Увеличение количества витков турбулизатора и степени неравномерности шага закрутки повышают эффективность работы теплообменника, в то же время существенно влияют на его расходные характеристики (рис. 4), что может приводить при неблагоприятных условиях к попаданию угарного газа в жилые помещения.

Проведение численных экспериментов позволяет на стадии проектирования выбирать оптимальную геометрию теплообменников и существенно сэкономить на проведении дорогостоящих натурных экспериментов.

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BLOCKCHAIN TECHNOLOGY. GREAT PROSPECTS VS CONFLICT OF INTERESTS

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Currently we are living in the middle of the Fourth Industrial Revolution and the Fifth Revolution is yet to come. Technologies are being developed and integrated into world’s infrastructure and our everyday life very rapidly. Along with new technologies great prospects and changes are coming. For instance blockchain technology. A lot of scholars and experts all over the world find it very promising and suggest that it can change most of economic industries immeasurably. This technology has many advantages comparing to the technologies which we are using in various informational systems now. Decentralization, transparency, resistance to unauthorized acts, eliminating the need in trusted intermediary, using these and many other benefits which blockchain technology gives we can cope many challenging issues we are standing in front of [1-2].

This technology is clearly innovative and aspirational. But how can the world handle all the prospects and changes arriving with it? It seems more likely that blockchain technology integration into world’s greatest industries will not be done as quickly as it can be. Because there is a conflict of interests around it. There is no doubt that most of the people would be happy if systems of public records, real property registers, banking systems or even voiting systems became more democratic and transparent. But moving to more democratic and transparent systems means redistribution of power and significant resistance always comes with it.
Moreover, all the businesses and organizations which play the role of a trusted intermediary in different fields might be killed by blockchain technology.

Attitude to the blockchain technology varies in different countries. Figure 1, which was based on the data from Deloitte’s 2019 Global Blockchain Survey [3], shows that from 40 to 73 per cents of respondents consider blockchain technology as one of their top strategic priorities. China, as a country with a constantly growing economy, is the most interested in blockchain technology. On the other hand, United States have succeeded the most in its implementation, about 29 per cents of respondents from United States already brought blockchain to production. But it must be considered that the percent of the respondents who think that blockchain technology will disturb their industry is also pretty significant. In some countries up to one-third of respondents strongly agree with this statement.

![Fig. 1. Attitudes about blockchain technology in different developed countries](image)

Actors who have the biggest power in their hands will always be against democracy and transparency to some extent. For example banking systems leaders or government representatives taking management decisions take into account their personal or company’s interests. In certain situations interest of the society are not protected enough, especially when country’s law is weak. Wealth inequality, shadow economy and corruption are corresponding to the lack of transparency and decentralization. All the destructive phenomenons mentioned above are mostly concentrated between the elite administrators who have financial benefits from that. It is a well-known fact that money gives power. The richest people tend to lobby their interests neglecting interests of the poor majority. There is evidence to suggest that some of the most powerful stakeholders will make a significant resistance to the blockchain technology integration into certain systems.

Many of the profitable institutions provide intermediary services. Financial companies, insurance companies, real estate agencies, property registers and many other institutions act as an intermediaries in range of economic processes. We pay them high fee in return for confidence in the partner we are dealing with. But distributed blockchain ledger stores all the data about every actor and every actor has his own copy of all the records ever been made in the system. Within blockchain system you can deal with partners directly. That is why blockchain can replace intermediary institutions in close future, but it is clear that isn’t in their best interests.
Therefore, they will be forced to create barriers for blockchain technology to overtake their industries.

**Conclusion.** To sum up, blockchain technology is about much more than technology — it is about building a more transparent, decentralized, and democratic ecosystem. It involves a tremendous systemic change across many sectors of economy, politics, and law, which may not be easily accepted by the wealthiest interested parties. Blockchain technology integration may be significantly slowed down and restricted by efforts of intermediary industry’s representatives, shadow economy representatives, and many others who risk losing their money-making or money-laundering opportunities. And developing countries are especially exposed to such processes. But we can assume that not all the areas will be affected by this tendency. Many successful blockchain-based projects already exist, such as Walmart’s supply chain management project, Estonian blockchain-based public record data center, etc. Blockchain the same as other technologies provide us solutions to many global issues and we must avail ourselves of this possibility to make the world we live in better. Dealing with new technologies we must pay attention to the global social interests and protect technical revolution from going the wrong way.

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**DAPPER AS ONE OF THE MOST POWERFUL ORM ON THE ASP.NET PLATFORM**

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Dapper is a tool from Stack Exchange that compares the results of sql queries with c# classes. In this regard, Dapper is a bit like the Entity Framework [1]. However, due to its lightness, Dapper provides greater performance and faster query execution than EF Core.

The necessary code for working with Dapper is shown in picture 1. Dapper is currently one of the most convenient tools for working with big data, easy to learn, universal for API, high-performance, high-speed and lightweight ORM [2].