

## Publications: National Technical University “Kharkiv Polytechnic Institute”

### SDG13: Climate Action (2021-2024)

No	Title	Authors	Year	Scopus Source title	Abstract
1.	Multi-Objective Optimization of Energy Aware Virtual Machine Placement in Cloud Data Center	Gomathi, B., Saravana Balaji, B., Krishna Kumar, V., Abouhawwash, M., Aljahdali, S., Masud, M., Kuchuk, N.	2022	Intelligent Automation and Soft Computing	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85127800852&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85127800852&amp;origin=resultslist</a>
2.	Integration of low-grade heat from exhaust gases into energy system of the enterprise	Kapustenko, P., Arsenyeva, O., Fedorenko, O., Kusakov, S.	2022	Clean Technologies and Environmental Policy	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85104850820&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85104850820&amp;origin=resultslist</a>
3.	Experimental investigation of thermal and hydraulic performance of panel plate heat exchangers	Arsenyeva, O., Perevertaylenko, O., Tovazhnyansky, L., Arsenyev, P., Kapustenko, P.	2023	Thermal Science and Engineering Progress	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85164124795&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85164124795&amp;origin=resultslist</a>
4.	Assessment of renewable energy use in natural gas liquid processing by improved process integration with heat pumps	Boldyryev, S., Kuznetsov, M., Ryabova, I., Krajačić, G., Kaldybaeva, B.	2023	e-Prime - Advances in Electrical Engineering, Electronics and Energy	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85168495257&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85168495257&amp;origin=resultslist</a>
5.	Environmental and economic assessment of the efficiency of heat exchanger network retrofit options based on the experience of society and energy price records	Boldyryev, S., Gil, T., Ilchenko, M.	2022	Energy	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85137094201&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85137094201&amp;origin=resultslist</a>
6.	Viable forecasting monthly weather data using time series methods	Soomro, R., Ghauri, S.P., Marri, A.A., Vambol, S., Dung, H.T., Manzoor, N., Bano, S., Shahid, S., Asadullah, Farooq, A., Lutsenko, Y.	2023	Ecological Questions	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85144166826&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85144166826&amp;origin=resultslist</a>

7.	Applying Process Integration for energy savings in buildings and building complexes	Kapustenko, P.O., Arsenyeva, O.P.	2022	Handbook of Process Integration (PI): Minimisation of Energy and Water Use, Waste and Emissions	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85166238605&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85166238605&amp;origin=resultslist</a>
8.	THE USE OF BROWN COAL IN UKRAINE TO OBTAIN WATER-SOLUBLE SORBENTS	Sinitsyna, A.O., Karnozhitskiy, P.V., Miroshnichenko, D.V., Bilets, D.Yu.	2022	Naukovyi Visnyk Natsionalnoho Hirnychoho Universytetu	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85137279530&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85137279530&amp;origin=resultslist</a>
9.	Evaluating the challenges and impacts of mixed-use neighborhoods on urban planning: an empirical study of a megacity, Karachi, Pakistan	Kausar, A., Zubair, S., Sohail, H., Anwar, M.M., Aziz, A., Vambol, S., Vambol, V., Khan, N.A., Poteriaiko, S., Tyshchenko, V., Murasov, R., Ejaz, F., Khan, O.I.	2024	Discover Sustainability	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85187127699&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85187127699&amp;origin=resultslist</a>
10.	Individual Heat Substations Integrated with Heat Pumps for District Heating Systems in Ukraine	Yuzbashyan, A., Polyvianchuk, A., Klemeš, J.J., Kapustenko, P., Klochok, E., Arsenyeva, O.	2021	Chemical Engineering Transactions	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85122507739&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85122507739&amp;origin=resultslist</a>
11.	Optimal HEN with PHEs for Carbon Dioxide Capture by Amine Absorption Unit at Coal Fired Power Station	Kapustenko, P., Klemeš, J.J., Perevertaylenko, O., Tovazhnyanskyy, L., Arsenyeva, O., Klochok, E., Ved, V.	2023	Chemical Engineering Transactions	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85179072954&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85179072954&amp;origin=resultslist</a>
12.	Solar Energy Potential in Pakistan: A Review	Muhammadi, A., Wasib, M., Muhammadi, S., Ahmed, S.R., Lahori, A.H., Vambol, S., Trush, O.	2024	Proceedings of the Pakistan Academy of Sciences: Part B	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85195882791&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85195882791&amp;origin=resultslist</a>
13.	Heat Transfer and Pressure Drop Study of Panel Plate Heat Exchanger	Perevertaylenko, O., Tovazhnyanskyy, L., Klemeš, J.J., Arsenyev, P., Arsenyeva, O., Kapustenko, P.	2022	Chemical Engineering Transactions	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85139330969&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85139330969&amp;origin=resultslist</a>

14.	Sovereign green bonds as an unconventional tool to address climate change	Manda, V.K., Yadav, A., Shivani, Sangwan, V., Vambol, S.	2024	Ecological Questions	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85189884192&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85189884192&amp;origin=resultslist</a>
15.	Improving the Economic Efficiency of Heat Pump Integration into Distillation Columns of Process Plants Applying Different Pressures of Evaporators and Condensers	Boldyryev, S., Ilchenko, M., Krajačić, G.	2024	Energies	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85185714175&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85185714175&amp;origin=resultslist</a>
16.	Spatial-Temporal Analysis of Ambient Air Quality in Karachi through Geostatistical Interpolation (IDW) Technique	Idress, M., Nergis, Y., Afzal, A., Ahmed, S.R., Vambol, V., Vambol, S., Butt, J.A., Sharif, M., Yeremenko, S.	2023	Journal of Environmental Accounting and Management	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85170688610&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85170688610&amp;origin=resultslist</a>
17.	Analysis of the Efficiency of Agricultural Tires for Low-Power Electric Tractors	Kozhushko, A., Rebrov, O., Kalchenko, B., Sirovitskiy, K., Mudryi, Y.	2024	Lecture Notes in Networks and Systems	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85203175741&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85203175741&amp;origin=resultslist</a>
18.	Improving the Reliability of Circulating Water Supply Installations of Thermal Power Plants	Moiseev, V., Manoilo, E., Manoilo, Y., Repko, K., Davydov, D.	2023	Lecture Notes in Networks and Systems	<a href="https://www.scopus.com/record/display.url?eid=2-s2.0-85172001379&amp;origin=resultslist">https://www.scopus.com/record/display.url?eid=2-s2.0-85172001379&amp;origin=resultslist</a>