

INTERNATIONAL SYMPOSIUM ON THE APPLICATION OF AUTOMATIC
CONTROL IN PROSTHETICS DESIGN
Opatija, August 27 - September 1, 1962

FRIDAY, AUGUST 31, 1962
CLOSING SESSION

CHAIRMAN- Prof. Rajko Tomović

CHAIRMAN: I am opening now this closing session which has the aim to give us an opportunity to exchange our ideas and feelings about the success or failure of this Symposium. Before proceeding with this session I have the privilege to greet here at this meeting the Deputy Minister of the Federal Ministry for Social Policy and National Health Mr. Boža Pavlović and I thank him for coming here. Allow me to summarise briefly the proposed subject for our discussion. I have contacted several participants and I have the feeling, at least personally, which you should now confirm or not, that meetings of this kind where we discuss the progress in research rather than give account of the accomplished results, are very useful and that there should be a way of continuing in a permanent way what we have done here in Opatija for the first time. This is especially important since in my opinion the field of prosthetics has been lacking in scientific and theoretic background. It has mostly been considered as a subject of empirical improvements without a general mathematical and scientific basis. Now, at this stage, I think we are assisting to a really radical change in the situation, where a basis for scientific improvements in prosthetics linked with the rapid and enormous advances of technology is being laid down. I think that at such a stage international meetings are extremely important. The result should be a much faster rate of improvement and development of new prosthetic devices. I hope you will all agree with me that accelerating progress in this field is much more important than in some other fields like that of armaments and that we should all concentrate our efforts to this problem. Having all this in mind, I suggest that we discuss now what types of meetings

we should have in the future. Whether we should have a permanent organization i.e. establish a permanent practice of having such meetings, what kind of international support we could have, for instance from the International Federation for Medical Electronics and from the International Veterans Federation whose representative is assisting at this meeting. I won't take your time any longer and I think it is much better if you give your comments now.

Mr. VAN DER WINKLEN: Mr. Chairman, Ladies and Gentlemen, I am grateful you gave me an opportunity towards the end of this Symposium to make a few remarks and proposals. I think tonight at the dinner there will be ample time to express our thanks to the organizers of this Symposium and to say how good work they have done. For the moment you may derive from my proposals the opinion of the Dutch delegation. I hope you will allow me to make first a few personal remarks coming from a doctor who is not only interested and involved in the organization and the kind of research that was a topic of our Symposium here, but too of one who has been in general practice, in medical insurance, in occupational medicine, and who is dealing with the research of radiation safety, air pollution in public houses, with the efficiency of medical practice. During sometimes highly technical lectures and discussions I tried to keep in mind that we intended to help the disabled, that means all deviations of intelligence, of energy, of other mental components, of the kind of work they do, of the circumstances they are living in. Out of this room I would like to stress to you what is for me the main principle of our work and I would underline this to help the disabled so far as he wants to be helped. And I believe that this is the respect of his wishes to be as independent as he was before, as independent as other people he sees in his surroundings. This remark I would close by saying that I do not believe that we do good or efficient work if we go too far on the way prof. Wiener pointed out yesterday. I have the feeling that if we give patients with one good leg more than good conventional prosthesis, the effectiveness

of our work will be very small. Anyone of us have seen working, playing or dancing patients with one or even two leg prostheses so well that you nearly cannot see it he has any or one leg, or that your attention is not attracted at all. We have to keep in mind that if the complexity, the costs, or the maintenance troubles are disproportionally related to the needs of the wishes of the disabled, he will reject the prostheses.

So far as my remarks are concerned. And now my proposals for which I hope I shall get support. As I already said, you must seemy proposals too, as an appreciation for Yugoslav Committee which took initiative for this Symposium. I then propose in the first place to continue with this kind of Symposia every year or two years, in accordance with the work done in the meantime. Secondly, to try to get the support from international organizations and I think that in this respect the WHO, UNESCO, ILO and World Veterans Federation are most appropriate ones. Thirdly, to promote edition of a reference journal, perhaps of the kind of Acta Medica, or other publications, which compile literature in our field. Perhaps some kind of documentation centre will do. Of course, if you agree, I would propose to establish now during this Symposium a Committee which will write out the formal proposals.

Eventually, even if I cannot see all the implications for the moment, mostly financial, I am inclined to offer my country as the place for next meeting but I think another country which is doing even more in this field, for instance UK, will be a better place to come again. Mr. President, I thank you for giving me this opportunity and I ask you to find out the opinion of the delegates.

CHAIRMAN: I thank you wholeheartedly for your kind and excellent proposal and we will wait now for the reaction of other delegates.

Mr. WOOLMER: Mr. President, I should like to speak to you in my capacity as Vice President of the International Federation for Medical Electronics. I can see from the list of participants that there is also present a national representa-

tive of the Federation and I hope he will not mind my speaking for the Federation without having discussed the matter with him first. I would like to bring to the Yugoslav Committee for Electronics and Automation greetings of the International Federation for Medical Electronics. Should I have taken the opportunity to give you these greetings at the beginning of the meeting, I would also have given you the best wishes of the Federation for success of the meeting, which however is already so successful that this would be superfluous. Although this point has not been discussed with the Executive Committee of the International Federation of Medical Electronics, I am certain that the International Federation would give support to any meetings that are held later, but I should like to emphasize that the Federation has no funds, no money available, and therefore I think that there is no use looking to them for financial support.

I agree wholeheartedly with what Dr. Van der Wielen says, about the desirability of other meetings. We have many meetings in the year and I should think that once in every two years would be quite often enough. And I agree that these meetings could be held in different countries if occasion arises. We, in Britain, I know, would be very honoured to be the country chosen for such a meeting, perhaps in two years' time.

I would like now to say a word as President of the Biological Engineering Society which is a society which has been found fairly recently in Britain to bring together biologists, engineers, electrical engineers and medical personnel and this society would be certainly interested in helping to arrange such a meeting. Our Medical Research Council in Great Britain would also I think be interested. Unfortunately I have to stress again that neither of these two bodies has any money. We would be very happy, however, to help arrange such a meeting in Britain, although I do not think it is at all likely that we could have it in such pleasant surroundings as you have given us here in Opatija.

Finally, if I may speak personally for a moment, I should like to congratulate the President of the Yugoslav Committee

and your colleagues on the classic piece of organization in bringing us together for what has been extremely enjoyable and profitable meeting.

CHAIRMAN: Thank you very much for your kind words. Dr. Wiener.

Mr. WIENER: I am not in a position to make any offers. I would like to see from my own point of view and the American point of view, a meeting in America but I realize that we are a little far away and it would be expensive. But supposing that we can have a meeting, and supposing that I would have any say about it I would like to follow the precedent that has been shown here of a pleasant country summer resort, of a meeting far away from other meetings so the people can get the intimate contact that they have had here, the talking outside of the meeting which is quite as important as the actual papers at the meeting. In the States we have one custom of using colleges and using dormitory facilities out of term for the meetings, which I think for the meeting of this sort would be ideal. I certainly hope that notwithstanding our distance we shall in the course of time have the opportunity to have a meeting with you. I think the organization of this meeting has been superb, the contact between different people has been superb, and I want to see more of it and much, much more of it, and I believe that we should continue to meet in the future.

CHAIRMAN: Thank you very much.

Mr. RESWICK: I would like to speak this time as a member and representative of the Committee for Prosthetics Research and Development of the American Academy of Sciences. The Committee for Prosthetics Research and Development took official notice of the congress in Opatija and they were very anxious to have representation and to provide whatever support they could. I would like to underscore dr. Wiener's remarks, and perhaps in addition add that the Committee as an official organizations does sponsor meetings and symposia for the purpose of bringing people together to study problems in prosthetics research development. I am convinced that it will be possible to arrange a meeting under

their sponsorship if none other or more appropriate organization is found. I think my feelings right now are personal feelings and not of the Committee, that I think perhaps that the meeting in two years in England would be the most appropriate course considered now. This means that the choice of United States which can be made some years in advance puts things rather far ahead to make any definite statements now.

CHAIRMAN: Thank you Mr. Reswick.

Mr. WEINMAN: I think there are several initiatives being taken to start a new journal covering this field of research. There is a journal in the field of bio-medical engineering and there is now a journal which reappeared, edited by Dr. Nightingale from the International Federation of Medical Electronics. I think that many things from the research in this field could be published there. I would also propose that other meetings are organized under the sponsorship of the International Federation for Medical Electronics even if there is no money now because this organization should in future be the central power for bio-medical research, even if its name is medical electronics. Meetings like this would and could make use of other groups in this federation to promote special fields of research. It would be really a very fruitful contribution to the development of bio-medical electronics if we could make these meetings under the sponsorship of this organization.

CHAIRMAN: Thank you very much.

Mr. JANČEK: May I speak as the national delegate of the International Federation for Medical Electronics. When, several years ago we founded in Paris, this international organization we discussed also the question of setting up national groups in individual countries to work in the field of medical electronics. I think that this symposium in Opatija has shown that there exist all conditions for setting up a national group in Yugoslavia. I therefore suggest that such a national group be established as part of the International Federation for Medical Electronics.

Mr. LORINC: I am here at the invitation of the Yugoslav Committee for Electronics and Automation which was extended to our Scientific Society for Instrumentation and Measurement of which I am a member. I wish to express our thanks for this invitation and to stress that we found this Symposium very interesting. I must say however, that this is not our field of work, so I considered myself as an observer at this Symposium. As to the future, I am not in a position to say anything definite at present, but when we return home we shall contact the proper organizations because I think it would be important for us to establish some cooperation in this field. In general, I think, we have made a good start establishing closer relations between our respective societies and I hope that in this special field it will be possible to establish a closer cooperation in the future. As far as the organization of the Symposium I wish on my own behalf and on behalf of my colleague Mr. Orban to extend our congratulation. I am of the opinion that the organization of this Symposium can serve as a model for organizing such international conferences. Thank you.

CHAIRMAN: Thank you Mr. Lorenc. Mr. Nightingale.

Mr. NIGHTINGALE: Dr. Tomović, may I add my thanks to prof. Woolmer's as regards the organization of the meeting which was a very fine and enjoyable occasion. May I say one word about the Journal, about the first issue. This is the journal which was referred to by Dr. Weinman, and first issue will be published in September-October this year, i.e. in 3 week's time. I hope that this will be a quarterly journal and that certain papers which were delivered at this meeting and which are particularly suitable for the character of our journal will be published in the April issue. Another facility, besides the publication of original research in this field which our journal will welcome, is the facility for abstracts and if we arrange at this meeting for references we shall be glad to publish these lists of references in the bibliography section of the Journal. In fact we hope that the International Federation will be able to set up an abstracting service which may be extended to include this

field of work. Another point I should like to make is that I am on the editorial board of the Journal. We have dr. Tomović, dr. Weinman, dr. from Holland, we have in fact representatives in approximately twenty countries on the editorial board. We have not one from Hungary for the moment, there are other countries which are not represented but we have fairly good international representation. A practical suggestion for the next conference. I agree that it should be in not less than two years. Could I suggest that an emphasis should be made on hard work. We saw the tremendous interest aroused by an actual demonstration on the table of the artificial hand yesterday. We all liked to look and see the actual mechanisms which people are describing. I think that it should be possible for many authors to bring at the next symposium examples of the actual material they are using. And one final point which was made by Mr. Swettenham discussing just now that we should get more interest from clinical members, from the clinical doctors, doctors who are concerned with rectification and organizations which represent them.

CHAIRMAN: Thank you dr. Nightingale. Dr. Lord.

Mr. LORD: I would like Mr. Chairman to emphasize and underline entirely what dr. Nightingale had said. I think that the period of two years is very appropriate. I think it is of great importance particularly to those of us who are concerned directly with rehabilitation that the dissemination of current information is taken care of in the manner which has been outlined by the publications which are going to appear. Two years in the life of a patient may represent a considerable period of time and provided there is this dissemination of information in addition to the regular symposia it may well be that this could be of considerable help. Thank you.

CHAIRMAN: Thank you. Any other comments? There is a suggestion by dr. Wielen to Mr. Nightingale that copies of the first issue of the Journal be sent if possible to all people present here. Dr. Boiten.

Mr. BOITEN: There was a suggestion that we establish something like an official or unofficial standing committee i.e. to elect a few of us so to keep in contact for all the organizational and other matters which will be needed if we are going to organize a new conference in the next few years. That means contacts with sponsors, finances and all other things. I have experience from other meetings of such loose character of societies and such a Standing Committee might do a good deal of work and make things much easier to go on. There is a possibility that after this conference we just fall apart.

CHAIRMAN: Thank you very much for your suggestion. Any other suggestions? May I take it that you have accepted the proposals of dr. Wielen which can be summarised as follows: Firstly, meetings of this kind every two years. This was a meeting of a general character and I think that our meetings in the future should not all be of the same kind. Secondly, that we approach some international organizations to help us in organizing this meeting because the next meeting would require much more financial and other organizational support. Thirdly, in regard to publications, that we use the ones already available, especially the new publication which will appear in October. Regarding the Standing Committee may I take it that you are in favour of its establishment. Following Mr. Boiten's discussion I consulted dr. Wielen who proposed this and we have here four names to suggest to you if you will trust these people to do the work. We suggest Mr. Kinnier Wilson, one person from Yugoslavia, I don't know the name, Mrs. Hilde Groth, and I propose personally dr. Wielen who initiated this. Yes, Sir.

Mr. WESTHOFF: May I make one point about the two years period. If we have our Standing Committee would it not be better to let this committee to judge if there is enough progress in this field to make it worthwhile to have another congress, perhaps it make take three or four years before we have enough material for the next meeting.

CHAIRMAN: I think your suggestion is very wise. It seems that we are mostly in favour of two years but if the Standing

Committee thinks that there is not enough material it can make another proposal. Any other suggestions? I am asking the representative of the World Veterans Federation, Mr. Žunić, if he has to tell us something.

Mr. ŽUNIĆ: Mr. Chairman, I am speaking on behalf of the Secretary General of the World Veterans Federation. May be the majority of you did not hear about our organization. Our interest in your work is due to the fact that we deal with a great number of war disabled of the First and Second World War. For this reason, our General Assembly in May 1961 resolved to initiate a major effort to assist and stimulate the further development of prosthetic appliances and related services. The General Assembly, representing more than 22 million ex-servicemen in about 50 countries, noted that despite progress achieved in the production of prosthetics and orthopaedic appliances there is still discrepancy with the general technical advance in other fields. For this reason the General Assembly instructed the Secretary General to proceed with the implementation of a program in order to encourage scientific and technical studies and to increase the technical assistance program to underdeveloped countries and to try to find a way of modernizing prosthetic methods in these countries. The latest decision has been to convene next year an international conference in order to see what should be done on an international level. We are going to do this in cooperation with the WHO and the International Society for Rehabilitation of Disabled. The conference will take place probably next year in Copenhagen in May or June. We appreciate the proceedings of this Conference because this is an effort to use the general progress of technology for human beings. Our action has been not only towards the immediate solution of the problems of veterans, but at the same time towards using these experiences for the benefit of all other disabled in the society. I am convinced that the World Veterans Federation will take serious consideration of the proceedings of this meeting and find the possibility to help in cooperation with the WHO with the International Federation for Medical Electronics, to

help your efforts in this field. One of my recommendations to the Secretary General will be that to this conference next May or June we invite a representative of your group to inform the other people there, doctors, therapists, technicians, producers of prosthetics, about your work and I hope that this will help you to obtain the necessary help for the research work you are doing. Thank you Mr. Chairman.

CHAIRMAN: Thank you.

May I just repeat that we have now this fifth proposal A.E. to send a representative next year to this conference. I have a remark regarding the Standing Committee. Dr. Wielen and myself have realized that we have made a mistake and I apologize to the British delegation since it was not wise to quote the names. So we withdraw the names and we will be very glad if you could suggest a name. I am very sorry for the mistake which has been done just to make things go fast. Mr. Swettenham you wish to speak?

Mr. SWETTENHAM: I would like to suggest that even at the risk of making the Committee rather large you should try and get the cooperation of certain other countries working in this field at the same time. If a committee starts and those countries have not been invited to join, it is more difficult to bring them in later. But if they are invited to participate at the beginning one can possibly hope then for greater cooperation.

CHAIRMAN: Thank you Mr. Swettenham. In the name of dr. Wielen I just understand that we have a working body which can always be enlarged.

Mr. WIELEN: Well, I agree from the technical point of view but perhaps we should be afraid that the Committee is going to be too big and we have to make a choice. Are there any suggestions about this.

CHAIRMAN: May I summarize. The Committee should include as suggested now by dr. Weinman also two representatives from England, dr. Nightingale would you please say your opinion, I think I saw your hand?

Mr. NIGHTINGALE: The reason dr. Weinman suggested to be two is that perhaps the next conference will be in England. I do not think that matters. A special working committee will be set up, a subcommittee will be set up to organize the conference. This working party should be held small as we say, but it is much more important to add one German and one Russian and so on. I think that it still will not be too big, we can go up to six or seven or eight in a working party without making it too big. There are tremendous advantages because we shall not get Russians to come unless they are hard in the organization from the very beginning.

CHAIRMAN: Mr. Mancini.

Mr. MANCINI: If you all agree, when I go back to Italy I will contact people there working in the field of prosthetics design. There is a big Institute of Orthopaedics in Bologna where there are people concerned with these problems and I am sure they will be very pleased to contact you and take part in this organization.

CHAIRMAN: Thank you very much. You will do us a great favour since our trouble is that we could not come in touch with all institutes working in this field. Thank you. May I summarize the proposals for the committee. It is suggested that we have one representative from England, one from Yugoslavia, we have Mrs. Hilde Groth, and it seems that everybody accepts her, then we have dr. Wielen, it is further suggested that we include as soon as we can representatives of Germany who have attained excellent results in this field, and one of Soviet Union. Do you think that this is acceptable?

Everybody is in favour. Now, I think we can conclude this discussion.

May I ask you now, if you agree with the proposal of Mr. Žunić to send a representative of this Committee to the Conference of the World Veterans Federation and try to find some funds and support for our work. This has been accepted. Thank you. *

Now, the minutes of this meeting will serve to the Standing

Committee as their immediate task.

Closing this session I would like to thank you all for contributing to the success of the first meeting of this kind. I again wish to express our thanks to the Ministry for Social Policy and National Health and to Mr. Pavlović personally for their wholehearted support in all fields including financial. I also wish to convey especial thanks to Mr. Radanović who was the real man behind this organization and who devoted so much of his time in preparing this conference. Our thanks are also due to all other collaborators who have helped us in organizing this meeting. I declare now this session and the Symposium officially closed and I hope to meet you all at the dinner party tonight and then later during the night. Thank you.
