



Letran - Calamba
STUDENT RESEARCH JOURNAL
Volume XVIII A.Y. 2018-2019



Research and Quality Management Department


FOREWORD

BINHI comprises the best student research papers in various degree programs. This edition contains the best research papers under the discipline of education, arts and sciences. Such includes *Facilitating Climate Change Adaptation through Communication in Real, Quezon*, *The Intergenerational Patterns of Addictive Behaviors among Selected Filipino Families*, and *Family Communication Patterns and Their Roles to Grade 10 Filipino Students' Career Decision Self-Efficacy*.

Best research papers relative to business and accountancy include the *Effect of Work-Life Balance on Employee Engagement in A Higher Educational Institution*, *Project Feasibility Study on The Production and Marketing of Instant Coffee Mix with Paragis Extract*, and *Establishment of a Buffet Restaurant in Calamba City, Laguna*. Furthermore, a tourism management paper about the *Critical Success Factors of Selected Organic Restaurants in Laguna* is also included in this edition.

Research studies titled *Web-based Multimedia Information Display Terminal using Raspberry Pi with Mobile Application Notification*, *Automatic Feeds Dispenser for Sow and Milk Feeding of Piglets with SMS Notification*, *Implementation of LED Street Lighting System in Brgy. Dila, Bay, Laguna* Trough *Renewable Energy Generating System*, and *Design Improvement of the Existing Steam Generating System at Franklin Baker Co. of the Philippines* are the best papers under the field of engineering.

The research outcomes published in this edition are a clear manifestation of our student researchers' critical thinking and innovative skills. The Research Department takes pride in sharing these outcomes to help address vital issues in the organizations as well as the larger community. May this publication serve as an avenue to develop a culture of inquiry among our future researchers.



Prof. Floricon V. Encabo, PhD
Senior Director for Research and Quality Management

TABLE OF CONTENTS

<i>School of Education, Arts and Sciences</i>	
AB Communication	
Facilitating Climate Change Adaptation through Communication in Real, Quezon by Jeandra Mae S. Pardinez, Dianne Nicole N. Lawas, and Czarmae Joyce C. Garabiles	4
BS Psychology	
The Intergenerational Patterns of Addictive Behaviors Among Selected Filipino Families: A Case Study by Hannah Jamille M. Jugo, Mariedhanne Louise O. Lanceta and Charina Mae M. Manalo	20
Interdisciplinary	
Family Communication Patterns and Their Roles to Grade 10 Filipino Students' Career Decision Self-Efficacy by Adrian D. Valencia, Cristian Nowell B. Flores and Patricia Jean Ventosa	40
<i>School of Business, Management and Accountancy</i>	
BSBA major in Human Resource Development Management	
Effect of Work-Life Balance on Employee Engagement in A Higher Educational Institution by Camille Joy T. Limongco, Jenell Karlo J. Lopecillo and Andrea Kate B. Redondo	74
BSBA major in Marketing Management	
A Project Feasibility Study on The Production and Marketing of Instant Coffee Mix with Paragis Extract by Ma. Cecillia AJ G. Baroja, Almira Joyce E. Caringal and Jemimah Lo Ruhama M. Vergara	97
BSBA major in Accountancy	
Establishment of a Buffet Restaurant in Calamba City, Laguna by Ralph Jonathan B. Fausto, Linelli Renz R. Lactanin, and Jose Romeo J. Paraiso	113
<i>School of Engineering</i>	
BS Computer Engineering	
Web-based Multimedia Information Display Terminal using Raspberry Pi with Mobile Application Notification by John Veniel B. Aranas, Ian James C. Reonal, and Freedom Anthony B. Vitasa	134
BS Electronics Engineering	
Automatic Feeds Dispenser for Sow and Milk Feeding of Piglets with SMS Notification by Gem M. Buenaflor, Reinan M. Carlos, and Kimberly T. Plata	160
BS Electrical Engineering	
Implementation of LED Street Lighting System in Brgy. Dila, Bay, Laguna Trough Renewable Energy Generating System by Micah Dianne A. Bariring, Denelle T. Barundia, John Zedrick L. Tacujan, and Reyniel Paul A. Turtur	178
BS Mechanical Engineering	
Design Improvement of the Existing Steam Generating System at Franklin Baker Co. of the Philippines by Junn Emmanuel C. De Guzman, Everett Lloyd V. Glodo, and Mhenard Byron R. Mariano	196
<i>Tourism and Hospitality Management Institute</i>	
BS Hotel and Restaurant Management	
Critical Success Factors of Selected Organic Restaurants in Laguna: A Case Study by Maria Cecilia B. Bustarga, and Joshua A. Delos Santos	204

BINH Editorial Board

Editor-in-Chief

Ms. Bernardita C. Bautista
Former Faculty Member, SEAS

Production Assistant

Ms. Ezeth Rouie B. Pegano

Editorial Adviser

Dr. Floricon V. Encabo
Senior Director, RQMD



STUDENT RESEARCH JOURNAL

Colegio de San Juan de Letran-Calamba
Bo. Bucal, Calamba City, Laguna