# Prof. G. Gigineishvili
# Publications (2018-2025)

## Monograph

1. Magrakvelidze T., Gigineishvili G., Lomidze Kh., Mikashavidze A., Koberidze T. Intensification of Heat Transfer by the Method of Artificial Roughness at a Liquid Film Flowing Down a Vertical Surface. Tbilisi: "Technical University", 2023, 191p. (In Georgian).

## Articles

1. Magrakvelidze T., Koberidze T., Gigineishvili G., Mikashavidze A., Lomidze Kh. Experimental Study of the Influence of Artificial Roughness on the Intensity of Heat Transfer from the wall of a Stearred Apparatus. Proceedings of A. Eliashvili Institute of Control Systems of the Georgian Technical University, 2025, №29, pp. 55-63. (In Georgian).

2. Shekriladze I., Machavariani E., Gigineishvili G., Shekriladze D. Mathematical Modeling and Experimental Study of the Shock Boiling Process. "Energy", 2024, №3(111), pp. 46-52. (In Georgian).

3. Magrakvelidze T., Gigineishvili G., Mikashavidze A., Koberidze T., Lomidze Kh. Influence of Two-Dimensional Roughness on Heat Transfer during a Water Film Flow Down on a Vertical Flat Plate. Proceedings of A. Eliashvili Institute of Control Systems of the Georgian Technical University, 2024, №28, pp. 64-72. (In English).

4. Gigineishvili G., Magrakvelidze T., Mikashavidze A., Koberidze T., Lomidze Kh., Makrakhidze L. Influence of the Shape of Two-Dimensional Roughness on Heat Transfer when a Water Film Flows Along the Outer Surface of a Vertical Pipe. Proceedings of A. Eliashvili Institute of Control Systems of the Georgian Technical University, 2023, №27, pp. 64-69. (In Georgian).

5. Magrakvelidze T., Gigineishvili G., Mikashavidze A., Koberidze T., Lomidze Kh. Influence of the Prandtl number on heat transfer at liquid film flows down smooth and rough surfaces. Proceedings of A. Eliashvili Institute of Control Systems of the Georgian Technical University, 2022, №26, pp. 43-48. (In Georgian).

6. Magrakvelidze T., Gigineishvili G., Mikashavidze A., Koberidze T., Lomidze Kh. Influence of the relative step of two-dimensional roughness on the power required for mixing in the apparatus with a stirrer. Proceedings of A. Eliashvili Institute of Control Systems of the Georgian Technical University, 2022, №26, pp. 43-48. (In Georgian).

7. Magrakvelidze T., Gigineishvili G., Mikashavidze A., Koberidze T., Lomidze Kh. Influence of the Type of Roughness on the Intensification of Heat Transfer During the Water Film Flow. Proceedings of

A. Eliashvili Institute of Control Systems of the Georgian Technical University, 2021, №25, pp. 67-73. (In Georgian).

8. Magrakvelidze T., Gigineishvili G., Mikashavidze A., Koberidze T., Lomidze Kh. Influence of Vertical Surface Roughness on Heat Transfer Under Conditions of Water Film Flow. Proceedings of A. Eliashvili Institute of Control Systems of the Georgian Technical University, 2020, №24, pp. 51-55. (In Georgian).

9. Magrakvelidze T., Gigineishvili G., Mikashavidze A., Koberidze T., Lomidze Kh. The effect of the hight of the roughness elements on the intensification of heat transfer at water film flow on a vertical pipe. Proceedings of A. Eliashvili Institute of Control Systems of the Georgian Technical University, 2019, №23, pp. 60-64. (In Georgian).

10. Magrakvelidze T., Gigineishvili G., Mikashavidze A., Koberidze T., Lomidze Kh. Heat Transfer During Runoff of Water Film on External Smooth and Rough Surfaces of Vertical Pipe. "Energy", 2019, №2(90), pp. 35-40. (In Georgian).

11. Magrakvelidze T., Gigineishvili G., Mikashavidze A., Koberidze T., Lomidze Kh. The Effect of Combined Roughness on Heat Transfer During the Flow of a Water Film on a Vertical Surface. Proceedings of A. Eliashvili Institute of Control Systems of the Georgian Technical University, 2018, №22, pp. 60-64. (In Georgian).

## International Conferences:

1. Shekriladze I., Machavariani E., Gigineishvili G., Shekriladze D. On Numerical Modeling of the Working Cycle of a Pulsating Steam Engine-Pump Using Low-Grade Heat. Proceedings of the 1st International Congress on Energy Systems Engineering – INESEK 2024, Kutaisi, Georgia, 2024, pp. 198-204. (In English).

2. Magrakvelidze T., Gigineishvili G., Mikashavidze A., Koberidze T., Lomidze Kh. Influence of the Prandtl Number on Heat Transfer at Liquid Film Flows Down Smooth and Rough Surfaces. Proceedings of the 8th Thermal and Fluids Engineering Conference (TFEC), University of Maryland, College Park, MD, USA, 2023, Paper No. TFEC-2023-45749. (In English). (Indexed in Scopus).

3. Magrakvelidze T., Gigineishvili G., Mikashavidze A., Koberidze T., Lomidze Kh. Intensification of Heat Transfer by the Method of Artificial Roughness at a Water Film Flows down on Vertical Pipe. Proceedings of the 9th International Conference on Fluid Flow, Heat and Mass Transfer (FFHMT'22), Niagara Falls, Canada, 2022, Paper No. 160. (In English). (Indexed in Scopus).

4. Machavariani E, Gigineishvili G., Jikhvadze M., Ksovreli N. Results of Video Recording of the Action of Reactive Forces on the Heating Surface in the Process of Liquid Boiling. Proceedings of the III International Scientific and Technological Conference - "Modern problems of power engineering and ways of solving them", Tbilisi, Georgia, 2021, "Energy", №2(98), part I, pp. 145-148. (In Georgian).