## GRAPH-ANALYTICAL METHOD FOR ESTIMATION OF FLOWS DISTRIBUTION IN LOW-PRESSURE GAS TRANSPORT SYSTEMS

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## **ABSTRACT**

The purpose of the work is to create a simplified physical model of a closed local gas system at low pressure (up to 500 mbar) for supply of consecutively connected single consumers or group consumers. Graph-analytical method for estimation the distribution of flows in ring and linear system for transport of technical fluids has been developed.

## REFERENCES

- 1. Bobilov, V., D. Radev, Z. Kolev, P. Zlatev, G. Genchev, P. Mushakov. *Specifications for consumers' gas supply at ring circuit contour*. Scientific Conference of University of Ruse, volume 50, series 1.2, Ruse, Bulgaria, p.78-82, in Bulgarian (2012).
- 2. Zhila, V., S. Kalchevski. *Gas supply and effective use of natural gas*. Sofia, Bulgaria, ISBN 978-619-160-122-6, in Bulgarian (2013).
- 3. Komina, G., P., A. O. Proshutskii. *Hydraulic calculation and design of gas pipelines: a manual of discipline "Gas supply" for students from the speciality 270109 Gas supply and Ventilation*. ISBN 978-5-9227-0179-2. in Russian (2010).
- 4. Nikolov, G. *Distribution and use of natural gas*. Sofia, Bulgaria, ISBN 978-954-92023-1-1, in Bulgarian (2007).