



A Message from the Honorary co-Chair Professor Ali M. Abbasov

On behalf of the scientific society of Azerbaijan, I welcome all participants of the Third International Conference on Control and Optimization with Industrial Applications (COIA) 2011.

It is necessary to notice that the COIA is becoming a forum of dialogue of experts of different branches, and today the conference creates an environment to share tasks and solve scientific and practical problems in wide areas of high-tech industry. Direct contacts of scientists and experts always make big impact and open new opportunities in different areas of cooperation.

The first COIA 2005 was held on 22-25 May 2005 in Baku, Azerbaijan. The goal of the COIA-2005 was to provide an international forum of scientists, researchers, and practitioners to exchange ideas and approaches, to present research findings and state-of-the-art solutions, to share experiences on potentials and limitations, and to open new horizons of research and developments on all issues and topics related to optimization.

The first conference focused mainly on the following topics: optimization (theory and numerical methods); optimal control; cooperative systems and cooperative control; industrial applications (in particular, applications to oil industry, information and communication technology, and robotics); operation research and management; education of engineers, managers and potential users of optimization methodology.

The event was organized by Prof. Dr. Ali A. Abbasov (Baku, Azerbaijan), Prof. Dr. Fikret Aliyev (Baku, Azerbaijan), Prof. Panos Pardalos (Florida, USA) and Prof. Alex Rubinov (Ballarat, Australia) with the support of the National Academy of Sciences of Azerbaijan, Ministry of Communications and Information Technologies of the Republic of Azerbaijan, and Institute of Applied Mathematics of Baku State University.

More than 40 scientists from 15 countries including Australia, Germany, Italy, Russia, Turkey, Ukraine, and USA took part at the conference. More than 170 papers were presented and distributed among the participants of the seven sections of the conference. The list of invited speakers included 15 well-known experts. The following invited speakers were invited to present their presentations at the plenary sessions: Prof. Telman Aliyev (Baku, Azerbaijan), Dr. Adil M. Bagirov (Ballarat, Australia), Prof. Tamer Basar (Illinois, USA), Prof. Vladimir F. Demyanov (Russia), Prof. Chris A. Floudas (New Jersey, USA), Prof. Vladimir B. Larin (Kiev, Ukraine), Prof. Faina M. Kirillova (together with Prof. Rafael Gabasov) (Minsk, Belarus), Prof. Boris Mordukhovich (Ohio, USA), Prof. Panos M. Pardalos (Florida, USA), Prof. Boris Polyak (Moscow, Russia), Prof. Terry R. Rockafellar (Washington, USA), Prof. Alex M. Rubinov (Ballarat, Australia).

In the light of the great success of the COIA 2005, it was decided to continue this series of conferences, and to hold the next COIA in 2008. Some research institutions from Australia, Malaysia, Turkey, and several other countries had expressed their interests in hosting COIA 2008.

The Second COIA was held at the National Academy of Sciences of Azerbaijan in Baku in June 2-4, 2008. The conference included the following topics: control and optimization (theory and numerical methods); intelligent and fuzzy control; global optimization (dedicated to the memory of late Prof. Alex Rubinov); shape optimization and inverse problems; computational biology; industrial applications (in particular, applications to oil industry, information and communication technology, robotics, economics). Selected papers were published in Special Issues of the *International Journal of Applied and Computational Mathematics*.

The Third COIA will be held at Bilkent University in Ankara, Turkey, on 22-24 August, 2011. Organizers of COIA 2011 are Ali M. Abbasov (Honorary Co-Chair, Azerbaijan), Tamer Başar (Honorary Co-Chair, USA), Hitay Özbay (General Chair, Turkey), Fikret Aliev (Program Committee Chair, Azerbaijan). We believe the conference will provide a forum where engineers, scientists and mathematicians from academia, as well as from public and private sectors could meet to share ideas on recent advances in all disciplines of science and engineering involving control and optimization. Papers to be presented in the conference cover a wide range of areas of "Numerical Methods in Optimization", "Control Theory" and "Applications of Control and Optimization" in various fields. Authors of the selected abstracts will be granted an option to publish their full papers in *Applied and Computational Mathematics* (ISSN 1683-3511) indexed in *Scopus* and in *Science Citation Index Expanded*.

The conference is becoming an effective platform for an establishment of mutually advantageous contacts of representatives of scientific circles of the presented countries. Recommendations and initiatives generated during the conference will promote development of scientific communications in Azerbaijan as well as cooperative research opportunities with many other countries.

I wish participants of the conference fruitful discussions, new creative ideas and successful realization of scientific projects!

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