

# Foreword

## New results based on existing environment

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Similarly to the earlier praxis we selected the papers from the last five Hungarian issues. To the proper selection it is necessary to define a clear concept. But this concept can be improved in every year, and novel directives can arise. Therefore primarily we describe what ideas led us to collect the papers for the English edition.

Generally the conventional way of selection is to choose the definitely high level papers. We wouldn't like to neglect this instruction. They can mostly interesting for our reader abroad. Namely our goal is to support the world-wide acknowledgment of our authors.

The second view point was to publish ideas which can influence the future trends in telecommunication. This type of research and development are usually only a specific part of a long-range process. A development can be only successful if it can make use of the existing equipments, methods and infrastructure. These is particularly important in services like telecommunications which are using a tremendous, valuable infrastructure. The utilization of the invested money is the precondition of the success of a novel method.

Last but not least we had to guess the professional use of a scientific result. If we estimate that the theoretically high level statement will have economic success then it has a high priority in the selection. Her we take in account whether the system can use the earlier investments and the new method should produce seamless co-operation with the existing network. The comfort of the user requires that the applicable future and existing subscriber terminals shouldn't differ.

In this issue of the journal the first three studies have nice theoretical importance. The first one is scrutinizing the properties of the speech. Its result is preparing and supporting the artificial speech research. The second one derives the solution of the Maxwell equations in the case impulse excitation. It can support the planning of digital radio systems. The author

is using really high level mathematical instruments. The third paper is calculating the positioning errors using GPS.

The following two paper deals with authentication and security problems. Here the safest method is if we use one or more of the personal biometric identification. On other study describes the problem of anonymity accompanied with safety of transmitted information. The results are in close correlation with some practical tasks.

This two leading topics will be followed by two studies dealing with management problems. Networking is common in the next two contributions. One of them is discussing the problem of a special satellite test and control. In this case the round trip delay is more than some hour. Here sometimes local decision must be applied which will be followed later by the instructions coming from the terrestrial headquarter sent to the satellite. There is one study discussing the problem of optical communications and an other one the economic situation of telecom industry.

Finally we introduce some results achieved on multimedia and video transport services. We are not sure that they are the most actual problems, our purpose is only to demonstrate the results on technical fields of broad interest. They are representative example of the R&D results of the Hungarian Academic and industrial researchers.

Here we would like to draw the attention to the new tendencies, and we hope they will be introduced in praxis in the next future. We hope also that the broadband optical transmission combined with the mobile switching will offer a world-wide ubiquitous network which is completely service-provider independent. We would be happy if we will receive some up-to-date results from our reader. Our periodical is going to inform the telecom society about all the new recognition in this challenging period of telecommunications.

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