

FROM THE EDITOR

This is the third issue of TASK Quarterly devoted to medical applications. The presented papers have been prepared as post-conference manuscripts selected from 190 oral presentations during the XIIIth Biocybernetics and Biomedical Engineering Conference organised in Gdansk on 10–13th September 2003. The Conference is a key event in this field held in Poland. Gathering of eminent specialists, the conference is a forum of information exchange on the most recent research results and current trends in biomedicine, including computational methods and numerical calculations. There are traditionally two scientific institutions responsible for organisation of the conference: *the Committee of Biocybernetics and Biomedical Engineering of the Polish Academy of Sciences (PAS)* and *the Polish Society of Biomedical Engineering*. Additionally, each time there is a local organiser – this year the Department of Biomedical Engineering of the Gdansk University of Technology. Almost all other scientific societies dealing, directly or indirectly, with biomedical engineering have supported the organization of the conference. This unique common activity was initiated by Prof. Maciej Nałęcz, who managed to gather all the societies in the preparation and publishing of a fundamental monograph, *Biocybernetics and Biomedical Engineering 2000*, of 9 volumes and more than 8000 pages. This effort has had a positive effect on coordination of common



The inauguration session of the Conference, from the left: Dr. Leszek Chmielewski – former President of the Polish Society of Visualization; Prof. Grzegorz Pawlicki – President of the Polish Society of Medical Physics and Engineering; Prof. Antoni Nowakowski – Chairman of the Conference, Co-Chairman of the Conference Program Committee, Head of the Department of Biomedical Engineering; Prof. Maciej Nałęcz, PAS Member – President of the Committee of Biocybernetics and Biomedical Engineering of the Polish Academy of Sciences, Chairman of the Conference Program Committee, Head of the International Center of Biocybernetics; Prof. Roman Maniewski, Correspondent Member of PAS – Co-Chairman of the Conference Program Committee, President of the Polish Society of Biomedical Engineering; Prof. Władysław Torbicz – President of the Polish Society of Sensor Technology; Prof. Leszek Rutkowski – President of the Polish Society of Neural Networks; Prof. Romuald Będziński – Vice-Chairman of the Polish Society of Biomechanics; Prof. Piotr Lass – President of the Polish Society of Nuclear Medicine.



The hot atmosphere of the evening in Gdansk ZOO.

activities in the field of biomedical engineering in Poland. It has also been visible in the organization of the Conference, as evidenced by the photograph of the inauguration ceremony above. Apart from a number of society presidents (standing), there were several other representatives present, including the Polish Committee of Biomedical Engineering of the Polish Association of Electrical and Electronic Engineers, the Poland Chapter of SPIE and others.

The Conference attracted a record number of participants, 212, who delivered 190 oral presentations. Papers were published before the conference in two volumes of proceedings, each of *ca.* 600 pages, and on a CD, containing also selection of Power Point presentations. The papers, typically 6 pages long, were published in Polish. More than 50 papers were on computational methods, digital signal processing, image processing and visualization and mathematical modeling. The Scientific Committee of the Conference have carefully reviewed all the papers and selected 18 of them for publication in this volume of the TASK Quarterly. Additionally, papers dealing with optical methods and sensors are published in a special issue of SPIE Proceedings, while papers dealing with biosystems, artificial organs, biomechanics, *etc.* will be published in two issues of Biocybernetics and Biomedical Engineering, a journal of PAS.

The presented papers give an overview of developments in numerical methods, modelling and some other biomedical computer applications in Poland. They are evidence of the growing number of scientists working in this field, as well as of biomedical research being initiated in several research groups and centers.

The conference was an opportunity for interesting discussions and exchange of new concepts, often resulting in establishing new contacts and friendships. Two round-table discussions have been devoted to education in biomedical engineering and to the issues of the VI European Union Research Program and the development of ERA, the European Research Area. The evenings, apart from meetings in sections, were devoted to discussions and entertainment in the Palowa restaurant or in Gdansk ZOO, with marine songs and festive dances.

Participants and official guests frequently stressed that the XIIIth Conference of Biocybernetics and Biomedical Engineering was a very fruitful, interesting and stimulating meeting, a good place for discussions of further developments in biomedicine.

Antoni Nowakowski
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