

## Title of the Paper

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$$W(s) = K_p \left( 1 + \frac{1}{T_i s} + \frac{T_d s}{T_d s + 1} \right), \quad (1)$$

where  $K_p$  is the proportional gain of the PID control law;  $T_i$  is the reset time;  $T_d$  is the differentiation time;  $s$  is the Laplace transform variable.

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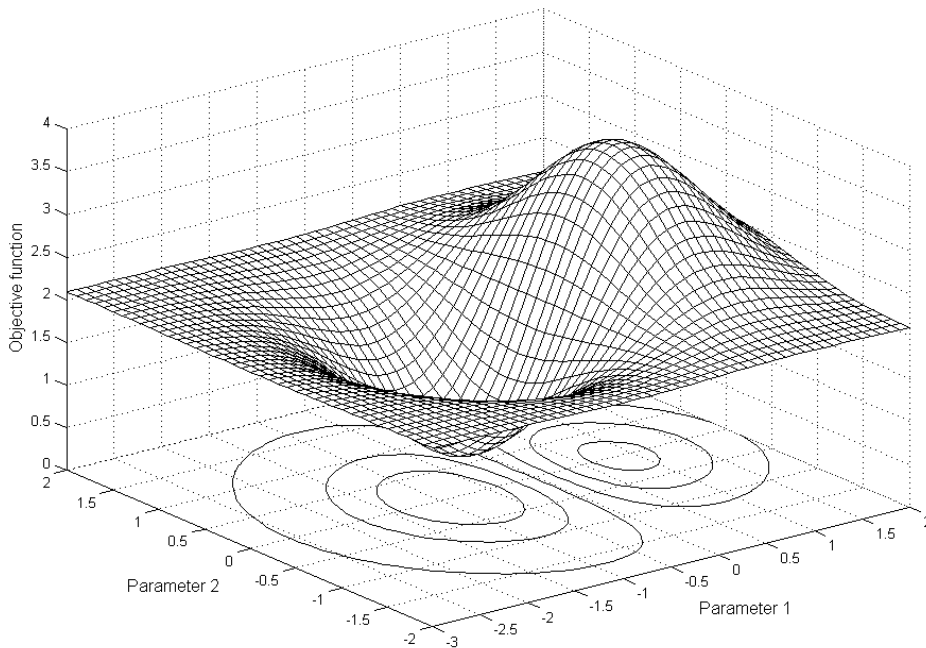


Fig. 1. Objective function versus parameter 1 and parameter 2.

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- [1] Pistun, Y. , Lesovoy, L. , Matiko, F., Fedoryshyn, R. (2014) Computer Aided Design of Differential Pressure Flow Meters. *World Journal of Engineering and Technology*, **2**, 68–77. doi: 10.4236/wjet.2014.22009.
- [2] Malik, A.S., Boyko, O., Atkar, N. and Young, W.F. (2001) A Comparative Study of MR Imaging Profile of Titanium Pedicle Screws. *Acta Radiologica*, **42**, 291–293. <http://dx.doi.org/10.1080/028418501127346846>
- [3] Hu, T. and Desai, J.P. (2004) Soft-Tissue Material Properties under Large Deformation: Strain Rate Effect. *Proceedings of the 26th Annual International Conference of the IEEE EMBS*, San Francisco, 1-5 September 2004, 2758–2761.
- [4] Ortega, R., Loria, A. and Kelly, R. (1995) A Semiglobally Stable Output Feedback PI2D Regulator for Robot Manipulators. *IEEE Transactions on Automatic Control*, **40**, 1432-1436.<http://dx.doi.org/10.1109/9.402235>
- [5] Wit, E. and McClure, J. (2004) *Statistics for Microarrays: Design, Analysis, and Inference*. 5th Edition, John Wiley & Sons Ltd., Chichester.
- [6] Prasad, A.S. (1982) Clinical and Biochemical Spectrum of Zinc Deficiency in Human Subjects. In: Prasad, A.S., Ed., *Clinical, Biochemical and Nutritional Aspects of Trace Elements*, Alan R. Liss, Inc., New York, 5–15.
- [7] Wright and Wright, W. (1906) Flying-Machine. US Patent No. 821393.
- [8] R. Fedoryshyn, Y. Hren, F. Matiko, "Modeling of Dynamic Characteristics of Impulse Lines of the Differential Pressure Flow Meters", *Proc. of Lviv Polytechnic National University: Heat Power Engineering. Environmental Engineering. Automation*, No. 659, 2009, pp. 73–78. (in Ukrainian)

## Назва статті

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**Ключові слова:** від 4 до 8 слів; відділяти крапкою з комою.