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Content and results of the internship of NRU MGSU students in the Republic of Vietnam in 2024

The paper provides information on how the Department of Construction Organization and Real Estate Management (OSUN) of NRU MGSU organized international practice in Vietnam in the context of the development of international cooperation. The partner was Ho Chi Minh City University of Architecture and Coteccons construction company. NRU MGSU and Ho Chi Minh City University of Architecture actively participate in joint scientific and educational events and conferences that are held both in Russia and in Vietnam. Coteccons is one of the most respected private construction companies in Vietnam, which was founded in 2004. The company's goal is to become a world-class engineering and construction group, the leading corporate group in Vietnam in the XXIst century. The results of the past practical training were summed up at Ho Chi Minh City University of Architecture with the participation of Acting Consul General of the Russian Federation, Consul-Adviser Yu. Nemtsov and attache of the Russian Embassy V. Skosyrev. Participation in international practice allows students to gain real work experience in an international environment, get acquainted with modern technologies and construction methods. Working in Vietnam allowed us to immerse ourselves in the unique culture and traditions of the country, as well as improve the professional skills of students and make them more competitive in the labor market.

Keywords: International practice, Ho Chi Minh City University of Architecture, Coteccons Construction Company, construction in Ho Chi Minh City, construction site control, renewable energy technologies, international co-operation

INTRODUCTION

The Department of Construction Organization and Real Estate Management (OSUN) was organized in 1930. Throughout its long history, the main vector of the department's development has been and remains the desire to provide comprehensive consideration of key aspects of the organization and economics of construction, investment and construction activities, expertise and management of real estate within the framework of educational and research activities.

Today, the OSUN Department is one of the leading and largest departments of the University of NRU MGSU, specializing in teaching students the basics of development, project management, expertise of design estimates, organization and technology of construction, economics and real

estate management, risk management in the investment and construction sector, housing and communal services facilities management and a number of other disciplines related to the implementation of investment projects.-construction projects and real estate management of various levels of complexity. The department conducts active international cooperation with the world's leading organizations in the field of construction, development and maintenance' [1–3].

Thanks to the responsible and painstaking work of the head of the Department of OSUN, Candidate of Technical Sciences, Doctor of Economics, Professor Peter Grabov, it was possible to organize a summer internship for students in the Socialist Republic of Vietnam. The host party was the long-time partner of the NRU MGSU – Ho Chi Minh City University of Architecture (UAH) (Fig. 1)².



Fig. 1. Ho Chi Minh City University of Architecture



1 Department of Construction Organization and Real Estate Management. URL: <https://mgsu.ru/universityabout/Struktura/Kafedri/OSUN/>
2 Official website of Ho Chi Minh City University of Architecture. URL: <http://en.uah.edu.vn/>



Fig. 2. Meeting at Ho Chi Minh City University of Architecture

MAIN PART

The arrival of MGSU students in the Socialist Republic of Vietnam coincided with the date of the state visit of the President of the Russian Federation Vladimir Putin to this country. Vladimir Putin's visit testifies to the Russian Federation's desire to further deepen the comprehensive strategic partnership between the two countries in the new conditions of complex geopolitical competition. During the state visit of the President of the Russian Federation, 15 Russian-Vietnamese documents were adopted and signed, one of which is the agreement between the Government of the Russian Federation and the Government of the Socialist Republic of Vietnam on cooperation in the field of higher education³.

It is worth noting that the MGSU National Research University approached the implementation of this agreement in advance and 4 students were sent to Ho Chi Minh City for a summer internship from June 20 to July 20, 2024.

The content of the practice

NRU MGSU and Ho Chi Minh City University of Architecture actively participate in joint scientific and educational events and conferences that are held both in Russia and in Vietnam. The university staff organized a festive evening with traditional Vietnamese



Fig. 3. CC Coteccons main office



food on the occasion of the arrival of Moscow guests, and also talked about working conditions, safety and features of living in the country (Fig. 2).

The next day, the students, accompanied by Vietnamese teachers, went to get acquainted with the company where they were to practice. The partner was one of the largest shareholders in the construction sector of Vietnam, the construction company Coteccons (Construction Joint Stock Company) (Fig. 3)^{4, 5}.

Coteccons is the most respected private construction company in Vietnam, which was founded in 2004. For more than a decade, Coteccons has been turning the ideas and visions of hundreds of customers into award-winning projects with the aim of exceeding expectations in terms of safety, quality, functionality and providing ready-made projects that will stand the test of time.

The company's goal is to become a world-class engineering and construction group, the leading corporate group in Vietnam in the 21st century.

Responsibility and quality are the key to a company's reputation. Coteccons is committed to providing its customers with state-of-the-art projects at a competitive price, as well as contributing to the growth and development of society through these projects. The company implements many large construction projects.

Famous Coteccons projects (Fig. 4, 5).



Fig. 4. The Landmark 81 [4]



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3 "Application for a change of the world order": foreign media about Putin's visit to Hanoi. URL: <https://tass.ru/mezhdunarodnaya-panorama/211623697>. Coteccons official website. URL: <https://www.coteccons.vn/en/>
4 Official website of Coteccons. URL: <https://www.coteccons.vn/en/>
5 Vietnam's construction industry. URL: <https://www.mordorintelligence.com/ru/industry-reports/vietnam-construction-market>



Fig. 5. LEGO Manufacturing Vietnam⁶

This is a residential building in Ho Chi Minh City. Its height is 461.2 meters. It is the tallest building in Vietnam and Southeast Asia. It was completed in 2018. The building has a modern design inspired by bamboo.

This is the company's first carbon-neutral plant focused on using only renewable energy.

For internship, the company provided 2 facilities: “Suntory PepsiCo”⁷, which is located in Long An province — a beverage factory (Fig. 6) and Riviera point mixed-use development — a residential complex with commercial premises (Fig. 7)⁸.



Fig. 6. PepsiCo Long An



Fig. 7. Riviera point mixed-use development

FEATURES OF THE “SUNTORY PEPSICO” PROJECT

The Long An plant, located on an area of about 20 hectares, is expected to run on renewable energy sources such as biomass fuels and solar energy, which will help significantly reduce greenhouse gas emissions during production. It will also be a place to launch products with packaging made from 100 % recycled plastic, as well as to implement initiatives to conserve natural resources in production.

This project is a major step forward for the company in implementing the commitments of the Vietnamese Government in the field of sustainable development, especially the commitment to reduce net greenhouse gas emissions to zero by 2050⁹.

Thanks to the new efficient technologies that are used, the production is environmentally friendly and safe for others. The project uses solutions for heat exchange, economical use of water, and waste recycling. All processes will take place using renewable energy sources such as biomass fuels and solar energy, which will help significantly reduce greenhouse gas emissions during production activities. At the same time, the company will supply products in packaging made of completely recycled plastic and apply initiatives to save natural resources in production.

Responsibilities of students during their internship at Coteccons: students worked in the Naviswork¹⁰ and Autocad programmes, visualized the building structures of the facility, calculated the volume of the foundation for the estimate documentation and were trained in conducting construction control at the site (Fig. 8).

6 Construction of \$ 1 Billion Lego Plant Begins in Vietnam. URL: <https://www.vietnews.ru/topnews/vo-vetname-nachalos-stroitelstvo-zavoda-lego-stoimostyu-1-milliard-dollarov> (rus.).
7 The main website of Suntory PepsiCo. URL: <https://www.suntorypepsico.vn/>
8 The main website of the Riviera Point The view company. URL: <https://theview.rivierapoint.com.vn/vi-VN/default.aspx>
9 Amendments and additions to a number of papers of resolutions detailing and regulating the implementation of the Law on Environmental Protection: Government Decree No. 40/2019/ND-CP dated 05/13/2019. URL: <http://vbpl.vn/botainguyen/Pages/vbpq-van-ban-goc.aspx?Itemid=135365> (rus.).
10 Basic information about the Nevisworks programme. URL: <https://www.autodesk.com/>



Fig. 8. Suntory Pepsico

FEATURES OF THE “THE INFINITI – IVIERA POINT” PROJECT

The residential complex, located in the very centre of the 7th district in Ho Chi Minh City, opens up new horizons in the construction of the premium residential segment in the city. Riviera Point is located between the Saigon River and the Ka Kam River and includes 12 towers of 48 floors, as well as a 400 m long pedestrian walkway.

The project provides technologies for renewable energy, reducing carbon dioxide emissions, sustainable resource recovery and digital smart home connections, all of which are under the control of Keppel, with whose representatives the students managed to communicate and even participate in the presentation of new ideas on the topic of environmental conservation.

The residential complex has several levels inside itself, for example, on the 5th floor there is a 25-meter saltwater pool, an underwater gym, a children's pool and playground, a Jacuzzi, a recreation area with barbecue, a cinema room, and a garden. Tower number 8 on the 26th floor has a special garden where residents can take shelter from the hot weather, there are similar green spaces on other towers of the complex.

The students working at this facility managed to visit the site in full equipment to comply with safety rules and observe the pouring of concrete into horizontal structures, as well as with the construction control group to check the quality of reinforced concrete structures of the basement (Fig. 9).

Also, during the month of practice in Vietnam, students managed to work in the office in the QA/QC department in the AutoCAD programme, as well as in the Excel programme in the estimates department.

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Fig. 9. Riviera Point



Fig. 10. Meeting of students and teachers of the Department of Architecture and Design

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CONCLUSIONS

The results of the past industrial practice were summed up at Ho Chi Minh City University of Architecture with the participation of Acting Consul General of the Russian Federation Consul-Adviser Yu. Nemtsov, attache of the Russian Embassy V. Skosyrev and head of practice from MGSU A.V. Yankovsky¹¹ (Fig. 11).

Participation in international practice allows students to gain real work experience in an international environment, get acquainted with modern technologies and construction methods. Working in Vietnam allowed us to immerse ourselves in the unique culture and traditions of the country, as well as improve the professional skills of students and make them more competitive in the labor market. Students are lucky to make useful business acquaintances and connections that will help strengthen further cooperation between Russia and Vietnam.

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Fig. 11. The results of the industrial practice summering

11 On the participation of representatives of the Consulate General of Russia in Ho Chi Minh City in a joint event of the National Research University of Moscow State University of Civil Engineering and the Ho Chi Minh City Institute of Architecture. URL: https://rusconshcm.mid.ru/ru/press-centre/news/ob_uchastii_predstaviteley_genkonsulstva_rossii_v_khoshimine_na_sovmestnom_meropriyatii_niu_mgsu_i_kh/ (rus.).

Содержание и итоги производственной практики студентов НИУ МГСУ в республике Вьетнам в 2024 году

В статье представлена информация о том, как кафедрой Организации строительства и управления недвижимостью (ОСУН) НИУ МГСУ была организована международная практика во Вьетнаме в контексте развития международного взаимодействия. Партнером выступили Хошиминский архитектурный университет и строительная компания Coteccons. НИУ МГСУ и Хошиминский архитектурный университет активно участвуют в совместных научно-образовательных мероприятиях и конференциях, которые проводятся как в России, так и во Вьетнаме. Coteccons является одной из самых уважаемых частных строительных компаний во Вьетнаме, которая была основана в 2004 году. Цель компании: стать инженерно-строительной группой мирового класса, ведущей корпоративной группой во Вьетнаме в XXI веке. Итоги прошедшей производственной практики подвели в Хошиминском архитектурном университете с участием и.о. генконсула РФ консула-советника Ю. Немцова и атташе российского посольства В. Скосырева. Участие в международной практике позволяет студентам получить реальный опыт работы в международной среде, познакомиться с современными технологиями и методами строительства. Работа во Вьетнаме позволила погрузиться в уникальную культуру и традиции страны, а также улучшить профессиональные навыки студентов и сделать их более конкурентоспособными на рынке труда.

Ключевые слова: международная практика, Хошиминский архитектурный университет, строительная компания Coteccons, строительство в Хошимине, строительный контроль на площадке, технологии возобновляемой энергетики, международное сотрудничество

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