**وه‌زاره‌تی خوێندنی باڵا و تۆێژینه‌وه‌ی زانستی**

**Ministry of Higher Education &**

**Scientific Research**

|  |  |  |
| --- | --- | --- |
| **پرۆپۆزەلى توێژینه‌وه‌ بۆ به‌ده‌ستهێنانی بروانامه‌ی ‌ماسته ر MSc Research Proposal** | | |
| **ناونيشانی پرۆپۆزه‌لی تۆێژینه‌وه‌ی پێشنیازکراو 1. Title of MSc research proposal**  Identification and Evaluation of the Defects Facing the Current Residential buildings Projects in Erbil City, KRG-Iraq  Student name: Ibrahim Cyamind | | |
| **زانیاری گشتی 2. General information** | | |
| Name and surname  of the supervisor | Dr. Khalil Ismail Wali | ناوی سیانی سه‌رپه‌رشتیار |
| Scientific title | Professor | پله‌ی زانستی سه‌رپه‌رشتیار |
| E-mail | khalil.wali@su.edu.krd | ئیمێلی سه‌رپه‌رشتیار |
| Mobile | +9647504134386 | ژماره‌ی مۆبایل |
| Department | Civil Engineering | ناوی به‌شی زانستی |
| College / faculty | College of Engineering | کۆلیژ / فاکه‌ڵتی/سكول |
| University's name | Salahaddin University-Erbil | ناوى زانکۆى ميلاكى سه‌رپه‌رشتیار |
| **3. Summary (Abstract) of MSc research proposal**  Defects and Failures could be appear after the building is constructed, some of them tend to be appear after living in buildings, failure could happen from highly risk structural bad implementation to low risk failure for example changing the color of doors and walls.., the types and characteristics of defects facing completed buildings via performing a Questionnaire and evaluating defect recording of data, the survey would be done in some of existing residential building and newly constructing building,  Investigating the types and characters of defects are making the future projects to be more safe and better place for living, and would be a good knowledge for the construction team and getting higher reputation, making less errors could be time saving, cost saving, and eco-friendly which is most important to environment and the Earth.  Defects can be limited, from first stage until the building is constructed, this could be done if a good plan in prepared, all the risks are taking into account, optimizing quality with the cost withing limited time, so it is important to record previously failures from old projects and getting innovation ideas from developed countries. | | |
| **5. Research objectives**  - Identification the source of the defects.  - Investigation into types and characteristics of defects.  - Recording these Failures for future Projects in purpose of not happening again.  - To study effect of defects on the persons living in that building.  - To study effects of defects on the construction team. | | |
| **6. Methodology and Data Collection**  The research starts by making a detailed literature review of the connected and relevant studies on the defects in construction and how to avoid, then a detailed questionnaire is to be prepared, then giving a good reference and recommendation for future projects. | | |
| **7. Scope and limit to the research**  The aim of this research is to inquiry and investigate into defects on existing and now constructing buildings, then to find which defects are happening the most, to make good reference for those who seeks the better. | | |
| **8. Duration and timeline**  suggested schedule of this MSc project to be ready to published.  - During the first 4 months, collecting data for the thesis and making a desire questionnaire to find defects in the building.  - One to two Months for computerize and analyze for obtained data and records and getting the result.;  - Remaining time for Writing the M.Sc. thesis. | | |
| **9. Conclusions**  At the end of the study, number of defects would be appointed, these defects may be result in a bad structural design or during construction or even in the beginning of the planning where the building is not contracted yet, we will be to list the most populated defects to low frequent defects, this will be judge by result of a detailed questionnaire.  The most important having a local reference for previously defects, so that those defects to be limited for s future projects. So that the construction team could get people satisfaction and get the more project owners contracts. | | |
| **10. References**  K.I. Wali and N.S. Ali, “Diagnosis and Evaluation of Defects Encountered in Newly Constructed Houses in Erbil City, Kurdistan, Iraq,” Engineering and Technology Journal, Vol. 37, Part A, No. 02,pp. 70-77, 2019.  F.E. Rotimi, J. Tookey,and J.O. Romiti, “Evaluating Defect Reporting in Residential Buildings in New Zealand”, Buildings 2015, 5, ISSN 2075-5309 39-55, 2015.  Sommerville, J.; McCosh, J. Defects in new homes: An analysis of data on 1696 new UK houses. Structral Survey. 2006, 24, 6–21.  B.D. Ilozor; M.I. Okoroh; C.E. Egbu; Archicentre (2004). Understanding residential house defects in Australia from the State of Victoria. , 39(3), 327–337. doi:10.1016/j.buildenv.2003.07.002  Forcada, Nuria; Macarulla, Marcel; Love, Peter E. D. (2013). Assessment of Residential Defects at Post-Handover. Journal of Construction Engineering and Management, 139(4), 372–378. doi:10.1061/(asce)co.1943-7862.0000603  Fauzi, M.S.; Yusof, N.; Abidin, Z.N. Evaluation of housing defects in Build-Then-Sell houses: A study of six residential areas. World Acad. Sci. Eng. Technol. 2011, 58, 554–560.  Mills, Anthony; Love, Peter E.; Williams, Peter (2009). Defect Costs in Residential Construction. Journal of Construction Engineering and Management, 135(1), 12–16. doi:10.1061/(asce)0733-9364(2009)135:1(12).  Melchers, R. E. (1989). Human Error in Structural Design Tasks. Journal of Structural Engineering, 115(7), 1795–1807. doi:10.1061/(asce)0733-9445(1989)115:7(1795)  Porteous WA. IdentiEcation, evaluation and classiEcation of building failures. Ph.D. thesis, Victoria University of Wellington, New Zealand, 1992. | | |
| **11. General notes:** هەر زانیارییەکی گشتی دیکە کە سەرپەرشتیار بە گرنگی بزانێت | | |

|  |
| --- |
| **12. په‌سه‌ندكردنی پرۆپۆزەل له‌ لایه‌ن لیژنه‌ی زانستی به‌ش**  ژماره‌ی كۆنووسی كۆبوونه‌وه‌:  رێكه‌وتی كۆبوونه‌وه‌:  بریار: په‌سه‌ند كرا په‌سه‌ند نه‌كرا    ناوی سیانی و واژووی لیژنه‌ی زانستی به‌ش  واژوو:  ناوى سه‌رۆكی لیژنەى‌ زانستی به‌ش مۆری به‌ش  واژوو:  ناوى سه‌رۆكی به‌ش: |
| **13.**  **په‌سه‌ندكردنی پرۆپۆزەل له‌ لایه‌ن ئه‌نجومه‌نی كۆلێژ/فاکەڵتى**  ژماره‌ی كۆنوسی كۆبوونه‌وه‌:  رێكه‌وتی كۆبوونه‌وه‌:  بریار: په‌سه‌ند كرا په‌سه‌ند نه‌كرا  واژوو:  ناو راگری كۆلێژ: مۆری كۆلێژ |

**تێبینی:** تكایه‌ فۆرمه‌كه‌ ته‌نها به‌ یه‌ك زمان (زمانی توێژینه‌وه‌) پڕ بكرێته‌وه‌.