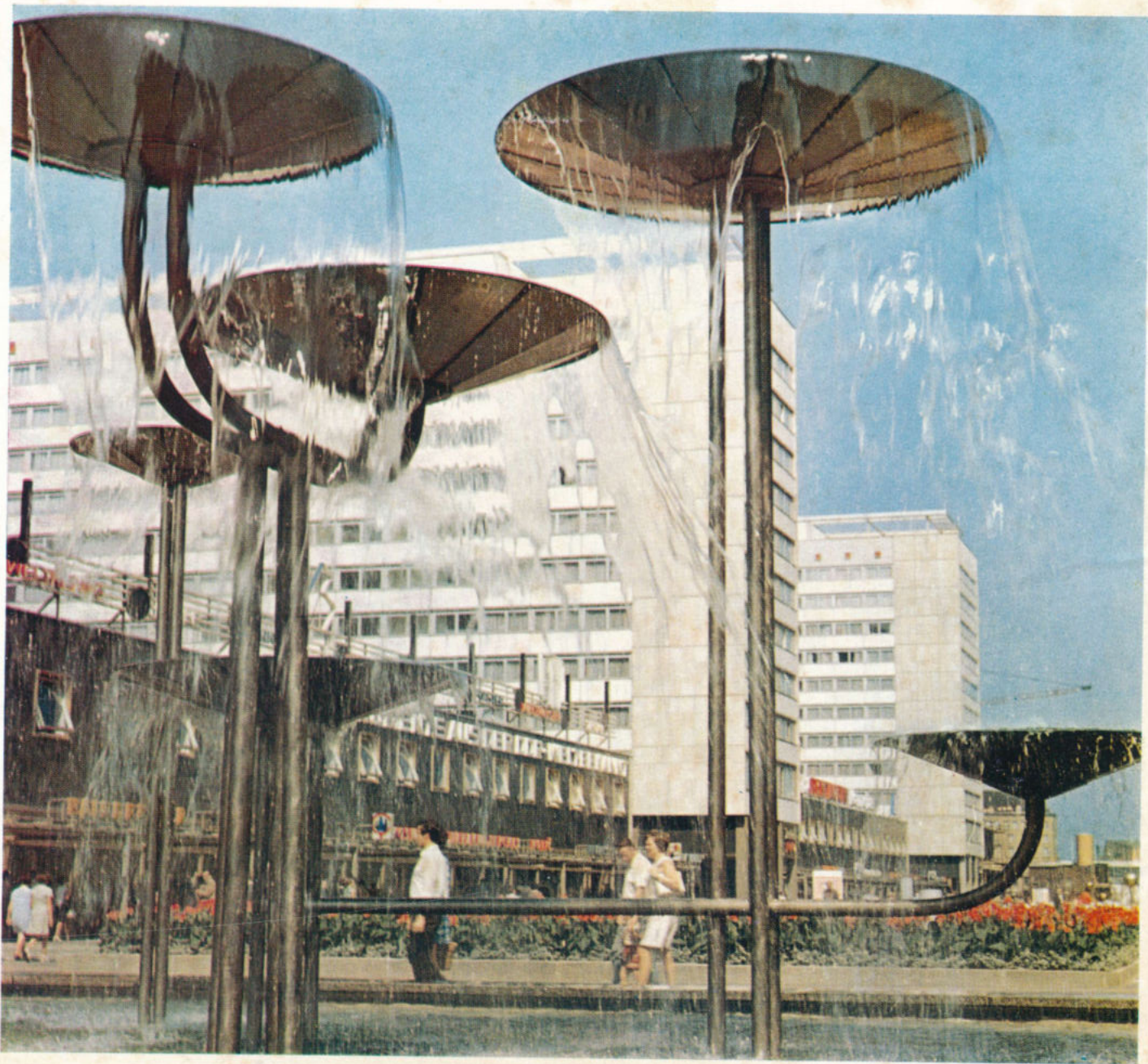




X INTERNATIONAL CONFERENCE ON
MEDICAL AND BIOLOGICAL ENGINEERING
AUGUST 6 – 10, 1973
DRESDEN · GDR





FIRST ANNOUNCEMENT

X INTERNATIONAL CONFERENCE ON
MEDICAL AND BIOLOGICAL ENGINEERING
WITH
INTERNATIONAL
MEDICAL AND
BIOLOGICAL
ENGINEERING
EXHIBITION

AUGUST 6 – 10, 1973
DRESDEN
GERMAN
DEMOCRATIC
REPUBLIC

On the X International Conference
on Medical and Biological
Engineering

As the International Federation of Medical and Biological Engineering (IFMBE) was constituted 1958 in Paris under the chairmanship of our esteemed founding president V. K. Zworykin, we were convinced that the introduction of technical-natural science methods and equipment would not only be a second rank auxiliary aid to medicine and biology, but also and especially a co-determining element serving the progress of these disciplines. In answer to this conviction the IFMBE took on the office to promote national and international research, development, theory, literature, production and use.

Today we can rest assured that the way until now was successfully covered. "Biomedical Engineering" today means progress in all fields of medical science and practice through teamwork between physicians, technicians and natural scientists, through innumerable new techniques and instruments, through rationalisation and automation in hospitals.

"Biomedical Engineering" is today the office of numerous national organizations, is the objective of training at medical and technical institutions and is the content of a great number of books, periodicals and other publications. We are convinced that this way will continue in future with the target of using all new achievements of technical science for our maximum welfare, human life and health.

The Society for Biomedical Engineering in the German Democratic Republic has supported the efforts of IFMBE since its founding and continuously strives to promote medical and biological engineering as well as multidisciplinary medicine at home. Our society considers it an award and honor to prepare and conduct the 10th International Conference.

We hope to have the pleasure to welcome a large number of visitors from all countries and continents 1973 in Dresden, the well known city of science, arts, culture and engineering.

Manfred v. Ardenne

The International Federation for Medical and Biological Engineering is today an organisation in which more than 15 national associations with thousands of members are represented by the subsocieties.

Closely connected with such world organisations as UNESCO, WHO and others it does its part for the peaceful development of research, theory and practice in the great, constantly growing field of medical and biological engineering. During its 1969 session in Chicago the General Assembly of the IFMBE appointed the Society for Biomedical Engineering of the GDR to prepare and conduct their X International Conference and confirmed Dresden as conference location. For its part the GDR Society for Biomedical Engineering can look back on almost the same long tradition as the IFMBE. Founded in 1961, the society of the GDR united the active forces of this specialized field and associated branches. Being incorporated in the IFMBE since 1963 it is among the first national associations to officially have joined the international organisation.

The aims of the Society for Biomedical Engineering of the GDR are formulated as follows:

- promoting the exchange of know-how in the fields of research, development and production

among medical and biological engineering facilities as well as the cooperation of scientists on a national and international level

- cooperating with the IFMBE, publishing the activities of this international organisation
- cooperating with the national associations of other countries, especially those of membership to the IFMBE
- organising and conducting national and international engineering sessions and congresses in the GDR
- promoting the publication of research and development results in the field of medical and biological engineering
- working out research, development and production proposals
- supporting the education of personnel
- forming standing or temporary working groups for special branches.

In annual specialized sessions performed partly within the framework of the complete program of events of the associated organisation—the Society of Experimental Medicine of the GDR—know-how is exchanged by way of lectures and discussions. The journal "medizintechnik" is used by the society as special means to keep up-to-date in its information.

DRESDEN

New Countenance of a City High in Tradition

Undoubtedly you will connect definite expectations to your Dresden visit; expectations above and beyond the special mission that brings you to Dresden. You would like to see what has happened to the city that has been hailed as one of the most beautiful cities of the world for centuries; once praised as "Athens of the Arts" and "German Florence". And you will probably witness what has become of the Dresden the countenance of which—created in over seven centuries of intellectual incentive and busy hands—was destroyed beyond recognition by the hail of bombs in one hour. The headstrong determination, vigor and creative assiduity of the citizens under the protection of a peace-loving German state should be thanked that the Dresden condemned to death two and a half decades ago will today fulfill the expectations and confirm the words of a writer: "Take heed, the countenance of Dresden is revived!"

Today as previously: writers are concerned with the city and painters immortalize its multitude of architectonic and landscaping beauty with brush and drawing pencils. Over 1.5 million visitors from home and abroad travel to Dresden year for year to witness this as well as the treasury of arts in the city on the river. But this alone is not Dresden.

Today it does not exist only on the hymns of praise about its Baroque treasures and invaluable art collections. The throbbing activity of a modern city of industry, research and theory pulsates in the factories, institutes, colleges and universities. The activities of a city that has maintained its unmistakable rich tradition in its modern and generous architectonic countenance.

Today the city on the Elbe incorporates an important industry with great traditions. Dresden is a centre of electronic measuring and control engineering, electronic data processing, precision mechanics and optics, radiological engineering and medical electronics. Dresden's products are proving their value in almost 100 countries of our globe, and have been doing so for years and decades. The inevitable technical progress in the field of electronics has conquered a broad range of medicine and has been able to revolutionize health service extremely. A medical doctor without modern medical engineering can only partially maintain or restore the health of the majority of his patients. This is where medical engineering begins; and it began in Dresden, a traditional centre of medical engineering, more than 50 years ago. The high, constantly improving and internationally recognized level of health service in





the German Democratic Republic challenges our medical engineering industry to perform incessantly.

Over 200 scientific institutes are located in Dresden. A research reactor operates outside the limits of the city, the results and products of which are dedicated to the industry and medicine, for instance to the Dresden Medical Academy as institution of medical theory, research, practice and clinical certification in almost all the branches of human medicine. Also the Medical-Technical Industry Research Centre of the GDR, founded in 1959, is located in Dresden and presently establishing a good name with effective performances in the field of researching and developing instruments and systems of the progressive branches of

medical engineering. The well known Research Institute of Manfred von Ardenne works in Dresden also. Proceeding from decades of know-how and experience within a broad spectrum of scientific work relating to electronics, the institute has also earned merits in the special field of medical electronics. Numerous inventions, also in the medical electronics field, have been dispatched from this institute to take their place in practice. Dresden is the birthplace of the "Glass Humans" that exist in over 50 examples around the world. Their makers are the scientists and skilled workers of the German Hygiene Museum. Innumerable other anatomy and biology models leave the workshops of this famous institute to be shipped to more than 60 countries in all corners of the globe.

Publications serving health training are compiled by the scientists of the German Hygiene Museum, published by the millions in numerous languages. The interesting, informative and unique exhibitions within the museum attracts visitors from home and abroad again and again. Every year Dresden is the host of a large number of domestic and foreign exhibitions and special congresses.

But this alone is not the reason for Dresden's name as city of science and technology. You will meet many young people in Dresden; not only those who live here. The youth here speak several languages and dialects. About 30,000 future engineers, economists, mathematicians, physicists, teachers, medical doctors, musicians, singers and painters, to mention only a few, are studying at six colleges and one technical university. Hundreds of students from over 50 countries find their resting place in Dresden year by year. Most of them study at the Technical University in Dresden. Here at the largest polytechnical education and research institution of Europe, more than 18,000 students are taught by 1,600 professors and lecturers in 150 special institutes.

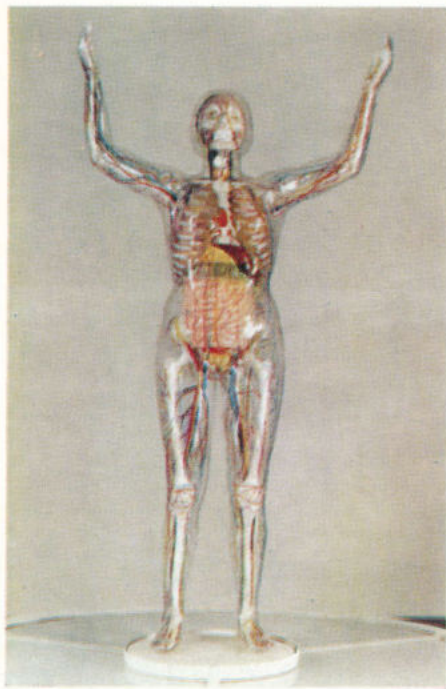
Much has been said in many places on the visible proof of artistic and cultural traditions of the city on the Elbe; about its famous art collections and





orchestras, historic Baroque structures and others created anew in strenuous work. Since you will link your own ideas and thoughts to the expected artistic experience, a few details should be mentioned for your information:

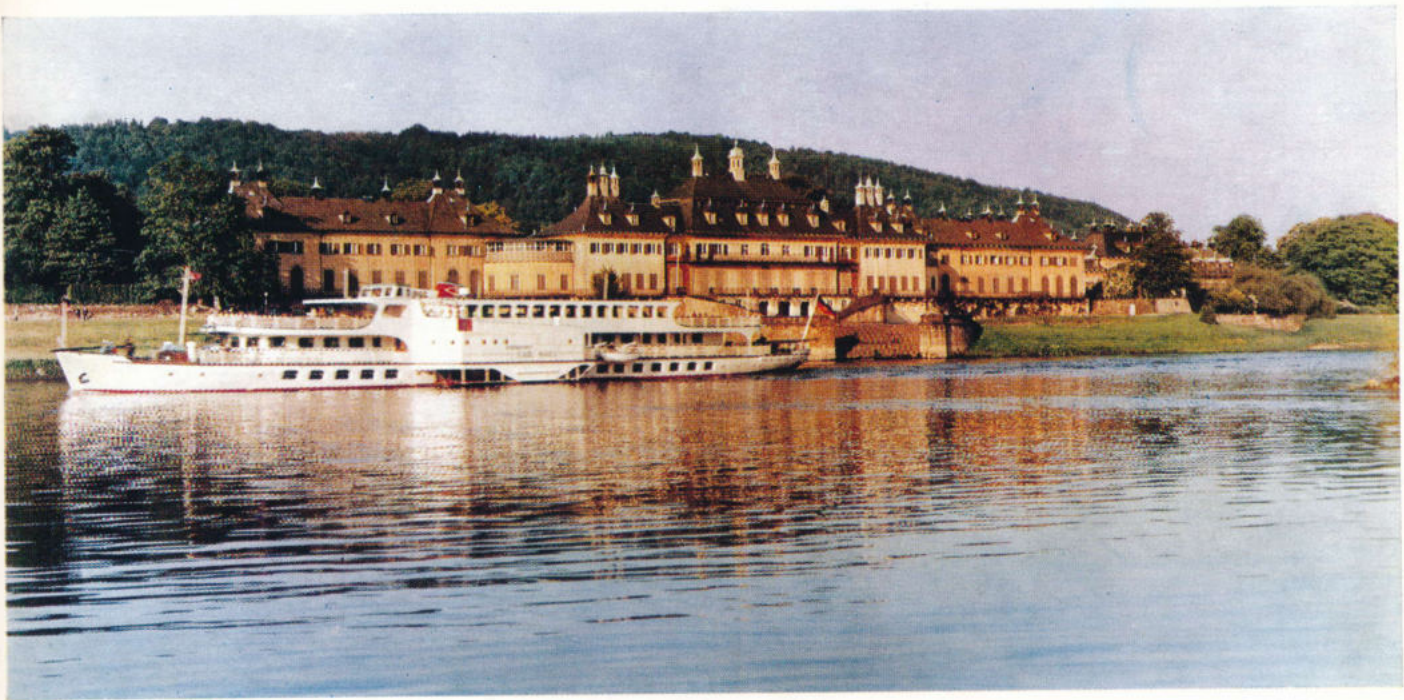
The Dresden "Zwinger"—restored in its original beauty—serves as homestead of the art gallery. As material and ideal property of the people, millions of visitors from home and abroad take pleasure in these treasures of world culture. However, not the art gallery alone is responsible for Dresden's present name of renown. The music of such men, like Carl Maria von Weber, Richard Wagner and Heinrich Schütz, also belong to the cultural heritage of mankind. These artists worked many years of their lives in Dresden, and world famous orchestras of the city perform their works: the State Orchestra, Philharmonic Orchestra and Choir of the Holy Cross. On their tours they carry the tidings of a new Dresden and a socialist republic to all continents with the language of music.



Dresden will not only give you intellectual incentive during your visit; Dresden has not received the previous praising synonym "Elbe Florence" for nothing. The name is derived from the generous parks in French and English style, its wonderful location in the Elbe valley and its extraordinary geographic environment.

The Grosser Garten Public Park stretches over 2 square kilometers in the city centre. The annoying noise of a large city is muted by majestic trees and lawns, plant gardens and ponds invite you to stop to recover yourself. Castles and fortresses outside the city limits on the Elbe river can be visited without trouble by rail, car or boat. About 20 kilometers up the Elbe river you will be astonished

by steep sandstone cliffs in a unique and phantastic structure. A fascinating panorama is offered from the cliff lookout of the "Bastei". Over 200 meters below you the Elbe flows through the cliff scenery forming a picture beyond comparison. Thousands of visitors are fascinated by this range of cliffs year by year. The Moritzburg Castle stands in a large pond not far from the city on the Elbe. It is the homestead of one of the most impressive Baroque museums in Europe. The large collections of Chinese, Japanese and Saxony porcelain here in Moritzburg as well as in Dresden remind you that the well known manufacturing factory in Meissen is nearby. A visit to the descendants of the famous Böttger porcelain, the por-



celain with the crossed swords will complete the experiences of historic Dresden. You will notice and confirm that the objects of creative intellect and talented hands of past epochs are worthily continued in the active life of the present generation and are perceived in the new Dresden no matter where you may be.

When you visit Dresden in two years the city will be a better host than it is for today's visitors since the city will be under construction in the years to come—it is filled with a feverish activity—a feverish activity that bothers no one because Dresden shall arise more beautiful and attractive than ever before.



Captions

"Kronentor" of the world famous
Dresden "Zwinger".

This beautiful Baroque structure was restored to
its original splendour after complete destruction
in World War II.

2nd page of cover

View of the new Prager Strasse in the newly built
centre of Dresden.

Page 5

View from the "Kreuzkirche" across the "Altmarkt"
to the "City Civic Centre".

Page 6

The Catholic Cathedral, one of the signs of the
famous historic skyline of Dresden.

Page 7

View from the hills of Dresden into the Elbe valley.

Page 8

Institute and Museum of the History of Dresden.

Page 9 left

The "Glass Woman"—a peak product from the
workshops of the Dresden Hygiene Museum.

Page 9 middle

"Harlequin Family" made of Meissen porcelain
according to the model of the famous Kändler of
the 18th Century.

Page 9 right

"Diana's Bath" from Dinglinger in the "Green
Vault" of the Dresden Art Collection.

Page 10

The Pillnitz Castle—on the outskirts of the city.

Page 11 above

The hunting castle Moritzburg with the most
famous Baroque museum in Europe.

Page 11 below

The "Saxon Switzerland"—an attractive excursion
destination of tourists from home and abroad.



BRIEF INFORMATION

The conference takes place in the rooms of the "City Civic Centre" and the Dresden Town Hall nearby.

Both conference sites are located in the city centre not far from the Elbe river and culture-historic sights.

Time

The conference will be opened on Monday the 6th of August, 1973 and closed on Friday the 10th of August, 1973.

Scientific Program

According to the objectives of the International Federation for Medical and Biological Engineering the scientific program will be directed to new solutions of medical and biological problems through engineering. It should underline the interdisciplinary character of medical and biological engineering and its progressive trends. In addition, the congress should be a forum for all contributions, providing adequate proportions between medical and biological problems, new technical solutions and the progress of their practical use in medicine and biology.

In the interest of maximum communication possibilities and optimum use of time the scientific

program will be subdivided into plenary sessions on problems of general interest and parallel sessions on special topics.

The plenary sessions should especially include the scientific topics of the congress, whereas the parallel sessions shall guarantee the universality of the congress.

The following titles are proposed for the plenary sessions:

- cardiovascular system
- experience and trends in screening
- cybernetics in medical and biological engineering
- information content, significance, minimizing redundancy and interrelations of medical and biological data
- automatic trend analysis in patient monitoring systems

In the parallel sessions not only associated fields of the above mentioned complexes shall be considered, but also other branches of medical and biological engineering.

Finally, it is planned to organize panel discussions and individual communication facilities outside the plenary and parallel sessions.

In addition to the scientific program, scientific excursions are intended.

Exhibitions

During the congress it is intended to arrange for exhibitions showing the complete range of medical and biological engineering. A large scientific exhibition and a representative industrial display will take place.

Exhibitions will be set up at the conference site as well as in the exhibition hall of Dresden—also near the city centre—to allow for sufficient display area. Additional details will be included in later announcements.

Aside from this we kindly ask that the information sheets submitted would contain the intended amount of display area required.

Social Program

A special program is being prepared for all registered participants and their families.

It offers

- guided tours of the culture sights of Dresden,
- tours of education and research institutions and
- short trips to the outskirts of Dresden and other places in the GDR.

Further details will be included in additional notices.

Accommodation

First class hotels in the city centre—near the conference sites—up to international standards are available for accommodation.

Digest of Papers

As with the last conferences also this time a digest of papers will be published.

It will contain a summary of the papers in English. One copy of the digest is intended for each registered participant free of charge; additional copies can be purchased.

Inquiries

Inquiries and information on the X International Conference on Medical and Biological Engineering are to be sent to:

Secretary of the
X International Conference
on Medical and Biological
Engineering
Dipl.-Ing. J. Matauschek
GDR - 8030 Dresden
Postschliessfach 29

SECRETARY OF THE
X INTERNATIONAL CONFERENCE
ON MEDICAL AND BIOLOGICAL ENGINEERING
Dipl.-Ing. J. Matauschk
GDR - 8030 DRESDEN
Postschiessfach 29

Title: _____

Name, First Name: _____

Address: _____

Fill in the squares

I am interested in additional material on the
X International Conference of Medical and Biological Engineering.

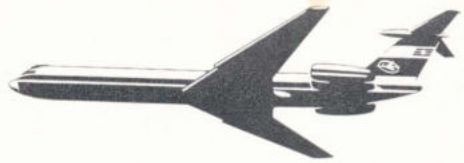
I intend to take part with the following number of accompanying persons.

I shall present a paper.

Space required in the scientific exhibition (sq. metres):

Space required in the industrial exhibition (sq. metres):

DF



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**Information,
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Ticket Sales:**

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