

ABSTRACT&REFERENCES

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BRAND AND BRANDING IDENTIFICATION IN PROFESSIONAL ACTIVITY OF ARCHITECT

p. 6-8

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The article classifies the definitions of brand and lists its structural components. Branding in architecture is considered in three aspects: in the field of commercial real estate, architect – brand, and city branding. Branding in the field of commercial real estate requires the most attentive attitude to the brand on the part of the architect. The phenomenon of “architect - brand” is interesting from a social point of view. City branding is seen in the European experience

Keywords: brand, branding, architectural design, individualization, identity, brand conception, city branding, globalization

References

1. Vasilevsky, V. V. (2006). Marketing strategy of the shopping center: from shopping to happing. *Commercial Rent*, 12 (28), 36–39.
2. Tamberg, V., Badin, A. (2005). *Brand. The fighting machine of business*. Moscow: New branding, 240.
3. Ellwood, A. (2003). *Basics of branding*. Moscow: Publishing House Grand Fair Press, 336.
4. Chicherova, L. (2007). Profitable place: Brands in circulation. *Vedomosti*, 72 (1846). Available at: http://franshiza.ru/article/read/dohodnoe_mesto/
5. Mommaas, H. (2003). *City branding. The Necessity of Socio-cultural goals. City branding. Image building & building images*. Rotterdam: Nai Uitgevers, 34–45.
6. Florian, B. (2003). *The City as a Brand. Orchestrating a unique experience. City branding. Image building & building images*. Rotterdam: Nai Uitgevers, 20–31.
7. Shipova, I. (2007). *Offices in postindustrial Europe: the case of Germany. Project Russia. A business*, 4, 74.
8. Ryabokobylko, S. (2007). *The aesthetic project is always successful. Project Russia. A business*, 46.
9. Bronovitskaya, A. (2008). *Hotels: features of the genre. Project Russia. Hospitality*, 1.
10. Nikolina, P. (2007). *The Milan boom. From the ethics of production to the aesthetics of consumption. Project International*, 18.
11. Speaks, M. (2003). *Individualization without identity. City branding. Image building & building images*. Rotterdam: Nai Uitgevers, 50–65.

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RESEARCH OF FUNCTIONING OF NATIONAL MARKETS OF SECURITIES IN THE WORLD FINANCIAL CENTERS

p. 9-15

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The article investigates the world financial centers and rating of leaders among them. It is proved that an important component of the world financial centers is the developed securities markets, in particular the London, New York, and Tokio, which have a significant share of world capital. The current state, problems and tendencies of the securities market development in Ukraine are analyzed

Keywords: world financial center, market of securities, stock exchange, index

References

1. Kovalenko, Yu. M. (2013). Institutionalization of financial sector. Irpin: NUDPSU, 608.
2. Shuba, M. V. (2014). Global financial centers - «heart» of the global financial market. *Bulletin KNU named after V. N. Karazin*, 1 (3), 85–88.
3. Scherban, O. D. (2013). Determining the structure of modern international financial market. *Scientific Journal: Finance, banks, investment*, 2, 64–68.
4. Redzyuk, E. (2015). Impact of stock markets of developed countries and developing countries, international financial and investment processes. *Bulletin of the National Bank of Ukraine*, 5, 50–56.
5. GFCI – Global Financial Centres Index. Available at: <http://www.zyen.com/research/gfci.html>.
6. Financial Portal of the Ministry of Finance of Ukraine. Available at: <http://index.minfin.com.ua/stock/>
7. Kovalenko, Yu. M., Vorobei, A. S. (2015). Functioning of the stock market of Ukraine in modern conditions. *Collection of scientific papers of the National University of the State Tax Service of Ukraine*, 1, 122–133.
8. National Securities and Stock Market Commission. Available at: <https://www.nssmc.gov.ua>
9. PFTS Stock Exchange. Available at: <http://www.pfts.ua>
10. Ukrainian Exchange. Available at: <http://www.ux.ua/ru/index/ux>

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COMPARISON OF SPECIFICITY AND FEATURES OF DEFINITION OF MARKETING AND BRANDING IN THE FIELD OF TOURISM AND HOTEL BUSINESS

p. 15-18

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The article is devoted to the issues of development of marketing activities and branding in the field of tourism and hotel industry, which is very relevant in conditions of increased competition, which is formed on the market of tourist services and hospitality services. The specifics of the concept of marketing and branding are analyzed, taking into account the specifics of the branch, the differences between the concepts of marketing and branding are determined

Keywords: *tourism, hotel and restaurant business, marketing, branding, marketing management, enterprise, competition*

References

1. Berezin, I. S. (1999). Marketing i issledovaniya rynkov. Moscow: Russkaya Delovaya Literatura, 416.
2. Gruzinov, V. P. (2007). Skhema marketingovoy deyatelnosti. Moscow: «Infra – M», 305.
3. Golubkov, E. P. (2003). Osnovy marketinga. Moscow: Izdatel'stvo «Finpress», 656.
4. Gerchikov, I. N. (1995). Menedzhment. Moscow: Banki i birzhi, YUNITI, 480.
5. Il'in, A. I. (2001). Planirovanie na predpriyatii. Minsk: Novoeznanie, 635.
6. Planirovanie kak funkciya menedzhmenta. Kompaniya «Pozitiv». Available at: <http://www.diplomkurs.ru/menedzhment-teoriya-upravleniya-i-organizatsii/planirovanie-kak-funktsiya-menedzhmenta-referat.html>
7. Lysytsia, N. M. (2002). Sotsialna pryvablyvist – osnova rozvytku spozhyvchoi povedinky u suchasnomu suspilstvi. Materialy mizhnarodnoi sotsiolohichnoi konferentsii. Kharkiv.
8. Pankruhin, A. P. (2006). Marketing territoriy. Sankt Peterburg: Piter, 416.
9. Dinni, K. (2013). Brending territoriy. Luchshie mirovye praktiki. Moscow: Mann, Ivanov i Ferber, 336.
10. Kotler, F., Asplund, K., Reyn, I., Hayder, D. (2005). Marketing mest. Privlechenie investitsiy, predpriyatii, zhiteley i turistov v goroda, kommuny, regiony i strany Evropy. Sankt Peterburg: Stokgol'mskaya shkola ehkonomiki v Sankt-Peterburge, Piter, 382.

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SUBSTANTIATION OF EFFICIENCY OF AGRICULTURAL ENTERPRISES COOPERATION FOR EXPORT OF GRAIN OF BARLEY

p. 19-23

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The modern tendencies, features and problems of development of agricultural servicing cooperation in Ukraine were analyzed. The main tasks and advantages of the agricultural servicing cooperative were defined. The efficiency of establishing of agricultural servicing cooperative by the enterprises-producers of grain of barley was evaluated in order to form and develop their export potential. Possibilities of increase of competitiveness of products are marked at its production and realization within the framework of cooperative store

Keywords: *agricultural servicing cooperative, export, agricultural enterprise, efficiency, grain of barley*

References

1. Lupenko, Yu. O., Malik, M. Y., Novikov, H. V., Korinets, R. Ya. (2013). Zernovyi obsluhovuyuchyi kooperatyv. Kyiv: NNU «Instytut ekonomiky», 122.

2. Mohylnyi, O. M. (2001). Osnovni kryterii silskohospodarskykh obsluhovuyuchykh kooperatyviv. Visnyk Poltavskoho silskohospodarskoho instytutu, 5-6, 26–28.

3. Malik, M. Y. (2010). Naukovo-metodychne zabezpechennya rozvytku kooperatsiyi v ahraryi sferi ekonomiky. Ekonomika APK, 12, 103–108.

4. Korinets, R. Ya., Malik, M. Y. (2016). Informatsiyne zabezpechennya silskohospodarskoyi obsluhovuyuchoyi kooperatsiyi v Ukraini. Ekonomika APK, 8, 61–69.

5. Ihnatenko, M. M., Chupaylenko, O. A. (2012). Perspektyvy rozvytku obsluhovuyuchykh kooperatyviv u silskomu hospodarstvi Ukrainy. Visnyk Berdyanskoho universytetu menedzhmentu i biznesu, 2 (18), 45–49.

6. Revutska, A. O. (2014). Kooperatsiya yak perspektyvnyi napryam rozvytku ahropromyslovkykh pidpryemstv. Ekonomichniy prostir, 84, 190–199.

7. Alkoley, D., Bondarchuk, V., Zuyev, V., Lutsenko, Ye., Moldovan, L. (2013). Dosvid Kanady ta krainy ES u sferi polityky z pidtrymky rozvytku silskohospodarskykh obsluhovuyuchykh kooperatyviv. Kyiv: K.I.S., 132.

8. Dynamika rozvytku silskohospodarskykh obsluhovuyuchykh kooperatyviv v Ukraini za 2009–2016 rr. Available at: <http://minagro.gov.ua/ministry?nid=15750>

9. Pro opodatkovannya prybutku pidpryemstv (1994). Verkhovna Rada Ukrainy, No. 334/94-VR. Available at: <http://zakon3.rada.gov.ua/laws/show/334/94-%D0%B2%D1%80>

10. Pro silskohospodarsku kooperatsiyu (1997). Verkhovna Rada Ukrainy, No. 469/97-VR. Available at: zakon.rada.gov.ua/go/469/97-%D0%B2%D1%80

11. Podatkovyi kodeks Ukrainy (2010). Verkhovna Rada Ukrainy, No. 2755-VI. Available at: <http://zakon3.rada.gov.ua/laws/show/2755-17>

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STUDY OF THE LEGAL STATUS AND THE INTERCONFESSIONAL RELATIONSHIPS OF THE ADVENTISM CHURCH IN THE INTERWAR PERIOD WITHIN THE TERRITORY OF GALICIA AND VOLYN

p. 24-28

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The social and legal status of the Adventist Church during the period of 1919–1939 within the territories of Galicia and Volyn that had been under the rule of the Second Commonwealth is analyzed on the basis of archival and historical data. It is defined that the March Constitution of 1921 guaranteed religious freedom to Protestant denominations. It is proved that the interconfessional relations between the Adventist Church and other religious denominations within the stated period in most cases had been peaceful

Keywords: *Adventist Church, Second Commonwealth, interconfessional relations, social and legal status of the Adventist congregations*

References

1. Zhukalyuk, M. (1988). Kriz buri, shtormy, lykholittya. Kyiv: Dzherelo zhyttya, 544.
2. Ludtke, A. (1928). Zgromadzenie polskiego Zjednoczenia. Sługa zboru, 3, 32.
3. Babienco, T. (1934). Ogłoszenie. Sługa zboru, 4, 24.
4. DAVO Fond 46, Opys 9, sprava 1859, 17–18.
5. DAVO Fond 46, Opys 9, sprava 1861, 1–2.
6. DARO Fond 129, opys 1, sprava 35, 11–12.
7. DALO Fond 243, opys 1, sprava 449, 11–38.
8. Will, T. (1928). Kwestja szkolna i wojskowość. Sługa zboru, 4, 20–22.
9. Will, T. (1929). Kwestja szkolnictwa i wojskowości. Sługa zboru, 1, 28–30.
10. AAN Dep. 5 MWR i OP zespol 14, sygn. 1437, 46–47.
11. Will, T. (1929). Kwestja szkolnictwa i wojskowości. Sługa zboru, 2, 20–21.
12. Lyko, Z. (1979). Sytuacja prawna Kościoła Adwentystycznego w Polsce Międzywojennej 1918–1939. Warszawa: Znaki Czasu, 379.
13. Maszczak, A. (1935). Nekrologi. Sługa zboru, 10, 20–24.
14. Czembor, W. (1938). Budowanie i utrzymywanie Domów Modlitwy i Sal Zborowych. Sługa zboru, 12, 16–17.
15. Poliszczuk, P. (1933). Doświadczenie wśród czerwoncych. Sługa zboru, 11, 16.
16. Piątek, K. (1933). Grupa, która wyszła z wielkiego ucisku. Sługa zboru, 6, 8–10.
17. Walter, M. (2005). Dzieje kościoła Adwentystów dnia siódmego na kresach wschodnich w latach 1888–1945. Warszawa: Znaki Czasu, 618.
18. Leda, A. Y. (2006). Protestants'ki techiyi v relihiynomu zhyt'ny ukrayintsiv Halychyny u mizhvoyennyi period (1919–1939 rr.). Lviv, 20.

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THEATRICALIZATION OF SOCIOCULTURAL COMMUNICATION: METHODOLOGICAL SUBSTANTIATION OF THE RESEARCH APPROACH

p. 29-32

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It is shown that many types of sociocultural communication have the features of theatricality. It is considered theatricalization not only as a form of communication, but also as a paradigm in the research approach. It is methodological based on two plans: on examples of transfer of theatrical terminology to non-theatrical spheres and in correlation with systems approach

Keywords: social communication, theatricality, method, discourse, project management, role, image

References

1. Pohepcov, G. G. (2003). Teoriya komunikacii. Moscow: Refl-buk; Kyiv: Vakler, 652.
2. Sokolov, A. V. (2002). Obshchaya teoriya social'noy komunikacii. Sankt-Peterburg: Izd-vo Mihaylova V. A., 461.
3. Zotov, V. V. (2007). Stanovlenie informacionno-kommunikativnoy sredy sovremennoogo obshchestva: sociologicheskii analiz institucional'nyh transformaciy. Kursk: Kurs. gos. tekhn. un-t, 246.

4. Masi, N. (2013). Kultura komunikatsiina abo komunikativna: osmyslennia ta rozmezhuвання понiat. Arkadiia, 2 (43), 50–55.
5. Shtain, O. (2013). Ryzoma kak topos novoi kommunykativnoi realnosti. Arkadiya, 1 (36), 16–18.
6. Bakanurskiy, A. G. (2013). Kommunikativnye aspekty teatral'nogo spektaklya. Kherson: Grin' D. S., 276.
7. Ovcharenko, T. (2015). Kommunikativnye vozmozhnosti teatral'noy kukly v prostranstve muzeya. Arkadiya, 3 (44), 19–24.
8. Davydov, I. S. (2007). Teatral'nost' kak fenomen kul'tury. Izvestiya Ros. gosud. ped. un-ta im. A. I. Gercena, 61–65.
9. Buvalets, O. O. (2013). Teatralnist i teatralizatsiia v suchasnomu kulturolohichnomu diskursi. Kultura Ukrainy, 43, 20–23.
10. Maksymenko, M. (2010). Muzeinyi performans yak zasib komunikatsii, peredachi kulturno-informatsiinoho povidomlennia. Arkadiya, 3 (29), 25–29.
11. Chebotnikova, T. A. (2012). Rol'-maska: usloviya realizacii i neytralizacii. Vestnik Orenburgskogo gosud. ped. un-ta, 2 (2), 74–80.
12. Prokopovich, L. (2016). Visualization of cultural identity through costume jewelry as a form of theatricality of everyday life. ScienceRise, 11 (28), 15–19. doi: 10.15587/2313-8416.2016.82838
13. A. A. Gricanov (Ed.) (2003). Noveyshiy filosofskiy slovar'. Moscow: Knizhnyy Dom, 1280.
14. Kassirer, E. (1998). Poniattia symvolichnoi formy v strukturi pro dukh. Kulturolohiiia XX stolittia, 1, 37–66.
15. Lotman, Yu. M. (1992). Teatr i teatral'nost' v stroe kul'tury nachala XIX veka. Vol. 1. Izbrannye stat'i. Tallinn: Aleksandra, 269–286.
16. Andreeva, I. M. (2002). Teatral'nost' v iskusstve. Rostov-na-Donu, 241.
17. Mazur, I. I., Shapiro, V. D., Ol'derogge, N. G. (2004). Upravlenie proektami. Moscow: Omega-L, 664.
18. Rol' (iskusstvo). Wikipedia. Available at: [https://ru.wikipedia.org/wiki/Роль_\(искусство\)](https://ru.wikipedia.org/wiki/Роль_(искусство))
19. Bakanurskiy, A. G., Ovchinnikova, A. P. (2007). Sovremennyy teatral'no-dramaticheskii slovar'. Odessa: Studiia «Nego-ciant», 340.
20. Sherstyuk, O. I., Oganov, A. V. (2014). Rolevaya paradigma formirovaniya komandy proekta. Upravlinnia rozvytkom skladnykh system, 20 (1), 97–101.
21. Sherstyuk, O. I., Gogunskiy, V. D. (2013). Imperativ kompetentnosti ili ravnovesie roley v komande proekta. Upravlenie proektami: sostoyanie i perspektivy. Nikolaev: NUK, 390–391.
22. Tolkoviy slovar' Efremovoy. Available at: <http://www.efremova.info/>
23. Prokopovich, L. “Denim jewelry” in the context of theatricality of everyday life. ScienceRise, 4 (33), 22–26. doi: 10.15587/2313-8416.2017.99020
24. Prokopovich, L. (2017). Geymery: popytki imidzhevoy vizualizacii subkul'tury. Aktualni doslidzhennia v sotsialnii sferi. Odesa: FOP Bondarenko M. O., 25–27.

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DEVELOPMENT OF AN APPROACH TO ANALYSIS AND OPTIMIZATION OF DATA FLOW DIAGRAMS

p. 33-42

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Basic features of data flow diagrams, their design rules, existing approaches to analysis of data flow diagrams, their advantages and disadvantages have been considered in this research. The approach to analysis and optimization of data flow diagrams based on link analysis application has been proposed. This approach allows identifying the drawbacks of data flow diagrams and developing recommendations in order to their improvement

Keywords: data flow diagrams, structured analysis, business processes, analysis, optimization, link analysis

References

- Yourdon. Ed. (2006). Just Enough Structured Analysis, 643. Available at: <http://zimmer.csufresno.edu/~sasanr/Teaching-Material/SAD/JESA.pdf>
- Hatley, D., Hruschka, P., Pirbhai, I. (2013). Process for System Architecture and Requirements Engineering. Addison-Wesley, 456.
- Miller, F. P., Vandome, A. F., McBrewster, J. (2010). Data Flow Diagram: Information System, Visualization, Computer Data Processing, Flowchart, Control Flow Diagram, Data Island, Data-flow, Functional Flow Block Diagram. Alphascript Publishing, 80.
- Shelly, G., Rosenblatt, H. (2009). Systems Analysis and Design. Cengage Learning, 742.
- Ibrahim, R., Yen, S. Y. (2010). Formalization of the Data Flow Diagram Rules for Consistency Check. International Journal of Software Engineering & Applications, 1 (4), 95–111. doi: 10.5121/ijsea.2010.1406
- Van der Aalst, W., Stahl, C. (2011). Modeling Business Processes: A Petri Net-Oriented Approach. Cambridge: MIT Press, 386.
- Dorrer, M. G. (2010). Algoritm preobrazovaniya modeley biznes-protsessov v odnotsvetnyie seti Petri. Model. i analiz inform. sistem, 28 (12), 5–16.
- Gomez-Lopez, M. T., Perez-Alvarez, J. M., Varela-Vaca, A. J., Gasca, R. M. (2017). Guiding the Creation of Choreographed Processes with Multiple Instances Based on Data Models. Lecture Notes in Business Information Processing, 239–251. doi: 10.1007/978-3-319-58457-7_18
- Roa, J., Reynares, E., Caliusco, M. L., Villarreal, P. (2017). Ontology-Based Heuristics for Process Behavior: Formalizing False Positive Scenarios. Lecture Notes in Business Information Processing, 106–117. doi: 10.1007/978-3-319-58457-7_8
- Arnuphaptrairong, T. (2013). Early Stage Software Effort Estimation Using Function Point Analysis: An Empirical Validation. International Journal of Design, Analysis and Tools for Integrated Circuits and Systems, 4 (1), 15–21.
- Singh, K. A., Dwivedi, U. (2014). Survey of Various cost & Effort Estimation Models. International Journal of Advanced Research in Computer Science and Software Engineering, 4 (8), 1113–1116.
- Analysis of the subject area of the design documentation workflow. Available at: http://www.kb-ametist.com/rus/18_public/10.pdf
- Zamyatina, O. M. (2009). Modelirovanie sistem. Tomsk: Izd-vo TPU, 204.
- Vendrov, A. M. (2005). Proektirovanie programmogo obespecheniya ekonomicheskikh informatsionnykh sistem. Moscow: Finansy i statistika, 544.
- Helmond, A. (2015). The Web as Platform: Data Flows in Social Media. University of Amsterdam, 190.
- Feijs, L., Jonkers, H., Middelburg, C. (1994). Notations for Software Design. Springer Science & Business Media, 425. doi: 10.1007/978-1-4471-2107-7
- Jawadekar, W. S. (2013). Management Information Systems: Text and Cases: a Global Digital Enterprise Perspective. Tata McGraw-Hill Education, 814.
- Fouss, F., Saerens, M., Shimbo, M. (2016). Algorithms and Models for Network Data and Link Analysis. Cambridge University Press, 543. doi: 10.1017/cbo9781316418321
- Boshmaf, Y., Beznosov, K., Ripeanu, M. (2013). Graph-based Sybil Detection in Social and Information Systems. Proceedings of the 2013 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining, 466–473. doi: 10.1145/2492517.2492568
- McCulloh, I., Armstrong, H., Johnson, A. (2013). Social Network Analysis with Applications. John Wiley & Sons, 320.
- Iacob, M.-E., Jonkers, H. (2006). Quantitative Analysis of Enterprise Architectures. Interoperability of Enterprise Software and Applications, 239–252. doi: 10.1007/1-84628-152-0_22
- Nguyen, H., Dumas, M., Hofstede, A., La Rosa, M., Maggi, F. M. (2016). Business Process Performance Mining with Staged Process Flows. Advanced Information Systems Engineering. CAiSE 2016. Lecture Notes in Computer Science, 167–185. doi: 10.1007/978-3-319-39696-5_11
- Kopp, A. M., Orlovskiy, D. L. (2015). Ob odnom podhode k resheniyu zadachi optimizatsii strukturyi biznes-protsessov predpriyatiya. Vestnik NTU «KhPI», 58, 102–108.
- Mead, N. (2008). Requirements Prioritization Case Study Using AHP. Software Engineering Institute.
- Scherbakov, V. A. (2012). Kompleksnyiy ekonomicheskii analiz hozyaystvennoy deyatelnosti predpriyatiya v ryinochnoy ekonomike. Novosibirsk: NSAWT, 216.
- Cross, N. (2008). Engineering Design Methods: Strategies for Product Design. Wiley, 230.
- Miles, L. D. (2015). Techniques of Value Analysis and Engineering. Miles Value Foundation, 433.

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DEVELOPMENT OF THE COMPUTER PROGRAM OF THE MODEL OF POINSON'S ROTATION OF THE OBJECT WITH A FIXED POINT

p. 42-48

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A maple program for interpreting the Poinson's rotation of an object with a fixed point (Euler problem) is developed. In the computer animation mode, a graphical rolling model is obtained without sliding the ellipsoid of inertia of this object along one of its tangent planes. As a result, an image of the herpolhode is constructed on the tangent

plane, and on the surface of the ellipsoid – it corresponds to the polhode

Keywords: Poinot's interpretation, moment of inertia, inertia ellipsoid, rolling of an ellipsoid, polhode, herpolhode

References

1. Buchholz, N. N. (1972). The basic course of theoretical mechanics: Part 2. Moscow: Science, 332.
2. Markeev, A. P. (1990). Theoretical mechanics. Moscow: Science, 416.
3. Rouse, E. J. (1983). Dynamics of systems of solids. Vol. 2. Moscow: Science, 544.
4. Golubev, Yu. F. (2000). Fundamentals of theoretical mechanics. Moscow: Izd-vo MGU, 719.
5. Sivukhin, D. V. (1979). General course of physics. Vol. 1. Mechanics. Moscow: Science, 520.
6. Berezkin, E. N. (1974). Course of Theoretical Mechanics. Moscow: Izd-vo MGU, 646.
7. Wittenburg, I. (1980). Dynamics of a system of solids. Moscow: World, 292.
8. Saranchin, A. I., Corkishko, S. V. (2013). Solution of the Euler equations for a free gyroscope. Bulletin of the Maritime State University. Series: History of marine science, technology and education, 61/2013, 47–69.
9. Program rolling of ellipsoid in package MATHEMATICA. Available at: <https://mathematica.stackexchange.com/questions/23297/how-can-i-simulate-a-pot-lid-rotating-around-an-axis-that-is-quickly-rotating>
10. Savransky, D. Poinot Construction. Available at: <https://www.mathworks.com/matlabcentral/fileexchange/61433-poinot-construction?focused=7212431&tab=function>
11. Free Rotation of a Rigid Body: Poinot Constructions. Available at: <http://demonstrations.wolfram.com/FreeRotationOfARigidBodyPoinotConstructions/>
12. 3D Rigid Body Simulation Instructions. Available at: <http://ialms.net/sim/3d-rigid-body-simulation/>
13. Poinot's construction. Polhode. Available at: <https://www.youtube.com/watch?v=BwYFT3T5uIw>

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MASTER PLAN GEOSPATIAL PROFILE DATA SET MODEL ANALYSIS

p. 48-53

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The specifics of modern data organization models in geoinformation systems are considered and compared. The advantages of using the object-relational model for the development and maintenance settlement master plan geospatial profile data sets are substantiated. The basic principles of forming settlement master plan geospatial profile data sets in object-relational database management system are defined

Keywords: settlement master plan, geospatial datasets, object-relational data model

References

1. The Law of Ukraine «On Regulation of Urban Development» (2011). Verkhovna Rada Ukrainy, No. 3038-VI.
2. DBN B.1.1-15:2012. The composition and content of the settlement master plan (2012). Kyiv: Minregion of Ukraine, 21.

3. Liashchenko, A. (2013). System requirements for the modern urban cadastre and urban planning documentation. Urban and territorial planning, 47, 397–405.

4. Liashchenko, A., Cherin, A. (2011). Architecture of modern GIS based on geospatial data base. Journal of Geodesy and Cartography, 5 (74), 45–50.

5. Introduction to PostGIS (2017). Boundless. Available at: <http://workshops.boundlessgeo.com/postgis-intro/index.html#top>

6. Liashchenko, A., Kravchenko, Yu., Gorkovchuk, D. (2014). Infrastructure approach to the creation of a modern urban cadastre system. Journal of Geodesy and Cartography, 6 (93), 21–27.

7. Aylikova, A., Karpinskiy, Yu., Liashchenko, A., Paleha, Yu., Yanchuk, V. (2013). Methodological issues of GIS technologies usage in urban cadastre systems. Scientific notes of the Taurida National University named after V. Vernadskyi. Series «Geography», 26 (1), 3–11.

8. Aylikova, A., Yanchuk, V. (2013). System of classification and symbols for urban planning documentation objects. Urban and territorial planning, 47, 37–46.

9. Salvemini, M., Vico, F., Iannucci, C. (Eds.) (2011). Plan4all Project Interoperability for Spatial Planning. Plan4all Consortium, 210.

10. Yeh, A. G.-O. (2005). Urban planning and GIS. Geographic Information Systems, 877–888. Available at: http://www.geos.ed.ac.uk/~gisteac/gis_book_abridged/files/ch62.pdf

11. Abel, D. J., Kilby, P. J., Davis, J. R. (1994). The systems integration problem. International Journal of Geographical Information Systems, 8 (1), 1–12. doi: 10.1080/02693799408901984

12. Formulation of GIS-based master plans for amrut cities. Design and Standards (2016). Ministry of Urban Development, 107. Available: http://www.amrut.gov.in/writereaddata/designandStandards_AMRUT.pdf

13. Shypulin, V. (2010). Basic principles of geographic information systems. Kharkiv: KHNAMG, 313.

14. ISO / IEC 13249-3:2011. Information technology – Database languages – SQL Multimedia and Application Packages – Part 3: Spatial (2011). International Organization for Standardization.

15. OpenGIS Implementation Specification for Geographic information – Simple feature access – Part 2: SQL option. Available at: <http://www.opengeospatial.org/standards/sfs>

16. Yeung, A. K. W., Hall, G. B. (Eds.) (2007). Spatial Database Systems. Design, Implementation and Project Management. GeoJournal Library, 553. doi: 10.1007/1-4020-5392-4

17. Maksymova, Yu. (2016). Creation of electronic catalog urban cadastre objects classes for the urban documentation geospatial profile data sets. Urban and territorial planning, 62 (1), 367–377.

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DESIGN OF CONSTRUCTION AND HYDRODYNAMIC MODELING IN A BIOREACTOR WITH SURFACE CULTIVATION OF CELL CULTURES

p. 53-59

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Design of construction of a bioreactor for the cultivation of cell cultures is developed and computer modeling of hydrodynamic apparatus is carried out. The field of velocity vectors of the fluid in the apparatus, the shear rate for a fluid, the fluid shear stress in the area of cell immobilization are obtained. The obtained results confirm the technological effectiveness of bioreactor construction and can be used in the design of pilot samples of the apparatus

Keywords: bioreactor, cell cultivation, computer modeling, hydrodynamics, shear stress, immobilized eukaryotic cells

References

1. Shybetskiy, V. Yu., Semeniuk, S. M. (2017). Accounting for the needs of producers in the design of fermentation equipment. *Biotechnology of the XXI century*. Kyiv: Ed. "Politekhnic", 184.
2. Nedovic, V., Willaert, R. (Eds.) (2013). *Fundamentals of Cell Immobilisation Biotechnology*. Berlin: Springer Science & Business Media, 555. doi: 10.1007/978-94-017-1638-3
3. Eibl, D., Eibl, R., Portner, R. et. al. (2009). *Cell and Tissue Reaction Engineering: Principles and Practice*. Berlin: Springer, 363. doi: 10.1007/978-3-540-68182-3_1
4. Semeniuk, S. M., Shybetskiy, V. Yu. (2016). Bioreactors for cultivation cell culture. *Topical issues of biology and ecology development*. Vinnitsa, 306–308.
5. Bioreaktoren und fermentationssysteme. Available at: http://www.zeta.com/bioreaktoren_161.htm
6. WAVE Bioreactors – GE Healthcare Life Sciences. Available at: <http://www.gelifesciences.com/webapp/wcs/stores/servlet/CategoryDisplay?categoryId=3325260&catalogId=130619&productId=&top=Y&storeId=11251&langId=-1>
7. Freshni, R. Ya. (2010). *Culture of animal cells*. Moscow: BINOM. Laboratory of knowledge, 691.
8. AcuSyst-Xcellerator – C3 Cell Culture Company. Available at: https://static1.squarespace.com/static/5822091e46c3c4379874dc14/t/58824a4d725e250cb2826d0e/1484933709324/CCCO_A4+AcuSyst+Xcellerator_ACV1_V4+%281%29.pdf
9. iCELLis® Bioreactor – Bioreactors Company. Available at: https://shop.pall.com/INTERSHOP/web/WFS/PALL-PALLUS-Site/en_US/-/USD/ViewProduct-Start?SKU=hw7uq211
10. Sharma, C., Malhotra, D., Rathore, A. S. (2011). Review of Computational fluid dynamics applications in biotechnology processes. *Biotechnology Progress*, 27 (6), 1497–1510. doi: 10.1002/btpr.689
11. Guyot, Y., Luyten, F. P., Schrooten, J., Papantoniou, I., Geris, L. (2015). A three-dimensional computational fluid dynamics model of shear stress distribution during neotissue growth in a perfusion bioreactor. *Biotechnology and Bioengineering*, 112 (12), 2591–2600. doi: 10.1002/bit.25672
12. Kopylenko, A. V., Semeniuk, S. M., Shybetskiy, V. Yu., Kostyk, S. I. (2017). Innovative concept of hydrodynamic modeling in a roller bioreactor with surface cultivation of cell cultures. *Science new NUFT*, 23 (2), 114–122.
13. Kostyk, S. I., Ruzhinskaya, L. I., Shybetskiy, V. Yu., Revtov, O. O. (2016). Mathematical simulation of hydrodynamics of the mixing device with magnetic drive. *ScienceRise*, 4 (2 (21)), 27–31. doi: 10.15587/2313-8416.2016.67275
14. Gelbgras, V., Wylock, C. E., Drugmand, J.-C., Haut, B. (2011). Segregated Model of Adherent Cell Culture in a Fixed-Bed Bioreactor. *Chemical Product and Process Modeling*, 6 (1). doi: 10.2202/1934-2659.1522

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RESEARCH OF INFLUENCE OF BIOLOGICAL ACTIVATION ON THE VITAMIN COMPLEX OF GRAIN CEREAL CULTURES

p. 59-63

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The hydrothermal treatment of grain of cereal cultures - wheat, bare grain oats, triticale, which promotes increase in its nutritional value, in particular increase in amount of vitamins, by biological activation is offered. In the course of the offered grain preparation contents of anti-mineral substance of phytin significantly decrease, the content of vitamins of antioxidants, vitamins of group B and inositol considerably grows

Keywords: biological activation, germinated grain, vitamins, wheat, bare grain oats, triticale

References

1. Tsipriyan, V. I. (Ed.) (2001). *Ozdorovitelnoe i dieticheskoe pitanie*. Kyiv: Globus, 336.
2. Vanhanen, V. V., Vanhanen, V. D. (2000). *Uchenie o pitanii*. Donetsk: Donechchina, 352.
3. Yayting, M., Lobstayn, T. (2001). *Pitanie dlya detey i podrostkov*. Moscow: FAIR-PRESS, 270.
4. Prykhod'ko, A. D. (2000). Proroshchene zerno, yak odyn iz chynnykiv vidtvornoyi zdatnosti ptytsi. *Rozvedennya i henetyka tvaryn*, 33, 111–113.
5. Shaskolskaya, N. D., Shaskolskyi, V. V. (2010). *Samaya poleznaya eda – prorostki*. Moscow: Azbuka, 192.
6. Kim, Y. S., Kim, J. G., Lee, Y. S., Kang, I.-J. (2005). Comparison of the Chemical Components of Buckwheat Seed and Sprout. *Journal of the Korean Society of Food Science and Nutrition*, 34 (1), 81–86. doi: 10.3746/jkfn.2005.34.1.081
7. Rakejeva, T., Zagorska, J., Zvezdina, E. (2014). Gassy Ozone Effect on Quality Parameters of Flaxes Made from Biologically Activated Whole Wheat Grains. *International Journal of Biological, Biomolecular, Agricultural, Food and Biotechnological Engineering*, 8 (4), 396–399.
8. Jordan, M., Stoica, A., Popescu, E. C. (2013). Changes in quality indices of wheat bread enriched with biologically active preparations. *Annals. Food science and technology*, 14 (2), 165–170.
9. Mendez, F., Maier, D. E., Mason, L. J., Woloshuk, C. P. (2003). Penetration of ozone into columns of stored grains and effects on chemical composition and processing performance. *Journal of Stored Products Research*, 39 (1), 33–44. doi: 10.1016/s0022-474x(02)00015-2
10. Kim, S.-J., Zaidul, I. S. M., Suzuki, T., Mukasa, Y., Hashimoto, N., Takigawa, S. et. al. (2008). Comparison of phenolic compositions between common and tartary buckwheat (*Fagopyrum*) sprouts. *Food Chemistry*, 110 (4), 814–820. doi: 10.1016/j.foodchem.2008.02.050

11. Arutyunyan, T. V., Hladkyy, F. F., Danylova, L. A. (2013). Zminy lipidnoho skladu pshenytsi ta sputnykh rehovyn pry proro-shchuvanni. *Visnyk NTU «KhPI»*, 55, 104–112.
12. Dudkin, M. S., Cherny, N. K., Kazanskaya, I. S., Vaynshteyn, S. G., Masik, A. M. (1988). *Pischevyie volokna*. Kyiv: Urozhay, 152.
13. Tashmenov, R. S., Sabirov, K. A., Ibragimov, A. Ya., Karabaev, A. Sh. (1990). Analiz fitina v othodah proizvodstva risa. *Himiko-farmatsevticheskiy zhurnal*, 24 (10), 86–87.
14. Antonyuk, V. O., Antonyuk, L. Ya. (2000). Oderzhannya fitinu ta lektinu iz zarodkiv pshenitsi v odnomu tehnologichnomu tsikli. *Ukrayins'kyi biokhimichniy zhurnal*, 72 (2), 97–99.
15. Meletyev, A. Ye., Todosiychuk, S. R., Koshova, V. M. (2007). *Tekhnokhimichnyy kontrol vyrobnytstva solodu, pyva i bezalkoholnykh napoyiv*. Kyiv: Nova knyha, 385.
16. Ermakova, A. I. (Ed.) (1987). *Metodyi biohimicheskogo issledovaniya rasteniy*. Leningrad: Agropromizdat, 430.
17. Ostrovskiy, Yu. M., Spyrchev, V. B., Matusys, Y. Y. et. al.; Ostrovskiy, Yu. M. (Ed.) (1979). *Eksperimentalnaya vitaminologiya*. Minsk: Nauka i tehnika, 552.
18. Kodentsova, V. M. (1994). Vyidelenie riboflavinsvyazyivayuschego apobelka iz belka kurinyh yaits i ego ispolzovanie dlya opredeleniya riboflavina v biologicheskikh obraztsah. *Prikladnaya biohimiya i mikrobiologiya*, 30 (4-5), 603–609.
19. Sripriya, G., Antony, U., Chandra, T. S. (1997). Changes in carbohydrate, free amino acids, organic acids, phytate and HCl extractability of minerals during germination and fermentation of finger millet (*Eleusine coracana*). *Food Chemistry*, 58 (4), 345–350. doi: 10.1016/s0308-8146(96)00206-3