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UTILISATION OF PSYCHOACOUSTICS IN TECHNICAL PRACTICE

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Psychoacoustics is currently a powerful tool for optimizing the acoustic properties of sounds of machines, equipment and products in industry and in the home by thorough analysis and subsequent correction of psychoacoustic parameters (such as roughness, sharpness, volume, sound colour, etc.) in order to achieve acceptability for man. It should be noted that the perception of sound (noise) by man is of a subjective nature and heavily depends on a particular person and his current disposition. The psychoacoustic parameters (roughness, sharpness, volume, colour, tone, fluctuation force, subjective duration, and sound height) provide the foundation for solving many technical problems in practice. With respect to the application of psychoacoustics in practice, a relatively new scientific department has created a so-called acoustic product design that aims to optimize the acoustic effects of products (products) on its potential users and their surroundings. Its important role is to objectively assess the sound quality of the product, which is a certain acoustic product card; even it can be seen as the product's image. Acoustic quality can be understood as the adequacy (soundness) of the product's sound, in terms of its useful value and function. Adequacy of the sound of a product is important from the point of view of its users, required as low noise level as refrigerator, washing machine and others. Also as a product sound feature that allows the user to identify the presence of the product, its kind, brand, operating status, or malfunction or malfunction. As well as the sound of the product (so-called "loudness") to the user and his surroundings, for different user groups (in terms of age, gender, social status and other criteria), it is often a completely different sound. Psychoacoustics are currently most used to solve noise-related problems in areas such as the automotive industry, the design and manufacture of telecommunication products, the design and manufacture of home appliances and other areas.

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