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## **BioSpecter PSYCHOMETRIC SYSTEM OR EXPERT SYSTEM OF PERSONALITY EVALUATION**

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The expert system of energetic evaluation of one's personality has as foundation an electronic equipment (biosensor) and a set of programs installed on a PC computer.

As the medical thermometer (to measure the body's temperature) or tensiometer (to measure the blood pressure), BioSpecter Psychometric System directly measures on the palm levels a set of physical parameters (temperature and electric conductivity of epidermis), that by advanced processing can provide the personality profile of the measured person;

The Bioscanner is an electronic equipment of small sizes made in a compact form, in a PC device structure (peripheral equipment for PC computers), with the possibility to connect to any PC computer on USB 2 interface, fact that does no longer imply a personal power supply, being very reliable and offering the possibility of a long time utilisation. The scanning unit is installed and can work on any PC (Windows XP, Vista, Windows 7, etc) using a data acquisition specialised software. This equipment is used to take over biodata through the scanning procedure of the electric potential on the palms level.



The biodata acquisition program provides quick taking over of the information that compacts in a proper file, preparing it for advanced processing.

The program of data analysis and advanced processing, conceived in multiple modules, easy to access, uses a data basis on which structure the algorithm of evaluation of the preliminary data taken over with the scanning unit is implemented. The advanced processing of these data leads to a set of parameters convertible in indicators with psychological significance. The dimension of these indicators is scaled on a system of graphical visualisation and under the form of table report. The psychological significations of each determined indicator are being compared to a set of behavioural patterns based on which the temperamental structural, respectively the type of vocation and behavioural style. The final determinations have a personality profile

very closed to the real one, taking notice both of the solid aspects and both the most fragile ones of the personality of the investigated person.

The principle which represents the foundation of the operation of this equipment is the biofeedback (bio-reaction), based on the correlation between the activity of the cerebral cortex, the temperature of the palm's extremities and the electrodermal activity (EDA).

Generally, the biofeedback is assigned to a procedure by which certain physical-chemical processes that take place in the organism are being "interrogated" with a specialised tool that has in view the evolution of a parameter or a set of parameters with significance for the investigator, in view to diagnose and normalise such processes. The most commonplace example of this principle could be the measurement of the human body temperature using a thermometer.

**Criteria** used by BioSpecter Psychometric System:

The first criterion: In case of BioSpecter Psychometric System, the measurement of temperature as parameter correlative to the activity of the cerebral cortex has in view the fact that by its structure the human brain is organised in such manner that the right hemisphere is associated to the activity of the left side of the body, and the left hemisphere is associated to the activity of the right side of the body. The hands as terminations of the two parts of the body, are an exceptional source of information on all the physical –chemical processes that take place in the body, respectively, by the correlation with the activity of the two cerebral hemispheres, and the information on temperature, any its variation, indicates the contraction or the relaxation of the smooth muscles around the blood vessels, that determines how much blood arrives up to the tiptoes, along which the measurement sensors are placed. This phenomenon is correlated to the whole psychophysiological activity of the person,

indicating for example, the stress level, the intensity of emotions, certain disorders appeared in the body.

The second criterion, the measurement of the electrodermal activity (EDA) has in view the fact that to any external electrical stimulus, the skin responds with a specific galvanic reply. This response consists of a measurement of the phasic activity (acute points and low points) of the eccrine gland.

The eccrine gland is a type of sweat gland that flows its secretion through an excretory channel, which directly opens on the skin surface through a duct. The eccrine glands are small glands found virtually in all skin but predominantly in the palm and plant, being more numerous than the apocrine ones. Their secretion product- the eccrine transpiration is rich of water and NaCl- (being a good electrically conductive solution participation to the regulation of the body temperature.

Most of the persons are familiarised to the existence of cold, sticky hands, in stressful situations, such as meeting new persons or before a new audience. The coldness comes from the contraction of the smooth muscles around the blood vessels (measured by temperature) meanwhile the humidity is caused by the activity of the eccrine gland which secretion is a reply to the emotional and stress stimuli.

The third criterion is based on the projective analysis of the cerebral functions on specific action areas by their correlation to the temperature and electro-conductibility of the epidermis on the level of the palm extremities, simultaneously measured and established in information of bioelectric potential.

In the context, the projective analysis is a working method in which the information of bioelectric potential measured in a certain point on the palm extremity, considered as input data, is quantitatively correlated to the level of activity of a certain cerebral function, (to which this potential is put in correspondence, making abstraction of the

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whole causal chain determining the action of those cerebral function), considered as output data.

### Final considerations

All the experience achieved by the utilisation of the described technology enhances the confidence that our research has the novelty of a method of knowledge of the human personality, offering to the future users a very skilful instrument of investigation and to the beneficiaries of such evaluation manner, the possibility of self-knowledge, the prospective of correct understanding of the multiple aspects related on the person, in the practice of individual development and correct integration in the society by holding a proper work place, the cultivation of skills and their beneficial using, the achievement of the inner equilibrium.

We have also say that the presented system does not substitute the classical methods of evaluation of personality, does not substitute in any way the experience of the psychologist, but, on the contrary, we hope it comes to support the psychologist, offering the benefit of a complementary evaluation by the possibility of a view of the energy potential background of the investigated person, which, getting to know it, can build the other strategies of evaluation, counselling, development, therapy etc, reporting it also to such potential.

So, we understand that the technology of complementary evaluation of personality that we suggest, is not conferring exclusivity to our method in the evaluation act, the results of the investigations with the presented evaluation system not being taken into consideration as

unique arguments in the decisions regarding the evaluated person and based on them, no one can limit certain legal rights of such person.

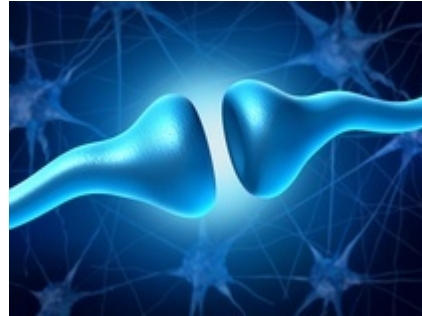
### BioSpecter Psychometric System is:

- extremely safe and non invasive measurement
- very quick measurement: because the set of interest parameters are directly measured by the application of the palms on the biosensor for a very short period of time, the BioSpecter Psychometric System does not use classical evaluation tests, sometimes long and tiresome, difficult to cross and with a big dose of subjectivity with the possibility to memorise the responses to repeated tests or more unpleasant, by limiting the possibility of evaluation of the cognitive intelligence on the level of intelligence of the test author;



- very accurate measurement: because the resulted profile of personality is configured based on the personal physical parameters, directly measured, in objective manner, the measurement results placed the

identified type of personality on an intelligent scale, and the determined form is the one resulting from this personal set of parameters without the possibility to elude the physical – chemical reality of the evaluated person, out of which this profile is being deducted;



**The limitations of the BioSpecter Psychometric System or Expert System of Personality Evaluation according to the mental health criterion, BioSpecter Psychometric System does not perform clinical tests, being dedicated only for evaluation of normality:**

- compatible measurement by scale correlation, of the classical evaluation methods: because the measurement of the set of physical parameters offers the possibility of their scaling (namely reporting their values to a calibrated scale), the distribution of the values of the resulted psychological indicators shall also follow a calibrated scale. The correlations that can be done between the international indicators and the BioSpecter Psychometric System method have as conversion base this calibrated scale on which the specialist in psychology may interpret correctly in the identification system in which it is, by proper conversion of the working scale;
- integral evaluation of the level of activity of the cerebral functions, with the possibility of selection of their sub-functions. So, in other worlds, BioSpecter Psychometric System does not measure the experience of the person but the person's cerebral functionality, providing correct clues on the psychophysiological potential, besides the other aspects that define the personality.
- in psychological testing, the system can not be substituted [1] to other testing methods and to the psychologist experience, therefore being a complementary tool for the classical investigation methods. So, if the applicant thinks appropriate, in order to register in an individual development program, we recommend that the interpretation of the evaluation reports provided by BioSpecter Psychometric System to be done under the surveillance of a psychologist;
- the evaluations of the minor persons can be done only with the written assent of the parents or legal guardian;
- testing children is done only for the purpose to determine values of indicators had in view by the psychology specialist related to their development, knowing that the personality test does not apply to children;
- the evaluator has the obligation to keep the privacy on the content of the evaluation reports, pursuant to the law;
- the relevant values from the tables of these reports can not represent a medical diagnosis and can not be considered unique arguments in placing the work force or in other decisions related to the investigated person! For the special evaluations,



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these values have to be used only together to other sources of information related to the aspects had in view. The special evaluations can be done only by psychology specialists.

**The evaluation reports generated by BioSpecter Psychometric System can not be used to classify with bad faith the**

**investigated persons, for the purpose to limit certain legal rights!**

[1] Author note- "Holistique investigation" :

In the purpose that it can not be exclusively used for the purpose to determine a psychological profile. The psychological testing can have in view, with regard to the mental health criterion, not only the normality, but also the pathological manifestations.