact its secretary, Dr.Hans Oxlund, at the following address:

Department of Connective Tissue Biology

Institute of Anatomy

University of Aarhus

DK-8000 AARHUS C

Denmark

GREECE (G.Papachristou)

Only a few things have been done in the last decade in this country concerning biomechanics.

The late P.Galanos has started introducing Orthopaedic Biomechanics about 10 years ago at the Department of Orthopaedics, University of Athens. Since those days a number of Orthopaedic Surgeons have been interested in the subject. A few years ago 5 of us have taken a course on biomechanics in Brussels. So the total number of members to ESB is 11.

Since last September I took over and according to the statutes of the Hellenic Association of Orthopaedic Surgery and Traumatology I managed to found a section of Orthopaedic Biomechanics with 18 members. Objectives of this section are the study of biomechanics as applied to the locomotor system, the biomaterials used and their interactions with human tissues and the best way of treating fractures using these materials.

At the present time I am in touch with my colleagues of the Polytechnic School and two Professors of biophysics in Patras and Ioannina in an attempt to provoke their interest in Orthopaedic biomechanics. I hope that in the near future we shall be able to collaborate in this field. The members of the present council are: G.Papachristou, Z.Agoropoulos, E.Dounis.

IRELAND (P.Lawes)

There are no Societies of Biomechanics in Ireland. The country, being so small, has one Institution of Engineers of Ireland which combines all branches of engineering: electrical, civil, mechanical, production, etc. There are no Universities or Research Establishments which have Biomechanics departments or divisions.

Ireland is treated as a part of Britain by most British Institutions. The Biological Engineering Society (UK) also covers Ireland and most of the other British Scientific and Engineering Institutions have an Irish branch, just as they have a South West England or Scottish branch. The statistics you get from them will include Ireland.

ITALY (A.Ascenzi)

The Italian Society of Biomechanics in Orthopaedics and Traumatology (Società Italiana di Biomeccanica in Ortopedia e Traumatologia) was founded in Rome the 13th of November 1983.

The objectives of this Society, as reported in the statutes, are the following.

- 1) The study of mechanical problems associated with the locomotor apparatus,
- 2) the study, evaluation and elaboration of eventual projects in order to give an applicative finalization to researches,
- 3) collegial evaluation of experimental researches so that subsequent clinical tests may be permitted,
- 4) collegial evaluation of the clinical results,
- 5) standardization of materials and methodologies and eventual institution of a centralized archive,
- 6) organization and coordination of working groups which bring together several researchers and research centres sharing same objectives,
- 7) organization of periodic meetings within each research group and of annual Congresses of the Society open to all Biomechanics students,
- 8) production of a publication for information dissemination,
- 9) establishment of collaborative relationships with similar foreign Institutions and in particular with international Societies, and with the Italian Society of Orthopaedics and Traumatology. The association with this latter Society, by virtue of the manifold and fundamental common interests, is confirmed.

The President of the Society is Prof.F.Pipino whom you may contact at the following address:

I Clinica Ortopedica
Università di Bari
70124 BARI - Italy

SWITZERLAND (E.Schneider)

There is only one scientific Swiss Society in the area of Biomechanics which is summarized below.

Denomination

Schweizerische Gesellschaft für Biomedizinische Technik (S.S.B.E. - Swiss Society of Biomedical Engineering).

Year of foundation

1970

Objectives

The Swiss Society of Biomedical Engineering has the goal of promotion of contacts, exchange of information and experience as well as cooperation between research and industry involved in the use of methods and concepts of physics and the technical sciences in biology and medicine. The Swiss Society of Biomedical Engineering assists in academic teaching and further education in accordance with the above goals. The Swiss Society of Biomedical Engineering can decide -if it is conducive to above goals- to join or to cooperate with other Societies or Organizations. (Translated from German).

Number of members

111 single, 16 collective members as of January 1, 1984

President

PD. Dr.P.Niederer

Vice Presidents

Dr. W.Schilt

PD.Dr.P.Rüegsegger

Dr.P.Neukomm

Prof.Dr. C.Burckhardt

Prof.Dr. J.Scherrer

Dr.P.Eberhard

Dr.Ch.Depeursinge

Dr.P.Bösinger

Contact address

PD.Dr.P.Niederer

Institut für Biomedizinische Technik

Universität und ETH Zürich

Moussonstr. 18 8044 ZURICH

Further information

Annual Scientific Meeting, often in cooperation with other Swiss Societies.

Annual Price for the promotion of young scientists and engineers.

THE NETHERLANDS (H.J.Grootenboer)

In the Netherlands we don't have scientific or professional society.

We do have the Royal Institute of Engineers (in Dutch "Koninklijk Instituut voor Ingenieurs", abbreviation KIVI).

The division of mechanics of this institute organizes scientific meetings and colloquia on different fields of mechanics including the field of biomechanics. The institute has more than 14.000 members of which about 700 are a member of the division of mechanics.

The council of the department of mechanics consists of eight members representing all fields of mechanics. In this council I am one of the members who, among other things, does take care of biomechanics. Correspondence concerning biomechanics can be addressed to me or to the secretary of the department of mechanics Dr.ir.C.M.Menken, Technical University of Eindhoven, Department of Mechanical Engineering, P.O. Box 513, 5600 MB Eindhoven, the Netherlands.

Council of the Department of Mechanics of the KIVI

Prof.Dr.ir. J.Blaauwendraad - chairman

Dr.ir. C.M.Menken - secretary

Prof.ir. J.H.D. Blom

Dr.ir. H.J.Grootenboer

Dr.ir.A.M.A. van der Heijden

Ir.A.U. de Koning

Prof.Dr. ir.G.Ooms

WEST GERMANY (R.Kolbel)

In the Federal Republic we have no national Society devoted to biomechanics alone.

Regarding biomechanics in orthopaedics, the German Society for Orthopaedics and Traumatology has a working group for biomechanics (Chairman: Prof.J.Polster, Hufferstrasse,27 - Münster).

Regarding biomechanics in sports you might get competent information from Prof. Baumann, Abt. Biomechanik, Deutsche Sporthochschule, Karl-Diem-Weg 2, Köln 41.

The German Society for Biomedical and Engineering devotes part of their annual meetings to biomechanical topics (President: Prof.G.Rau, Helmholtz-Institut für Biomedizinische Technik, Goethstr.27/29, 5100 Aachen).

ADVERTISEMENTS

A NEW BOOK!

BIOMECHANICS OF NORMAL AND PATHOLOGICAL HUMAN ARTICULATING JOINTS

Edited by Berme, Engin and Correia da Silva

Proceedings of the NATO Advanced Study Institute held in Portugal - June 1983

This book provides the first comprehensive text on the advanced in biomechanics of both normal and pathological human joints. Biomechanical properties of joint tissues, lubrication of joints and physiology and biomechanics of muscles are reviewed. Significance of mathematical modelling, various modelling techniques and experimental methods are discussed. The text also covers clinical aspects of normal and pathological joints, biomechanics of joint replacement, as well as design, manufacture, standards and testing of endoprostheses. Each chapter is authored by an expert in that field, including the following: Andriacchi, Berme, Cappozzo, Engin, Evans, Huiskes, Lawes, Mulier, Paul, Renaudeau, and Correia da Silva. The book will be published by Martinus Nijhoff Publishers BV, P.O. Box 566, 2501 CN The Hague, The Netherlands, and is expected to be available in June 1984.

RECAL

Rehabilitation Engineering Current Awareness List

Produced by

The National Centre for Training and Education in Prosthetics and Orthotics
University of Strathclyde - Curran Building - 131 St James' Road
Glasgow - Scotland

Current Awareness and Information Service

The National Centre for training and Education in Prosthetics and Orthotics maintains a library and information service which is now being offered to rehabilitation professionals outwith Glasgow through a fortnightly Current Awareness List.

The service consists of:

- a) bibliographic details of papers from over one hundred journals taken at the National Centre. The papers are listed under broad subject headings for ease of finding. A list of journals covered presently is shown overleaf - new titles are added as appropriate.
- b) literature searches. A notice of any searches carried out in the preceding fortnight is given with the number of references found. Sources used include Index Medicus, Excerpta Medica and the Centre's own material. Copies of these searches are available for £ 3.00. The original request is charged at £ 5.00.
- c) acquisitions. Details are provided of all new books, conference proceedings, standards etc acquired by the Centre library. These items are available on loan within the UK, although there may be a waiting list.

Subscription rates:

Individual £10 UK, £20 Overseas

Library/Institution/Company £15 UK, £25 Overseas

Cheques should be payable to University of Strathclyde and sent to the above address.

VICON - The integrated system for Kinematic, Force Vector and EMG analysis

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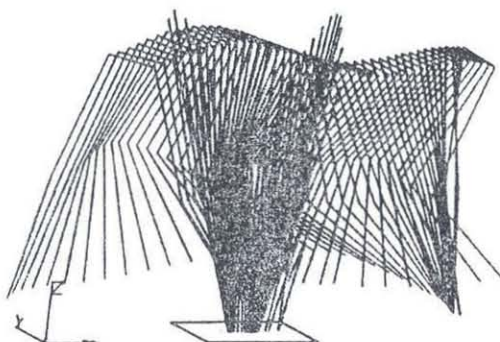
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- * Force Vector calculations

- * Disc storage
- * Pascal user-software interfacing

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To learn more about VICON contact: **OXFORD DYNAMICS LTD**

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DYNAMICS**



EXECUTIVE NOTES

From the Secretary

A Council meeting was held in Rome, on March 1984. Topics discussed included the membership and financial status of the Society, terms for Council membership, Council resignations and new proposals, the 4th General Meeting in Davos, the location of the 1986 meeting and the institution of a Research Award.

The following individuals were voted to membership:

J.U. Baumann	Basel, Switzerland
L. Blankevoort	Nijmegen, The Netherlands
P. Comte	Waldenburg, Switzerland
R-M. Delcomminette	Brussels, Belgium
C. Delloye	Brussels, Belgium
T. Drobný	Zürich, Switzerland
R. Ganz	Bern, Switzerland
F. Gazzani	Rome, Italy
H. Huberti	Heidelberg, W.-Germany
H. Merckens	Utrecht, The Netherlands
E. Munting	Brussels, Belgium
U. Munzinger	Zürich, Switzerland
T. Peters	Nijmegen, The Netherlands
L. Quagliarella	Bari, Italy
V. Shrivastava	Monrovia, Liberia
S. Steinemann	Waldenburg, Switzerland
A. Thorstensson	Stockholm, Sweden
B. Weber	St. Gallen, Switzerland
K. Zilkens	Aachen, W.-Germany

General Assembly in Davos

A general assembly of the members will be held in Davos, during the 4th General Meeting in September.

Agenda

1. Opening by the Chairman.
2. Reports from the Chairman, Secretary, Meeting Committee, Membership Committee, and the Newsletter Editor.
3. Financial Report, establishment of the 1984/1986 budget and membership fee.
4. Location of the 5th General Meeting in 1986.
5. Reports from the Corresponding Members (optional).
6. Elections for Council Membership.
7. Other Business.
8. Closure.

ad.6: The Council members Burny, Hernandez-Ros and Merckx resign from the Council.

The Council members Berme, Huiskes, Perren and Wagner have expired their four-year term. All four seek re-election.
As new Council members will be proposed Paul (Glasgow) and Koelbel (Hamburg).

From the Treasurer

Below you will find the financial report, dated March, 1984.
Approximately 90 ESB members paid their fee for 1984.
ESB members who did not yet pay their fee for 1984 are urgently requested to fulfill this duty as soon as possible.
At the ESB Council Meeting in Leuven, Belgium (30 August 1983) it has been decided that those members who did not pay their fees for a period of 3 years will be expelled from the Society.
At the ESB Council Meeting in Rome, Italy (24 March 1984) it has been decided that those ESB members who did not pay their fees for 1982, 1983 and 1984 will get a final chance to fulfill their financial duties.
If they do not respond to the final request for payment they are considered to be expelled.

<u>Cash balance August 1983:</u>	Dfl.	US\$
Total amount on Dfl. account	13,038.46	4,543.--
Total amount on US\$ account	1,822.45	635.--
<u>Incomes:</u>		
Membership fees on Dfl. account	4,218.30	1,392.--
Interest	37.31	12.50
Membership fees on US\$ account	8,159.79	2,693.--
<u>Expenses:</u>		
Transfer costs bank account	PM	
Secretarial costs: treasurer	PM	
secretary	PM	
Invoices Pergamon fees J.Biomechanics for: 1983/1984	5,993.34	1,975.--
<u>Cash Balance March 1984</u>		
Total amount on Dfl. account	17,294.57	5,708.--
Total amount on US\$ account	4,513.65	1,353.--

From the Membership Committee

The membership statistics are (March 1984) as follows:

Austria	1	Ireland	1	Switzerland	27
Belgium	28	Italy	37	The Netherlands	33
Brazil	1	Liberia	1	United Kingdom	13
Canada	2	Nigeria	1	U.S.A.	4
Denmark	8	Portugal	1	West Germany	10
France	24	Spain	9	Yugoslavia	2
Greece	11	Sweden	3		

Total: 215 Members.

The recruiting campaign continues!

From the Meeting Committee

The functions of the Meeting Committee were outlined in the Newsletter of May 1982.

We strongly encourage members to let us have the details of any local or international Scientific Meeting or Instructional Course which they are organizing on Biomechanics or related topics so that the Awareness Service may operate efficiently.

The existence of a vast demand for Instructional Courses on specific topics related to Biomechanics calls for an effort in this direction. The ESB has an important role to play in the promotion and organization of these educational activities. It has therefore been decided to include Instructional Courses in the programme of our Fourth Meeting to be held in Davos. Relevant details may be found elsewhere in this Newsletter. We also invite all members to make a contribution to this effort by organizing either local or international courses. The ESB Council is willing to give all possible support in this area.

Organization of the Fifth Meeting of the European Society of Biomechanics

The Fifth Meeting of our Society is due in 1986. Members willing to organize this Meeting should send their proposal to the Meeting Committee Chairman no later than 24 June 1984, that is, three months prior to the Fourth Meeting which is to be held in Davos from 24 to 26 September 1984.

Proposal should be accompanied by a detailed description of the hosting Institution, other sponsorships, funding, conference and accomodation arrangements, and transport services. An estimate of subsistence expenses and Conference fees should also be included. Applicants may enclose suggestions concerning the scientific programme.

The proposals will be assessed by the Council and presented in a report to the ESB General Assembly at its meeting in Davos, where the final decision will be made.

Announcements on the Journal of Biomechanics

Pergamon Press has given a one page space to the ESB for Announcements.

These may concern:

- ESB Affairs.
- Scientific Meetings.
- Instructional Courses.
- Vacant positions in Biomechanics.
- Other important notice.

Members are required to submit the relevant material to the Newsletter Editor.

FORTHCOMING EVENTS

LA BIOMECHANIQUE, LA BIORHEOLOGIE
9ème Congrès de la Société de Biomécanique
4èmes Journées de la Société de Biorhéologie de Langue Française
Toulouse, France, 4-6 July 1984

Le Congrès concerne les secteurs médicaux et para-médicaux pour lesquels l'explication scientifique des états et comportements, sains ou pathologiques des constituants, fonctions ou système du corps humain (biologiques ou de substitution), fait intervenir les lois de la mécanique, de la rhéologie.

Ce sont en fait la quasi-totalité des disciplines médicales qui sont concernées, par exemple:

orthopédie, traumatologie, stomatologie, handicapés, rééducation fonctionnelle, angiologie, cardio-vasculaire, pneumologie, urologie, gynécologie...

hématologie, pharmacologie, coeur, vaisseaux, membranes, échanges, rhumatologie, analyse en biologie clinique

et pour les applications industrielles:

méthodes et instrumentation de diagnostic, de thérapie, de rééducation...

prothèses, orthèses, biomatériaux, CEC, pharmacologie, analyse en biologie clinique

LES DEUX SOCIÉTÉS SAVANTES ORGANISENT CONJOINTEMENT LEUR CONGRÈS ANNUEL

THEMES

Biomécanique spatiale: une demi-journée (conférences, table ronde) sera consacrée à la biomécanique spatiale: environnement spatial, biomécanique en apesanteur, perception de la gravité, posture, cardio-vasculaire et hémodynamique, déminéralisation de l'os...L'espace, un champ expérimental nouveau qui s'ouvre aux biomécaniciens.

AUTRES THEMES:

biomécanique: muscle et mouvement, biomécanique ostéo-articulaire, orthopédie, circulation, respiration, techniques, méthodes, instrumentation;

biorhéologie: muscle, ligament, peau, hémorhéologie, hémodynamique, échanges, rhéologie des matériaux (résines, ciments, matériaux à empreintes...), explorations cliniques, techniques, méthodes, instrumentation (macroscopique, cellulaire, moléculaire)

Secretariat des Congrès: Pole GBM - Faculté de Médecine (UPS)
133, route de Narbonne -
31062 TOULOUSE - Cédex - France

X INTERNATIONAL CONGRESS OF BIOMECHANICS

Research Department of the Swedish National Board of Occupational Safety and Health
Umea, Sweden, 15-20 June 1985

Topics

The aim of the Congress is to report research in the area of biomechanics of human movement. The Congress will include invited lectures and free communications (oral and poster).

Papers are invited in the following areas:

- Basic Research in Biomechanics
- Occupational Biomechanics
- Orthopaedic Biomechanics
- Rehabilitation Biomechanics
- Sports Biomechanics
- Electromyography and Neuromuscular Control
- Instrumentation and Methodology

The official language of the Congress is English.

Organizing Committee

Bengt Jonsson, Congress Chairman
Mats Hagberg, Congress Vice Chairman
Gudrun Hedberg, Congress Vice Chairman
Inga-Marit Hagner, Congress Vice Chairman
Kjell Niemi, Congress Secretary

Congress secretariat

X International Congress of Biomechanics
Work Physiology Division
National Board of Occupational Safety and Health
Box 6104
S-900 06 Umea
Sweden
Telephone: (46-90) 165060

THE EIGHTH INTERNATIONAL SYMPOSIUM ON EXTERNAL CONTROL
OF HUMAN EXTREMITIES

Dubrovnik, Yugoslavia, 3-7 September 1984

Organized by
Yugoslav Committee for
Electronics
and Automation
P.O. Box 356
11001 Beograd
YUGOSLAVIA

Purpose

The Symposium is organized to promote the exchange of new knowledge and technology in the field of rehabilitation engineering. It will take place in Yugoslavia, Dubrovnik, September 3-September 7, 1984. By now, it has become an established practice for the Symposium to bring together prominent specialists in order to stimulate exchange of opinions and achievements. Traditionally the Symposium is concerned with the state of the art, the assessment of recent advances and perspectives of development of active and passive orthotic and prosthetic aids.

The Symposium shall emphasize the multidisciplinary and systems approach, clinical applications and the functional pay-off of assistive devices in terms of the quality of life and the social participation of the disabled. At this Symposium, special attention will be given to the technology transfer to developing countries. The Symposium will be run in a flexible way in order to leave enough free time for direct contacts and discussions as to keep up with the established traditions of the Dubrovnik Symposium. Afternoons will be left free for other activities: round table discussions and special sessions.

Topics

Papers dealing with the advances and indications for devices, evaluation problems and procedures, measurement methods, clinical practice and pay-off in the following areas are invited:

1. Rehabilitation Engineering Technologies enhancing the full participation of the disabled
2. Technology transfer of rehabilitation engineering to the developing countries: problems, ways, promotions
3. Functional electrical stimulation as a rehabilitation method
4. Gait and posture pathology
5. Prosthesis (prothesis) & Orthosis
6. Rehabilitation of gait and posture pathology
7. The use of physiological and reflex mechanisms in external control of extremities
8. The use of clinical measurement methodology
9. Implants and biomaterials
10. Sensors and actuators
11. Assistive devices for geriatric purposes
12. External control applied in sport.

Special Sessions

- Neuro Muscular Control Mechanisms (Chairman: L.Vodovnik)
- Movement Measurement (Chairman: D.Winter)
- Artificial Intelligence Elements in External Control (Chairman: R.Tomovic)

Symposium Activities

Participants are encouraged to demonstrate new devices and prototypes.

Call for Papers

Authors willing to submit papers are kindly requested to send papers not later than February 1, 1984. Papers will be accepted by the Scientific Committee by March 1, 1984.

Secretary

Mjriana Jovanic
Yugoslav Committee for ETAN
P.O. Box 356
11001 Belgrad
Yugoslavia

FOURTH MEETING OF THE EUROPEAN SOCIETY OF BIOMECHANICS
In Collaboration with the European Society for Biomaterials
Davos, Switzerland, 24-26 September 1984

General Information

320 Abstracts have been submitted, we have tried to accept a good number of them to stimulate the discussion. Each paper has been studied by at least two experts, whereby the name and address of the authors had been eliminated. 178 Papers have been accepted for oral presentation.

There will be a poster session each day in order to allow a more widespread information exchange.

Please realize that the lower rates for ESB members will only be granted to those who have paid their membership fee.

Due to the delay in the production of the final program the notification of the speakers about acceptance was 15 days late. We have therefore extended by 15 days the early registration, the speakers were individually informed of this change. THE PRELIMINARY PROGRAM WITH THE OUTLINE OF THE SESSIONS AND THE KEYNOTE SPEAKERS AND PRECOURSES WILL BE MAILED BY MAY 15, 1984.

PRELIMINARY PROGRAM

Sunday, September 23, 1984

08.45 - 12.00

Registration

PRECOURSES

09.15	Welcome/Organization	S.M.Perren
09.30	BASIC BIOMECHANICS OF THE MUSCULOSKELETAL SYSTEM - PART 1	R.Huiskes & A.Cappozzo
10.30	Coffee Break	
11.00	BASIC BIOMECHANICS OF THE MUSCULOSKELETAL - PART 2	R.Huiskes & A.Cappozzo
12.00	Lunch	

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15.00 - 17.00

PARALLEL COURSES:

- | | |
|---|---------------------------|
| 1. BIOMECHANICS APPLIED TO
FRACTURE TREATMENT WITH
INTERNAL FIXATION PLATES | S.L.Woo &
S.M.Perren |
| 2. BIOMECHANICS APPLIED TO
PROSTHETIC JOINT REPLACEMENT | W.C.Hayes &
R.Huiskes |
| 3. CARDIOVASCULAR MECHANICS
AND ULTRASONIC MEASUREMENTS | P.F.Niederer &
M.Casty |

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17.30 - 19.30 Opening Ceremony and Reception

Monday, September 24, 1984

08.00 - 17.00 Registration

MORNING SESSIONS

INVITED SPEAKERS:

08.20 - 09.00	W.C.Hayes, Boston, USA: MANAGEMENT OF BIOMECHANICS RESEARCH
09.00 - 09.40	H.Hatze, Vienna, Austria: DYNAMICS OF THE MUSCULOSKELETAL SYSTEM

PARALLEL SESSIONS:

09.45 - 12.30	- Methodology in Biomechanical Research - Dynamics of the Musculoskeletal System I/II - Orthopaedic Biomechanics: External Fixator/Clinical Aspects
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