ARGUS SYSTEMS MEDICINE BOOK 2022 Edition

WIRELESS AND MOBILE TECHNOLOGIES FOR FUNCTIONAL DIAGNOSTICS, NEUROREHABILITATION AND RESTORATION OF IMPAIRED FUNCTIONS

ABOUT US

Founded in May 2018 in Dubai World Central Logistics City, Dubai, UAE. Argus Systems is an independent Technology Consulting, Marketing Management & Software Development firm established with the idea of Transforming Legacy, Redefining Future.

MISSION

We are on a mission to transform legacy to redefine the future by utilizing state of the art technological advances to increase productivity, reduce time to market, delivering instant Return on Investment (ROI).



Our ability to have infinite awareness, understanding, insight and universal knowledge opens the door to unlimited possibilities in doing so we utilize technological advances in order to transform typical & traditional legacy systems to deliver high performance, high throughput solutions that in turn help increase productivity, operational efficiency, reduce time to market while delivering instant Return on Investment (ROI).

VALUES

Being Argus eyed we are keen sighted, observant and vigilant.

Wireless electroencephalograph "Ney-Ti"

24-channel wireless electroencephalograph is an innovative solution for the long-term monitoring recordings and a convenient tool for routine studies

It provides a full-fledged electroencephalographic frequency band, has a miniature size, maximum protection against motion artifacts, as well as the stable radio communication with a computer within 10 – 15 meters

Equipment:

- 1. Wireless electroencephalograph 1 pc.
- 2. Wireless photostimulator 1 pc.
- 3. Set of helmets with pre-installed electrodes (size: S, M, L) 3 pcs.
- 4. Software 1 pc.
- 5. Video camera 2 pcs.
- 6. Consumables 1 set.
- 7. Case for field research -1 pc.

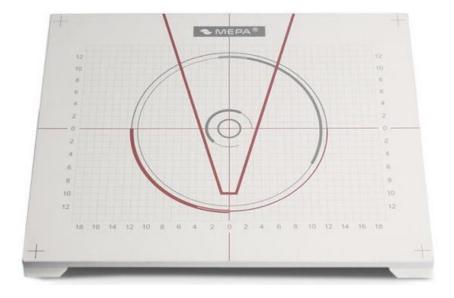


Stabilometric complex "ST-150M"

Wireless stabilometric system – is a solution for diagnostic and training, rehabilitation procedures in medicine, sports and science

It is used in restorative medicine, neurology, otorhinolaryngology, orthopedics and traumatology, physiology, biomechanics, psychophysiology, sports medicine and other specialized areas

- 1. Wireless stabiloplatform with BOS "ST-150M" 1 pc.
- 2. Wireless module for connecting to a PC 1 pc.
- 3. Battery 1 pc.
- 4. Charger 1 pc.
- 5. USB software kit 1 pc.





Wireless kit "MotionRehabKit"

The solution provides a biomechanical assessment, as well as highly effective neurorehabilitation for patients with musculoskeletal disorders and postural disorders

The software and hardware complex is used in rehabilitation and restorative medicine, neurology and otorhinolaryngology, orthopedics and traumatology, kinesiology, sports medicine and physical therapy

- 1. Wireless stabiloplatform with BOS "ST-150" 1 pc.
- 2. Wireless sensors for recording electrophysiological signals "Kolibri" -1 pc.
- 3. A set of accessories for EMG registration and sensor mounting -1 pc.
- 4. Set of disposable electrodes (50 pcs. per pack) 2 pcs.
- 5. USB software kit 1 pc.
- 6. Case with lodgment for transportation and storage -1 pc.





Wireless complex "Kolibri"

A set of wireless sensors and software for biofeedback allows training using various electrophysiological signals of the human body

Universal software with biofeedback is designed to correct a variety of functional disorders and is applicable to a wide range of diseases of the nervous, musculoskeletal, cardiorespiratory systems of the body



- 1. Wireless sensors for recording electrophysiological signals "Kolibri" 4 pcs.
- 2. A set of accessories for EEG registration and sensor mounting -1 pc.
- 3. Set of EMG/ECG/FRD electrodes and mounting sensors to the human body 1 pc.
- 4. Antenna for connecting sensors to a PC 1 pc.
- 5. A set of software for biofeedback and neurofeedback on USB -1 pc.



Wireless complex "Muscle Tracker"

A system for recording muscle biopotentials during any exercise provides a multichannel (4 channels) online recording of muscle activity during an athlete's movements

The software was developed for express assessment of the quality of muscle activity during training and for predicting the effectiveness of the training process

Thanks to the analysis of the individual properties of muscle activity according to the parameters of the electromyogram, the coach or instructor can effectively correct asymmetric movements under symmetrical loading

- 1. Wireless sensors for recording electrophysiological signals "Callibri" 4 pcs.
- 2. Set of EMG/ECG electrodes and mounting sensors to the human body 1 pc.
- 3. Antenna for connecting sensors to a PC 1 pc.
- 4. USB software kit 1 pc.





Rehabilitation gloves "SensoRehab"

The Biofeedback Wireless Glove Set is designed to improve fine motor skills and hand coordination

The unique Russian solution provides high accuracy of motion registration and is intended for restorative treatment, rehabilitation and habilitation of patients with pathologies of the musculoskeletal system (MSA) of various etiologies

In addition, rehabilitation gloves can be used to develop fine motor skills and hand-eye coordination in children and adolescents

Equipment:

- 1. Wireless glove "SensoRehab" 2 pcs.
- 2. Charger 2 pcs.
- 3. Antenna for PC connection 2 pcs.
- 4. A set of software for biofeedback and motion quality assessment on USB 1 pc.





Wireless VR complex with neural interface

Hardware-software complexes of virtual reality with built-in systems for recording of the electrophysiological signals of the human body are designed for neurorehabilitation, audio-visual stimulation, correction of the psycho-emotional state and increasing the effectiveness of training adolescents or adults in a virtual environment

The software is used to assess the psycho-physiological state (degree of relaxation and concentration) of users, as well as to objectify psycho-emotional correction and individual choice of VR content

Equipment:

- 1. Virtual reality helmet -1 pc.
- 2. Neurointerface (EEG complex) with attachment to the helmet -1 pc.
- 3. Antenna and accessories for connecting to a PC 1 pc.
- 4. ECG registration sensor (HR/HRV) 1 pc.
- 5. Software set for biofeedback and motion quality assessment on USB 1 pc.





Hardware-software complexes VR with biofeedback

Hardware-software complexes VR with biofeedback is designed to correction of the psycho-emotional state, based on methods for analyzing the physiological and neurophysiological signals of the patient

Hardware-software complexes VR allows to solve the following tasks:

- > rehabilitation and recovery after stroke and COVID
- > improvement of cognitive functions (memory, attention, reaction speed)
- > non-pharmacological pain reduction, patient pain management
- visual field diagnostics

VR complexes registers signals with a neural interface built into the VR helmet, heart rate sensor, accelerometers in the controls

Equipment example:

- 1. Virtual Reality Kit 1 pc.
- 2. System unit (PC) 1 pc.
- 3. Heart rate sensor 1 pc.
- 4. Zero Gravity Chair 1 pc.
- 5. Software set 1 pc.



Wireless neural interface "BrainBit"

The neural interface uses patented "dry electrodes" with gold-plated contacts, which provide the highest quality of the EEG signal

With simple and user-friendly neurofeedback software, psychologists and psychotherapists can work with the widest range of disorders in children, adolescents, adults and the elderly

This innovative development, in combination with classical and scientifically proven methods, can be used to normalize the psycho-emotional state, restore cognitive functions, prevent anxiety disorders, insomnia and depression

- 1. Neural interface 1 pc.
- 2. Antenna and accessories for connecting to a PC 1 pc.
- 3. A set of software for conducting neurofeedback sessions on USB 1 pc.





Wireless complex DPG "SIGVET-MSPI"

Wireless neuropsychological complex of psycho-emotional self-regulation for professional use by specialists in the field of neuropsychology and stress management

The complex is based on the world-renowned EMDR method – desensitization and processing by eye movements, which ensures short-term and effective training (from 3-4 sessions)

The solution provides a combination of 3 channels of sensory stimulation (sound, light, vibration), as well as control and objectification of therapy by recording electrical skin resistance (SGR) during sessions

- 1. Wireless control unit 1 pc.
- 2. LED stimulator 1 pc.
- 3. Vibrotactile stimulators 2 pcs.
- 4. Headphones 1 pc.
- 5. Set of connectors 1 pc.
- 6. Electroskin resistance registration sensor (KSR) 1 pc.
- 7. Charger 1 pc.
- 8. Manual and software (USB) 1 pc.





Complex of bioacoustic correction "Sinhro-S"

The software and hardware system with neurobiofeedback "SYNCHRO-S" was developed and successfully used for functional disorders of the central nervous system, for the correction of disorders and the treatment of the consequences of organic brain damage, for vascular diseases of the brain, for children with autism spectrum disorders, as well as for patients with neurotic and psychosomatic diseases

- 1. EEG recording unit -1 pc.
- 2. Laptop with software 1 pc.
- 3. Headphones 1 pc.
- 4. Set of cables 1 pc.
- 5. Set of EEG electrodes and fasteners 1 pc.
- 6. Charger 1 pc.
- 7. Case for transportation and storage -1 pc.





Complex of translingual neurostimulation "Pulsar"

Device for translingual neurostimulation. Progressive rehabilitation method of influencing the central nervous system through electrical stimulation of the tongue

During a 20-minute procedure of translingual neurostimulation, about 27 million electrical impulses are delivered to the surface of the tongue, which improve the functioning of various parts of the brain. If at this time any area of the brain is active, then with the help of translingual neurostimulation, its work becomes more efficient

- 1. Power supply and control unit -1 pc.
- 2. Electronic matrix with 144 electrodes 1 pc.
- 3. Case for transportation and storage 1 pc.





Complex «CALLIBRI BEFIT PRO»

Wireless biofeedback technologies and modern software have been developed for the prevention and highly effective restorative treatment of a wide range of proctological and urological diseases in adults and children. In addition, equipment and techniques are successfully used to prevent and correct a wide range of sexological disorders in women and men

The main technique implemented in the complex is training the pelvic floor muscles and mastering the skill of their tension/relaxation while minimizing the contraction of antagonist muscles (muscles of the anterior abdominal wall, adductor muscles of the thigh, gluteal muscles) using vaginal, rectal and skin EMG sensors

Equipment:

- 1. Wireless sensors for recording electrophysiological signals "Callibri" 4 pcs.
- 2. Antenna for PC connection 1 pc.
- 3. Set of EMG electrodes (skin, rectal, vaginal) 1 pc.
- 4. Antenna for connecting sensors to a PC 1 pc.
- 5. USB software package -1 pc.

THANKS FOR WATCHING



