

# IJTPE Journal

## International Journal on TECHNICAL AND PHYSICAL PROBLEMS OF ENGINEERING (IJTPE)

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## **EDITORIAL NOTE**

We are pleased to present International Journal on "Technical and Physical Problems of Engineering" (IJTPE) in English and electronic print published seasonal periodically by the partners of International Organization on "Technical and Physical Problems of Engineering" (IOTPE) including Institute of Physics of Azerbaijan National Academy of Sciences (Baku, Azerbaijan), Azerbaijan Research Institute of Energetics and Energy Design (Azerenerji JSC, Baku, Azerbaijan), Cleaner Production and Energy Efficiency Center (Baku, Azerbaijan), Nakhchivan State University (Nakhchivan, Azerbaijan), Seraj Higher Education Institute (Tabriz, Iran), Nakhchivan State University (Nakhchivan, Azerbaijan), Taba Elm International Institute (Tabriz, Iran), Gazi University (Ankara, Turkey), Istanbul Technical University (Istanbul, Turkey), Isik University (Istanbul, Turkey), Van Yuzuncu Yil University (Van, Turkey), Istanbul Rumeli University (Istanbul, Turkey), University of Pitesti (Pitesti, Romania), University of the Basque Country (Bilbao, Spain), Near East University (Lefkosa, Northern Cyprus) and Ostfold University College (Fredrikstad, Norway).

The IOTPE organization is a scientific association, founder and holder of International Conferences on "Technical and Physical Problems of *Power* Engineering" (ICTPE) have been held from 2002 to 2012.

The ICTPE Conferences name and topics are improved to International Conference on "Technical and Physical Problems of *Electrical* Engineering" (ICTPE) in the in 2013 Conference to cover subjects in all fields and topics of Electrical Engineering and have been held till now.

The IOTPE organization is generally managing and performing a set of scientific-executive affairs to holding International Conference of ICTPE, publishing International Journal of IJTPE and directing International Enterprise of IETPE.

Successful organizing and holding ICTPE conference and publishing IJTPE journal indicates close friendship and scientific collaboration of the scientists and researchers of member countries in engineering field development between the countries. The importance of holding ICTPE conference and publishing IJTPE journal are mutual understanding and recognition between the organizer countries through scientific, social and cultural development where yields increasing international cooperation in scientific areas.

Furthermore, the importance subjects of ICTPE conference and IJTPE journal are related to the opportunity for researches and scientists from different countries to clarify and discuss the latest and mutual research achievements and improvements as well as generalization of the internationally obtained results in the area of engineering and new technologies.

The conducting of ICTPE conference and IJTPE journal are based on important principle of the cooperative relationship between science and industry. This relationship is a basis for the activity of contemporary engineering companies. It is well known that important technical advance is possible only due to achievements of fundamental science.

Publishing IJTPE journal is getting increasing importance for cooperation of researchers and scientific centers of different countries. We strongly believe the journal provides the establishing scientific relationships and also increase the cooperation of east and west countries on the subject of engineering fields and applying the new technologies on solving technical and physical problems.

By the mean of IJTPE journal publication, the cooperation with the partners from the involved countries and also all of the worlds will be fostered. It is the main objective to enhance the level of multilateral exchanges, the involvement of authors in developing and improving the scientific research.

The IJTPE journal is registered, cited and indexed in some scientific organization and databases such as Elsevier-Scopus.

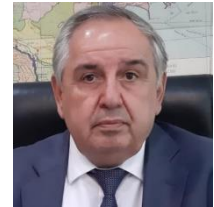
We will do our best to disseminate the journal's results and forward to the possible technological transfer of the accumulated knowledge of the scientific contributions of the authors.

Finally, we wish to express our gratefulness to all the authors and scientists from all over the world who have scientific reports in preparing the transactions published in the journal.

### **Editors-in-Chief**

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**The 70th Anniversary of Birthday of  
Academician Arif Mammad HASHIMOV  
Baku, Azerbaijan**



The 70th anniversary of birthday of Professor, Doctor of Technical Sciences, Honored Scientist, State Prize Winner and Academician of Azerbaijan National Academy of Sciences - ANAS (Baku, Azerbaijan), **Arif Mammad oglu HASHIMOV** will be on September 28, 2019.

Arif M. HASHIMOV has worked at Laboratory of Electrophysics, Institute of Physics of ANAS after graduation from Faculty of Energetics, Azerbaijan Institute of Oil and Chemistry (Baku, Azerbaijan) and currently he is the Head of Laboratory of High-Voltage Techniques and Physics at Institute of Physics of ANAS.

Arif M. HASHIMOV was granted of the State Prize of Azerbaijan in 1978 for his activities in the field of neutral regime in high-voltage networks. He was also named as Honored Scientist of Azerbaijan in 2005 by decree of President of Azerbaijan. He was elected as Academician of ANAS in 2007 and also was in position of the First Vice President of ANAS from 2007 till 2013. He was also the Director of Institute of Physics of ANAS from 2002 till 2009.

Arif M. HASHIMOV is known as a Scientist in the field of Electrophysics and High-Voltage Techniques. He developed the evaluation method for wave processes in combined networks which further were used for short circuit limitation, limitation of over voltages in case of ferroresonance. His research in transient ferroresonance modeling was used in circuitry of distribution arrangement of 400 kV DC module on high-voltage power lines of the USSR and Finland.

Academician Arif M. HASHIMOV has developed researches in designing and application of high-voltage pulse generator in nanosecond band, superconductive materials for short circuit limitation and also frequency dependent resistors for overvoltage limitation in electrical networks. He also developed theoretical and experimental research maps of lightening density and used them for designing lightening protection measures.

Under management of Professor Arif M. HASHIMOV the model of improved fuzzy power controllers for reactive power compensation of high-voltage lines during charging of shunt reactors were proposed. At the present time he is supervising theoretical and experimental activities in this field at the Laboratory of High-Voltage Techniques and Physics of Institute of Physics and also Azerbaijan Scientific Research and Design Survey Institute of Energetics. Fundamental researches conducted by Academician Arif M. HASHIMOV gain further development of his students including 4 Doctors of Technical Science (Professor) and 15 Ph.D.

Arif M. HASHIMOV is a Full Professor at Azerbaijan State Institute of Oil and Industry and Azerbaijan Technical University. He is also the Chief Editor of Power Engineering Problems Journal (Baku, Azerbaijan). He is also one of the founders and chairman of the annual International Conference on "Physical and Technical Problems of Electrical Engineering" (ICTPE) which is organized and supported by International Organization of **IOTPE** with scientific partners from **Azerbaijan, Iran, Turkey, Romania, Spain, Northern Cyprus and Norway** since 2002. He and his colleagues developed their joint scientific cooperation and released International Journal of **IJTPE** and also published books in International Enterprise of **IETPE** all under supervision of the **IOTPE**.

At the present time, Academician Arif M. HASHIMOV is an advisor for the President of "Azerenerji" Joint Stock Company (Baku, Azerbaijan) and Director of Azerbaijan Scientific Research and Design Survey Institute of Energetics (Baku, Azerbaijan). His publications contain 353 papers in national and international conferences and journals, 4 monographs, 15 patents and some patent applications.

We extend our sincere congratulations on the occasion of jubilee for celebration of the 70th Anniversary of Birthday of Academician Arif M. HASHIMOV and wish him good health and also happiness in all his scientific and teaching activities and new creative achievements.

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