



Ministry of Education and Science of the Russian Federation



PUJIANG Innovation Forum



Russia  
is the Guest of Honor  
of PUJIANG Innovation Forum – 2014

# CATALOGUE OF THE RUSSIAN DELEGATION



Russia is the Guest of Honor of Pujiang Innovation Forum-2014



To the organizers, participants and guests of the Pujiang Innovation Forum

Ladies and Gentlemen!

I'd like to welcome you at the Pujiang Innovation Forum in Shanghai, where Russia will be the Guest of Honor for the first time.

In the period of the expansion of bilateral Russian-Chinese relations, Russian participation in the Forum is bound to confirm the important role of scientific and technological partnership.

Pujiang Innovation Forum is an important international discussion platform in the field of innovations and their practical application. Therefore collaboration of our countries within the Forum will give an additional impulse for the development of cooperation in scientific and technical sphere and high technologies area, for the maintenance of a good tradition of direct dialogue in scientific and business community of Russia and China.

The expansion of bilateral scientific and technical cooperation will allow the participants to increase competitiveness on the world markets, to grow consistently the investment appeal of high-tech branches of industry of our countries.

I have no doubt that Pujiang Innovation Forum "Pujiang-2014" will open many prospective avenues for its guests.

I wish all the participants of the Forum fruitful work, constructive dialogue and new mutually advantageous prospects!

Minister of Education and Science of the Russian Federation

Dmitry Livanov



## Kotelnikov Institute of Radio Engineering and Electronics of the Russian Academy of Sciences

125009, Mohovaya str., 11, Build 7, Moscow, Russia  
[www.cplire.ru](http://www.cplire.ru)

The Institute carries out the fundamental researches in radio physics, electronics and informatics: the development of the modern elemental basis of micro- and nanoelectronics, the investigation of perspective metamaterials and composite functional materials, the elaboration on remote sensing methods, the development of new methods of information, designing of new radio-electronic diagnostic instruments.

### Electrophysiological diagnostics of the early stage Parkinson's disease

A new electrophysiological method of the early stage Parkinson's disease is described. The method is based on the joint measurements of electroencephalography, electromyography and tremor, and analysis of their time-frequency characteristics.

At least three main features of Parkinson's disease (PD) in the early stage are detected:

- 1) time-frequency characteristics of the motor cortex zones hemisphere asymmetry;
- 2) the arising EEG rhythm in these zones in the frequency range of 4-6 Hz and its connectivity with the EMG and mechanical tremor of the contra lateral limbs in the tremor form of PD;
- 3) disorganization of the dominant rhythm.

