MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE TERNOPIL IVAN PULUJ NATIONAL TECHNICAL UNIVERSITY FOREIGN STUDENTS DEPARTMENT

COMPUTER SCIENCE DEPARTMENT

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UDC 681.518

# INFORMATION SYSTEM OPTIMIZATION IN HOTEL MANAGEMENT

122 Computer Science and information Technologies

# Abstract of a Master’s Thesis

Ternopil 2018

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| The thesis has been carried out at the Computer Science Department of Ternopil Ivan Puluj National Technical University, Ministry of Education and Science of Ukraine | |
| **Supervisor:** | Ph.D., Lecturer of Computer Science Department  **Mykhailo Fryz,**  Ternopil Ivan Puluj National Technical University |
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Defence of a thesis will be held at the Meeting of the Examination Board №29 on February 24, 2018 at 13.00 in Ternopil Ivan Puluj National Technical University (46001, Ternopil, Ruska st. 46, building №1, room 702)

# GENERAL CHARACTERISTIC OF THE THESIS

**Actuality of the thesis.** The current system in the hotel are simple to keep records of the common things we have in hotel system management today. It’s a direct human language communication by mouth to pass information regarding the services the hotel offers, guests who are already lodged in the have no meaningful use of the hotel sites anymore.

The System which I have designed have optimized improved, the process of making orders for food, drink or maybe the request for room service attendance for laundry, massage, cleaning or any other purposes has also been improved to instant chat message. The traditional way that we’re all familiar of is the telephone method whereby the guest has to call to the reception or whichever department depending on service or request the guest seek for

It has featured a platform by which each guest as a unique user name and password to login into the hotel website with his/her device (mobile phone or computer).

**The aim of the thesis:** to optimize and redesign a hotel management system that is flexible, dynamic and convenient for the guests.

# Thesis tasks:

1. To perform the analytical review of information system for business administration.
2. To create method of making the hotel web application more useful even after bookings has been comepleted.

3. To create a method that would allow the guest to make orders, request for hotel services e.t.c through the web application without using the telephone.

**The object of the research:** Optimization of hotel management system.

**Novelty of the results:** The sysem have been redesiged to have a much better ways to satifify both the guest and the workers.

**The practical significance:** the web application can be used to simplify and increase the efficiency of the hotel management and also to improve convenience in communication and service request for the guest.

**Thesis approbation.** The results have been reported at the V International scientific and technical conference of young researchers and students «Current issues in modern technologies», Ternopil, November 16-17, 2018.

**The structure of the thesis.** The thesis consists of explanatory notes and graphical presentation. The explanatory notes consists of introduction, 6 sections, conclusions,

references, and appendices. The thesis size: explanatory notes – pages of the A4 format, graphical presentation – 7 sheets of the A1 format.

# MAIN CONTENT OF THE THESIS

**In introduction** the importance and actuality of the subject of the thesis have been represented.

**Іn the first section** this section explains about information system, types and use of information system, also explained the condition of the current system and the problem that its facing which would be optimized

**Іn the second section** using information system to optimize or the redesign system the hotel management and services.

**Third section** in this section describs all the softwares that are used in the development of this master thesis for e.g PHP, Wampserver e.t.c

**Fourth section** estimation of costs involved in designing the architectural

structure of information system and estimation of budget and calculation of cost of goods sold for monitoring data exchange between information systems have been analysed.

**Fifth section** is devoted to the problems of labour protection and safety in emergency. That is, factors influencing the functional state of the computer users and risk factors and possible violations of the health of computer network users.

**Sixth section** is the ecological part which talks about the use computers and computer tecnologies has influenced our lives and the evironment which we live in.

# Conclusions

1. Analytical review of information system for business administration has been performed, advantages and disadvantages has been analyzed.
2. The web application of the hotel is still useful to the guest even after check in is completed unlike other hotels that their websites are just online booking.
3. The gust can convinently make their order or request for serivice online without communication hurdles.

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# LIST OF PAPERS PUBLISHED BY THE AUTHOR OF THESIS

1. Augustine Nwabu Ezeude, Information System Optimization in Hotel Management / Book of abstract of the VI International scientific and technical conference of young researchers and students «Current issues in modern technologies», Ternopil, November 16-17, 2017, vol.2. – Ternopil, TNTU Press. – 6p.

# ANNOTATION

Master’s thesis is devoted to the development of information system optimization in hotel management. In the thesis presented a structure of information system, studied the old system of the hotel, described the old system then in the cause of doing so extracted the problems of the old hotel management.

Use the method of optimization to redesign the hotel resturant, bar, hotel services and in addition includes a chat forum platform where all lodged and logged in guest chat about any topic of thier choice e.g best food, wine, comfortability of the hotel e.t.c and also these chats are avaliable for later guest to read during their period of stay, its also help the hotel to acknowledge complains and compliments from their previous or current guest.

NOTE: It is recommended that guest should use these services on Google Chrome browser.

**Keywords:** Information System, Hotel management, Optimization and redesign, Developement of web application, Database development, Business intelligence systems, informative characteristic