



**A COMPILATION OF THE UNDERGRADUATE RESEARCH PROJECTS
IN THE COLLEGE OF ENGINEERING AND TECHNOLOGY
AT THE ROMBLON STATE UNIVERSITY, MIMAROPA
PHILIPPINES
(DRAFT COPY)**

Prepared by

**Engr. Reynaldo Perez-Ramos, PhD
Associate Professor
Civil Engineering Department**

January 2021

RSU MISSION

A research-based academic institution committed to excellence and service in nurturing globally competitive workforce towards sustainable development.

RSU VISION

RSU shall nurture an academic environment that provides advanced education, higher technological and professional instruction and technical expertise in agriculture and fishery, forestry, engineering and technology, education, humanities sciences, and other relevant fields of study and shall bridge boundaries across other institutions and communities through responsive, relevant and research-based extension services.

COLLEGE OF ENGINEERING AND TECHNOLOGY (CET) GOALS

The College of Engineering and Technology (CET) is committed to provide relevant and quality training for students in engineering and related fields consistently to satisfy the needs of regional and national development trusts.

CIVIL ENGINEERING PROGRAM OUTCOMES

1. An ability to apply knowledge of mathematics, physical sciences, engineering sciences to the practice of civil engineering;
2. An ability to design and conduct experiments, as well as to analyze and interpret data;
3. An ability to design, build, improve, and install systems or processes which meet desired needs within realistic constraints;
4. An ability to work effectively in multi-disciplinary and multi-cultural teams
5. An ability to recognize, formulate and solve civil engineering problems;
6. An understanding of the effects and impact of civil engineering projects on nature and society, and of the civil engineers' social and ethical responsibilities;
7. Specialized engineering knowledge in each applicable field, and the ability to apply such knowledge to provide solutions to actual problems;
8. An ability to effectively communicate orally and in writing using the English language;
9. An ability to engage in life-long learning and an acceptance of the need to keep current of the development in the specific field of specialization;
10. An ability to use the appropriate techniques, skills and modern engineering tools necessary for the practice of civil engineering; and
11. A knowledge of contemporary issues

CIVIL ENGINEERING PROGRAM

Control No.: RSU-CE-091

OPTIMIZING THE LEVELS OF CEMENT, MARBLE DUST AND CARBONIZED RICE HULL FOR CONCRETE

Baladjay, Jessie John G; Gajolin, Gabriel M; Maestro, Rico V. Jr; Manalon, Johnnel Steve F; Meca, Jeremy F; Rosas, Ma. Rojayne D.

Adviser: Engr. Alfredo Fortu Jr. PhD

Date Submitted: January 2021

Control No.: RSU-CE-090

DESIGN OF DRAINAGE SYSTEM OF POBLACION SAN ANDRES, ROMBLON

David, Jeremiah Ann M; Diaz, Aries D; Lilang, Micah F; Magpusao, John Mar D; Oquias, Ruffa Mae A.

Adviser: Engr. Raymond Jay G. Severo

Date Submitted: January 2021

Control No.: RSU-CE-089

PROFILING OF POCTOY AND DAPAWAN RIVER IN DETERMINING FLOOD PRONE AREAS

Agad, Ruby Joy F; Arriola, Ivory Christel F; Sombilon, Aimie R; Tolentino, Devie Glen F; Ylagan, John Mark E.

Adviser: Engr. Raymond Jay G. Severo

Date Submitted: January 2021

Control No.: RSU-CE-088

DEVELOPMENT AND TESTING OF A MODIFIED VERTICAL HELOPHYTE SYSTEM FOR THE ROMBLON STATE UNIVERSITY – COLLEGE OF ENGINEERING AND TECHNOLOGY BUILDING

Bulfa, Karen G; Castro, Melandro Victor L; Dalisay, Uzziel Wynne M; Mangao, Princess Granny M; Manipol, Melie Jane M; Trogon, Oliver M.

Adviser: Engr. Bilshan F. Servañez, Ph.D.

Date Submitted: January 2021

Control No.: RSU-CE-087

USE OF PEANUT SHELL ASH AS ADDITIVE TO CEMENT BONDED COMPOSITES WITH WASTE CHICKEN FEATHERS AS REINFORCEMENT

Angelino, John Wilmar G; Arellano, Emmanuela O; Fernando, Clint John F; Gadon, Lloyd Ephraim G; Motin, Khey John M; Soledad, Mitchie Dawn F.

Adviser: Dr. Reynaldo P. Ramos

Date Submitted: January 2021

Control No.: RSU-CE-086

PROPOSED ROAD NETWORK FOR ROMBLON STATE UNIVERSITY IN AGPUDLOS SAN ANDRES

Aparicio, John M; Fajarito, Arian F; Jaca, Charlene F; Pasiona, Christine Joy N; Salmingo, Nicca Mae P.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: January 2021

Control No.: RSU-CE-085

ASSESSMENT OF NATIONAL AND PROVINCIAL ROAD CONDITION IN THE MUNICIPALITY OF ODIONGAN

Bacula, Jovie D; Dulce, Celso III J; Elisan, Angelica G; Fodra, Kate Johannah G; Foja, Mike F; Fontamillas, John Javie G; Garcia, Japeth John M; Go, Kathleen F; Lavente, Ma. Angelyn S; Pastor, Marc Noel F; Perez, Janina Jane F; Ramirez, Amabelle Joyce G.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: December 2020

Control No.: RSU-CE-084

DESIGN STUDY FOR A VILLAGE COCONUT PROCESSING PLANT LOCATED AT STA.MARIA, ROMBLON

Abalos, John Carlo D; Gallos, Stephanie G; Macabata, Shawn Lenard F; Madrid, Ellen Joy E; Mallen, Angel S; Mindoro, Joshua M.

Adviser: Mr. Eddie Fabila

Date Submitted: December 2020

Control No.: RSU-CE-083

BANANA LEAF ASH AS PARTIAL REPLACEMENT FOR CEMENT IN CONCRETE

Buñales, Cristine F; Castro, Cristine Joy M; Fallarcuna, Mariel V; Familara, James Kent T; Felia, Krister Jan G; Forca, Jason T.

Adviser: Engr. Kim S. Agbas

Date Submitted: November 2020

Control No.: RSU-CE-082

TREATED PULVERIZED SEASHELLS AS STRENGTH ACCELERATING ADMIXTURE FOR CONCRETE PAVEMENT

Lugatic, Jemimah G; Marte, Rejoice F; Maquinto, Rey M.

Adviser: Engr. Kim S. Agbas

Date Submitted: November 2020

Control No.: RSU-CE-081

PROPOSED DESIGN OF WATER SYSTEM FOR BARANGAY PANGULO, MUNICIPALITY OF CALATRAVA

Galacete, Nick Jay M; Malamo, Angelika A; Mijares, Jeff Bryan M; Rabino, Daisy Jane F; Villalobos, Patricia G.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: October 2020

Control No.: RSU-CE-080

PHYSICAL AND MECHANICAL PROPERTIES OF DRYWALL MADE FROM PAPER WASTE USING CASSAVA STARCH AS BINDER

Mayor, Mackie M; Miñon, Virgil M; Dianzon, Kenny Gher C; Recto, Alvin R; Bastillador, Jester C; Ferranco, John Paulo F.

Adviser: Engr. Aprille Ann M. Sim, M'Eng

Date Submitted: October 2020

Control No.: RSU-CE-079

DEVELOPMENT OF BAMBOO LAMINATED PLYBOARD FOR STUDENT DESKS

Fajilagmago, Maria Cristina B; Foja, Shairalyn F; Fruelda, Brian Paul F; Fruelda, John Kevin M; Mortel, Nikko Welmar M; Salmingo, Fatima R

Adviser: Engr. Bilshan F. Servañez, Ph.D.

Date Submitted: October 2020

Control No.: RSU-CE-078

JUICE DRINK DOYPACK AS AN ALTERNATIVE SLOPE PROTECTION

Carandang, Mary Stephanie R; Coching, Karl Zion D; Garcia, Mark Jay Q; Guyo, Jerremie D; Mangua, Franz Giuseppe F.

Adviser: DR. Alfredo F. Fortu JR.

Date Submitted: September 2020

Control No.: RSU-CE-077

STUDY OF WASTE GLASS POWDER AND MARBLE DUST MIXTURE AS PARTIAL REPLACEMENT OF CEMENT ON CONCRETE

Andrade, Pamela Joanne F; Catajay, Mark Jayrald V; Lota, Celsey Fae S; Mores, Carl Patrick P; Tamayo, Katherine M.

Adviser: Engr. Kim Agbas

Date Submitted: September 2020

Control No.: RSU-CE-076

DESIGN STUDY OF FLOOD CONTROL SYSTEM OF THE ROMBLON STATE UNIVERSITY- MAIN CAMPUS

De Roxas, Marvin B; Fababeir, Arlene L; Fabellon, Pauline Kris F; Forcado, Maria Odessa M; Relox, Maria Carla M.

Adviser: Engr. Bilshan F. Servañez, Ph.D.

Date Submitted: July 2019

Control No.: RSU-CE-075

PROPOSED DESIGN OF A WATER SUPPLY SYSTEM IN BARANGAY BALOGO, CALATRAVA ROMBLON

Barrios, Anna Justine F; Fontamillas, Iris Gabriel P; Lutaya, Shela S; Mangaring, Diwata M; Morales, Dannah Cae G.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: May 2019

Control No.: RSU-CE-074

INITIAL ENVIRONMENTAL EXAMINATION OF THE ROAD NETWORK IN ROMBLON STATE UNIVERSITY – AGPUDLOS DEVELOPMENT PROJECT

Fernandez, Angelica G; Fojas, Bruce Wally V; Gervacio, Randolph; Recongco, James Christopher F.

Adviser: Engr. Reynaldo P. Ramos, Ph.D.

Date Submitted: March 2019

Control No.: RSU-CE-073

COMPRESSIVE STRENGTH OF CONCRETE USING FINE AGGREGATES FROM SELECTED QUARRY SITES IN ODIONGAN, ROMBLON

Dela Vega, Kenreid Nuel F; Fabito, Drexther Jay F; Fetalvero, Jeffy Jones F; Garcia, Jahna Mae J; Obeña, Marvin F.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: March 2019

Control No.: RSU-CE-072

EFFECT OF MARBLE NANOPARTICLES AS ADDITIVE ON THE PHYSICAL AND MECHANICAL PROPERTIES OF CONCRETE MIXES

Fajanilan, Mary Ann Krystal U; Fetalver, Jill G; Forcadas, Charisse F; Gacu, Jerome G; Gonzales, Jay-R R.

Adviser: Engr. Aprille Ann M. Sim, M'Eng

Date Submitted: March 2019

Control No.: RSU-CE-071

DETERMINATION OF MECHANICAL AND PHYSICAL PROPERTIES OF MARBLES IN THE PROVINCE OF ROMBLON

Falculan, Nicole Shane M; Gabutero, Linda Lyn F; Lopez, Eric John N; Madula, Jeane Clarence M; Mayo, May M.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: March 2019

Control No.: RSU-CE-070

DESIGN STUDY FOR PROPOSED ACCESS ROAD, MAIN GATE AND ACADEMIC OVAL OF ROMBLON STATE UNIVERSITY

Alba, Mary Antonette D; Capili, Boniel Christian S; Fabula, Zandra Joy B; Fornea, Herbert B; Morada, Mark Gil M.

Adviser: Engr. Bilshan F. Servañez, Ph. D

Date Submitted: March 2019

Control No.: RSU-CE-069

SHEAR AND TENSILE PROPERTIES OF KAWAYAN TINIK (*Bambusa blumeana*, Schult. And Schult.f.) AND PATONG (*Dendrocalamus latiflorus*, Munro)

Asturias, Kint F; Fabella, Antonio Jr. M; Forio, Sofia Rose C; Gal, Michael G; Manito, Nikko Reymon R.

Adviser: Engr. Bilshan F. Servañez, Ph. D

Date Submitted: March 2019

Control No.: RSU-CE-068

ASSESSMENT AND EVALUATION OF EXISTING DRAINAGE SYSTEM OF THE TOWN PROPER OF MUNICIPALITY OF ODIONGAN, ROMBLON

Bastillador, Joshua S; David, Hannah Patrice M; Fabula, R A; Falogme, John Christ F; Fetalvero, Michael Philip F; Ferrancullo, Aireez Joy F; Formento, Hans M; Marquez, Kalven F; Panagsagan, Benjie E; Soguilon, May Ann B; Yap, Rachelle F.

Adviser: Engr. Jayson F. Rufon, MAPA; Engr. Raymond Jay G. Severo

Date Submitted: April 2018

Control No.: RSU-CE-067

THE EFFECTS OF PARTICLE SIZE COARSE AGGREGATES ON THE COMPRESSIVE STRENGTH OF CONCRETE FROM SELECTED QUARRY SITES IN TABLAS ISLAND, ROMBLON

Anin, Keith G; Capillo, Sharmaine Joy T; Fallaria, April G; Fetalvero, Jan P; Fruelda, Angelica F.

Adviser: Engr. Aprille Ann M. Sim, M. Eng.

Date Submitted: April 2018

Control No.: RSU-CE-066

DESIGN OF RAINWATER HARVESTING SYSTEM OF THE 2-STOREY ACADEMIC BUILDING FOR THE COLLEGE OF ENGINEERING AND TECHNOLOGY, ROMBLON STATE UNIVERSITY (MAIN CAMPUS)

Fabello, Louisa Mae F; Fadriquelan, John Denver L; Ferrancullo, Eldie G. Jr; Manzo, Archie M; Robiso, Prince Kevin

Adviser: Engr. Reynaldo P. Ramos, Ph.D.

Date Submitted: April 2018

Control No.: RSU-CE-065

IMPROVEMENT OF THE EXISTING WATER SYSTEM IN BAGSIK, ALCANTARA, ROMBLON

Abenir, Rosano G. Jr.; Delen, Conrado O, Jr.; Ferrancullo, John Dave A.; Flores, John Emmanuel V.; Fronda, John Paul L.; Mesajon, Ronvie G.

Adviser: Engr. Raymond Jay G. Severo

Date Submitted: May 2017

Control No.: RSU-CE-064

PROPOSED RSU SPORTS ARENA

Ferranco, Daphne S.; Forcado, Keirleen Joy F.; Gacu, Joshua M.; Lachica, Mary Jane E.; Magallanes, Moyses C.; Santiago, Merry T.; Vicente, Charity Joy S.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: May 2017

Control No.: RSU-CE-063

PROPOSED IMPROVEMENT OF BUDIONG- BANGON ROAD ODIONGAN, ROMBLON

Bernales, Michael Jorge A.; Faz, Ephraim Joseph F.; Manlolo, Pearl Joy F.; Mores, Paul John F.; Motin, Yessa Marie M.; Raymundo, Dexter F.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: April 2017

Control No.: RSU-CE-062

PROPOSED 3-STOREY COLLEGE OF ENGINEERING AND TECHNOLOGY BUILDING ROMBLON STATE UNIVERSITY MAIN CAMPUS

Fadriquela, Ken James F.; Famadulan, Abegail G.; Fortunato, Margie V.; Tado, Jocelyn F.; Tianga, Noel Jr. M.; Tolentino, April Kieth F.; Vicente, Clyde Love G.

Adviser: Engr. Raymond Jay G. Severo

Date Submitted: April 2017

Control No.: RSU-CE-061

DESIGN AND ANALYSIS OF WATER SUPPLY SYSTEM OF RSU- AGPUDLOS CAMPUS, SAN ANDRES, ROMBLON

Abello, Meeriam F.; Bolon, Arlyn Joy G.; Garcia, Jhon Meynard Q.; Gregorio, John Fred V.; Mijares, Kenneth Christopher M.; Moral, Abegail G.

Adviser: Engr. Jason Rufon, MAPA

Date Submitted: April 2017

Control No.: RSU-CE-060

THERMAL AND ACOUSTIC PROPERTIES OF TIGER GRASS POLLEN INSULATION MATERIAL WITH ARROWROOT STARCH AS BINDER

Casidsid, Jona Val T.; Fesarillo, Charmaine F.; Fornea, Donna F.; Gado, Koen Kate S.; Gonzales, Mary Joy R.; Pastor, Sahra Mae F.

Adviser: Engr. Reynaldo P. Ramos, Ph.D.

Date Submitted: February 2017

Control No.: RSU-CE-059

COMPREHENSIVE LAND USE PLAN OF ROMBLON STATE UNIVERSITY MAIN CAMPUS

Abagat, Mark Angelo F.; Abrantes, Krista Jane F.; Fabito, Nolibert T.; Fronda, Mary Joy T.; Leonardo, Dorothy D.; Maduro, Jose Rafael S.; Rubion, Joven M.; Samino, Jeth F.; San Gabriel, April Anne; Santiago, Jester John M.; Silanga, John Arnel G.; Tadia, Jane Angelique F.; Valdez, Ian Dwight F.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: August 2016

Control No.: RSU-CE-058

PROFILING OF BANGON RIVER SYSTEM IN THE MUNICIPALITY OF ODIONGAN

Amar, Karen Joy M.; Blasurca, Marco G.; Dalisay, Louella Mae M.; Familara, Shiela Jane D.; Obrique, Jims Brual Patrique S.; Rubion, Arvilyn S.

Adviser: Engr. Reynaldo P. Ramos, Ph.D.

Date Submitted: August 2016

Control No.: RSU-CE-057

DEVELOPMENT OF TIMBER TRUSS ANALYSIS SOFTWARE APPLICATION

Fos, Paul Jaysent F.; Gaboc, Mark Kaven D.; Gregorio, Ann E.; Torida, Heris Jan F.

Adviser: Engr. Aprille Ann M. Sim, M. Eng.

Date Submitted: August 2016

Control No.: RSU-CE-056

COST ESTIMATE PROJECT MANAGEMENT AND STRUCTURAL DESIGN ANALYSIS OF THE PROPOSED FACILITIES FOR ROMBLON STATE UNIVERSITY AGPUDLOS CAMPUS, SAN ANDRES, ROMBLON

Cardenas, Ronel F.; Escarilla, Mark Anthony F.; Española, Harold D.; Gregorio, Ma. Salve G.; Manalon, Jake Emelito; Meñez, Patrick E.; Merano, Marichu F.; Montesa, Kim C.; Montoya, Kahlen Ze F.; Soguilon, Ani Miguel F.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: June 2016

Control No.: RSU-CE-055

COMPRESSIVE STRENGTH OF CONCRETE REINFORCED WITH BANANA FIBERS

Escalada, Luther Jr. N.; Fernando, Daneca D.; Magayon, Mark Anthony G.; Mindoro, Chairmaine M.; Molina, Sheba M.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: January 2015

Control No.: RSU-CE-054

STYROMFOAM DISSOLVED IN GASOLINE AS AN ADHESIVE FOR PARTICLE BOARD

Aguilar, Ma. Lorena C.; Cano, James Ramon F.; Dalisay, Kim D.; Gonzales, Andrew F.; Liberato, Edgar M.; Mindoro, Myco M.; Rubion, Jerald S.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: January 2015

Control No.: RSU-CE-053

ASSESSMENT OF INDOOR AIR QUALITY IN ROMBLON STATE UNIVERSITY MAIN CAMPUS BUILDING

Allera, Shekinah Eirene P.; Evangelista, John Nico F.; Familara, Rilly S.; Famodulan, Charwin F.; Machado, Mariel D.

Adviser: Engr. Orley G. Fadriquel

Date Submitted: January 2015

Control No.: RSU-CE-052

PROPOSED IMPROVEMENT OF ROMBLON STATE UNIVERSITY IRRIGATION WATER DISTRIBUTION SYSTEM

Española, Anna Bianca F.; Magpusao, Aries M.; Resma, Rosalyn G.; Rotoni, Janesa Ann M.; Teologo, Jovel C.

Adviser: Jason F. Rufon, MAPA

Date Submitted: January 2015

Control No.: RSU-CE-051

PROPOSED RSU ECO-PARK

Amar, Gemma D.; Fajarito, Jean Carla R.; Familara, Rudy P.; Samino, Jacquelyn F.; Teologo, Jun Clint S.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: March 2015

Control No.: RSU-CE-050

SOUND ABSORPTION CHARACTERISTIC OF COCONUT HUSK ACOUSTIC PANEL USING DIFFERENT TYPES OF BINDERS

Acol, Bernice Marie V.; Aquino, Mar C.; Calambas, Mary May S.; Maestro, Guen F.

Adviser: Engr. Darwin F. Musico

Date Submitted: March 2015

Control No.: RSU-CE-049

COMPRESSIVE STRENGTH OF CONCRETE USING TIGER GRASS AS FIBER REINFORCEMENT

Felia, Cherry Mae S.; Foja, Lynn F.; Galicia, Elorde G.; Gomez, Cristine C.; Mayuga, Christian F.

Adviser: Jason F. Rufon, MAPA

Date Submitted: March 2015

Control No.: RSU-CE-048

FACTORS AFFECTING THE COMPRESSIVE STRENGTH OF CONCRETE USING AGGREGATES FROM SELECTED QUARRY SITES IN ODIONGAN, ROMBLON

Dalisay, Ailene P.; Diaz, Alter M.; Falcunit, Jason F.; Militante, Arkay C.; Rubico, Godofredo Jr. M.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: March 2015

Control No.: RSU-CE-047

PROPOSED SOLID WASTE MANAGEMENT PLAN OF ROMBLON STATE UNIVERSITY, MAIN CAMPUS

Española, Monica Cassandra Amor A.; Galicha, Niesel M.; Jaylo, Ylec M.; Moreno, Paul M.; Selosa, Jessa P.

Adviser: Ms. Jemima F. Miñon

Date Submitted: March 2015

Control No.: RSU-CE-046

EVALUATION AND IMPROVEMENT PLAN OF EXISTING WATER SYSTEM OF CAWAYAN-LONG BEACH, SAN AGUSTIN, ROMBLON

Dela Cruz, Ebony V.; Fajura, Archie Ray B.; Fesalboni, Joe Mare M.; Garcia, Michael John G.; Manasan, Erickson M.; Penes, Teena Lyn F.; Revilla, Wendel F.; Sixon, Arjie R.

Adviser: Engr. Darwin F. Musico

Date Submitted: March 2014

Control No.: RSU-CE-045

MODIFIED INTERLOCKING PRECAST CONCRETE BLOCKS FOR FENCE WALL: PROTOTYPE

Cabadongga, John Rom M.; Cayetano, Jesahniel B.; Factor, Crisnel Faith A.; Fortu, Stephen F.; Gado, Cyril Joseph G.; Galario, Deo F.; Magpusao, Julius M.

Adviser: Engr. Aprille Ann M. Sim, M. Eng.

Date Submitted: March 2014

Control No.: RSU-CE-044

COMPRESSIVE STRENGTH OF CONCRETE USING AGGREGATES FROM DIFFERENT QUARRY SITES IN ODIONGAN, ROMBLON

Ferrancullo, Jo Anne F.; Forcadas, Neva Jane F.; Fusi, John Michael C.; Gado, Alfie M.; Galicia, Joseph C.; Gusi, Sheena B.; Meñez, Cezar Jr. E.; Solidum, Jaypee M.; Suarez, Nickhiren T.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: March 2014

Control No.: RSU-CE-043

COMPARATIVE ANALYSIS OF CONCRETE'S COMPRESSIVE STRENGTH USING ILANG-ILANG (Cananga Odorata), PAPER TREE (Gmelina Haenanensis) AND COCONUT (Cocus Nucifera) SAWDUST AS A FULL REPLACEMENT FOR SAND

Costales, Jerron T.; Fajel, Ellen M.; Fetalino, Marian Kate F.; Fetalver, Allyn S.; Ferranco, Anne Marie G.; Fortu, Ruel Jr. L.; Gregorio, Jay E.; Manipol, Dyana Rose M.; Morales, Gerald Jr. F.; Romero, Chanda M.; Rosas, Kristine Monique M.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: March 2014

Control No.: RSU-CE-042

PLASTIC WASTE MATERIAL AS PARTIAL SUBSTITUTE FOR SAND IN CONCRETE BRICKS

Agcaoil, Leslie Mae A.; Cruz, Zepmer D.; Faminial, Catherine B.; Fronda, Pearl Joy L.; Galan, Lee Marr Anthony M.; Gremarin, Kem Bryan F.; Hernandez, Remar Angel M.; Hije, Harold Christian F.; Mallen, Dave Jade M.; Ramilo, Kevin F.

Adviser: Engr. Greatchen T, Tombocoon

Date Submitted: March 2014

Control No.: RSU- CE-041

DESIGN AND DEVELOPMENT OF PORTABLE CONCRETE MIXER

Advincula, Stephanie E.; Casugbo, Krisha Ann Mae M.; Drilon, Paul Zedrick M.; Fabella, Geraldine P.; Fallarcuna, Laurence Gayle F.; Fetil, Nonato Jr. M. II; Galang, Kristian G.; Mijares, Paul Jabez M.; Salmingo, Isidro R.

Adviser: Engr. Virne B. Dalisay

Date Submitted: March 2013

Control No.: RSU-CE-040

DESIGNED HOUSEHOLD WASTE WATER TREATMENT FACILITY MODEL: MODIFIED

Bringas, Arnold M.; Ferrer, John Paul F.; Fontamillas, Edelyn F.; Fradejas, Rechelle F.; Galicha, Sarah Jean M.; Glori, Bryan Billy R.; Rabo, Joven R.; Severo, Raymond Jay G.; Tabuna, Wilme Jr. J

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: March 2013

Control No.: RSU-CE-039

DESIGN AND FABRICATION OF MECHANICAL SIEVE MACHINE

Arteza, Neil J.; Fabello, Joan F.; Fabra, Eric P.; Famisan, Leo Mari F.; Forcadas, Kenneth F.; Gregorio, Joeven F.; Maquirang, Robert John M.; Menes, Ma. Aiza M.; Perez, Mark Anthony F.; Valdez, Trixie Ann D.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: March 2013

Control No.: RSU-CE-038

DESIGN AND DEVELOPMENT OF MECHANICAL BRICK MOLDING MACHINE

Bocita, Joshua E.; Clemente, Cesar F.; Famorcan, Shella F.; Ferrancullo, Aries P.; Fetalsana, Arim F.; Fetalver, Kim D.; Joyel, Bernardo Jr. F.; Marquina, Jhune M.; Nepomuceno, Ruel Jr. A.; Verdán, Jasmin D.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: March 2013

Control No.: RSU-CE-037

DESIGN OF WASTEWATER TREATMENT FACILITIES IN ODIONGAN PUBLIC MARKET ODIONGAN, ROMBLON

De Luna, June M.; Fadri, Raymund F.; Ferrera, Edg Bea F.; Forcadas, Eleanor A.; Fruelda, Charuel F.; Fruelda, Joerel F.; Maneje, Mick Anthony G.; Mangao, Joel M.; Marquez, Gervie M.; Tombocon, Greatchen T.

Adviser: Engr. Aprille Ann M. Sim

Date Submitted: April 2012

Control No.: RSU-CE-036

NSCP 2001 AND NSCP 2010; A COMPARATIVE ANALYSIS

De Castro, Jan Chester F.; Fabiala, Jesse James R.; Ferranco, Tina D.; Foja, Emmanuel Jr. F.; Fortu, Danvic Artor I.; Relox, Aldrin M.; Sarzona, Katlene Joy G.; Silverio, Alwyn Bryll L.; Tajaran, Michel M.; Teodosio, Riceannel A.

Adviser: Engr. Jabez- Stewart F. Faulan

Date Submitted: June 2012

Control No.: RSU-CE-035

HOUSEHOLD WASTEWATER TREATMENT FACILITY: A PROPOSED MODEL

Asauro, Theresa Lyn F.; De Villena, Romel G.; Encarnacion, Leonardo A.; Fajutnao, Michelle F.; Familara, Erwin G.; Galicia, Michael Joseph C.; Galiga, Jose Vincent C.; Gapiza, Maricel Joy B.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: April 2012

Control No.: RSU-CE-034

SAFETY FIRST: AN ASSESSMENT OF HEALTH AND SAFETY CULTURE AMONG CONSTRUCTION WORKERS IN THE PROVINCE OF ROMBLON

Baliguat, Lucille G.; Festin, Zaide M.; Foja, Anrophil D.; Jaylo, Nico Jay M.; Galit, Mishael S.; Padua, El-Jay F.; Panoy, Jayson F.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: April 2012

Control No.: RSU-CE-033

PROPOSED DEVELOPMENT OF EXISTING DRAINAGE SYSTEM OF SELECTED FLOODED AREAS IN BARANGAY POCTOY AND BARANGAY DAPAWAN, ODIONGAN ROMBLON

Fajilan, Eddlyn Marie F.; Fallurin, Lenard F.; Fejer, Keycel F.; Ferolino, Mary Cris M.; Fonte, Hanna Mariz G.; Fortu, Jazer John C.; Vicente, Ma. Bernasonnylyn E.; Yap, Raymund J.

Adviser: Engr. Edison S. Fajutrao Jr.

Date Submitted: April 2012

Control No.: RSU-CE-032

DESIGN AND FABRICATION OF MECHANICAL SIEVE SHAKER

Asturias, Jay-R A.; Faeldona, Mike Z.; Federico, Japhet M.; Gregorio, Eddie Jr. F.; Mabasa, May Eden M.; Machon, Paul S.; Mingo, Orville M.; Moncawe, May Ann D.; Muros, Aries M.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: February 2012

Control No.: RSU-CE-031

ROAD SAFETY SIGNS, TRAFFIC LAWS, RULES AND REGULATIONS: DEGREE OF AWARENESS OF PERMITTED AND LICENSED DRIVERS AS OF 2011 IN THE MUNICIPALITY OF ODIONGAN

Atuan, Rachelle F.; Falcutila, Errol M.; Firmalo, Jezreel F.; Fordan, Juanito III V.; Lachica, Jecel Joy G.; Maestro, Krizchan Josef V.; Mayuga, Ramon Chris S.; Mendoza, Arianne Suzanne F.

Adviser: Engr. Jason F. Rufon, MAPA

Date Submitted: April 2012

Control No.: RSU-CE-030

CONSTRUCTION OF THE ROMBLON PROVINCIAL HOSPITAL MAIN BUILDING: A PROPOSAL

Arboleda, Winston Wright N.; Manzano, Shiela May M.; Venus, Shiela Mae G.; Paulino, Lalaine B.; Mendoza, Hope D.; Famero, Enric F.; Martinez, Eda P.

Adviser: Engr. Jabez- Stewart F. Faulan

Date Submitted: May 2011

Control No.: RSU-CE-029

PROPOSED CONSTRUCTION OF ADDITIONAL WATER SUPPLY SYSTEM AT RIZAL, ODIONGAN, ROMBLON

Fetalvero, Mary Hope D.; Falcutila, Stephene F.; Tiburania, John Sen F.; Asturias, Amado F. III; Fontamillas, Roy F.; Fabro, Gerhard F.; Severo, Rudy A.; Galin, Deson F.

Adviser: Engr. Carlos M. Formilleza

Date Submitted: May 2011

Control No.: RSU-CE028

PROPOSED IMPROVEMENT OF ODIONGAN SOUTH CENTRAL ELEMENTARY SCHOOL EXISTING DRAINAGE SYSTEM

Menorca, Quicelene Joy F.; Manliguez, Romeo Jun; Hankins, Janford Dick; Aungon, Josephine; Venus, Lezel John; Galindez, Jesus III; Pandiño, Gareen

Adviser: Engr. Darwin F. Musico

Date Submitted: May 2011

Control No.: RSU-CE-027

SECRET PARADISE: A PROPOSED RESORT AT SAN JOSE (CARABAO ISLAND), ROMBLON

Fontamillas, Mark John P.; Firmalo, Daphny Joy M.; Raymundo, Eli Paul P.; Famajilan, Dicky G.; Tigson, Johnmar G.; Pasig, Julie Ann G.; Rubio, Chero M.

Adviser: Engr. Aprille Ann M. Sim

Date Submitted: May 2011

Control No.: RSU-CE-026

PROPOSED DESIGN AND CONSTRUCTION OF BRIDGE IN SITIO BULWANG, GABAWAN, ODIONGAN, ROMBLON

Contaio, Mark Stephene F.; Ibanez, Victorino Jr. R.; Gumboc, Alexander B.; Ferranco, Jeffrey A.; Catajay, Markjay M.; Gabutero, Rodol F.; Guevarra, Argie A.; Solidum, Myr Cres

Adviser: Engr. Edison S. Fajutrao Jr.

Date Submitted: August 2011

Control No.: RSU-CE-025

PROPOSED DEVELOPMENT AND UPGRADING OF ROMBLON STATE UNIVERSITY EXISTING DRAINAGE SYSTEM

Fababeir, Kirlem G.; Fabula, Rolly C.; Falible, Christian S.; Famadulan, Roel S.; Gabayno, Kamille Anne D.; Galang, Marry Quency M.; Galicha, Peachy F.; Ignacio, Vie Charlito D.; Mendoza, Leonell C.; Real, Jess Mark R.; Rico, Mark Gel M.

Adviser: Engr. Jabez- Stewart F. Faulan

Date Submitted: February 2010

Control No.: RSU-CE-024

PROPOSED FOUR-STOREY KAD-BAYAN MPC COMMERCIAL BUILDING

Agullana, Blessie Jane F.; Bronce, April A.; Fronda, Alfredo L.III; Lorenzo, Jomel C.; Romero, Mary Grace M.; Sespeñe, Ma. Wengrace M.; Sespeñe, Ma. Wenmyrn M.; Sion, Rommel V.; Toraneo, Jenny M.; Villegas, Jennifer C.
Adviser: Engr. Edison S. Fajutrao Jr.

Date Submitted: March 2010

Control No.: RSU-CE-023

PROPOSED MEMORIAL PARK IN THE MUNICIPALITY OF ODIONGAN

Anastacio, Joe Ali F.; Calambas, Gretchen S.; Fabro, Ellany F.; Fajanilan, Mark Lowel G.; Fallarcuna, Danny F.; Madali, Adrian M.; Manzano, Bryan F.; Mendez, Ryan Von G.; Mendoza, Mario D.; Talamisan, Romel M.
Adviser: Engr. Darwin F. Musico

Date Submitted: April 2010

Control No.: RSU-CE-022

PROPOSED EXPANSION OF LOOC WATER SUPPLY SYSTEM

Boada, Armel L.; Lota, Marcelino D. IV; Madula, Paul Clint M.; Mariano, Iron Hill A.; Pante, Cheryl F.; Perucho, Francis Rey V.; Putong, Charmin Rose M.; Tadia, Jenelyn S.; Tan, Anthony R.; Tan, Keith Edmil F.

Adviser: Engr. Edison S. Fajutrao Jr.

Date Submitted: April 2010

RSU-CE-021

PROPOSED RECLAMATION AND DEVELOPMENT OF ODIONGAN BAY WALK

Abao, Albert M.; Fallan, Lyra F.; Fausto, Christine M.; Ferrancullo, John Rey F.; Gervacio, Jerome E.; Juanzo, Edison C.; Magapi, Mark F.; Mangao, Anamie G.; Marcelo, Marlon A.; Marron, Jerjhon R.; Perez, Fredelin M.

Adviser: Engr. Jason F. Rufon

Date Submitted: March 2010

Control No.: RSU-CE-020

PROPOSED LOW-COST HOUSING PROJECT IN THE MUNICIPALITY OF ODIONGAN

Asturias, Romulo Jr. F.; Canulo, Liezzette F.; Cortez, Jake F.; Evangelio, Andro T.; Fabito, Jejomar F.; Fadri, Ralph Jed N.; Fajanilan, Yttel Ann S.; Galicha, Diana Grace S.; Maestro, Ada R.; Muleta, Andrew Y.; Noche, Ruy Jr. B.; Solangon, Jinky T.

Adviser: Mr. Eddie M. Fabila

Date Submitted: April 2009

Control No.: RSU-CE-019

PROPOSED CONSTRUCTION OF A THREE- STOREY HOTEL

Fernando, Marlon G.; Fillartos, JR F.; Forcadas, Glenda C.; Gaan, Elizer F.; Galang, Client Eastwood R.; Galpo, Tonyvic A.; Guzman, Danilen G.; Lilang, Julius T.; Maestre, Julien Marie S.; Mariño, Alvin B.; Mendoza, Van Cleve F.; Regala, Christine M.; Venus, Enard F.

Adviser: Engr. Jason F. Rufon

April 2009

Control No.: RSU-CE-018

PROPOSED DESIGN AND CONSTRUCTION OF NEW ODIONGAN SLAUGHTERHOUSE

Alubog, Ricky G.; Dalisay, Edcyl F.; De Los Santos, Ryan T.; Fallarcuna, Leny Rose F.; Fermanejo, Arvhee G.; Ferrancullo, George M.; Gaa, Gary Nel F.; Guardian, Gemma Flor G.; Masangcay, Alma F.; Ramirez, Zerimar F.; Salido, Daryl F.; Villacrusis, Ghie G.

Adviser: Engr. Jabez-Stewart F. Faulan

Date Submitted: April 2009

Control No.: RSU-CE-017

PROPOSED CONSTRUCTION OF THREE STOREY ODIONGAN COMMERCIAL CENTER

Arriola, Alphine Arguelles; Asauro, Harold Luna; Dampil, Enrico Fadri III; Enore, Anthony Gado; Faigao, Jovy Fabello; Fajanilan, Adrian Belleza; Fajarito, Sherly Faminialagao; Fajutagana, Stephany Taborete; Fruelda, Hanzel Fetalvero; Hernandez, Aiza Fontabla; Maestre, Jerome Salvador; Saberon, Kenneth Umayam; Sim, Angela Gracia Madali

Adviser: Engr. Jabez- Stewart F. Faulan

Date Submitted: March 2008

Control No.: RSU-CE-016

PROPOSED CONSTRUCTION OF AQUADOME IN ROMBLON STATE COLLEGE MAIN CAMPUS, ODIONGAN, ROMBLON

Aquino, Mindo Galus; Evangelio, Agnes Juliano; Formilos, John Mark Menes; Garcia, Melisandde Fetalvero; Marco, Daryl Molino; Montesa, Virr Marc Dylon; Selosa, Raichell Gacute; Dayson, Rolly Casano; Fababaer, Den Jae Solangon; Fronda, Josart Hindap; Mantac, Alvin Gabay; Mazo, Annilyn Moeres; Reyes, Edrian Corong; Talamisan, Jennelyn Manlangit

Adviser: Mr Eddie M. Fabila

Date Submitted: March 2008

Control No.: RSU-CE-015

PROPOSED CONSTRUCTION OF CENTENNIAL BUILDING

Arguelles, Ramon D.; Bernales, Jerome A.; Candari, Allan J.; Dalisay, Ellen B.; Dalisay, Jeremy S.; Fabello, John Michael F.; Fetalco, Herschel M.; Gacu, Daryl M.; Isuga, Love Lee M.; Mazo, Jeffrey T.; Oquias, Ricky M.; Owings, Grace B.; Soledad, Eroll M.

Adviser: Engr. Jason F. Rufon

Date Submitted: March 2008

Control No.: RSU-CE-014

PROPOSED CONSTRUCTION OF ROMBLON STATE COLLEGE MINI-DAM AND IRRIGATION STRUCTURE

Andres, Andrevon A.; De Castro, Marlon F.; Fabito, Bernard T.; Fajel, Ernie M.; Fernandez, John Mark G.; Fetalver, Jake D.; Fontilar, Ruel M.; Gelito, Joann D.; Ilacio, Flordeliza S.; Magallon, Maria Elena B.; Musa, Juliet G.; Muyargas, Nelson M.; Relox, Rexter M.; Rotoni, Nenwel M.; Tubang, Shella Mie S.

Adviser: Mr. Eddie M. Fabila

Date Submitted: March 2007

Control No.: RSU-CE-013

PROPOSED ROMBLON STATE COLLEGE MAIN CAMPUS WATER SUPPLY SYSTEM (LEVEL II)

Agbas, Kim Solajo; Falcutila, Gerard Maestro; Jandoc, John Richard Soledad; Madronio, Sonny Ching Fruelda; Morada, Paolo Montesa; Moral, Christopher Mago; Fabro, Laarni Angeles; Famerio, Catherine Fabito; Gado, Jerlene Gallos; Gregorio, Arcelle Felia; Sombilon, Ivy Rose Salibio; Tan, Chona Fajarito

Adviser: Engr. Jabez-Stewart Faulan

Date Submitted: March 2007

Control No.: RSU-CE-012

PROPOSED CONSTRUCTION OF LOW COST HOUSING SITIO COLIS CALUNACON, SAN ANDRES, ROMBLON

Alcantara, Marlon; Calaud, Vicmar; Canulo, Chevruel; Dalisay, Jason; Famaran, Roselyn; Familara, Philip; Fernandez, Alex; Fetalvero, Christian; Foja, Lowel; Forcadas, Manny; Forcadas, Michelle; Formilleza, Ryan James; Fradejas, Hanilyn; Francisco, Rodel; Galang, Julius; Galiga, Aldren; Gocela, Amable; Ignacio, Boyet; Jandoc, John Mark; Juanzo, Cherry; Madali, Renia; Magbata, Modesto Jr.; Marin, Jimson; Mariño, Jesus; Marquez, Cherry Lyn; Maulion, Niño Val; Miñano, Aldrin; Mingoa, Anna Mercy; Romero, Felipe; Salazar, Roel; Villanueva, Donna; Visaga, Felomina

Adviser: Engr. Jabez-Stewart Faulan

Date Submitted: April 2005

Control No.: RSU-CE-011

THE PROPOSED RELOCATION AND CONSTRUCTION OF LOOC PUBLIC MARKET

Faa, Alfie; Faminial, Hargye; Fadrigore, Mark; Fetalvero, Archie; Galicia, Jeffrey; Fajarito, Ma. Charo; Fusilero, Dremafe

Adviser: Engr. Gregorio Forcadas Jr.

Date Submitted: March 2004

Control No.: RSU-CE-010

PROPOSED UPGRADING AND IMPROVEMENT OF ODIONGAN EXISTING DRAINAGE SYSTEM

Forlales, Blenda Joy Tambalque; Mendoza, Arlan Lucidos; Minano, Peter Ramos; Ferrer, Christina Fere-ira; Gremarin, Vilma Panoy; Gado, Evangeline Cano; De Villa, Yeldren Evangelista; Galisanao, Edgardo Galicia

Adviser: Engr. Darwin F. Musico

Date Submitted: March 2004

Control No.: RSU-CE-009

PROPOSED CONSTRUCTION OF TWO-STOREY APARTMENT BUILDING WITH WATER PURIFYING STATION

Baliguat, GERALYN A.; Gabanan, John Vincent A.; Gabaldon, Annalyn G.; Gajarion, Darlyn M.; Miralpes, July M.; Mortos, Vincent M.; Napoles, Alfie F.; Regala, Israel O.

Adviser: Engr. Jason F. Rufon

Date Submitted: March 2004

Control No.: RSU-CE-008

PROPOSED CONSTRUCTION OF BEACH RESORT

Fajutrao, Edison Jr. Salmingo; Gabute, Danny Sumaginsing; Fainsan, Michael Gervacio; Hindap, Arc Meñez; Roja, Chiqui Lou Gadon; Galindez, Relmay Longsagay; Faderog, Mary Ana Lyn Leaño; Fadriquela, Gideon Rubio

Adviser: Engr. Crisauro R. Fallar III

Date Submitted: March 2004

Control No.: RSU-CE-007

PROPOSED CONSTRUCTION OF MEMORIAL GARDEN (DIVINE PARADISE MEMORIAL GARDEN)

Gacu, Jackson O.; Galicia, Mary Grace C.; Madrid, Reselle E.; Malacad, Michelle M.; Morales, Riosy G.; Rufon, Romena V.

Adviser: Engr. Crisauro R. Fallar III

Date Submitted: March 2003

Control No.: RSU-CE-006

PROPOSED CONSTRUCTION OF LOW-COST HOUSING

Capillo, Rolly M.; Fabiculana, Mark Ian S.; Fallaria, Ma. Martina F.; Fetalsana, Vanessa M.; Madrona, Alexmond M.; Magcalayo, Neil D.C.; Sim, Jim B.

Adviser: Engr. Crisauro R. Fallar III

Date Submitted: March 2003

Control No.: RSU-CE-005

PROPOSED CONSTRUCTION OF TWO-STOREY COMMERCIAL BUILDING

Fontabla, Jeanette F.; Magramo, Cecel Gay P.; Lagueza, Jefferson F.; Fadriquelan, Jeffrey F.; Martinez, Ernie S.; Fruelda, Mickel F.; Maestre, Blue R.

Adviser: Engr. Crisauro R. Fallar III

Date Submitted: March 2002

Control No.: RSU-CE-004

PROPOSED CONSTRUCTION OF TWO-STOREY APARTMENT BUILDING

Esteban, Roderick M.; Formon, Antonio Jr. M.; Gado, Joel M.; Garcia, Andres C.; Madeja, Felbert M.; Mortel, Felisa, R.; Tulio, Arnold F

Adviser: Engr. Crisauro R. Fallar III

Date Submitted: March 2002

Control No.: RSU-CE-003

PROPOSED CONSTRUCTION OF TWO-STOREY FAST FOOD CENTER LIWAYWAY, ODIONGAN, ROMBLON

Alvar, Chet; Fajarito, Evie; Fajutnao, Edward; Selosa, Carlito Jr.; Forcadas, Roel; Haincadto, Enoch; Salmingo, Nenoy Jose

Adviser: Engr. Crisauro R. Fallar III

Date Submitted: March 2002

Control No.: RSU-CE-002

A PROJECT STUDY ON A PROPOSED CONCRETING OF A 1.060 KM. CAMPUS ROAD, RSC, ODIONGAN, ROMBLON

Asuncion, Aleth M.; Coching, Genelito Jr.; Fabon, Paulino M; Fesalbon, Zarra R.; Gadon, Gallard D.; Garcia, Mitzi Dawn M.; Llorca, Zosimo Miguel K.; Magracia, Jocres M.; Martinez, Finlane N.; Molina, Adriel

Adviser: Engr. Crisauro R. Fallar III

Date Submitted: March 2001

Control No.: RSU-CE-001

PROPOSED CONSTRUCTION OF ROMBLON State College TWO-STOREY ENGINEERING BUILDING

Abenir, Pria R.; Costelo, Shierwen D.; Federico, R'vyl T.; Galpo, Wilma A.; Girao, Rolando C.; Madamo, Janalyn M.;
Mayor, Glen T.; Rufon, Jason F.

Adviser: Engr. Crisauro R. Fallar III

Date Submitted: March 2001

STUDENT RESEARCH ABSTRACTS CIVIL ENGINEERING

RSU-CE-091

TITLE: OPTIMIZING THE LEVEL OF CEMENT, MARBLE DUST AND CARBONIZED RICE HULL FOR CONCRETE	YEAR 2021
GIST The research was planned to determine the compressive strength of mixed-concrete as an additive in the effects of marble dust and carbonize rice hull. This study specifically aimed to: Identify the compressive strength of concrete with different quantity of marble dust and rice hull in concrete mixes. This research was carried out at the University of Romblon in Odiongan, Romblon, from September to December 2019. Generally, the result from this study that the greater amount of marble dust and carbonized rice hull added in the concrete mixes the greater the strength. In terms of compressive strength based on the result of our experiment, concrete mixes with (3.179%MD) marble dust, and (6.821%CRH) carbonized rice hull is R4 in terms of the optimal combination and treatment stage.	
STUDENTS Baladjay, Jessie John G; Gajolin, Gabriel M; Maestro, Rico V. Jr; Manalon, Johnnel Steve F; Meca, Jeremy F; Rosas, Ma. Rojayne D.	ADVISER Engr. Alfredo Fortu, Jr. Ph. D
KEY WORDS	TYPE OF RESEARCH

RSU-CE-090

TITLE: DESIGN OF DRAINAGE SYSTEM OF POBLACION SAN ANDRES, ROMBLON	YEAR 2021
GIST This study was conducted to design a drainage system of Poblacion, San Andres Romblon. The researchers believed that the establishment and development of a future drainage system will curb flooding problems and will benefit both residential and commercial establishments. The researchers used a total station in order to determine the elevation of the land used. Moreover, the Manning's formula was used to get the theoretical rate flow while the actual flow rate was computed by summing up all the equivalent. Discharge Fixtures Unit and the maximum rain flow rate from 2014-2019. Camera, compass, field notebook, and Global Positioning System as the primary materials in order to gather the needed data. Based from the result, barangay Poblacion had a discharge of 5.448 cubic meter per second. The researchers designed a model that combines a drainage flow model with an overland-flow inundation model. As computed by the researchers the total cost of the said study is Fourteen million forty thousand six hundred sixty-nine pesos and ninety-eight cents (Php 14, 040,669.98). The area where stagnant water is present, designing a drainage with a proper elevation is needed in order for the rain to flow and avoid over flowing of the water discharge. Also, this study will set as basis in the construction of a drainage system in the town of San Andres, Romblon. Furthermore, it is also highly recommended that the residential and commercial should have their proper pipeline connecting to the drainage that contains only liquid waste.	
STUDENTS David, Jeremiah Ann M; Diaz, Aries D; Lilang, Micah F; Magpusao, John Mar D; Oquias, Ruffa Mae A.	ADVISER Engr. Raymond Jay G. Severo
KEY WORDS	TYPE OF RESEARCH

RSU-CE-089

TITLE: PROFILING OF POCTOY AND DAPAWAN RIVER IN DETERMINING FLOOD PRONE AREAS	YEAR 2021
GIST The Objective of this study is to profile areas based on high tide and low tide that may be affected of flooding and rising of sea levels in Poctoy and Dapawan river in Odiongan, Romblon by means of conducting filed survey and collecting water samples for analysis from August 2019 until December 2019. The study aimed to test the current water quality based on the standard classifications and guidelines prescribed by DENR-EMB. Water samples were collected from the two (2) selected stations of the river. The collected samples were analysed based on the parameters preferred. The parameters preferred are Ph, Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS) , Nitrate, Phosphate, Surfactant, Total Coliform and Fecal Coliforn. Based on the results, both are rivers were failed to meet the standard perimeters set by DENR-EMB. The color of the water in both rivers was gray. Poctoy and Dapawan river were surveyed by getting the elevations and depth. The researchers measured manually the depth, length and width of the river. Google Earth is used to determine its elevation. The data obtained is to provide profiled map in order to distinguish areas that may be affected by floods. The highest elevation and lowest elevation is 15m and 8m respectively. The longest and shortest lengths are 100m and 40m respectively.	
STUDENTS Agad, Ruby Joy F; Arriola, Ivory Christel F; Sombilon, Aimie R; Tolentino, Devie Glen F; Ylagan, John Mark E.	ADVISER Engr. Raymond Jay G. Severo
KEY WORDS	TYPE OF RESEARCH

RSU-CE-088

TITLE: DEVELOPMENT AND TESTING OF A MODIFIED VERTICAL HELOPHYTE SYSTEM FOR THE ROMBLON STATE UNIVERSITY- COLLEGE OF ENGINEERING AND TECHNOLOGY BUILDING	YEAR 2021
GIST The study was conducted to develop, and test a modified vertical helophyte filtration system (MVHFS) for treating septage water. The influent and effluent of the prototype were analyzed and the primary methods used to determine its performance includes physical, chemical and microbiological characterized based on DENR Administrative Order No. 2016-08 standards. Results show that the MVHFS was able to reduce the lead and arsenic of the influent by 20% and 14.29% respectively. Meanwhile, the physical characteristic of the influent improved as the color and turbidity were also reduced. However, the result of the micro bacterial test failed as it showed high levels of E-coli and other heterotrophic organisms. Overall, these results indicate that it may still be used as a primary filtration system when coupled with additional waste water treatment processes effectively treat septage water for re-introduction to natural water ways and water systems.	
STUDENTS Bulfa, Karen G; Castro, Melandro Victor L; Dalisay, Uzziel Wynne M; Mangao, Princess Granny M; Manipol, Melie Jane M; Trogon, Oliver M.	ADVISER Engr. Bilshan F. Servañez, Ph. D
KEY WORDS	TYPE OF RESEARCH

TITLE: USE OF PEANUT SHELL ASH AS ADDITIVE TO CEMENT BONDED COMPOSITES WITH WASTE CHICKEN FEATHERS AS REINFORCEMENT	YEAR 2021
GIST Chicken feathers, especially here in the province of Romblon are being disregard and are considered as “wastes” for the majority of the people do not know any use of these at all. They are typically brought into dumpsites or landfills where they can sit for decades to decompose. On the other hand, some studies have proven that these waste materials can be used as potential reinforcement in cement-bonded composites but limited volume only. The researchers, therefore conducted a study whether peanut shell ash can help in strengthening cement-bonded composites if considered as additive. The study has two main objectives: (1) To test whether the amount of peanut shell ash added to the cement-bonded composites with waste chicken feathers as reinforcement affects the samples flexural strength; (2) To test whether the curing of the specimen through different ages affects the flexural strength. The researchers used a brick-shape molder (6”x2.5”x2.5”) for making the composites. Sand, cut waste chicken feathers, peanut shell ash, and desired amount of water were mixed together with cement as the binder. After the specimens were formed, each was dried for 24hours and cured for three different ages. (3,7 and 14days) Nine specimens were made for each age. After curing, the specimens were tested for flexural strength determination. The researchers get the average strength for each three specimens. The result of the test showed that the different proportions of waste chicken feathers with peanut shell ash affects the samples flexural strength; the specimens that have higher amounts of peanut shell ash possess higher flexural strength. The curing of the specimen through different ages affects the flexural strength; the longer the period the specimens were cured, the higher their flexural strengths were. The researchers suggest that one alternative to a prospective additive to cement-bonded composites is the ash produced from peanut shells.	
STUDENTS Angelino, John Wilmar G; Arellano, Emmanuela O; Fernando, Clint John F; Gadon, Lloyd Ephraim G; Motin, Khey John M; Soledad, Mitchie Dawn F.	ADVISER Dr. Reynaldo P. Ramos
KEY WORDS	TYPE OF RESEARCH

TITLE: PROPOSED ROAD NETWORK FOR ROMBLON STATE UNIVERSITY IN AGPUDLOS SAN ANDRES	YEAR 2021
GIST This study was conducted to design a site development plan in which every State University must have, Research has shown that a campus must have a good and wokable land use planning in order to have an effective and proper way in using the land. This study aims to develop a land use development plan for Romblon State Universityin Agpudlos, San Andres which identifies the site planning objectives and parameters. Determining the land use map of the area, including the road network and other major infrastructures; and to what extent its cost may get. Based on one of the literature review on making or preparing a site development plan, an initial practice like determining properties and lot dimensions and also some situations of structures and other site features in regard to the property boundaries before making a master plan. Analysis of the gathered data demonstrated that to have a good success every plan must undergo to its most basic way of collecting valuable data in order to gain good impact in reaching our goals and to evaluate some factors properly to strengthen the baseline in providing a better and effective plans. The researchers went to conduct the necessary surveys and inspections and come up with the results that there will be an area that must undergo cut and fill process. Having a 4191.5m of road network, it was based on the survey, we come up to a cost of 49,000,000 approximately. After conducting and gathering the data we then proceed to the designs and plans and listed all the major finding for the site development plan	
STUDENTS Aparicio, John M; Fajarito, Arian F; Jaca, Charlene F; Pasiona, Christine Joy N; Salmingo, Nicca Mae P.	ADVISER Engr. Jason F. Rufon, MAPA
KEY WORDS	TYPE OF RESEARCH

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RSU-CE-85

TITLE: ASSESSMENT OF NATIONAL AND PROVINCIAL ROAD CONDITION IN THE MUNICIPALITY OF ODIONGAN	YEAR 2020
GIST This research study was conducted to identify, observe and collect data in all existing national and provincial roads in Odiongan Romblon. Through this study, overall indication of road condition of Provincial and National road will be provided. It will identify road structure conditions if the road requires immediate replacement, if there are significant cracking, poor surface, minor cracking/surface deterioration, or free from significant cracking which will be surveyed in actual by Romblon State University- Civil Engineering Department. The researchers used evaluated data sheet and geo tagging application in gathering data and used descriptive method in designing the study. The researchers adopted The Simple Condition Rating Model (The Core Approach) in analysing the data gathered. Our study revealed that for Provincial roads, continuous supervision and proper maintenance of the road must be implemented by orienting the residents and the point person in barangay so they have an idea on the condition of their respective roadways. National Roads were the one with good conditions and needed minimal maintenance because they were free from significant cracking of surface deterioration and had minor cracking of surface deterioration, Also, for this study to be used as further references, the legal quantitative measurements and qualitative element should be concerted for the national and provincial road.	
STUDENTS Bacula, Jovie D; Dulce, Celso III J; Elisan, Angelica G; Fodra, Kate Johannah G; Foja, Mike F; Fontamillas, John Javie G; Garcia, Japeth John M; Go, Kathleen F; Lavente, Ma. Angelyn S; Pastor, Marc Noel F; Perez, Janina Jane F; Ramirez, Amabelle Joyce G.	ADVISER Engr. Jason F. Rufon, MAPA
KEY WORDS	TYPE OF RESEARCH

RSU-CE-084

TITLE: DESIGN STUDY FOR A VILLAGE COCONUT PROCESSING PLANT LOCATED AT STA.MARIA, ROMBLON	YEAR 2020
GIST At present times, the demand for coconut oil and other products manufactured from coconut has continuously risen. Products made from coconut have contributed a lot to health benefits and community development. In line with this, the researchers conducted a study on how to make use of this product that may respond to the necessities of the community as well as to provide additional works and growth in the community. The main objective of this study is to process a plan of Coconut Processing Plant and to determine its cost and project duration. This study was done through interviews, site investigation, planning and design, drafting and lay out, estimation of plan, design analysis and technical survey using an open reel fiberglass tape, transit, levelling rod, Geo Tagging and Global Positioning System (GPS). In designing and production of plans, it applied Auto CAD and Civil 3D (Optional). The construction of the proposed Coconut Processing Plant at Barangay Conception Sur, Sta. Maria, Romblon would be a great way to pitch in development and growth to economic progress of the said location and the province as a whole. This project will also open new opportunities for the people of Romblon. Due to a very high demand of cooking oil in the province, the expensive importation of this product from other places and the problem of exporting the harvested coconuts the researchers came up with this idea and considered those problems to be the reason of proposing this study. This study would serve as a guide for the implementers of the proposed project. The structured is designed to function in its preferred purpose. This is also designed with durability to ensure that it would be in a good condition over a long period of time and will only require minimal maintenance.	
STUDENTS Abalos, John Carlo D; Gallos, Stephanie G; Macabata, Shawn Lenard F; Madrid, Ellen Joy E; Mallen, Angel S; Mindoro, Joshua M.	ADVISER Mr. Eddie Fabila

KEY WORDS	TYPE OF RESEARCH
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RSU-CE-083

TITLE: BANANA LEAF ASH AS PARTIAL REPLACEMENT FOR CEMENT IN CONCRETE	YEAR 2020
GIST This study was conducted to determine the improvement on compressive strength of concrete if cement is partially replaced with banana leaf ash in various proportions without any other additives. Completely dried and naturally withered banana leaves were used in this study. The banana leaves were burned until reduced to ashes and was kept in a moisture free container. The samples were prepared in accordance with American Society for Testing Materials (ASTM) cured for 14 days and 28days and were air dried for 24 hours before tested for compressive strength using a universal testing machine (UTM). The tests result gathered showed the different proportions of replacement yielded different results. Samples with banana leaf ash cured for 14 days didn't show improvement on the compressive strength of concrete and show decrease in strength compared to concrete without banana leaf ash. However, samples with 10% and 5% banana leaf ash cured for 28days showed improvement on compressive strength with 28.14% and 2.5% increase respectively. The average of the samples with 10% banana leaf ash attained the highest compressive strength among the three ratios of replacement and was concluded to be the most favourable proportion mix.	
STUDENTS Buñales, Cristine F; Castro, Cristine Joy M; Fallarcuna, Mariel V; Familara, James Kent T; Felia, Krister Jan G; Forca, Jason T.	ADVISER Engr. Kim S. Agbas
KEY WORDS	TYPE OF RESEARCH

RSU-CE-082

TITLE: TREATED PULVERIZED SEASHELLS AS STRENGTH ACCELERATING ADMIXTURE FOR CONCRETE PAVEMENT	YEAR 2020
GIST This study was conducted to determine the flexural strength of concrete at various treated pulverized seashells (TPS) concentrations in different curing periods, and to determine what concentration percentage of treated pulverized seashell will early pass the minimum required flexural strength of concrete. Preparation of samples for flexural strength test followed the American Association of State Highways and Transportation Officials (AASHTO) T-23-08 (Making and Curing Test Specimens in the Field), American Concrete Institute (ACI) and American Society for Testing and Materials (ASTM) ASTM C-31-06 (Standard Practice for Making and Curing Concrete Test Specimen in the field) standards before conducting the actual experiment. ASTM C-78 (Standard Test Method for Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading) was used in testing the flexural strength. The study was conducted from August 2019 to February 2020 at Romblon State University College of Engineering and Technology. According to the data gathered, concrete mixtures yielded different flexural strength. Concrete samples with 3% treated pulverized seashells were determined to have the highest flexural strength of 5.081 MPa at 7 days curing period. The concentration with 1% treated pulverized seashell and only 3 days of curing period was determined to have the required flexural strength.	
STUDENTS Lugatic, Jemimah G; Marte, Rejoice F; Maquinto, Rey M.	ADVISER Engr. Kim S. Agbas
KEY WORDS	TYPE OF RESEARCH

TITLE: PROPOSED DESIGN OF WATER SYSTEM FOR BARANGAY PANGULO, MUNICIPALITY OF CALATRAVA	YEAR 2020
GIST In order to fulfil the water demand of the continuously growing population of Barangay Pangulo in Municipality of Calatrava, it is essential to provide the sufficient and uniform quantity of water through the new design of water system. The researchers conducted a study to present an attainable solution to the prevailing and offing environmental situation in barangay Pangulo, Calatrava Romblon. They aim to design a new water system that would provide an adequate supply of water to be served in every household in the said barangay. The researchers gathered all the necessary data in the preparation of this study. The personal interviews using questionnaire were done to the selected resident around the area and actual survey were conducted on the proposed site. Some professional who are knowledgeable in the topic shared their ideas to fulfil the whole study. It was found out that the target water demand is 122,340l/day until 2009 with a population of 2039 persons. With regards to the design of the water system, the water filtration tank is composed of four chambers with a dimension of 80cm by 150cm by 200cm per chamber, containing washed gravel, washed sand, charcoal and filtration fiber respectively. The storage tank has a capacity 125m ³ with 100mm or 400 inches' diameter distribution pipe. The total estimated cost of the project is amounting to Php 1,802,829.16 and it will take 63 working days to finish the project.	
STUDENTS Galacete, Nick Jay M; Malamo, Angelika A; Mijares, Jeff Bryan M; Rabino, Daisy Jane F; Villalobos, Patricia G.	ADVISER Engr. Jason F. Rufon, MAPA
KEY WORDS	TYPE OF RESEARCH

TITLE: PHYSICAL AND MECHANICAL PROPERTIES OF DRYWALL MADE FROM PAPER WASTE USING CASSAVA STARCH AS BINDER	YEAR 2020
GIST This study aimed to determine the physical and mechanical properties of drywall made from paper waste using cassava starch as binder. Specifically, this study was conducted to determine water absorption, texture, compressive strength, tensile strength, and bending strength. Samples were prepared using the following mixture proportion; (1) Mixture A-250 grams of paper waste, 140 grams of cassava starch and 320ml which is equivalent to 56% of grinded paper waste weight; (2) Mixture B- 250 grams of paper waste, 160 grams of cassava starch and 360 ml which is equivalent to 64% of grinded paper waste weight; (3) Mixture C- 250 grams of paper waste, 180 grams of cassava starch and 400 ml which is equivalent to 72% of grinded paper waste weight. The drywall sample has a thickness of ½ inch. The drying time of samples was 10 days. This study was conducted at Romblon State University, Odiongan Romblon from September 2019 to February 2020. Generally, the results of this study showed that drywall made from paper waste using Mixture B acquired the best result among all the mixtures used. It obtained a compressive strength of 15.31 MPa, tensile strength of 11.90 MPa and bending strength of 10.07 MPa which were all above the given standard mechanical properties of gypsum board therefore it can be used as substitute material for commercially available drywall with the same application and mechanical properties. Above all, it is eco-friendly for it uses waste material and organic binder for its production. This will be a great help for the community to utilize waste related materials with the aid of recycling and will also be a great help in the field of construction as well. However, based on the result of water absorption test conducted the drywall made from paper waste obtained 60.07% and didn't meet the standard 10 weight % according to ASTM C473 maximum water absorption which indicates that the application of this drywall is intended for indoor purposes only. It is therefore recommended to conduct further studies on the best materials to be utilized for the lamination of the drywall made from paper waste and conduct additional study on how to employ waste materials into construction materials	
STUDENTS Mayor, Mackie M; Miñon, Virgil M; Dianzon, Kenny Gher C; Recto, Alvin R; Bastillador, Jester C; Ferranco, John Paulo F.	ADVISER Engr. Aprille Ann M. Sim, M'Eng
KEY WORDS	TYPE OF RESEARCH

Cassava starch, paper waste, drywall, water absorption, compressive strength, bending strength, tensile strength, water absorption, texture.	
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RSU-CE-079

TITLE: DEVELOPMENT OF BAMBOO LAMINATED PLYBOARD FOR STUDENT DESKS	YEAR 2020
GIST The study sought to design and produce 1-inch thick bamboo-laminated plyboard using two locally available bamboo species, <i>Kawayang Tinik</i> and <i>Patong</i> . In this study, the following materials were gathered: 0.75-inch plywood, slats of dry bamboo, 16-inch <i>Botong Gigantochloalevis</i> (Patong) and <i>Bambusablumeana</i> (<i>Kawayang Tinik</i>), Rakoll (woodworking adhesive), sodium hydroxide, sanding paper (100, 180, 300) sanding sealer, lacquer thinner, gloss lacquer, and tinting oil. Sodium hydroxide was used for treatment, protecting the slats from micro bacterial organisms and prolonging its lifespan. Mechanical equipment such as thickness planner, miter saw and table saw were used to achieve the desired one-fourth inch thickness. C-clamps were used to press and fix the bamboo laminated plyboard. The test results of the specimens show that the modulus of elasticity of Patong is 3498.39 Mpa; of Tinik, is 3885Mpa; and of wood is 2741.28Mpa. It also shows that the stress at proportional limit of Patong is 11.83Mpa; Tinik and wood record a 8.68Mpa and a 6.29Mpa respectively. The modulus of rupture for Patong is 19.39Mpa; for Tinik is 21.48Mpa, and for wood is 15.96Mpa. These results show that two bamboo-laminated plyboards are better than commercial plyboards. In the financial cost of developed plyboard, the total estimated cost for 4x8 size plyboard is Php 907.80 while the cost of commercially made plywood 4x8 in size is Php 1200, showing that bamboo laminated plyboard is cheaper than the commercial ones. Finally, it is recommended that further research is to be conducted to determine the volumetric availability of bamboo in the province of Romblon, the different species that bear strength more than of wood.	
STUDENTS Fajilagmago, Maria Cristina B; Foja, Shairalyn F; Fruelda, Brian Paul F; Fruelda, John Kevin M; Mortel, Nikko Welmar M; Salmingo, Fatima R	ADVISER Dr. Bilshan F. Servañez
KEY WORDS	TYPE OF RESEARCH

RSU-CE-078

TITLE: JUICE DRINK DOYPACK AS AN ALTERNATIVE SLOPE PROTECTION	YEAR 2020
GIST This study was conducted to recycle plastics that cause clogging and came up with an idea to use the properties of plastics and converted it into slope protection due to soil erosions. This study aims to design and fabricate slope protection material from used doypack, utilize waste materials into useful product and to determine the degree of protection by the materials in terms of the amount of soil erosion. The researchers went to different areas where doypacks are commonly found such as dumpsites and material recovery facilities. They used sewing machines in binding doypacks and conducted a simple experiment to determine the tensile strength of the project. The data gathered were used to determine the total force of soil that the doypack slope protection could withstand. The strength of the improvised slope protection of two different design, one with holes and the other without, was determined using simple tensile experiment and recorded a strength of 5.47kPa and 9.59kPa, respectively. This project compared to other slope protections had much lesser tensile strength that can hold the soil and prevent it from eroding. However, its tensile strength can still prevent soil erosion but in just a particular height and slope of the soil depending on the design of the slope protection. After conducting the experiments and gathered the data needed for the research, we conclude that juice drink doypack has a capacity to hold soil erosion and could be an alternative slope protection.	
STUDENTS Carandang, Mary Stephanie R; Coching, Karl Zion D; Garcia, Mark Jay Q; Guyo, Jerremie D; Mangua, Franz Giuseppe F.	ADVISER Dr. Alfredo F. Fortu Jr.
KEY WORDS	TYPE OF RESEARCH

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RSU-CE-077

TITLE: STUDY OF WASTE GLASS POWDER AND MARBLE DUST MIXTURE AS PARTIAL REPLACEMENT OF CEMENT ON CONCRETE	YEAR 2020
GIST The purpose of conducting this study is to conclude the effectiveness of combining powdered waste glass and marble dust used to offset a quantity of the cement in concrete mixture and determining its compressive strength. This also includes the determination of the differences in strength capacity of concrete specimens with various percentage content of the said waste materials and comparing it to the conventional concrete mix. The concrete samples prepared for compressive strength test followed the American Association of State Highways and Transportation Officials (AASHTO) and American Society for Testing and Materials (ASTM) standards. Concrete cylinder samples were cured for 14 and 28 days and were air dried for 24 hours (1 day) before testing using the compressive machine. The study was conducted from August 2019- April 2020 at Romblon State University College of Engineering and Technology. Base on the compressive test result, concrete sample containing 7.5% marble dust and 7.5% glass powder replacement (15% total cement replacement) gave the best result of 22.90MPa at 14 days. The strength increases while the replacement increases. However, at 28 days, the strength of the samples drops as the quantity of replaced cement increases. Sample 1 with 5% total replacement is the only sample that increases its strength from 19.07MPa for 14 days curing time up to 21.90MPa. It also gave the highest average compressive strength among the samples.	
STUDENTS Andrade, Pamela Joanne F; Catajay, Mark Jayrald V; Lota, Celsey Fae S; Mores, Carl Patrick P; Tamayo, Katherine M.	ADVISER Engr. Kim Agbas
KEY WORDS	TYPE OF RESEARCH

RSU-CE-076

TITLE: DESIGN STUDY OF FLOOD CONTROL SYSTEM OF THE ROMBLON STATE UNIVERSITY- MAIN CAMPUS	YEAR 2019
GIST The study was conducted in order to present an alternative solution to avert flooding at the Romblon State University using the principle of collect, store and drain. The purpose of the study is to redirect the flow of floodwater from the proposed academic oval utilizing the existing storage dam going to Bungoy River. The drainage system will collect floodwater through the drainage canal that will be constructed around the proposed oval. The canal will have a total length of 2170 m with 1m width. The floodwater will then be stored in a catch basin with a dimension of 4.5x5x3. Using a 7.5 hp water pump, the stored water from the catch basin will be transfer to the existing dam. From the dam, a 1.2m in diameter spillway culvert will be constructed so that the water will flow by gravity going to the Bungoy River. The estimated cost of the project is Php 25, 000,000.00.	
STUDENTS De Roxas, Marvin B; Fababeir, Arlene L; Fabellon, Pauline Kris F; Forcado, Maria Odessa M; Relox, Maria Carla M.	ADVISER Engr. Bilshan F. Servañez, Ph.D.
KEY WORDS	TYPE OF RESEARCH

TITLE: PROPOSED DESIGN OF A WATER SUPPLY SYSTEM IN BARANGAY BALOGO, CALATRAVA ROMBLON	YEAR 2019
GIST The study was conducted in order to present a workable design of a water supply system, consisting of storage tank and system of pipes that will provide adequate supply of safe and potable water to households in Balogo, Calatrava Romblon. Actual surveys were conducted on the proposed site and personal interviews were done with selected residents around the area. Ideas and concepts from professionals who are knowledgeable in the topic were considered. The interview and analysis, showed that a well-designed and well-developed water supply system is one of the necessities of the area. The water supply system facility designed was a level II and a gravity fed type water system. The spring source generates 0.23 liter per second and was designed to supply clean, affordable and sufficient water to a 103 number of households in Balogo within 10 years. The water will be collected by the reservoir with a dimension of 2.10mx 2.10m x 2.40m. The collected water will be added with the 0.09 grams/day amount of chlorine to disinfect bacteria. The total estimated cost of the project in Balogo was Php 296, 683.22 which will be financed through the funds of the local government. The proponents believed that the findings based on the data with reference to the prevailing designs of the proposed water supply system, gave them a strong justification that the proposed project was essential. The proponents therefore recommend that further study be conducted to increase the yield of the spring to sustain the need for drinking water of the increasing number of population for the next 10 years. The use of safety design is also recommended for the maintenance of the water supply system.	
STUDENTS Barrios, Anna Justine F; Fontamillas, Iris Gabriel P; Lutaya, Shela S; Mangaring, Diwata M; Morales, Dannah Cae G.	ADVISER Engr. Jason F. Rufon, MAPA
KEY WORDS	TYPE OF RESEARCH

TITLE: INITIAL ENVIRONMENTAL EXAMINATION OF THE ROAD NETWORK IN ROMBLON STATE UNIVERSITY – AGPUDLOS DEVELOPMENT PROJECT	YEAR 2019
GIST The construction of the road network in Romblon State University- Agpudlos Campus needs an Initial Environmental Examination Report in order to identify the potential impacts and consequently provide and environmental measures to address the impact. The impacts found were soil erosion, solid waste disposal, deterioration of the environment, waste management brought by the development, land values and risk to wildlife and their habitat. The mitigation measures were construction of soil erosion preventive measures, construction of drainage systems, revegetation of the land, landscaping and embankment for removed soils, construction of retaining walls, proper waste disposal and implementation of laws to protect the lives of plants and animals. By proper implementation of these mitigation measures will likely reduce the adverse impact in the area.	
STUDENTS Fernandez, Angelica G; Fojas, Bruce Wally V; Gervacio, Randolph; Recongco, James Christopher F.	ADVISER Engr. Reynaldo P. Ramos, Ph.D.
KEY WORDS	TYPE OF RESEARCH

TITLE: COMPRESSIVE STRENGTH OF CONCRETE USING FINE AGGREGATES FROM SELECTED QUARRY SITES IN ODIONGAN, ROMBLON	YEAR 2019
GIST This study was conducted to determine the compressive strength of concrete using fine aggregates from different quarry sites in Odiongan, Romblon specifically from Tuburan, Progreso Este and Gabawan and identify which site exhibits the strongest or weakest compressive strength. It also sought to identify if there is significant difference among them using raw and controlled fine aggregates with curing periods of 14 and 28 days. Results revealed that at 14 days curing period, aggregates from Progreso Este (10.09 MPa) exhibited the highest compressive strength followed by Tuburan (9.75 MPa) and Gabawan (8.24 MPa) using the raw fine aggregates while aggregates from Progreso Este (22.03 MPa) exhibited the highest compressive strength followed by Gabawan (15.50 MPa) and Tuburan (13.40 MPa) using controlled fine aggregates. At 28 days curing period, aggregates from Gabawan (20.20 MPa) gave the highest compressive strength followed by Progreso Este (19.86 MPa) then Tuburan (14.72 MPa) when using raw fine aggregates while using controlled fine aggregates, Progreso Este (21.13 MPa) gave the highest compressive strength followed by Gabawan (21.05 MPa) and Tuburan (18.38 MPa). Compressive strengths of concrete samples undergone statistical analysis using Analysis of Variance(ANOVA) to determine if there is significant difference with regards to sources (Tuburan, Progreso Este, Gabawan) preparations (raw, controlled fine aggregates), and curing periods (14 and 28 days). Results showed that in using different preparations under 28 days curing period have no significant effects to the compressive strength of concrete with aggregates from three different quarry sites except in raw preparation where compressive strength of concrete with aggregates from Tuburan is significantly different with Progreso Este and Gabawan. It was statistically revealed that curing periods (14 and 28 days) has a major contributory factor to the compressive strength of concrete than different preparations (raw, controlled). The results imply that the compressive strength of concrete samples under 28 days curing period (raw) is comparable to 14 days and 28 days curing period (controlled).	
STUDENTS Dela Vega, Kenreid Nuel F; Fabito, Drexther Jay F; Fetalvero, Jeffy Jones F; Garcia, Jahna Mae J; Obeña, Marvin F.	ADVISER Engr. Jason F. Rufon, MAPA
KEY WORDS	TYPE OF RESEARCH

TITLE: EFFECT OF MARBLE NANOPARTICLES AS ADDITIVE ON THE PHYSICAL AND MECHANICAL PROPERTIES OF CONCRETE MIXES	YEAR 2019
GIST This study aimed to determine the effect of marble nanoparticles as additive on the physical and mechanical properties of concrete mixes. Specifically, this study aimed to: a) determine the mechanical properties of concrete using different amount of marble nanoparticles in concrete mixes in terms of the following: compressive strength, flexural strength, shearing strength and deflection; b) determine the physical properties of concrete using different amount of marble nanoparticles in concrete mixes in terms of the following: water absorption and bulk density; c) determine if there was a significant difference in mechanical properties of concrete with the addition of marble nanoparticles; d) determine if there was a significant difference in physical properties of concrete with different amount of marble nanoparticles. This study was conducted at Romblon State University Odiongan, Romblon from October to March 2019. Generally, the result of this study showed that the greater amount of marble nanoparticles added in the concrete mixes the greater the strength. In terms of water absorption and bulk density, concrete mixes with 5% marble nanoparticles added had the highest rate. For compressive strength, flexural strength, shear strength and deflection, it was found out that concrete mixes with 5% marble nanoparticles got the highest rate. Based on the result of the physical and mechanical properties examined, the researchers concluded: a) in terms of physical properties, increasing the amount of marble nanoparticles as additives in cement increased the bulk density and water absorption, b) increasing the amount of marble nanoparticles as additives increased the compressive strength, flexural strength, and shear strength c) there were no significant differences on the	

treatment means for bulk density, water absorption and compressive strength d) there were significant differences between the treatment means of samples for flexural strength and derived calculations for shear strength and deflection and e) the results for deflection passed the allowable maximum deflection of 1.4583 mm from the formula $L/360$ (NSCP 2010).	
STUDENTS Fajanian, Mary Ann Krystel U; Fetalver, Jill G; Forcadas, Charisse F; Gacu, Jerome G; Gonzales, Jay-R R.	ADVISER Engr. Aprille Ann M. Sim, M'Eng
KEY WORDS	TYPE OF RESEARCH

RSU-CE-071

TITLE: DETERMINATION OF MECHANICAL AND PHYSICAL PROPERTIES OF MARBLES IN THE PROVINCE OF ROMBLON	YEAR 2019
GIST Seven locally available marble samples were collected from six quarry sites in Romblon and tested for compressive strength, water absorption, specific gravity, and density. The study aimed to gather the mechanical and physical data for the selected marbles, specifically Romblon black, White Golden, Century, Llauran White, White Light Grey, White Dark Grey, and Italy White. Selection of samples was based on the common types of marbles found in Romblon. The methods used were in accordance to the American Society for Testing and Materials (ASTM) specifically ASTM C170 for compressive test and ASTM C97 for water absorption, density and bulk specific gravity. Results showed that the marbles in terms of water absorption is suitable for flooring and outdoor cladding due to its low water absorption (0.09% to 0.013%). For the compressive strength, marbles have medium strength both in wet and dry conditions with values that varies from 31.51 MPa to 46.66 MPa and 29.06 MPa to 52.06 MPa respectively. Statistical analysis showed that there were no significant differences between marble types in terms of the means compressive strength both in dry and wet conditions and water absorption, however in terms of the means of density and bulk specific gravity, marble types has significant difference with each other.	
STUDENTS Falculan, Nicole Shane M; Gabutero, Linda Lyn F; Lopez, Eric John N; Madula, Jeane Clarence M; Mayo, May M.	ADVISER Engr. Jason F. Rufon, MAPA
KEY WORDS	TYPE OF RESEARCH

RSU-CE-070

TITLE: DESIGN STUDY FOR PROPOSED ACCESS ROAD, MAIN GATE AND ACADEMIC OVAL OF ROMBLON STATE UNIVERSITY	YEAR 2019
GIST The objectives of the study were to prepare a proposed access road, main gate and an academic oval for future development of the University and to estimate and determine the total cost of the proposed project. The proposed access road was designed to start from the gate 2 up to the gate 3. The dimension of roads was 12 inches or 305 mm thick, 9-meter-wide including shoulders in both sides, 187-meter-long and composed of 2 lanes, 3-meter-wide for every lane. The estimated cost of the proposed road access was approximately Php 5,540,129.98 million. The proposed main and entrance gate will provide a new image for the University. It has dimension of 11.2 m high and 6 m wide for the roadway opening. The gate has an automated entrance controlled by an RFID that draws up the boom barrier every time an employee or student on a car enters the gate and swipes his/her ID card on the slot of the boom barrier. A manual override may be made by the guards when an outsider may be allowed to enter. A separate turnstile will be made to accommodate non-students or non-faculty who would wish to enter the campus. The estimated cost of the proposed main gate and entrance gate was approximately Php 912,064.00 thousand. The academic oval was designed with space, environment and aesthetics. It has a dimension of 12 inches or 305 mm thick and 9 meters wide including shoulders in both sides. It was designed to be 1085 m long. The academic oval will have 2 lanes measuring 3 m per lane. The academic oval will	

unite all academic buildings for easy access and organized environment. The estimated cost of the proposed academic oval was approximately Php 21,148,671.55 million. The proposed project has an overall estimated total cost of Php 27.6 million at current rates.

STUDENTS Alba, Mary Antonette D; Capili, Boniel Christian S; Fabula, Zandra Joy B; Fornea, Herbert B; Morada, Mark Gil M.	ADVISER Engr. Bilshan F. Servañez, Ph. D
KEY WORDS	TYPE OF RESEARCH

RSU-CE-069

TITLE: SHEAR AND TENSILE PROPERTIES OF KAWAYAN TINIK (<i>Bambusa blumeana</i> , Schult. And Schult.f.) AND PATONG (<i>Dendrocalamus latiflorus</i> , Munro)	YEAR 2019
GIST This study was conducted to determine the shear and tensile strength of the <i>Bambusa blumeana</i> and <i>Dendrocalamus latiflorus</i> . It determined the shear and tensile strength of the two species from the top, middle and bottom part of the culm. Moreover, the significance of the differences in mean strengths of the samples with and without nodes was also considered in the study. Tests were made for dried samples. The test showed that the highest tensile stress of <i>Dendrocalamus latiflorus</i> was 237.60 MPa found at the middle part of the culm for sample with nodes. For samples without nodes the highest tensile stress was 273.93 MPa located at the top of the culm. The highest shear strength of <i>Dendrocalamus latiflorus</i> was 16.53 MPa found at the top part for samples with nodes. For samples without nodes the highest shear strength was 14.47 MPa located at the top part. The result showed that the highest tensile strength of <i>Bambusa blumeana</i> was 279.05 MPa found at the top part of the culm for sample with nodes. For samples without nodes the highest tensile stress was 301.07 MPa located at the top. The highest shear stress of <i>Bambusa blumeana</i> was found to be 22.20 MPa at the top part of the culm with nodes; while for sample without nodes the highest shear strength was 20.92 MPa at the top part of the culm. Generally, mechanical properties of bamboo decreases from top to bottom. In this study, the presence of nodes was a weakness of bamboo in tension. On the other hand, nodes were considered a strength for bamboo in shear. Moreover, it was found out that the lower the moisture content the higher the shear and tensile strengths.	
STUDENTS Asturias, Kint F; Fabella, Antonio Jr. M; Forio, Sofia Rose C; Gal, Michael G; Manito, Nikko Reymon R.	ADVISER Engr. Bilshan F. Servañez, Ph. D
KEY WORDS	TYPE OF RESEARCH

TITLE ASSESSMENT AND EVALUATION OF EXISTING DRAINAGE SYSTEM OF THE TOWN PROPER OF MUNICIPALITY OF ODIONGAN, ROMBLON	YEAR 2018
ABSTRACT The present research work focused on the assessment and evaluation of drainage system of the town proper of the Municipality of Odiongan, Romblon namely: Dapawan, Liwayway, Liwanag, Ligaya and Tabing-dagat. The study was conducted to assess and evaluate the existing drainage system of Odiongan Town Proper. It was conducted to determine the discharge coming from rainfall and both commercial and residential establishments. It was also conducted evaluate whether the current drainage system can accommodate the discharges coming from storm water, households and establishment in terms of Actual and Theoretical Discharge. Based on the results, it was found out that some canals are inadequate to carry the discharges coming rainfall, commercial and residential establishments. Also there were problems regarding the slope of some canals causing backflow and water retention.	
STUDENTS Bastillador, Joshua S; David, Hannah Patrice M; Fabula, R A; Falogme, John Christ F; Fetalvero, Michael Philip F; Ferrancullo, Aireez Joy F; Formento, Hans M; Marquez, Kalven F; Panagsagan, Benjie E; Soguilon, May Ann B; Yap, Rachele F.	ADVISER Engr. Jayson F. Rufon, MAPA Engr. Raymond Jay G. Severo

TITLE THE EFFECTS OF PARTICLE SIZE COARSE AGGREGATES ON THE COMPRESSIVE STRENGTH OF CONCRETE FROM SELECTED QUARRY SITES IN TABLAS ISLAND, ROMBLON	YEAR 2018
ABSTRACT This study was conducted in order to investigate the particle size of aggregates found in the different quarry sites in Tablas Island, Romblon. It sought to determine the compressive strength of sample using aggregates coming from Tuburan, Gabawan and Progreso Este and establish comparisons on the resulting data. Preparation of samples for compressive strength followed the American Society for Testing and Materials (ASTM) and American Association of State Highway and Transportation Officials (AASHTO) standards before conducting the actual experiment. Cylindrical specimen had undergone wet curing for 14 and 21 days and were air dried for 2 to 3 hours before the test using the Universal Testing Machine (UTM). The study was conducted from December 2017 to February 2018 at Romblon State University, College of Engineering and Technology. Test findings after 14 and 21 days showed that concrete samples using aggregates hauled from Tuburan, Gabawan and Tuguis with sizes $\frac{1}{2}$ " , $\frac{3}{4}$ " and 1" respectively exhibit highest compressive strength of 5.64 MPa and 6.6 MPa, 7.32 MPa and 7.26 MPa, 5.06 MPa and 5.72 MPa respectively. Also, F-Test revealed that there is no significant difference on replication of samples. There was also an interaction between location and size, location and curing as well as between location, size and curing. Among all the interactions location and size has high significant difference with each other. However, all results did not meet the 24 MPa (3500 psi) minimum strength requirements for Class A concrete.	
STUDENTS Anin, Keith G; Capillo, Sharmaine Joy T; Fallaria, April G; Fetalvero, Jan P; Fruelda, Angelica F.	ADVISER Engr. Aprille Ann M. Sim, M'Eng

TITLE DESIGN OF RAINWATER HARVESTING SYSTEM OF THE 2-STOREY ACADEMIC BUILDING FOR THE COLLEGE OF ENGINEERING AND TECHNOLOGY, ROMBLON STATE UNIVERSITY (MAIN CAMPUS)	YEAR 2018
ABSTRACT The study was conducted in order to present a workable alternative source of water in order to sustain all the water demand that the proposed building would be needed. The implementation and construction of the rainwater harvesting system for the 2-storey academic building for the College of Engineering and Technology will be a great help for the college itself and also for the university in terms of water bill. Review of the building plans and site visit of the area were done to gather the necessary data. Volume of tank has been calculated with most appropriate method of estimation and considering the suitable design of the tank. There will be two cistern and overhead tank that will be proposed in College of Engineering and Technology Academic Building. A cistern tank with a capacity of 36 m ³ with a dimension of 6m x 3m x 2m also overhead tank with a capacity of 18 with a dimension of 3m x 3m x 2m, therefore the total volume of the cistern tank is 72 m ³ and the overhead tank is 36m ³ . The proposed project will need a total of 45 pcs. 4" diameter PVC Pipes for the conveyance piping. For water distribution, 8 pcs. ¾" diameter PVC Pipes and 11 pcs. 1" diameter PVC Pipes (6m long) will be needed and for the fittings it will be needing 8 pcs. ¾" diameter Tee Pipes and 10 pcs. 4" diameter elbow will be needed. The result of the study also shows the estimated cost of Php 1, 327, 810.00, within 40 calendar days.	
STUDENTS Fabello, Louisa Mae F; Fadriquelan, John Denver L; Ferrancullo, Eldie G. Jr; Manzo, Archie M; Robiso, Prince Kevin	ADVISER Engr. Reynaldo P. Ramos, Ph. D

TITLE IMPROVEMENT OF THE EXISTING WATER SYSTEM IN BAGSIK, ALCANTARA, ROMBLON	YEAR 2017
ABSTRACT The study was conducted to present the workable solution to the prevailing and future environmental situation in Bagsik, Alcantara Romblon. It aimed to design a water system, on which the reservoir and piping system would provide an adequate supply of safe and potable water that would be served in every household in the said barangay. This study intended to design a water system the dimensions of the reservoir, routing of pipes and total project cost. The proponents also want to solve the problems in the recent situation of the existing water system, the various functions of technical and financial aspects and environmental as well. The researchers gathered all the necessary data in the preparation of this study. The actual survey were conducted on the proposed site, personal interviews using questionnaire were done to the selected residents around the area. They also considered ideas and concepts from some professional who are knowledgeable in the topic. Based on the interview and analysis, it is one of the necessities of the barangays to have well-designed and well-developed water facilities. The water system facility is a level III and gravity fed type of water system. The spring source generates 1.732 liters per second. The proposed reservoir has a dimension of 4.3m by 4.3 by 4.6m. The collected water will be added up with certain amount of chlorine as disinfectant. In addition, gate valves in every connected pipes from main pipelines will be installed. The total estimated cost of the project is Php 1, 632, 210.00 and it will take 80 working days to finish the project. This amount will be financed through the savings of the local government and the implementing agency will be the barangay itself. Based on the findings and analysis of the data gathered from the prevailing designs, the proponents believed that the improvement of the existing water system facilities is essential to have a good access of water to be delivered in every household.	
STUDENTS Abenir, Rosano G. Jr.; Delen, Conrado O, Jr.; Ferrancullo, John Dave A.; Flores, John Emmanuel V.; Fronda, John Paul L.; Mesaion, Ronvie G.	ADVISER Engr. Raymond Jay G. Severo

TITLE PROPOSED RSU SPORTS ARENA	YEAR 2017
ABSTRACT The study was conducted to create a Sports Arena developmental plan for the area in the Northern part of Romblon State University compound to make it more productive. Located at the above mentioned area is the latest proposed sports and events arena. The proposed sports arena stretches over an area of 84m x 54m including the dimension of the pathways and the parking lot outside the building. The proposed project has a seating capacity of approximately 4, 800.00 person, purposely for the audiences who want to witness every moment of the tournament/ entertainment and for the athletes' players as well. The total estimated cost of the project in Northern part of Romblon State University is approximately Php 76, 078, 764.26. The main purpose of this study is to establish a venue that provides an appropriate place where every sport can be easily conducted in the said area. The amenities that will be constructed in the proposed area are the following: receiving area/ lounge area, cafeteria, sleeping quarters, gym, parking space, athletes/ coaches' room, RSU sport's personnel room, food stalls, and sports boutique. The cafeteria provides hot drinks and palatable food menu but affordable. The comfort room is composed of toilet, shower room, and wash room. The changing room facility separate male and female which provides plenty of space and the all important excellent showering facilities. The fully equipped meeting and training room is available for hire. Varying hourly daily packages available and will be tailored to meet your needs. Sports boutique may include the selling of clothing, decorative items, housewares, art, sports uniforms and equipment or shoes which provide the long term needs of every spectator. The stadium facilities are designed to maximize spectator enjoyment. One of the things that make the stadium special is the retractable roof, which ensures that the spectator experience is comfortable in all weathers.	
STUDENTS Ferranco, Daphne S.; Forcado, Keirleen Joy F.; Gacu, Joshua M.; Lachica, Mary Jane E.; Magallanes, Moyses C.; Santiago, Merry T.; Vicente, Charity Joy S.	ADVISER Engr. Jason F. Rufon, MAPA

TITLE PROPOSED IMPROVEMENT OF BUDIONG- BANGON ROAD ODIONGAN, ROMBLON	YEAR 2017
ABSTRACT This study was conducted in order to present a workable/ doable solution to the prevailing road network and drainage system of Budiong- Bangon Road. This study aimed to improve the existing road network and drainage system in Budiongg- Bangon, Odiongan Romblon. The objective of the study is to: <ol style="list-style-type: none"> 1. Assess the current condition of the road network and drainage system. 2. Design a suitable drainage system 3. Determine the cost and project duration in improvement of the Budiong-Bangon road. Based on the road inventory and assessment of road condition there is an urgent attention to the Budiong-Bangon road because of its deteriorated concrete pavement and poor drainage facilities. Based on the survey and analysis, it is one of the necessities of the barangays to have a well-designed and well improved road network and suitable drainage system. The proposed improvement of road network and drainage system has a total length of 1,251.3 meters and road width of 4 meters also the size and type of drainage system which is 0.50 x 1.0 m U-Ditch Type A both sides of the road section. The length of days to finish the construction is 209 calendar days. The total estimated cost of the project reached Php 26, 844, 537.98. This amount was financed through an equal capital contribution of the barangay administration and funds from DPWH (Department of Public Works and Highways).	
STUDENTS Bernales, Michael Jorge A.; Faz, Ephraim Joseph F.; Manlolo, Pearl Joy F.; Mores, Paul John F.; Motin, Yessa Marie M.; Raymundo, Dexter F.	ADVISER Engr. Jason F. Rufon

TITLE PROPOSED 3-STOREY COLLEGE OF ENGINEERING AND TECHNOLOGY BUILDING ROMBLON STATE UNIVERSITY MAIN CAMPUS	YEAR 2017
ABSTRACT Annually, one of the most awaited announcements of the College of Engineering and Technology is the number of board passers coming from the four departments. The enrollees' attraction to take up Engineering courses results to the rapid growth of the College's population. It is for this reason that the College should have a new building to accommodate the increasing number of Engineering Students. With nine (9) existing classrooms, wherein three (3) are used as laboratory rooms, including the six (6) classrooms borrowed from the College of Education, the researchers concluded that there is really a problem in the College of Engineering and Technology in terms of the number of classrooms. This project study aimed to design the proposed 3 Storey College of Engineering and Technology Building at South Eastern section of the Romblon State University Main Campus. Specifically, it aimed: a.) To design a 3 Storey College of Engineering and Technology Building that conforms to the National Structural Code of the Philippines (2010) and having some features of a green building; b.) To identify the amenities/ facilities to be constructed; and c.) To determine the cost and estimate of the proposed structure. The proposed College of Engineering and Technology Building will have three (3) laboratory rooms, one (1) faculty room and Dean's office, one (1) CET Mini Library and one (1) Supply office located at the ground floor. Eight (8) Classrooms and one (1) Accreditation Office at the second floor, another eight (8) Classrooms and one (1) Audio Visual Room at the third floor. The construction of the proposed 3 Storey CET Building would be a great help for the College's faculty and staff, as well as the students. It will be a good learning environment for both the faculty and students, and it will solve the existing problem of the classroom shortage and flooding. The total estimated project cost is Forty-Seven Million Six Hundred Sixty-Four Thousand Seven Hundred Seventeen and 00/100 (Php 47, 664, 717.00) pesos only. Relocation of the site must also be studied. Further study regarding the 3 Storey College of Engineering and Technology Building is highly recommended. Also, a soil test is highly recommended to assure that the soil in the proposed area of the structure is appropriate for the construction of a 3 Storey School building.	
STUDENTS Fadriqueta, Ken James F.; Famadulan, Abegail G.; Fortunato, Margie V.; Tado, Jocelyn F.; Tianga, Noel Jr. M.; Tolentino, April Kieth F.; Vicente, Clyde Love G.	ADVISER Engr. Raymond Jay G. Severo

TITLE DESIGN AND ANALYSIS OF WATER SUPPLY SYSTEM OF RSU-AGPUDLOS CAMPUS, SAN ANDRES, ROMBLON	YEAR 2017
ABSTRACT The study was conducted from July 2016 to October 2016. It is primarily focused on the suitable design of construction of a water supply system consisting intake box, water reservoir, filtration tank, and system of pipes including water treatment through filtration that will provide adequate supply of water for household use excluding the water for human intake in Romblon State University Agpudlos. This study intends to know the total water demand within RSU-Agpudlos including the demands for the proposed buildings and project in 10 years, the required design for suitable water supply system and the cost of the project. It is hypothesized that the construction of the water supply system will have a big impact to the economy and environment and will be acceptable to the target population. The result of this study provides some insights and information to the future researchers and sectors of our society. Actual surveys and site visits in areas of concern were done to gather the necessary data need. Based on actual data that the researchers have gathered, demand of school population for easy access to water is increasing. The results of the study show that the expansion of RSU-Agpudlos water supply system will do have a big impact on the environment. The project will help provide the people easy access and adequate source of water and thus improve the sanitation of the faculty and students. The construction of the project will take 64 days to complete. The project costs 1, 174, 585 php. For the construction of the project, management is organized that will handle the construction and completion of the project in accordance with the approved plan not later than the target date of completion. The Romblon State University- Agpudlos Water Supply System will be under direct supervision of the Planning Department of the School. To ensure the protection and safety of the water storage, the faculty and students of the campus must be properly oriented regarding the project.	
STUDENTS Abello, Meeriam F.; Bolon, Arlyn Joy G.; Garcia, Jhon Meynard Q.; Gregorio, John Fred V.; Mijares, Kenneth Christopher M.; Moral, Abegail G.	ADVISER Engr. Jason Rufon

TITLE THERMAL AND ACOUSTIC PROPERTIES OF TIGER GRASS POLLEN INSULATION MATERIAL WITH ARROWROOT STARCH AS BINDER	YEAR 2017
ABSTRACT Tiger grass pollen is disregarded as a valuable agricultural waste; thus this study explored its potential and beneficial use as an alternative building insulation material with arrowroot starch as binder. Samples were prepared with the following mix proportions. Mixture A: 250 grams- tiger grass pollen and 100 grams- arrowroot starch which is equivalent to 40% of the tiger grass pollen weight. Mixture B: 250 grams- tiger grass pollen and 125 grams- arrowroot starch which is equivalent to 50% of the tiger grass pollen weight. Mixture C: 250 grams- tiger grass pollen with 150 grams- arrowroot starch which is equivalent to 60% of the tiger grass pollen weight. The samples were air dried for 10 days. The thickness of the particleboards ranges from 8 mm to 10 mm. Based on the tests conducted for acoustic properties, thickness swelling, water absorption, and thermal conductivity, Mixtures B and C demonstrated acceptable results having met the allowable limit values. The particleboard produced was eco-friendly because the main ingredients of the material used were organic and found locally. Thus, it proved that tiger grass pollen can be of great help in the society particularly in the construction industry. As a recommendation, apply some surface treatments to avoid the occurrence of molds or fungi caused by binding agent. In addition, conduct further study on how to employ a combination of tiger grass pollen with other agricultural waste products to enhance the quality of the particleboard for building insulation.	
STUDENTS Casidsid, Jona Val T.; Fesarillo, Charmaine F.; Fornea, Donna F.; Gado, Koen Kate S.; Gonzales, Mary Joy R.; Pastor, Sahra Mae F.	ADVISER Engr. Reynaldo P. Ramos, Ph. D

TITLE COMPREHENSIVE LAND USE PLAN OF ROMBLON STATE UNIVERSITY MAIN CAMPUS	YEAR 2016
ABSTRACT This study was conducted to physically assess the existing land use of Romblon State University Main Campus and to propose a 15-year Comprehensive Land Use Plan (CLUP) for the benefits of the students, staff and the University as a whole. The CLUP of RSU Main Campus was prepared to be one of the foundations for future facilities and physical development in support to the University's vision of becoming a premier Institution for Higher Education in the MIMAROPA region. Individuals contributed their ideas to develop the CLUP that will transform the University to a better learning environment. The CLUP strives for the development of new academic and student life facilities, transportation improvements and open space enhancements. It contains the Land Use Map with options A and B, Drainage Map, Main Traffic Route, Electrical Layout, Existing/ Proposed Map, Road and Pedestrian Map and Occupied Lot Ratio. The proposed facilities were based on the calculated projected population and needs of the University. The authority of the University and some experts also affects the planning activity of the CLUP. Study on other portion of the master plan and proper implementation of the Comprehensive Land Use Plan of Romblon State University Main Campus must be given importance in order to reach the expected outcome provided by this study.	
STUDENTS Abagat, Mark Angelo F.; Abrantes, Krista Jane F.; Fabito, Nolibert T.; Fronda, Mary Joy T.; Leonardo, Dorothy D.; Maduro, Jose Rafael S.; Rubion, Joven M.; Samino, Jeth F.; San Gabriel, April Anne; Santiago, Jester John M.; Silanga, John Arnel G.; Tadia, Jane Angelique F.; Valdez, Ian Dwight F.	ADVISER Engr. Jason F. Rufon

TITLE PROFILING OF BANGON RIVER SYSTEM IN THE MUNICIPALITY OF ODIONGAN	YEAR 2016
ABSTRACT The Objective of this study is to establish the water base line data for Bangon River in Odiongan, Romblon by means of conducting field survey and collecting water samples for analysis from September 2015 until February 2016. Water samples were collected from the five (5) selected stations of the river. The collected samples were analyzed based on the parameters preferred. DENR ADMINISTRATIVE Order No. 34 is used to classify the water samples collected from the Bangon River based on the values of each parameter. The parameters preferred are Ph, temperature, Biochemical Oxygen Demand ₅ (BOD ₅), Total Suspended Solids (TSS), nitrate, phosphate, surfactant, total coliform and fecal coliform. Based on the recorded results, the average value of Ph belongs to CLASS A, CLASS B, and CLASS C. The average BOD ₅ was classified as CLASS A and CLASS B, average Total Suspended Solids was classified as CLASS AA, Nitrate also belongs to CLASS AA, average Phosphate, Surfactant and Fecal Coliform passed the classification of CLASS A While Total Coliform belongs to CLASS C.	
STUDENTS Amar, Karen Joy M.; Blasurca, Marco G.; Dalisay, Louella Mae M.; Familara, Shiela Jane D.; Obrique, Jims Braul Patrique S.; Rubion, Arvilyn S.	ADVISER Engr. Reynaldo P. Ramos

TITLE DEVELOPMENT OF TIMBER TRUSS ANALYSIS SOFTWARE APPLICATION	YEAR 2016
ABSTRACT The main objective of his study is to develop a timber truss analysis software application. Findings of this study are beneficial for Civil Engineering students to automate the analysis of timber trusses and to remove the tedious and long procedure of the manual methods. Method of joints and method of sections were used in calculating the forces of the timber truss members. The trusses used in this study were limited to simply supported Howe truss and Pratt truss with four (4) or six (6) panels using commonly used high and moderately high strength group of 80% stress grade unseasoned Philippine wood and having a truss angle greater than or equal to 10° normal to ridge. The program language used was the Microsoft Visual Studio 2013. The software application can be installed in a 32 bit or 64-bit version of Windows XP, Windows 7 and Windows 8 operating system. The software was composed of tabs that contain multiple graphical control elements within a single window. Results showed that 92.8% of the respondents rated excellent in the over all software designs, user friendliness, functionality, accuracy, and consistency of the software application. The results from the software application revealed a difference in decimal points with the results from manual calculations due from rounding off done in the manual calculations. However, the time taken to complete a calculation with the software application was significantly less than the time required to complete the same calculations manually. This is due to the fact that a computer system operates at a far greater speed than humans. Thus, the software is flexible and user friendly. The researchers recommend to conduct further study on the software application development considering the other types of trusses such as Hip truss, Fink Truss, etc.; greater number of panels like 8 panels and 10 panels; and other types of support such as fixed support so that user will have a wider range of choices for analysis. It is also recommended to conduct further study on software application that will determine the allowable dimension of the truss members.	
STUDENTS Fos, Paul Jaysent F.; Gaboc, Mark Kaven D.; Gregorio, Ann E.; Torida, Heris Jan F.	ADVISER Engr. Aprille Ann M. Sim

TITLE COST ESTIMATE PROJECT MANAGEMENT AND STRUCTURAL DESIGN ANALYSIS OF THE PROPOSED FACILITIES FOR ROMBLON STATE UNIVERSITY AGPUDLOS CAMPUS, SAN ANDRES, ROMBLON	YEAR 2016
ABSTRACT Before an actual construction of a project, different sectors involved in the project construction are in need of dependable data about the feasibility of a project on the early stages. This study aimed to present a reliable Cost Estimate, Project Management, and Structural Design Analysis of the Proposed Facilities for Romblon State University Agpudlos Campus San Andres Romblon. It sought to answer the following questions: <ol style="list-style-type: none"> 1. Project Management <ol style="list-style-type: none"> 1.1 How many personnel are needed to construct the project? 1.2 How long will the construction of each structure be completed? 2. Cost Estimate <ol style="list-style-type: none"> 2.1 What is the estimated cost of the project? 3. Structural Design Analysis <ol style="list-style-type: none"> 3.1 What are the design considerations that must be taken into account to ensure the integrity of the structures? <p>The result of the study will provide the University Board, Directors, Faculty, Contractors, the Students, the local people, and the Local Government much information about the viability of the project. The study was conducted at Barangay Agpudlos, San Andres Romblon during the school year 2015-2016. All the designs and specifications were provided by the Office of the Auxilary Plant Services and Pollution Control Unit, Detailed Cost Estimate, Project Management Plan and Structural Design Analysis. The results of the study shown that a budget amounting to 79, 600, 752.08 pesos is needed to implement the project. The length of days to finish the construction of each facility varies depending on the activities involved for each facility. For the academic building a design analysis is conducted following the codes and guidelines provided by the NSCP. The structural design analysis showed that the structure is safe for bending, shear and deflection. After examining the result of the study the researchers came up with following recommendations. Further studies must be conducted before the project implementation. Soil test and other tests must be conducted in the area and that environmental studies as well as parameters and mitigation must be implemented before the construction of the project.</p>	
STUDENTS Cardenas, Ronel F.; Escarilla, Mark Anthony F.; Española, Harold D.; Gregorio, Ma. Salve G.; Manalon, Jake Emelito; Meñez, Patrick E.; Merano, Marichu F.; Montesa, Kim C.; Montoya, Kahlen Ze F.; Soguilon, Ani Miguel F.	ADVISER Engr. Jason F. Rufon

TITLE COMPRESSIVE STRENGHT OF CONCRETE REINFORCED WITH BANANA FIBERS	YEAR 2015
ABSTRACT This study was conducted to determine the compressive strength of concrete reinforced with natural fibers from "saba" stem at different lengths and percentages. It also sought to determine the significant difference between the compressive strength of fiber- reinforced concrete with different fiber percentage and fiber length. Furthermore, it aims to determine which length and percentage of fibers will give higher compressive strength of concrete. The Class A mixture of 1:2:4 was used for the concrete mixture. The fiber percentages are 0%, 0.1%, 0.2% and 0.3% of concrete weight, and fiber lengths of 1 inch, 2 inches and 3 inches. Cylindrical specimens had undergone wet curing for 28 days and was air dried for 24 hours before the test using the universal testing machine. After 28 days of curing, findings showed that concrete samples having 0.1% of fiber and lengths of 1 inch, 2 inches and 3 inches have the average compressive strengths of 13.2, 12.6 and 12 MPa respectively. However, 0.2% of fiber with 1, 2 and 3 inches' lengths have the average compressive strength of 11.2 MPa, 12.6 MPa, and 11 MPa. Likewise, the samples with 0.3 % fiber and fiber lengths of 1, 2 and 3 inches were recorded to be 11.8 MPa, 8.6 MPa and 10.2 MPa. After conducting the study and based on the gathered data and test results, the researchers concluded that the addition of 0.1 % and 0.2% fibers increased the compressive strength of concrete. However, samples with 0.3% fibers got the lowest compressive strength of concrete. In relation to fiber length, result showed that samples containing shorter fibers had higher compressive strength recorded. Also, statistical test results using ANOVA (Analysis of Variance) and DMRT (Duncan Multiple Range Test) revealed that there was no significant difference in the compressive strength of concrete reinforced with 0.1% and 0.2% fiber percentage with 1" 2"	

and 3" length of fibers. The null hypothesis is accepted. Moreover, in the 0.3% fiber percentage the compressive strength of concrete in different lengths of fibers showed a significant difference in both 1% and 5% level. Therefore, the null hypothesis is rejected.

STUDENTS Escalada, Luther Jr. N.; Fernando, Daneca D.; Magayon, Mark Anthony G.; Mindoro, Chairmaine M.; Molina, Sheba M.	ADVISER Engr. Jason F. Rufon
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RSU-CE-054

TITLE STYROMFOAM DISSOLVED IN GASOLINE AS AN ADHESIVE FOR PARTICLE BOARD	YEAR 2015
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ABSTRACT
This research aimed to produce a particleboard using Styrofoam dissolved in gasoline as an adhesive. In this study, mahogany sawdust with different content of Styrofoam dissolve in gasoline was investigated. Three specimens with three samples were evaluated with the following compositions: (1) 500 mL of gasoline, 250 grams of mahogany sawdust and 250 grams of Styrofoam; (2) 500 mL of gasoline, 250 grams of mahogany sawdust and 200 grams of Styrofoam; and (3) 500 mL of gasoline, 250 grams of mahogany sawdust and 150 grams of Styrofoam. Specimens were pressed under the given temperature and pressure of 22°C to 32°C and 0.8 N/mm² respectively for 60 minutes. Results showed that all the flexural strengths obtained from the specimens surpassed the standard flexural strength for high- density grade particleboard based on the American National Standard ANSI; A208.1-1999 which is 23.5 MPa. It also appeared that the particleboard specimens were safe since the results are less than the allowable deflection of particleboard of 3 mm (Particleboard Structural Flooring Design Manual). Furthermore, the results of the specimens in shear strength exceed the standard shear strength of 1.38 MPa- 2.10 MPa.

STUDENTS Aguilar, Ma. Lorena C.; Cano, James Ramon F.; Dalisay, Kim D.; Gonzales, Andrew F.; Liberato, Edgar M.; Mindoro, Myco M.; Rubion, Jerald S.	ADVISER Engr. Jason F. Rufon
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RSU-CE-053

TITLE ASSESSMENT OF INDOOR AIR QUALITY IN ROMBLON STATE UNIVERSITY MAIN CAMPUS BUILDING	YEAR 2015
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ABSTRACT
Assessment of indoor air quality is important to ensure health, productivity and comfort among Romblon State University students, teachers, and administrative staff. The objectives of this research were to determine the air quality in terms of carbon dioxide level and ventilation rate in all occupied rooms and offices. It also aimed to determine the significant difference in CO₂ concentration among the different buildings and the effect of variation of air temperature, relative humidity and number of occupants to the CO₂ concentration as well as the effect of variation of room volume, number of occupants and CO₂ concentration to ventilation rate. The research was conducted from October 2014 to January 2015. Fifty-seven (57) occupied rooms in Romblon State University Main Campus were subjected for air testing. Based from the data gathered, only 6 out of 57 (11%) occupied rooms had a carbon dioxide concentration above 1200 ppm. The air temperature gathered ranges from 26.8 to 32.25 °C and the relative humidity gathered ranges from 37.55 % to 75.10 %. Sixteen (16) out of 57 rooms reach the standard ranges required in relative humidity as recommended by ASHRAE standard, while nine (9) out of the 57 rooms did not meet the ventilation rate as compared to the recommended 8 liters/second. The result of the study showed that there was no significant difference in CO₂ concentration among the different buildings except in the Information and Technology Center (ICT). Air temperature and relative humidity in RSU are high indicating a thermal discomfort. The CO₂ concentration is inversely proportional to ventilation rate concentration. As the CO₂ level decreases, the ventilation rate increases. The result of the study recommends that for mechanically- ventilated rooms exhaust fans shall be installed when no air conditioning system is available. Ventilation in all RSU should also be improved to meet the ventilation rate requirements.

STUDENTS Allera, Shekinah Eirene P.; Evangelista, John Nico F.; Familara, Rilly S.; Famodulan, Charwin F.; Machado, Mariel D.	ADVISER Engr. Orley G. Fadriquel
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TITLE PROPOSED IMPROVEMENT OF ROMBLON STATE UNIVERSITY IRRIGATION WATER DISTRIBUTION SYSTEM	YEAR 2015
ABSTRACT The study was conducted in order to present the workable solution to the prevailing problem and the future irrigation and water distribution system of Romblon State University. It aimed to develop the irrigation structures using PVC pipes and design the main header or the inlet of the impounding reservoir, the main pipe and distribution pipes using PVC that will provide adequate supply of water to every rice paddies and maximize the water from the reservoir. This study also aimed to determine the cost of the proposed project. The result of the study showed that the water source generates 0.09552 liters per second which is sufficient to supply the 6.70 hectares' rice field. The proposed project will need 4" Ø PVC pipe in the main header and 3" Ø as distribution pipes. The project needs 4 pieces of 4" Ø PVC pipe, 94 pieces 3" Ø PVC pipe and 87 pieces. 2" Ø PVC pipe. The pipeline on the left side of the rice field will run 440 meters and the pipeline on the right side will run 640 meters. The distance of the main turnouts from the headwall is 21.20 meters. The pipes will be laid out based on the elevation of the design grade line and the cross- section of the soil. The portion of the layout subject to backfill will use the pipe support. The pipe will be connected to every box turnout with a dimension of 1m x 1m x 1m prior to distribution and will be controlled by a gate valve or ball valves in each turnout. The estimated cost of the project is Php 414, 042.83.	
STUDENTS Española, Anna Bianca F.; Magpusao, Aries M.; Resma, Rosalyn G.; Rotoni, Janesa Ann M.; Teologo, Jovel C.	ADVISER Jason F. Rufon, RCE, MAPA

TITLE PROPOSED RSU ECO-PARK	YEAR 2015
ABSTRACT The study was conducted to make an Eco- park development plan for the area in the South- Eastern part of RSU compound to make it more productive. Specifically, it aims to determine the amenities that can be constructed and the cost in developing the proposed area. The proposed project is located at the South- Eastern part of RSU Compound. It has a total area of approximately eight (8) hectares. In a survey conducted the road distance needed for concreting is 1560 meters. The project has an estimated total cost of ₱ 4, 394, 478.00. The main purpose of this study is to develop the area into an environment friendly park that will cater campers, family picnic, early morning or late afternoon joggers, and other activities. The development needs not to sacrifice cutting of trees but instead, the presents plants in the area will be nurtured, and additional trees will be planted. The amenities that will be constructed in he proposed area are comfort room, guard house, kiosks, floating house, RSU bench, fountain, parking lot, children's park, outdoor gym and jogging lane. It will also serve as a relaxation place where they can free their mind and breathe fresh air. Proper maintenance of the project must also be given importance in order to reach the expected and projected lifespan.	
STUDENTS Amar, Gemma D.; Fajarito, Jean Carla R.; Familara, Rudy P.; Samino, Jacquelyn F.; Teologo, Jun Clint S.	ADVISER Engr. Jason F. Rufon

TITLE SOUND ABSORPTION CHARACTERISTIC OF COCONUT HUSK ACOUSTIC PANEL USING DIFFERENT TYPES OF BINDERS	YEAR 2015
ABSTRACT This study aims to determine the sound absorption characteristics of Coconut husk panel using different types of binders namely; polyurethane, water soluble formaldehyde and arrow root starch. Water soluble urea formaldehyde, arrowroot starch and polyurethane, were employed as binder. Different percentage ratio for husk fiber and binder were experimented, such as 15%: 85%, 20%, 80%, 25%, and 75%. As a result, 15%: 85% percentage ratio is a weak panel, while 25%: 75% tend to buckle and deform when dried. Therefore, these mixtures were not further conducted. The setting used was 20% by 80% of volume percentage. Hand layup was used to produce specimen. The panel fabricated has 1.5 cm thickness, with a dimension of 0.39 by 0.39 meter. The average density of the panel was 0.40 g/cc. Acoustical tests for each specimen were conducted. Results for Peak Amplitude testing was very clear which indicated that panel with Polyurethane as binder reduces sound in a reasonable value of -17.06 decibel. The results for decay time tests showed that the panel with Polyurethane as binder tends to have good sound absorption and had the maximum sound absorption coefficient of 0.544. The Noise Reduction Coefficient (NRC) for all specimens is 0.41, performed by specimen with Polyurethane as its binder. The value indicated that Cocos Nucifera husk fiber panels are highly absorptive material. The sound absorption coefficient obtained demonstrated that the mixture produced the best performance at low frequency region. The results also demonstrated that coconut husk fiber has reasonable cost coefficient, which is a great potential for commercialization.	
STUDENTS Acol, Bernice Marie V.; Aquino, Mar C.; Calambas, Mary May S.; Maestro, Guen F.	ADVISER Engr. Darwin F. Musico

TITLE COMPRESSIVE STRENGTH OF CONCRETE USING TIGER GRASS AS FIBER REINFORCEMENT	YEAR 2015
ABSTRACT This study was conducted to evaluate and compare the compressive strength of concrete using tiger grass (<i>Thysanolaena Maxima</i>) as fiber reinforcement with a concrete proportions of class A (1:2:4). Specifically, it sought to determine the compressive strength of concrete with 20mm, 40mm and 60 mm length of fiber reinforced in 0.25%, 0.50% and 0.75% of concrete mixture. Preparation of samples for compressive strength test followed the American Association of State Highways and Transportation Officials (AASHTO) and American Society for Testing and Materials (ASTM) standards before conducting the actual experiment. Cylindrical specimens were cured for 28 days and were air dried for 24 hours before testing using the Universal Testing Machine (UTM). The study was conducted from September 2014 to January 2015 at Romblon State University College of Engineering and Technology. Based from the data gathered, concrete mixtures yielded different compressive strength. Concrete samples with 20mm length of fibers and 0.50 % fiber content has the highest mean compressive strength of 9.42 MPa. However, it did not meet the standard strength of 24 MPa on the 28 th day and did not exceed the plain concrete compressive strength of 11.7 MPa. Furthermore, ANOVA (Analysis of Variance) and DMRT (Duncan Multiple Range Test) revealed that there were no significant differences among the compressive strengths of fiber reinforced concrete having three different lengths and reinforcing percentage of tiger grass fiber, at 5% level of significance.	
STUDENTS Felia, Cherry Mae S.; Foja, Lynn F.; Galicia, Elorde G.; Gomez, Cristine C. Mayuga, Christian F.	ADVISER Jason F. Rufon, RCE

TITLE FACTORS AFFECTING THE COMPRESSIVE STRENGTH OF CONCRETE USING AGGREGATES FROM SELECTED QUARRY SITES IN ODIONGAN, ROMBLON	YEAR 2015
ABSTRACT During the Construction, Engineers and builders used aggregates mainly from quarry sites located at Barangay Gabawan and Pato-o. However, a study conducted by Ferrancullo et.al (2014) entitled "Comprehensive Strength of Concrete using Aggregates from Different Quarry Sites in Odiongan, Romblon" recommended that in order to achieve values and results close to what is accurate, all the lacking factors and processes that were deficient in their study must be performed and investigated, the reason that prompted the researchers to determine and evaluate the compressive strength of concrete using aggregates from selected quarry sites. The factors evaluated were particle size, water-cement ratio, and temperature. The researchers gathered aggregates from the selected quarry sites for compression test of concrete. Aggregates underwent sieve analysis, each mixture of concrete underwent test for slump; concrete samples were cured for 28 days and the compression test was also done to determine the compressive strength. Class A mixture was used for concrete mixture. Results of sieve analysis showed that the particle size of both washed and unwashed coarse aggregates from Gabawan met the standard grading requirement while fine aggregates did not. However, washed and unwashed of both coarse and fine aggregates from Pato-o did not meet the grading requirement. The average temperature in the curing tank ranges from 28°C- 28.1° C and did not meet the suggested temperature of 18° C to 24 °C. The water cement ratio which ranges from 0.52-0.72 did not meet suitable water-cement ratio. This water-cement ratio result caused a very significant reduction in the compressive strength of concrete. In addition, the researchers also found out that there was significant amount of silt content present in the aggregates. The researchers conclude that some of the factors affecting the compressive strength of concrete from the two quarry sites in Odiongan, Romblon were particle size, temperature and water cement ratio.	
STUDENTS Dalisay, Ailene P.; Diaz, Alter M.; Falcunit, Jason F.; Militante, Arkay C.; Rubico, Godofredo Jr. M.	ADVISER Engr. Jason F. Rufon

TITLE PROPOSED SOLID WASTE MANAGEMENT PLAN OF ROMBLON STATE UNIVERSITY, MAIN CAMPUS	YEAR 2015
ABSTRACT Waste Analysis and Characterization studies (WACS) aims to provide important information on wastes that are currently being disposed to enable to build and develop a well-founded solid waste management plans and programs. The study undergone methodologies based upon the strict compliance of RA 9003 also known as the "Ecological Solid Waste Management Act of 2000". Such procedures and steps include; planning and mobilization, waste quantity analysis, bulk density analysis and waste composition analysis. The proposed Solid Waste Management Plans of Romblon State University was based on the conducted waste characterization study and on other related studies. It aims to reduce the volume of solid waste stream generated by the University. The proposed SWM plan for the University has its vision, "Romblon State University being the center of excellence in education throughout the province and also on nearby regions will be considered as model school in implementing a peaceful, serene, clean and healthy environment where solid waste management is a key towards the preservation of natural resources and securing the safety of its people". The proposal is composed of different steps and strength related in solid waste management that were based on the results of the conducted waste composition studies. These includes source reduction, segregation at source/ segregation collection, MRF and Composting, Disposal, Waste Recycling, Projects compatible and co-exist with solid waste management program and implementation strategies.	
STUDENTS Española, Monica Cassandra Amor A.; Galicha, Niesel M.; Jaylo, Ylec M. Moreno, Paul M.; Selosa, Jessa P.	ADVISER Ms. Jemima F. Miñon

TITLE EVALUATION AND IMPROVEMENT PLAN OF EXISTING WATER SYSTEM OF CAWAYAN-LONG BEACH, SAN AGUSTIN, ROMBLON	YEAR 2014
ABSTRACT The study was conducted in order to present the workable solution to the prevailing and the future environmental situation in Cawayan and Long Beach, San Agustin Romblon. It aims to design a water system, consisting of storage tank and system of pipes that will provide adequate supply of safe and potable water to households in Cawayan and Long Beach, San Agustin, Romblon. This study intended to know the dimension of each reservoir, design capability requirement and the retention time of this system. In this project, the proponents would also estimate the cost and how long would it take to finish the project. The study also intends to answer the objectives within the various functions of technical and financial aspects, and environmental as well. The proponents gathered all the necessary data in the preparation of this study. The actual surveys were conducted on the proposed site; personal interviews were done to the selected residents around the area. Moreover, they considered ideas and concepts from some professionals who are knowledgeable in the topic. Based on the interview and analysis, it is one of the necessities of the barangays to have well designed and well developed water system facilities. The water system facility is a level III and gravity fed type of water system. The spring source generates 3.795 liter per second in the month of January 2013 and is to serve by supplying clean, affordable, and sufficient water to a number of households of two barangays within 10 years. The proposed water reservoir of Cawayan and Long Beach has a dimension of 4.5m x 4.5m x 2.5m and 6.7m x 6.7m x 2.5m respectively. The water was being collected by the intake box with a dimension of 5m x 1m x 1.5m then transported to the reservoir. The collected water will be added up with a certain amount of chlorine to disinfect bacteria. The total estimated cost of the project in Cawayan and Long Beach are Php 1,294,364.45 and Php 1, 749, 526. 85 respectively. This amount will be financed through the savings of the local government. The construction of two projects will take 133 calendar days to complete. The proponents believed that the findings based on the data with reference to the prevailing designs of the proposed improvement of water system facilities, gave them a strong justification that the proposed project is essential.	
STUDENTS Dela Cruz, Ebony V.; Fajura, Archie Ray B.; Fesalboni, Joe Mare M. Garcia, Michael John G.; Manasan, Erickson M.; Penes, Teena Lyn F. Revilla, Wendel F.; Sixon, Arjie R.	ADVISER Darwin F. Musico, RCE

TITLE MODIFIED INTERLOCKING PRECAST CONCRETE BLOCKS FOR FENCE WALL: PROTOTYPE	YEAR 2014
ABSTRACT This study was conducted to determine if the wall could stand the lateral pressure based on theoretical computation. This was also conducted to determine the compressive strength and cost per piece of the block. Specifically, it attempted to meet its objective if the wall could stand without reinforcement based on theoretical computation. The study was conducted at Romblon State University Main Campus, Odiongan Romblon from June 2013 to January 2014. Fabrication of prototype was done at Dapawan, Odiongan Romblon. Computations were made and test procedure was prepared to conduct the testing of the blocks for its compressive strength. Theoretical computation resulted to 0.0759 MPa as the compressive strength of the block due the lateral pressure which is lesser than the actual compressive strength of the block. Test result revealed that the compressive strength of the blocks ranging from 6 to 8 Mpa depending on the nature of samples. It resulted to average compressive strength which was 7.46 MPa. 1:3:4 cement sand and gravel ratio was used in the production of the blocks. October 2013 price of material and labor cost were considered during the computation of the price of the block. Based on computations the price of the block was 11. 78 pesos equivalent to 12 pesos each. Based on the findings of this study, the researchers conclude that the 1.5 meters interlocking pre-cast concrete block could stand as fencing wall without grouting and reinforcing bars based on theoretical computations.	
STUDENTS Cabadongga, John Rom M.; Cayetano, Jesahniel B.; Factor, Crisnel Faith A.; Fortu, Stephen F.; Gado, Cyril Joseph G.; Galario, Deo F.; Magpusao, Julius M.	ADVISER Aprille Ann M. Sim, RCE, M'eng

TITLE COMPRESSIVE STRENGTH OF CONCRETE USING AGGREGATES FROM DIFFERENT QUARRY SITES IN ODIONGAN, ROMBLON	YEAR 2014
ABSTRACT This study was conducted in order to investigate aggregates found in the different quarry sites in Odiongan, Romblon. Specifically, it sought to determine the compressive strength of samples using aggregates from Barangays Tuguis, Tabobo-an, Pato-o, Tuburan and Gabawan quarry sites and establish comparisons on the resulting data. Preparation of samples for compressive strength test followed the American Society for Testing and Materials (ASTM) and American Association of State Highway and Transportation Officials (AASHTO) standards before conducting the actual experiment. Particle sizes of aggregates were investigated to pass the allowable size which is 0.075 mm (No. 200 sieve) to less than 6mm for sand and 6mm to 19.05 mm ($\frac{3}{4}$ ") for gravel. The Class A mixture of 1:2: 4 was used for the concrete mixture. Cylindrical specimens had undergone wet curing for 28 days and were air dried for 2-3 hours before the test using the Universal Testing Machine (UTM). Test findings after 28 days of curing showed that concrete samples using aggregates hauled from Tabobo-an achieved the highest average compressive strength of 14.09 MPa for washed samples and 10.52 Mpa for unwashed samples. Tuburan and Pato-o aggregates got the lowest average strength in washed samples to be 9.14 MPa while aggregates from Pato-o had the lowest unwashed samples to be 7. 59MPa. Also, T-test revealed that comparison of unwashed samples from Pato-o to Gabawan and Tuburan to Taboboan and washed samples from Gabawan to Tuguis, Gabawan to Tuburan and Tuguis to Tuburan showed a significant difference at 5% level. Moreover, unwashed samples from Pato-o to Tuguis, Pato-o to Tabobo-an and Gabawan to Tuguis; and washed samples from Pato-o to Tabobo-an, and Tuburan to Tabobo-an showed a significant difference at 1% level. However, all test results did not meet the 24 MPa (3500psi) minimum strength requirements for Class A concrete.	
STUDENTS Ferrancullo, Jo Anne F.; Forcadas, Neva Jane F.; Fusi, John Michael C. Gado, Alfie M.; Galicia, Joseph C.; Gusi, Sheena B.; Meñez, Cezar Jr. E. Solidum, Jaypee M.; Suarez, Nickhiren T.	ADVISER Jason F. Rufon, RCE

TITLE COMPARATIVE ANALYSIS OF CONCRETE'S COMPRESSIVE STRENGTH USING ILANG-ILANG (<i>Cananga Odorata</i>), PAPER TREE (<i>Gmelina Haenanensis</i>) AND COCONUT (<i>Cocos Nucifera</i>) SAWDUST AS A FULL REPLACEMENT FOR SAND	YEAR 2014
ABSTRACT This study was conducted to evaluate the compare the compressive strength of concrete using different sawdust species such as Paper Tree (<i>Gmelina Haenanensis</i>), Ilang-Ilang (<i>Cananga Odorata</i>) Coconu (<i>Cocos Nucifera</i>) in full replacement for sand with a concrete proportions of class A (1:2:4). Main Objectives specifically to: determine the compressive strength of the concrete mixture with different sawdust as fine aggregate substitute for sand; compare the compressive strength of the three sawdust species; determine the relationship between the specific weight and the compressive strength of the tree species as fine aggregates; to determine the relationship of moisture content and the compressive strength as fine aggregates. The study was conducted from December 2013 to January 2014 at the Department of Public Works and Highways. Based on the data gathered concrete mixtures yielded different compressive strength. The mixture using Ilang- Ilang (<i>Cananga Odorata</i>) has the highest compressive strength at 28 days ranging from 2120 psi to 2380 psi followed by Coconut (<i>Cocos Nucifera</i>) with compressive strength ranging from 1250 psi to 1300 psi, and Paper Tree (<i>Gmelina Haenanensis</i>) with compressive strength of 620 psi to 700 psi. However, they did not meet the standard strength of 3000 psi on the 28 th day. The result of the study showed that the compressive strength of concrete specimens using different sawdust species is increasing as the days passed. Also, the higher the density and moisture content of sawdust species, the higher the compressive strength of the concrete. Moreover, DMRT (Duncan Multiple Range Test) showed that compressive strength of concrete specimens using different sawdust species were significantly different to each other at 5% level of significance.	
STUDENTS Costales, Jerron T.; Fajel, Ellen M.; Fetalino, Marian Kate F.; Fetalver, Allyn S.; Ferranco, Anne Marie G.; Fortu, Ruel Jr. L.; Gregorio, Jay E.; Manipol, Dyana Rose M.; Morales, Gerald Jr. F.; Romero, Chanda M.; Rosas, Kristine Monique M.	ADVISER Jason F. Rufon, RCE

TITLE PLASTIC WASTE MATERIAL AS PARTIAL SUBSTITUTE FOR SAND IN CONCRETE BRICKS	YEAR 2014
ABSTRACT This research aimed to determine the possibility of plastic as a partial substitute aggregates in concrete bricks for 25%, 30%, 35%, 40%, 45% and 50% deduction in the total volume of sand. In this study, the compressive strength of concrete bricks using four varieties of plastic waste namely: plastic virgin, plastic bottles, cellophane and foil were determined. Seventy-two (72) plastic concrete bricks were prepared. Sand was partially replaced by shredded plastic flakes in varying percentage by volume. For 25%, the volume of sand will be 3000cm ³ and 10000 cm ³ of plastic waste, 2800 cm ³ of sand and 1200 cm ³ of plastics for 30%, 2600 cm ³ of sand and 1400 cm ³ of plastics for 35%, 2400 cm ³ of sand and 1600cm ³ of plastic for 40%, 2200 cm ³ of sand and 1800 cm ³ of plastics for 45%, and 2000 cm ³ of sand and 2000 cm ³ plastic for 50%. The results showed that the compressive strength of concrete bricks where sand was reduced and replaced by shredded plastic waste materials passed the Philippine National Standard Specification of 2.40 MPa. Furthermore, ANOVA test revealed that there was a highly significant difference at 1% level of significance on the kind of plastic used at header position and the percentage of plastic used at raw lock position. Also, there was a significance difference at 5% level of significance on the kind of plastic used at raw lock position and the percentage of plastic used at soldier position. Moreover, plastic bottles as partial substitute to sand revealed the highest compressive strength among the samples.	
STUDENTS Agcaoli, Leslie Mae A.; Cruz, Zepmer D.; Faminial, Catherine B.; Fronda, Pearl Joy L.; Galan, Lee Marr Anthony M.; Gremlin, Kem Bryan F.; Hernandez, Remar Angel M.; Hije, Harold Christian F.; Mallen, Dave Jade M.; Ramilo, Kevin F.	ADVISER Gretchen T, Tombocoon, RCE

TITLE DESIGN AND DEVELOPMENT OF PORTABLE CONCRETE MIXER	YEAR 2013
ABSTRACT The study was conducted to design and fabricate, as well as to determine the initial performance of the portable concrete mixer. The design of the Portable Concrete Mixer was done at Romblon State University Main Campus, Odiongan, Romblon, from October 2012 to February 2013. The fabrication of the Portable Concrete Mixer was done at Gabute Welding Shop at Tulay, Odiongan Romblon. Experts were consulted during the design and fabrication of the machine. Initial testing was done to determine the initial performance of the Portable Concrete Mixer. Test procedures were observed in testing the performance of the machine. The 0.75 Horsepower electric motor which is the driving mechanism of the whole machine is connected to the 3-inch diameter pulley and V- belt. The 12 inch in diameter pulley is then attached to the 1-inch diameter line shaft with 3 pillow blocks and a 3-inch diameter which used to regulate the revolution of the motor that move the mixer in rotational movement. The 16-inch pulley is connected at the back of the 50 centimeter diameter mixer which is 70 centimeters long and has a volume capacity of 4.85 ft ³ . It was also found out that the mixer can do six (6) inch diameter by 12-inch-high cylindrical specimen. The machine could produce 1.243 cubic feet per mix of concrete. The cost materials and fabrication of the machine is Php 28, 237.00 only.	
STUDENTS Advincula, Stephanie E.; Casugbo, Krisha Ann Mae M.; Dilon, Paul Zedrick M.; Fabella, Geraldine P.; Fallarcuna, Lourence Gayle F.; Fetil, Nonato Jr. M. II; Galang, Kristian G.; Mijares, Paul Jabez M.; Salmingo, Isidro R.	ADVISER Engr. Virne B. Dalisay

TITLE DESIGNED HOUSEHOLD WASTE WATER TREATMENT FACILITY MODEL: MODIFIED	YEAR 2013
ABSTRACT This study was conducted to improve the design of the household wastewater treatment facility model and to make potable water. It sought answers to questions about other process that can be added to treat the pre-treated water, the pH level of the sample before and after the treatment, what are the physical and chemical characteristics of the pre-treated water before and after treatment. Experts were consulted during the design and many related literatures were reviewed for the proper design and fabrication of the model. Observation and investigation was done in the testing for the initial performance of the Modified Wastewater Treatment Facility Model. Test procedures for the microbiological testing were made to determine the effectiveness of the model. Based on the experiment that they conducted on moringa seeds, they observed that it has the ability to easily settle dirt and particles. It was observed also that the bigger the amount of malunggay, the more likely to settle easily compared to smaller amount. The initial testing of the model produced a discharge of 25.88mL/ sec. or 2236.41 L/ day. The results of microbiological testing analysis showed that the filtered water is not advisable for drinking purpose but the filtered water can be still used for dewatering plants and for flushing the toilet. The media that they used for the model has the capacity to treat household wastewater in a sense that the water had been clarified and the odor had been removed, but not to the extent of human consumption. The facility must also be cleaned after 5 days for it to function well and to eliminate the contaminant and impurities being filtered by the model. The total cost of the improved household wastewater treatment facility cost Php 10, 981.00 The amount was based on the expenditures for the supplies materials, labor and other expenses. The researchers further recommended that if this study is to be conducted again, it would be better to do the testing in nearby facilities with specialists for easy testing of the cooled water sample. It is also recommended that further study to removed coliform bacteria be conducted. The model can be used in Plumbing, fluid mechanics and hydraulic subjects.	
STUDENTS Bringas, Arnold M.; Ferrer, John Paul F.; Fontamillas, Edelyn F.; Fradejas, Rechelle F.; Galicha, Sarah Jean M.; Glori, Bryan Billy R.; Rabo, Joven R.; Severo, Raymond Jay G.; Tabuna, Wilme Jr. J	ADVISER Engr. Jason F. Rufon, MAPA

TITLE DESIGN AND FABRICATION OF MECHANICAL SIEVE MACHINE	YEAR 2013
ABSTRACT This study was conducted to design and fabricate, as well as to determine the initial performance of a mechanical sieve machine. The design of the Mechanical Sieve Machine was done at Romblon State University – Main Campus, Odiongan Romblon from June 2012 to September of 2012. The fabrication of the Mechanical Sieve Machine was done at LGM Iron Works, Anahaao Odiongan Romblon. Experts were consulted during the design and fabrication of the machine. Initial test were done to determine the initial performance of the machine. Thus, test procedures were observed in testing the performance of the machine. The result of the study revealed that the mechanical sieve machine can stand firm while sieving, the sizes of the pulleys are enough to regulate the revolution of the electric motor, the vertical holders could really support the set of sieves, and the shaft made of ½ “ × 1’ rod could move the circular mounting frame in back and forth movement. Interestingly, the machine could sieve 61. 2 cubic feet in one hour. The cost of the machine is Php 21, 109.04 only.	
STUDENTS Arteza, Neil J.; Fabello, Joan F.; Fabra, Eric P.; Famisan, Leo Mari F.; Forcadas, Kenneth F.; Gregorio, Joeven F.; Maquirang, Robert John M.; Menes, Ma. Aiza M.; Perez, Mark Anthony F.; Valdez, Trixie Ann D.	ADVISER Jason F. Rufon, RPCE, MAPA

TITLE DESIGN AND DEVELOPMENT OF MECHANICAL BRICK MOLDING MACHINE	YEAR 2013
ABSTRACT The study was conducted to design and develop a Brick Molding Machine, as well as to determine its initial performance in terms of the number of bricks it can mold within an hour. The design of the Brick Molding Machine was done at Romblon State University Main Campus, Odiongan, Romblon, from July 2012 to August 2012, and fabrication was done at Barangay Pato-o Odiongan, Romblon. Experts were consulted during the conceptualization and development stage focusing the design and fabrication of the machine. Initial testing was done on the different design considerations and technical feasibility of the machine to determine its initial performance. The result of the study revealed that the machine could mold a minimum of 60 pcs. 2" x 3" x 6" bricks and 100 pcs. 1" x 3" x 6" bricks per hour. The cost of the machine is Php 19, 089.48. Based on the findings of this study, the researchers concluded that the frame of the machine can stand firm during the operation. The speed of the electric motor can be regulated using ¾ and 1" ø pulleys and the 1 HP electric motor and shaft are enough to give vibration to the machine.	
STUDENTS Bocita, Joshua E.; Clemente, Cesar F.; Famorcan, Shella F.; Ferrancullo, Aries P.; Fetalsana, Arim F.; Fetalver, Kim D.; Joyel, Bernardo Jr. F.; Marquina, Jhune M.; Nepomuceno, Ruel Jr. A.; Verdán, Jasmin D.	ADVISER Engr. Jason F. Rufon, MAPA

TITLE DESIGN OF WASTEWATER TREATMENT FACILITIES IN ODIONGAN PUBLIC MARKET ODIONGAN, ROMBLON	YEAR 2012
ABSTRACT The study was conducted in order to present the worksable solution to the prevailing and the future environmental situation in Odiongan Public Market. It aims to design a waste water treatment facility for the Odiongan Public Market. This research study was conducted to design a wastewater treatment facility for Odiongan Public Market in Odiongan, Romblon. Specifically, this study sought to determine the process involved in the wastewater treatment facility. This study also sought to know the dimension of each chamber and the retention time in each process. In this project, the proponents would also estimate the cost and how long would it take to finish the project. The study also intends to answer the question classified within the various functions of management, technical and financial aspects and environmental as well. The proponents gathered all the necessary data in the preparation of this study. Actual surveys were conducted on the proposed site; personal interviews were done to the selected consumers, market vendors and residents around the area. Moreover, we considered ideas and concepts from some professionals who are knowledgeable in the said topic. Based on the interview and analysis, it is one of the necessities of the municipality, to have well- designed and well- developed wastewater treatment facilities. Thee wastewater treatment facility is consists of four major stages: screening, sedimentation, filtration and chlorination. The water treatment facility has a total area of 192 sq. m. Screening stage filters the large solid contained in the water. It has two stages which has a dimension of 12 m x 2m. Screening1 and Screening 2 has a retention time of 2.51 hrs and 2.28 hrs respectively. After screening, follows sedimentation. The sedimentation stage also consists of two chambers both have a dimension of 12m x 1.50 m. The two chambers have retention time of 3. 27 hrs and 3.24 hrs separately. In this stage, wastewater pass through a sludge collector that gathers the larger solids accumulated in the effluent. The next stage is filtration. The stage is very important because of the presence of some media used to filter the smaller elements in the effluent. The media used are coco peat, pebbles, fine sand and finally the activated carbon. Filtration has a dimension of 6m x 4m and has a retention time of 7.27 hrs. The final and the last stage is the chlorination. The chlorination reservoir can handle as much as 42 cu.m per day. The water that was being collected will be added up with a certain amount of chlorine to disinfect bacteria that was not killed on the previous processes. The chlorine is deposited in a chlorine tank. It uses a sensor a technology to detect how much water had entered the reservoir. The tank automatically releases an amount of chlorine in proportion to the volume of water. The total retention time in this stage is 10.61 hrs. And to know the level of water in this stage, a buoy is being put up. It will be the guide when will be the water be pumped and how much water will be reused. A 1hp pump was used. The total estimated cost of the project has reached Php 4, 247, 583.00. This amount will be financed through the saving and funds of the Local Government Unit and the alternative source is the Department of Health (DOH) and the Department of Environment and Natural Resources (DENR). The study indicated that the implementation of the project will result to a reuse of treated water, prevention of accidents water borne diseases and savings money in a long run. The proponents believed that the findings	

based on the assumptions of data reference to the prevailing designs of the proposed wastewater treatment facilities gave them strong justification that the proposed project is essential. The proposed project is an ideal solution to the existing environmental problem of the public market and will know the significance of wastewater facilities. Therefore, based on the justified results rendered, the proposed project is being recommended for implementation.

STUDENTS De Luna, June M.; Fadri, Raymund F.; Ferrera, Edg Bea F.; Forcadas, Eleanor A.; Fruelda, Charuel F.; Fruelda, Joerel F.; Maneje, Mick Anthony G.; Mangao, Joel M.; Marquez, Gervie M.; Tombocon, Greatchen T.	ADVISER Engr. Aprille Ann M. Sim
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RSU-CE-036

TITLE NSCP 2001 AND NSCP 2010; A COMPARATIVE ANALYSIS	YEAR 2012
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ABSTRACT
This study was conducted to know the feasibility of the comparison analysis between NSCP 2001 and NSCP 2010. Specifically, the differences between NSCP 2001 and NSCP 2010 in terms of design codes, loading, factors and procedures and the different results in structures such as beams, columns and slabs based on NSCP 2001 and NSCP 2010. The design of the structural member is based on the American Concrete Institute (ACI). Code requirements for reinforced concrete structure and design standards for steel are used. The design procedures used in the design analysis of reinforced concrete structures is the Ultimate Strength Design (USD) method. The findings of the study revealed that there are several changes in NSCP 2010 updates, especially in loadings, that can affect the strength and cost of the materials. Based on the comparison made, in National Structural Code of the Philippines 2001, the load factors used for live loads are logically longer than one used for the dead load because the designer can estimate the magnitude of dead load so much better than the magnitude of live loads, while in 2010 updates the load factors used for live loads is equal in dead load, specified in section 203.3. The NSCP 2001 and NSCP 2010 are the same in terms of capacity reduction factors and procedures. The study also shows that the implementation and usage of these codes still vary on the quantity of materials used. Based on our design analysis, the moment capacity of NSCP 2001 is greater than that of NSCP 2010. Therefore, on the basis of the findings and conclusions deduced by the researchers, the followings recommendations are hereby offered. Based on the findings gathered the engineers should consider the uncertainties of material strength, approximation in the analysis possible variations in dimensions of concrete section and placements of reinforcements and other miscellaneous workmanship items. National Structural Code of the Philippines 2010 updates should analyse, investigate and understand the changes in terms of design codes, loading, factors and procedures. Similar study should be conducted to amplify, unify or negate the findings of this investigation and expand the other aspects of design.

STUDENTS De Castro, Jan Chester F.; Fabiala, Jesse James R.; Ferranco, Tina D.; Foja, Emmanuel Jr. F.; Fortu, Danvic Artor I.; Relox, Aldrin M.; Sarzona, Katlene Joy G.; Silverio, Alwiyb Bryll L.; Tajaran, Michel M.; Teodosio, Riceannel A.	ADVISER Engr. Jabez- Stewart F. Faulan
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RSU-CE-035

TITLE HOUSEHOLD WASTEWATER TREATMENT FACILITY: A PROPOSED MODEL	YEAR 2012
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ABSTRACT
This study was conducted to develop a proposed model of a treatment facility that would help filter household wastewater. It answered the questions about the volume capacity of the water that can be purified in terms of m³/sec, the quality of the treated household wastewater, the time where the media used in the treatment facility be replaced for maintenance and the cost of the household wastewater treatment facility model. An experiment was conducted to determine the data needed. The findings of the study revealed that the treatment facility could filter 24.926 milliLiters of wastewater per second or 89.65 Liters per hour which is also equivalent to 2, 151.36 Liters of filtered wastewater per day. It was also observed that after passing through the treatment facility, the wastewater became much clearer and odourless but through the water tests conducted the researchers found out that the bacterial content of the filtered water didn't passed on the required bacterial content for drinking water. Based also on observations, the media used in facility must also be replaced or cleaned every three days to produce much clearer and odourless filtered water. The fabricated household wastewater treatment facility model cost P 5,700. From the findings, the researchers conclude that the effectiveness of the media used in the facility depends on how compact it was placed inside the container. The layering of the media used as well

as its sizes and volume may also affect the quality of the output. It is also conclude that the media used are enough to treat the wastewater, treat in the sense that it could produce a filtered water that is clearer and odorless but not to the extent that it could make the water potable for drinking. The proponents therefore recommend that further study be conducted I order to improve the wastewater treatment facility model, if ever the facility is ready to be extended to the community as a source of water supply, low cost materials may be used such as drums and the like in replacement for the glass containers and facility model is recommended to use as a simulator in Civil Engineering subjects like Plumbing, Hydraulics and Fluid Mechanics.

STUDENTS Asauro, Theresa Lyn F.; De Villena, Romel G.; Encarnacion, Leonardo A.; Fajutnao, Michelle F.; Familara, Erwin G.; Galicia, Michael Joseph C.; Galiga, Jose Vincent C.; Gapiza, Maricel Joy B.	ADVISER Engr. Jason F. Rufon, MAPA
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RSU-CE-034

TITLE SAFETY FIRST: AN ASSESSMENT OF HEALTH AND SAFETY CULTURE AMONG CONSTRUCTION WORKERS IN THE PROVINCE OF ROMBLON	YEAR 2012
ABSTRACT <p>In an effort decrease these inbuilt jobsite risks that construction workers face, this study will analyse the current best safety practices in their workplaces. This study entitle "Safety First: An Assessment of Health and Safety Culture among Construction Workers in the Province of Romblon" seeks to determine the answer regarding the demographic profile of the respondents in terms of age, job experience, educational background, job description and present employment, the degree of awareness of the building construction workers about safety and health practices in their work place and the relationship between these selected variables and the worker's knowledge, attitude, practice (KAP) towards construction Occupational Safety and Health (OSH). This study focused on the awareness of the building construction workers about safety and healthy conducts in their work places. This study is limited only to the field of civil works. The statistical data gathered were from labourers, masons, carpenters, steel men, heavy equipment operators, and foreman in the province of Romblon. In order to attain the Objectives of this undertaking, the researchers used the descriptive method of research. Questionnaire was used in gathering data and information needed for the study which was formulated through the help of a group of validator. Based on the data gathered, the researchers found out that majority of the respondents are at their prime age which is 30-39; that is, they are neither too young nor too old. Workers aged 20-29 comprised the other 35.8% of the population. 3.7% of the population are below the age of 20. 11.9% and 8.3% of the population is comprised by workers aged 40-49 and 50 above respectively. As regards to the marital status of the respondents, 61.5% of the population is married while 35.8% is single. The other 2.8% is separated. Majority of the population (35.8%) graduated in secondary school while a significant population of 33% wasn't able to finish high school. Likewise, 11% graduated in elementary yet another 1.8% wasn't even able to finish elementary. A significant percentage of the population (8.3%) graduated in vocational course. In aspects of employment, 80.7% of the population is privately employed, 11.9% are employed in the government and the last 6.4% are freelancers. The population is composed of 67% laborers, 13.8% masons, 8.3% carpenters, 5.5% foremen, 4.6% heavy equipment operators and 0.9% steel men. With regard to the respondents' length of stay in the industry, 31.2% of the workers have been in construction industry for more than 5 years. 28.4% has less than a year of experience while the remaining 21.1% and 19.35% has 3-4 years and 1-2 years of experience in the industry. The respondents often make sure that each member of the construction crew understands that he is responsible for keeping himself and his co-workers safe from injury. They often wear proper safety gear, such as vision and hearing protection, gloves and a hardhat while on the job. They also often undergo trainings on occupational health and safety and post reminders on proper work habits. The respondents often consider rules and regulation in proper tool handling such as undergoing in proper tool handling seminar, tool inspection and testing which means that they are aware in matters concerning's the safety measures in using their tools. The credentials of all heavy equipment operators are checked often. They are also aware of the proper regulations while using these big tools. They also often hire spotters for the machines and for the operators, in order, to ensure that safety rules are being followed. The result suggests that construction workers are aware in matters concerning the correct practices in handling heavy equipment machinery. The respondents occasionally consider the aforementioned conditions as causes of accidents in workplaces. Regardless of the risks involved, they occasionally tend to rush up their work. They also occasionally believe that other internal and external factors in both inside and outside the workplace like malfunctioning equipment, personal differences, inadequate tools, conflicting objectives, and pressures could lead to accidents. They also occasionally consider fatigue and complacency as a cause of accidents. The respondents are fairly aware that these conditions could cause work-related accidents. They seldom commit mistakes in their respective workplaces which mean that they are aware that by doing these could provoke accidents. The workers seldom turn their eyes from their tasks. They always concentrate on</p>	

their job. Likewise, they are also conscious of where they are or where they are going in relation to the direction of the hazardous. Moreover, they seldom lose balance, traction or grip. The respondents often wear the aforementioned PPEs. They often wear hard hat, goggles, long pants and safety shoes. The construction workers only occasionally use hearing protection. The workers often look before they rest their hand on something to support their weight. They often look for line of fire before moving. They also often look for things that could lose their balance. They keep their hands out of pitch points and maintain three point of contact when climbing. They are aware on how to manage themselves during potentially dangerous situations. They often consider their responsibilities in ensuring their safety as well as that of their co-workers. The workers only occasionally avail of some of the company's and industry's sponsored safety programs. The length of experience as a demographic factor has significant relationship to the knowledge, attitudes and practices (KAP) of respondents towards Occupational Safety and Health (OSH) in terms of tool safety. The rest of the demographic factors have no significant relationship to KAP of the respondents. The present's employment as a demographic factor has significant relationship to the Occupational Safety and Health (OSH) culture of the respondents in terms of Responsibilities in ensuring their safety as well as that of their co-workers. However, the rest has no significant relationship to the OSH culture of the respondents. The researchers conclude that majority of the respondents are at the age of 30-39; majority of them has been in the construction industry for more than 5 years; a significant number of respondents graduated in high school; and are mostly composed of labourer. The researchers further conclude that the workers are aware in matters concerning their personal safety. They are also aware of safety rules and regulations using their tools and heavy equipment machineries. However, they are partially aware that rushing, frustration, fatigue and complacency may result to accidents. They seldom commit mistakes such as not looking at the task, not concentrating on the task, not being conscious of where they are or where they are going in relation to the direction of the hazardous energy and losing balance, traction or grip. They are also aware on the proper usage of Personal Protective Equipment. They could also handle themselves during potentially dangerous situations. They are also aware about their responsibilities in ensuring the safety of their fellow workers. Finally, the researchers found out that the length of experience as a demographic factor has significant relationship on the knowledge, attitudes and practices (KAP) of respondents towards Occupational Safety and Health (OSH) in terms of tool safety. The rest of the demographic factors have no significant relationship on KAP of the respondents. The present employment also as a demographic factor has significant relationship on the Occupational Safety and Health (OSH) culture of the respondents in terms of Responsibilities in ensuring their safety as well as that of their co-workers. However, the rest have no significant relationship on the OSH culture of the respondents. Based on the results, the researchers therefore recommend that the Department of Labor and Employment (DOLE) must strictly enforce D.O 13 series of 1998 in order to ensure the safety of the construction workers even in the province of Romblon and must regularly visit the construction sites to investigate malpractices in the construction sites. The government must also conduct affordable seminars and training for the poor construction workers in order to heighten their knowledge about safety regulations. Lastly, the researchers recommend College of Engineering and Technology must conduct further researchers on the Occupational Safety and Health Culture of workers in the Province of Romblon.

STUDENTS Baliguat, Lucille G.; Festin, Zaide M.; Foja, Anrophil D.; Jaylo, Nico Jay M.; Galit, Mishael S.; Padua, El-Jay F.; Panoy, Jayson F.	ADVISER Engr. Jason F. Rufon
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RSU-CE-033

TITLE PROPOSED DEVELOPMENT OF EXISTING DRAINAGE SYSTEM OF SELECTED FLOODED AREAS IN BARANGAY POCTOY AND BARANGAY DAPAWAN, ODIONGAN ROMBLON	YEAR 2012
ABSTRACT The study was conclude to improve the existing drainage system in selected flooded areas of Barangay Poctoy and Barangay Dapawan, Odiongan, Romblon. It sought to find the necessary requirements for such development based on the technical and financial aspects. Based on the technical aspect, the design and duration of the proposed project were required. For the financial aspect, the total estimated cost and the source of fund of the project were determined. The proposed project was pursued and designed for the selected flooded areas specifically, along the national road of the two barangays. It started from the national road near Bracelli School to the bridge going to Barangay Batiano for Phase I and from Barangay Dapawan at the end of existing canal to Barangay Poctoy at the crossing going to Barangay Pato-o for Phase II. It covered five hundred seventy (570) meters for Phase I and nine hundred twenty (920) meters length for Phase II. The researchers gathered pertinent information about the frequency and damages of flood through interviews. An actual survey was conducted to ascertain the design of the drainage system. And the group came up with a trapezoidal channel for Phase I and a rectangular drainage canal which will hold maximum discharge going to the river at the boundary	

for Phase II. The project has an overall estimated cost of Php 8,260,096.13. Php 2,540,431.30 for Phase I- Rerouting and Concreting of Trapezoidal Canal and Php 5,719,664.83 for Phase II- Improvement of Roadway Drainage System. If approved, the present barangay officials will ask help from the Department of Public Works and Highways since it is a national project. Also, a support from the provincial representative will be asked for the additional budget, and the barangay will also share in the operation. The study however indicated that the construction of the said project will be beneficial and will result to the decrease of expenses, burden and loss of agricultural living. Its necessity particularly to the two barangays made the proponents believed that the proposed drainage system is significant and is therefore being recommended for implementation. If properly and carefully maintained, the project will last for several years, even if environmental and climatic changes occur.

STUDENTS Fajilan, Eddlyn Marie F.; Fallurin, Lenard F.; Fejer, Keycel F.; Ferolino, Mary Cris M.; Fonte, Hanna Mariz G.; Fortu, Jazer John C.; Vicente, Ma. Bernasonnylyn E.; Yap, Raymund J.	ADVISER Engr. Edison S. Fajutrao Jr.
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RSU-CE-032

TITLE DESIGN AND FABRICATION OF MECHANICAL SIEVE SHAKER	YEAR 2012
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ABSTRACT
 The study was conducted to design and fabricate a Mechanical Sieve Shaker, as well as to determine the initial performance of the shaker and the number of strikes the agitator can do. The design of the Mechanical Sieve Shaker was done at Romblon Stae University- Main Campus, Odiongan, Romblon, from February 16, 2011 to January of 2012. The fabrication of the Mechanical Sieve Shaker was done at Tamayo's Shop, Odiongan Romblon. Experts were consulted during the design and fabrication of the machine. Initial testing was done to determine the initial performance of the Mechanical Sieve Shaker. Test procedures were observed in testing the performance of the machine. The result of the study revealed that the mechanical sieve shaker can stand firm while sieving, the sizes of the pulleys are enough to regulate the revolution of the electric motor, the 14" circular mounting frame which is made of ¼ square bars is enough to handle the set of sieves, the vertical holders could really support the set of sieves, the shaft made of ½x 4" rod could move the circular mounting frame in back and forth movement. The cost of the machine is Php 16, 755.00 only. The machine could sieve 2000 grams to 10,000 grams of aggregates within 15-, 30- and 60- second period. It was also found out that the agitator can do 250 strikes per minute. The project is being recommended to be used by the Civil Engineering students who have fabrication materials subject.

STUDENTS Asturias, Jay-R A.; Faeldona, Mike Z.; Federico, Japhet M.; Gregorio, Eddie Jr. F.; Mabasa, May Eden M.; Machon, Paul S.; Mingoa, Orville M.; Moncawe, May Ann D.; Muros, Aries M.	ADVISER Engr. Jason F. Rufon, MAPA
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RSU-CE-031

TITLE ROAD SAFETY SIGNS, TRAFFIC LAWS, RULES AND REGULATIONS: DEGREE OF AWARENESS OF PERMITTED AND LICENSED DRIVERS AS OF 2011 IN THE MUNICIPALITY OF ODIONGAN	YEAR 2012
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ABSTRACT
 This study described the degree of awareness of permitted and licensed drivers as 2011 in the Municipality of Odiongan about road safety signs, traffic laws, rules, and regulation. One hundred (100) drivers were selected through non-probability sampling and they were surveyed using questionnaires. This study determined the profile of the respondents by considering their age, gender, civil status, and type of permitted and licensed drivers. Furthermore, this study tried to determine the degree of awareness of the respondents regarding road safety signs, traffic laws, rules and regulations in the Municipality of Odiongan and so as to know the Profile of the respondents in terms of age, gender, civil status, and type of permitted and licensed drivers. Licensed drivers were either male with 72% or female with 28% either single with 19% or married, with the largest percentage of 77% either young or old, or holding professional license, non-professional license and student permits. Permitted and Licensed drivers registered as of 2011 from Odiongan are very aware about road safety signs, traffic laws, rules, and regulations. Also, the respondents averagely know that the speed limit when passing through school zones is 20 kilometers per hour. As with regards to road safety signs, most of the respondents recognize speed limit, danger from falling rock, no parking, no right turn and no blowing of horn. But through the

respondents were aware of these traffic rules and safety signs, still, there is a sufficient knowledge that needs to be disseminated throughout the Municipality of Odiongan, and gradually all the way through the whole Province of Romblon.

STUDENTS Atuan, Rachele F.; Falcutila, Errol M.; Firmalo, Jezreel F.; Fordan, Juanito III V.; Lachica, Jecel Joy G.; Maestro, Krizchan Josef V.; Mayuga, Ramon Chris S.; Mendoza, Arianne Suzanne F.	ADVISER Engr. Jason F. Rufon, MAPA
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RSU-CE-030

TITLE CONSTRUCTION OF THE ROMBLON PROVINCIAL HOSPITAL MAIN BUILDING: A PROPOSAL	YEAR 2011
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ABSTRACT
 The study was conducted at Romblon State University from November 2010 to February 2011. This study determined the viability of constructing a two- storey hospital building designed for the construction of Romblon Provincial Hospital Main Building. It aims to have a well- organized and more comfortable place for the people to stay while under medical treatment. The proposed project is primarily located at Brgy. Liwanag, Odiongan, Romblon. It lies along the National Road of the Odiongan town proper. A 1,218.3 sq.m area of the Main Building is to be reconstructed and developed. In the first phase of the project, will be the right wing of the Main Building, two- storey will be constructed with 10 rooms in the ground floor and another 10 rooms in the second floor with the total area of 578.6 sq.m. The construction of Phase II and Phase III will follow after the first operation. The suitable design for the proposed project will be a two- storey building and the total estimated cost of the project has reached Php 26,204,940.00. This amount will be financed by the Government's fund. The study indicated that the implementation of the project will create inconvenience to the patients, visitors and staff of the hospital. However, if the project will be done, people will benefit its result. The proposed project is a solution to the problems of the patients and staff of the said hospital that they have encountered in previous years. Therefore, the project is being recommended for implementation because it is needed for the benefit of the people of Romblon.

STUDENTS Arboleda, Winston Wright N.; Manzano, Shiela May M.; Venus, Shiela Mae G.; Paulino, Lalaine B.; Mendoza, Hope D.; Famerio, Enric F.; Martinez, Eda P.	ADVISER Engr. Jabez- Stewart F. Faulan
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RSU-CE-029

TITLE PROPOSED CONSTRUCTION OF ADDITIONAL WATER SUPPLY SYSTEM AT RIZAL, ODIONGAN, ROMBLON	YEAR 2011
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ABSTRACT
 The study was conducted from November 2010- February 2011. It primarily focused on the suitable design of additional construction of a water supply system consisting of storage tank and system of pipes that will provide adequate supply of safe and potable water to households in Barangay Rizal Odiongan, Romblon. This study intended to know the design capability requirement, the social economic and environmental effect, and the cost of the project. It was assumed that the expansion of water supply in Rizal will have a big impact to the economy and environment and will be acceptable to the beneficiaries. The result of this study will provide some insights and information to the future researchers and sector of our society. Actual surveys and site visits in areas of concern were done to gather the necessary data needed. Based on actual interviews, demand of household for easy access to water is increasing. The spring source generate 0.883 liter per second in the month of January 2011 and considered capable to supply enough water since they do not dry up even during dry seasons. The result of the study shows that the expansion of Rizal water supply system will do have a big impact on the economy. The project will help provide the people easy access and adequate source of potable water and thus improve the health, sanitation, and living condition of the residents and provide employment as well. The construction of the project will take 70 calendar days to complete. The project cost Php 1,379,474.35. The payback period is after 6 years with a profit of Php 7, 208. For the construction of the project, a management will be organized that will handle the construction and completion of the project in accordance with the approved plan not later than the target date of completion. The Rizal Water Supply System will be under the direct supervision of the Barangay Captain and Staff. To ensure the protection and safety of the water storage, the resident of Barangay Rizal must be properly oriented regarding the project.

STUDENTS	ADVISER Engr. Carlos M. Formilleza
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Fetalvero, Mary Hope D.; Falcutilla, Stephene F.; Tiburania, John Sen F.; Asturias, Amado F. III; Fontamillas, Roy F.; Fabro, Gerhard F.; Severo, Rudy A.; Galin, Deson F.	
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RSU-CE-028

TITLE PROPOSED IMPROVEMENT OF ODIONGAN SOUTH CENTRAL ELEMENTARY SCHOOL EXISTING DRAINAGE SYSTEM	YEAR 2011
ABSTRACT The study was conducted in order to present the workable solution to the prevailing drainage system problem in Odiongan South Central Elementary School. It aimed to improve and upgrade the existing drainage structures of the school. The study intended to answer the question classified within the three functions of management, technical and financial aspects. It also intended to know the design capability requirement, the social, economic and environmental effect. The proponents gathered all the necessary data in the preparation of this study. Actual surveys were conducted on the proposed site. Tabulated rainfall intensities accumulated from January, 2009 to October, 2009 were gathered from PAGASA (Philippine Atmospheric Geophysical Astronomical Services Administration) Office in Romblon, Romblon. The total estimated cost of the project reached Php 1,205,490.71. This amount will be financed through an equal capital contribution of the school's administrators and funds DepEd (Department of Education). This study indicated that the implementation of the project will decrease the amount of run-off waters during rainy seasons and will prevent accidents, saving money and insuring the safety of pupils and teachers in the long run will be attained. The proponents believed that the findings based on the assumptions of data reference to the prevailing designs of the proposed drainage system gave them strong justification that the proposed project is feasible. The proposed project is an ideal solution to the existing problem of the drainage structure of the school. Therefore, based on the justified results rendered, the proposed project is being recommended for implementation.	
STUDENTS Menorca, Quicelene Joy F.; Manliguez, Romeo Jun; Hankins, Janford Dick; Aungon, Josephine; Venus, Lezel John; Galindez, Jesus III; Pandiño, Gareen	ADVISER Engr. Darwin F. Musico

RSU-CE-027

TITLE SECRET PARADISE: A PROPOSED RESORT AT SAN JOSE (CARABAO ISLAND), ROMBLON	YEAR 2011
ABSTRACT The study was conducted in order to present a workable solution to the prevailing and future tourism industry and attraction problem in the Municipality of San Jose, Romblon. It aimed to increase the tourist rate of the Municipality by providing the prospective clientele with a place complete with facilities and amenities where they could stay. Through this project it was expected that Municipality could generate employment. The Taxes collected from the investors and from the hotel itself such as building tax, business tax, and property tax would help the Municipality generate funds which could ensure economic stability. The findings would also serve as a guide to the engineers/ architects and related fields to formulate plans more realistic, competitive and progressive. The proposed project is primarily located at Sitio Tinap-an, Lanas, San Jose Romblon. A 2.2-hectare beach resort is to be developed, complete with basic amenities well- designed to sustain the needs of its future visitors. The proposed project is an ideal solution to the visitors of average and low income earners since their economic capability has been eagerly prioritized. The project has a total estimated cost of Php 200,317,991.58. Source of fund will be an equal contribution of ten (10) investors for an amount of Php 20,031,799.158. Payback Period of the investment is teen (10) years with return of investment of Php 147,465,766.40 considering fifteen (15) years lifespan. The proponents believed that the findings based on the assumptions of data with reference to the prevailing rental fee of the existing resorts gave them a strong justification that the project was feasible. They further concluded that in venturing same kind of project, they need a careful and meticulous analysis of the resort potentials in order to establish a good outcome. Therefore, based on the results presented, the proposed project is being recommended for implementation because of its feasibility.	
STUDENTS Fontamillas, Mark John P.; Firmalo, Daphny Joy M.; Raymundo, Eli Paul P.; Famajilan, Dicky G.; Tigson, Johnmar G.; Pasig, Julie Ann G.; Rubio, Chero M.	ADVISER Engr. Aprille Ann M. Sim

TITLE PROPOSED DESIGN AND CONSTRUCTION OF BRIDGE IN SITIO BULWANG, GABAWAN, ODIONGAN, ROMBLON	YEAR 2011
ABSTRACT This study was conducted at Bulwang Gabawan, Odiongan, Romblon from January 2011 to March 2011 to determine the viability and feasibility of constructing a bridge. The group prepared the design and proposed the construction of the said bridge. This "Proposed Bridge Construction at Bulwang Gabawan, Odiongan, Romblon is a big help to the residents, employees, students, farmers and small entrepreneur in terms of their safety crossing the river. Students will be present every day at school even high water will come. Parents would be no longer worried of their children and love ones. And they can easily transport parents going to hospitals during emergencies and above all. Residents can cross the river using their vehicles without getting wet anytime from Sitio Bulwang going to mainland in Gabawan. Students can go to school even during flooding. Parents would no longer worry of their children and love ones. And they can easily transport patients going to hospitals during emergencies. Farmers and small entrepreneurs' can transport their products going to town proper. A farmer from Sitio Bulwang is one of the most productive of coconut, bananas. Fresh vegetables. If they can transport this product there may be a less expenses, less expenses will resulted a cheaper supplies of food and our consumption of vegetables because more supply of food lowers the price of our consumptions, and thus it sounds great for us consumers.	
STUDENTS Contaio, Mark Stephene F.; Ibanez, Victorino Jr. R.; Gumboc, Alexander B.; Ferranco, Jeffrey A.; Catajay, Markjay M.; Gabutero, Rodel F.; Guevarra, Argie A.; Solidum, Myr Cres	ADVISER Engr. Edison S. Fajutrao Jr.

TITLE PROPOSED DEVELOPMENT AND UPGRADING OF ROMBLON STATE UNIVERSITY EXISTING DRAINAGE SYSTEM	YEAR 2010
ABSTRACT The study was conducted in order to present the workable solution to the prevailing and future drainage problem in the Romblon State University. It aims to develop and upgrade the exiting drainage structures of the school. The study intends to answer the question classified within the three functions of management, technical and financial aspects. The proponents gathered all the necessary data l the preparation of this study. Actual surveys were conducted on the proposed site; personal interviews were done to the selected students and facilities, and some professionals who are knowledgeable in the said topic. Tabulated rainfall intensities accumulated from the month of January, 2009 to October, 2009 was gathered from PAGASA (Philippine Atmospheric Geophysical Astronomical Services Administration) Office in Romblon, Romblon. Based on the interview, the said project was feasible, in the sense that, it is one of the necessities of the University to have a well-developed drainage system. The total estimated cost of the project has reached Php 5, 6114,405.00. This amount will be financed through an equal capital contribution of the school's administrators and funds from NIA (National Irrigation Administration). The study indicated that the implementation of the project will result to a decrease of run-off waters during rainy seasons, prevention of accidents and saving money in a long run. The proponents believed that the findings based on the assumptions of data reference to the prevailing designs of the proposed drainage system gave them strong justification that the proposed project is feasible. The proposed project is an ideal solution to the existing problem of the drainage structure of the University. Therefore, based on the justified results rendered, the proposed project is being recommended for implementation.	
STUDENTS Fababeir, Kirlern G.; Fabula, Rolly C.; Falible, Christian S.; Famadulan, Roel S.; Gabayno, Kamille Anne D.; Galang, Marry Quency M.; Galicha, Peachy F.; Ignacio, Vie Charlito D.; Mendoza, Leonell C.; Real, Jess Mark R.; Rico, Mark Gel M.	ADVISER Engr. Jabez- Stewart F. Faulan

TITLE PROPOSED FOUR-STOREY KAD-BAYAN MPC COMMERCIAL BUILDING	YEAR 2010
<p>ABSTRACT</p> <p>This study was conducted at Odiongan, Romblon from September 2009 to February 2010. This study determined the viability of constructing a four storey commercial building designed for KAD-BAYAN Multi-Purpose Cooperative. It focused primarily on planning, designing and estimating the cost of the project. Specifically, the study sought to answer the following questions:</p> <ol style="list-style-type: none"> 1. What are the projected effects of the construction on the economic aspect of the Municipality in terms of taxes and employment? 2. What is the return of investment (ROI) of the proposed project? 3. What are the factors to be considered in the construction of a four-storey commercial building in order to make it economical? This project is expected to help the Municipality of Odiongan generate employment. The taxes to be collected from the investors and the structure itself (like business tax and property tax) could also help the Municipality generate funds. <p>The proposed project will be located at Barangay Dapawan, Odiongan, Romblon having a lot area of 175 square meter fully utilized for the structure. It is proved to be an ideal place because of its accessibility to any means of transportation. The proposed structure has an estimated cost of Php 8,625,293.00. In case that it will be open for rental, the initial investment will be returned within 8 years. The return of investment considering the building's 12 years life span is Php 6,651,769.79. Upon the study of the proposed structure, the researchers found out that in order to make the construction of such structure economical or of least expenses, the following have to be considered:</p> <ul style="list-style-type: none"> ✓ The planned structure should use proper light and ventilation naturally, for one can't only help preserve the environment, specifically by freeing it from carbon emissions, but also saving energy resources. If one uses natural ventilation and light, the energy consumption of the structure will be less thus having more savings. ✓ When it comes to the materials that will be used for the construction of the building, it must coincide/comply to the minimum requirements of the design/ ✓ For the maintenance, the planner must consider the use of materials which requires less effort, less energy and economical. With this the profit to be earned by the structure itself will be of maximized. ✓ Accessibility is also one of the factors that will make the building construction economical, since transportation of materials and other necessary things needed will be easily delivered. <p>Based from the results of the study, the proponents therefore conclude that the proposed Four Storey KAAD-BAYAN MPC Commercial Building is viable with a ROI of Php. 6,651,769.79 after 12 years. They further conclude that they need a careful and meticulous analysis at the Building's design as well as through study at its ROI in order to establish a good output. Because of the viability of this study, the proponents therefore recommended that the KAD-BAYAN MPC Commercial Building be constructed. All the specification use in the design should conform to the Government's specifications/standards to ensure safety and to reach the expected and projected lifespan of the structure. Moreover, it is recommended that proper maintenance of the aid project (in order to reduce expenses and effect in the long run) must be considered.</p>	
<p>STUDENTS Agullana, Blessie Jane F.; Bronce, April A.; Fronda, Alfredo L.III; Lorenzo, Jomel C.; Romero, Mary Grace M.; Sespeñe, Ma. Wengrace M.; Sespeñe, Ma. Wenmyrn M.; Sion, Rommel V.; Toraneo, Jenny M.; Villegas, Jennifer C.</p>	<p>ADVISER Engr. Edison S. Fajutrao Jr.</p>

TITLE PROPOSED MEMORIAL PARK IN THE MUNICIPALITY OF ODIONGAN	YEAR 2010
ABSTRACT The study was conducted in order to present other alternatives of resting place in the Municipality of Odiongan. It aims to promote clean, secured, good landscaped, and well-planned memorial for the place of memory of departed love ones. The proposed project is primarily located at Barangay Anahao, Odiongan Romblon. It is 4.2kilometers away from Odiongan town proper and lies along the national road. It is classified as a resting place and a suitable area for burial. A 9,133.9 square meter memorial park is to be developed and enough to accommodate park facilities without excessive earth grading. A survey interview conducted from 380 randomly selected respondents in Odiongan has been considered as the basis demand for the project. The results have shown that 51.42% are positively accepting the memorial park project. The total estimated cost of the project has reached Php 11, 985,000.00. This amount will be financed through KAD-BAYAN Cooperative. The proponents have considered 5.52-year payback period. The proponents believed that the findings were based on the assumption of data reference to the cost of graveyards. The basis also depends on the supported financial capability off expected buyers as shown in the result of the survey. Therefore, based on the results presented, the proposed project is being recommended for implementation because of its feasibility.	
STUDENTS Anastacio, Joe Ali F.; Calambas, Gretchen S.; Fabro, Ellany F.; Fajnilan, Mark Lowel G.; Fallarcuna, Danny F.; Madali, Adrian M.; Manzano, Bryan F.; Mendez, Ryan Von G.; Mendoza, Mario D.; Talamisan, Romel M.	ADVISER Engr. Darwin F. Musico

TITLE PROPOSED EXPANSION OF LOOC WATER SUPPLY SYSTEM	YEAR 2010
ABSTRACT The study was conducted from October 2009 to February 2010. It is primarily focused on the suitable design of additional construction of a water supply system consisting of intake box, water reservoir, filtration tank, and system of pipes including water treatment through filtration and chlorination that will provide adequate supply of safe and potable water to households in Barangay Poblacion, Buenavista, Camandag, and Lemon Sur. This study intends to know the design capability requirement, the social, economic and environmental effect, and the cost of the project. It is hypothesized that the expansion of Looc water supply system will have a big impact to the economy and environment and will be acceptable to the target beneficiaries. The result of this study will provide some insights and information to the future researchers and sectors of our society. Actual surveys and site visits in areas of concern were done to gather the necessary data needed. Based on actual interviews, demand of households for easy access to water is increasing. It is assumed that a minimum of about 78% of the households in the four target barangays are willing to connect to the new water system. The tree spring sources generate 15.5 liters per second in the month of November 2009 and considered capable to supply enough water since they do not dry up even during dry seasons. The use of the tree computer software, the STAAD PRO, AUTOCAD, and EPANET help contribute to the efficiency and accuracy of the project. Results in structural design analysis of reservoir using the STAAD PRO are guaranteed safe and economical. Hydraulic analysis using the EPANET is ensured to make the system run efficiently. The result of the study shows that the expansion of Looc water supply system will do have a big impact on the economy and environment. The project will help provide the people easy access and adequate source of potable water and thus improve the health, sanitation, and living conditions of the residents and provide employment as well. The construction of the project will take 183 calendar days to complete. The project costs Php12, 346,886.40. The payback period is after 10 years with a profit of Php 1,196,166.00. For the construction of the project, a management is organized that will handle the construction and completion of the project in accordance with the approved plan not later than the target date of completion. The Looc Water Supply System will be under the direct supervision of the Municipal Mayor through the office of the Municipal Engineer and staff. To ensure the protection and safety of the water storage, the residents of Barangay Limon Sur must be properly oriented regarding the project.	
STUDENTS Boada, Armel L.; Lota, Marcelino D. IV; Madula, Paul Clint M.; Mariano, Iron Hill A.; Pante, Cheryll F.; Perucho, Francis Rey V.; Putong, Charmin Rose M.; Tadia, Jenelyn S.; Tan, Anthony R.; Tan, Keith Edmil F.	ADVISER Engr. Edison S. Fajutrao Jr.

TITLE PROPOSED RECLAMATION AND DEVELOPMENT OF ODIONGAN BAY WALK	YEAR 2010
ABSTRACT The study was conducted to determine the cost and impacts of development and reclamation of Odiongan Baywalk on the environment as well as on the social life of the people of Odiongan. It was conducted in order to address the current environmental problem affecting the coastal area of Barangay Liaya and Tabin-dagat. The proposed project is primarily located at the coastal area of Barangay Ligaya and Barangay Tabin-dagat, Odiongan, Romblon. Topographical survey was conducted to determine the area as well as the volume of the filling materials needed in the reclamation. The total area was 2.1 hectares. Sea wall structure will be constructed for the coastal shore protection with a total length of 570 meters. The project has an estimated total cost of P 49, 821, 707 to be financed by the National Government. It will be implemented through the supervision Department of Public Works and Highways. Its operation will be maintained by the Local Government. The study indicated that the construction of the said project will result to positive impacts on the physical, environmental, socially, and biological aspects of the life of people in the Municipality. Primarily, the realization of the project will improve stability of the shore line by reducing the rate of change in dynamic coastal system. The proponents recommended that careful and accurate studies shall be undertaken with regards to its economic aspects and structural design so as to attain the most economical design, yet come up with the safest and most effective coastal protection structure. Construction activities should be carried out in such a way that the negative effects of the construction on the environment would be minimized. A number of design alternatives should be considered to maximize biological and environmental benefits and minimize negative impacts. A study should be conducted to determine the feasibility of establishing commercial structures in the area to make it more beneficial to the community. Proper maintenance of the project must also be given importance in order to reach the expected and projected lifespan	
STUDENTS Abao, Albert M.; Fallan, Lyra F.; Fausto, Christine M.; Ferrancullo, John Rey F.; Gervacio, Jerome E.; Juanzo, Edison C.; Magapi, Mark F.; Mangao, Anamie G.; Marcelo, Marlon A.; Marron, Jerjhon R.; Perez, Fredelin M.	ADVISER Engr. Jason F. Rufon

TITLE PROPOSED LOW-COST HOUSING PROJECT IN THE MUNICIPALITY OF ODIONGAN	YEAR 2009
ABSTRACT The study was conducted in order to present a workable solution to the prevailing and future housing problem in the Municipality of Odiongan. It aims to increase the homeownership rate of the people by making available to them an adequate supply of affordable housing. The proposed project is primarily located at Sitio Bangar, Gabaawan Odiongan Romblon. It is five kilometres away from Odiongan town proper and lies along the national road. It is classified as residential area and is indeed, a suitable place for housing. A 2.87-hectare subdivision is to be developed. Complete with basic amenities well-designed to sustain the needs of its future residents. In the first phase of project development, 49 housing units will be constructed after developing approximately one-fourth of the site. A proposal for future expansion will depend upon the success of its first operation. A survey interview conducted from 145 randomly selected respondents in Odiongan has been considered as the basis of demand for the project. The results have shown that 64.83% are positively accepting the housing development project. The total estimated cost of the project has reached Php 23,160,072.80. This amount will be financed through an equal capital contribution of the stockholders of the implementing company. The proponents have considered 10, 15 and 25 year-payback period with an interest of 10% per year. The study indicated that implementation of the project will result to an increase in population of Gabawan which will create noise, pollution, etc. However, the place is subject to such population growth; therefore, such factor is considered as a less significant impact on the community. The proponents believed that the findings based on the assumptions of data reference to the prevailing rental fee of the existing apartments and the obtained monthly payment of purchasing a house and lot from the project gave them strong justification that the project is feasible. Such assumption is also supported by the financial capability of expected buyers as shown in the result of the survey. They further conclude that in venturing same kind of project, they need a careful and meticulous analysis of the housing potentials in order to establish a good outcome. The proposed project is an ideal solution to the housing problems of average and low income families since their economic capability has been eagerly prioritized. Therefore, based on the results presented, the proposed project is being recommended for implementation because of its feasibility.	

STUDENTS Asturias, Romulo Jr. F.; Canulo, Liezzette F.; Cortez, Jake F.; Evangelio, Andro T.; Fabito, Jejomar F.; Fadri, Ralph Jed N.; Fajnilan, Yttel Ann S.; Galicha, Diana Grace S.; Maestro, Ada R.; Muleta, Andrew Y.; Noche, Ruy Jr. B.; Solangon, Jinky T.	ADVISER Mr. Eddie M. Fabila
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RSU-CE-019

TITLE PROPOSED CONSTRUCTION OF A THREE- STOREY HOTEL	YEAR 2009
ABSTRACT This study was conducted at Romblon State College, Odiongan Romblon from December 2008- February 2009 to determine the viability and feasibility of constructing and operating a three-storey hotel in the Municipality of Odiongan. Specifically, it sought to answer the following questions; <ol style="list-style-type: none"> 1. What are the projected effects of the construction of a three-storey hotel on the economic aspect of the Municipality in terms of taxes to be collected and employment to be generated? 2. What are the factors considered in the construction f the proposed three-storey hotel? 3. Is the construction of a three-storey hotel viable? This project is expected to help the Municipality generate employment for having 37 employees. The taxes collected from the investors and from the hotel itself such as building tax, business tax and property tax will be taken 1% of the assessed value that could also help the Municipality generate funds which could determine economic aspect stability. The study showed that space, comfortability, free amenities and recreational facilities are to be considered in the construction of the proposed three-storey hotel. This will also help the Civil Engineering students, practicing Engineers and other related fields about the viability of the project of the same kind. The study showed the viability of the project based on the gathered data within the Municipality. Other related data were based on the existing hotels with the same nature business. The proposed site of the project will be at Torrel, Dapawan Odiongan Romblon having a lot area of 2,898.66 square meters. It was proven to be an ideal place because of its accessibility to any public utility vehicle. A budget amounting to Php 80 million will establish the proposed three-storey hotel. Based on the results of the study, the project is being recommended for operation because of its viability having a payback period of almost 10 years.	
STUDENTS Fernando, Marlon G.; Fillartos, JR F.; Forcadas, Glenda C.; Gaan, Elizer F.; Galang, Client Eastwood R.; Galpo, Tonyvic A.; Guzman, Danilen G.; Lilang, Julius T.; Maestre, Julien Marie S.; Mariño, Alvin B.; Mendoza, Van Cleve F.; Regala, Christine M.; Venus, Enard F.	ADVISER Engr. Jason F. Rufon

RSU-CE-018

TITLE PROPOSED DESIGN AND CONSTRUCTION OF NEW ODIONGAN SLAUGHTERHOUSE	YEAR 2009
ABSTRACT This study was conducted from December 2008 to February 2009 at Odiongan, Romblon to determine the feasibility o constructing the new Municipal Slaughterhouse and propose its new structural design. Specifically, this study sought to answer the following questions. <ol style="list-style-type: none"> 1. What is the feasibility of constructing the new Odiongan Slaughterhouse in terms of the following aspects? <ol style="list-style-type: none"> a. Marketing Aspects <ol style="list-style-type: none"> i. Why is there a need to construct a new slaughterhouse? ii. Who will benefit the project? b. Technical Aspect <ol style="list-style-type: none"> i. Is poctoy a suitable place for the project? ii. What is the technical knowledge needed? iii. What design capacity will be required? c. Management Aspect <ol style="list-style-type: none"> i. What are the requirements needed for the construction of the project? ii. Who will implement the project? iii. Who will be responsible for the operation of the project? d. Financial Aspects 	

<ul style="list-style-type: none"> i. What is the estimated cost of the project? ii. What is the source of capital of the project? iii. What would be the necessary fees and the rate of fees to have the return of investment in due time? <p>2. What is the degree of acceptance of stakeholders on the proposed design of the new Odiongan Slaughterhouse?</p> <p>Design and construction of new Odiongan slaughterhouse was needed due to non-conformity of the existing slaughterhouse to the National Meat Inspection Commission (NMIC) regulations. Realization of the project will give benefit to: consumers, they can ensure that the meat being slaughtered are with proper hygiene and sanitation and free from contamination. The butchers and clients, they can minimize time because enough working space is provided so they can slaughter simultaneously. It will lend job to other butchers and more clients will engage. Generally, it will serve as income generating program for the Municipal Government. The proposed site for this project is at Sitio Baito, Poctoy Odiongan Romblon with approximate land area of 1,500 sq.m and floor area of 508 sq. m and conforms to the National Meat Inspection Commission (NMIC) regulation. As to the strength of the structure, Ultimate Strength Design (USD) was used in this project. Necessary permits, plans, conformation and coordination with National Meat Inspection Service (NMIS) and other important papers were required before the actual construction of the project. The Local Government Unit (LGU) Personnel would be responsible in the implementation and operation of the project. The proposed construction of slaughterhouse had an estimated amount of P 4,950,000.00. The fund should come through loan from Funding Agency with an interest rate of 12% per annum and initial investment from the Municipality. Slaughterhouse fees will be per head and per kilogram (kg). Hog fees were Php 12.95 per head and Php 2.00 per kg. Cattle fees were Php 15.50 per and Php 2.00 per kg. Chicken fees were Php 3.30 per head and Php 1.25 per kg. All fees were expected to increase 5% every three (3) years to have return of investment in due time. Payback period based on the operation was approximately six (6) years. Considering 20 years of life span and loan payment was up to 10 years, return of investment would be P 23,311,343.50. The degree of acceptance of stakeholders (Poctoy Baito community, consumers, cliennts and butchers, and other businessmen) based from the survey conducted was acceptable. Many of the Sitio Baito Poctoy community said that they will benefit out of this project like: poultry and hog raising, others will put up some business like carinderia and sari-sari store, and others were expecting from the local Government that they will mend their existing road. Results of the findings from every aspect of this study gave good reason that the study was feasible. It was hereby recommended that the Municipal Government should give attention to this income- generating project. Continuing research should be taken into account. It was also recommended that workers should have their knowledge in slaughtering and that they should be aware of hygiene and sanitation with themselves and of course in the operation within the slaughterhouse.</p>	
STUDENTS Alubog, Ricky G.; Dalisay, Edcyl F.; De Los Santos, Ryan T.; Fallarcuna, Leny Rose F.; Fermanejo, Arvhee G.; Ferrancullo, George M.; Gaa, Gary Nel F.; Guardian, Gemma Flor G.; Masangcay, Alma F.; Ramirez, Zerimar F.; Salido, Daryl F.; Villacrusis, Ghie G.	ADVISER Engr. Jabez-Stewart F. Faulan

RSU-CE-017

TITLE PROPOSED CONSTRUCTION OF THREE STOREY ODIONGAN COMMERCIAL CENTER	YEAR 2008
ABSTRACT This study was conducted from December 2007 to March 2008 at Odiongan, Romblon. The data used were gathered from certain agencies and offices both private and Government in Odiongan, Romblon. To determine the feasibility of the project the authors considered the following questions: <ul style="list-style-type: none"> 1. Technical Aspect <ul style="list-style-type: none"> a. What technical information is needed? b. What design capacity will be required? 2. Management Aspect <ul style="list-style-type: none"> a. Who are the key personnel needed in order to sustain its smooth operation efficiently? b. Who will implement the project? 3. Financial Aspect <ul style="list-style-type: none"> a. What is the estimated cost of the project? b. What is the source of capital of the project? 4. Marketing Aspect <ul style="list-style-type: none"> a. Who will be benefited of the project/ b. What is the rental/lease rate appropriate to have the return of investment in due time? 	

This study is limited to proposals and estimation based on the existing structures relative to the proposed project. Rental estimate was based on the existing market rental code. The construction of the Three- Storey Odiongan Commercial Center will help the people of Odiongan generate employment. The findings of the study will serve as a source of information for engineers and related fields about the viability of the project of the same kind. To our Government development planners, this will help them formulate plans more realistic and progressive. Relative to the existing rental price, the researchers established a rental fee of P 10.00 per square meter based on the existing market code. The financial and marketing aspects were based in computing the return of investment and the expected profit the project will earn in order to measure its feasibility. The finances of this proposal will be catered by the Municipal Government of Odiongan through its investment and loan. The total estimated cost is Php 45,000,000.00. Payback period of investment is approximately 7 years including the interest. Return of investment is Php 84,163,728.85 considering fifteen (15) years life span of the building. Feasibility of the study is fully supported with results of the findings that at approximately seven (7) years' time the project cost can now be repaid. Further the yearly income after five (5) years' time is a good source of funding other projects since the accumulated amount is good enough to support another project. The return on investment of Php 84, 163,728.85 is a tantamount to consider the investment feasible. Therefore; based on the result presented the project study is being recommended for operation because of its feasibility

STUDENTS Arriola, Alphine Arguelles; Asauro, Harold Luna; Dampil, Enrico Fadri III; Enore, Anthony Gado; Faigao, Jovy Fabello; Fajanilan, Adrian Belleza; Fajarito, Sherly Faminialagao; Fajutagana, Stephany Taborate; Fruelda, Hanzel Fetalvero; Hernandez, Aiza Fontabla; Maestre, Jerome Salvador; Saberon, Kenneth Umayam; Sim, Angela Gracia Madali	ADVISER Engr. Jabez- Stewart F. Faulan
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RSU-CE-016

TITLE PROPOSED CONSTRUCTION OF AQUADOME IN ROMBLON STATE COLLEGE MAIN CAMPUS, ODIONGAN, ROMBLON	YEAR 2008
ABSTRACT This study was conducted at Romblon State College, Odiongan, Romblon from November 2007 to March 2008 to determine the viability and feasibility of constructing an Aquadome. The group prepared the design and proposed the construction of the Aquadome. This "Proposed Aquadome" project will be considered the biggest pool here in the province of Romblon, because of its size. It will be in demand and most used pool compare to other existing pools both here in Odiongan and the neighboring islands. It will host many swimming competitions both in schools and the community. Romblon State College and Odiongan will be recognized. Enrollment at RSC will increase and will attract visitors especially those who love swimming. The authors gathered and analysed data significant for this project. The increase in population of students at Romblon State College and the population of the whole province of Romblon from 2003 up to present was computed. Using the computed increase in population and the existing number of swimming pools as their basis, the need for the construction of the Aquadome is realized. The proposed Aquadome would be of great help in the educational aspects of Romblon State College especially in the improvement of physical education department, gearing towards training a swimmer who can complete with National and International athletes. The location is an ideal place for the students and athletes because it will be situated inside the campus. For the tourists and other customers, the place can be very accommodating because of its accessibility to hotels, market, banks, ports and other establishment because the location is within the town proper of Odiongan the center of commerce and trade in the Province of Romblon. The proposed site of Romblon State College for this project shall be at the vacant lot in Farm Machinery at Vocational Agriculture, having an approximate area of 12,006m ² . The structure will be made of concrete with properly designed facilities. The NSCP, National Structural Code of the Philippines, and the data gathered by the group became the basis for the design of structures and the specification of the project. This study includes the structural and architectural plans, plumbing layout plans, electrical layout and lighting facilities, the PERT/CPM diagrams, and the estimated cost of the proposed constructions. A budget amounting to 18 million php pesos will establishes the proposed Aquadome of the Romblon State College. However, it should be noted that the construction will also depend on the released amount from Department of Budget and Management (DBM) after the school administration submit the proposed budget and approved. The Romblon State College Administration has the role responsibility in the operation, maintenance and management upon the completion of the project. To the Romblon State College Officials, this study will serve as guide if ever the project will be undertaken. The proposed Aquadome will not only solve the needed facilities in swimming as one of the areas in Physical Education subject of students, but also enhance the College to become progressive and competitive to other State Colleges and Universities in the country.	
STUDENTS	ADVISER

Aquino, Mindo Galus; Evangelio, Agnes Juliano; Formilos, John Mark Menes; Garcia, Melisandde Fetalvero; Marco, Daryl Molino; Montesa, Virr Marc Drilon; Selosa, Raichell Gacute; Dayson, Rolly Casano; Fababaer, Den Jae Solangon; Fronda, Josart Hindap; Mantac, Alvin Gabay; Mazo, Annilyn Mores; Reyes, Edrian Corong; Talamisan, Jennelyn Manlangit	Mr Eddie M. Fabila
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RSU-CE-015

TITLE PROPOSED CONSTRUCTION OF CENTENNIAL BUILDING	YEAR 2008
ABSTRACT This study was conducted at Romblon State College, Odiongan Romblon from December 2007- March 2008 to determine the viability and feasibility of constructing a Centennial Building. The following questions were formulated to serve as a basis of the study: 1. Will the construction of Centennial Building provide adequate space for commercial purposes and office use? 2. Is the construction of the Centennial Building viable or feasible? 3. What is the effect of the Construction of Centennial Building to the economic aspect of Romblon State College and to the community? The project is expected to help the town generate employment. This will also help the Civil Engineering Students, practicing Civil Engineers and other related fields about the viability of the project of the same kind. The researchers' shows the viability of the project based on the data gathered from existing Hotels, Government Offices and other Commercial establishment with the same nature of business. The proposed site of the Romblon State College Centennial Building will be at the vacant lot in front of Institute of Business and Accountancy, Institute of Agriculture, fisheries and forestry, and Administration Building, having an approximate area of 2712.6 sq. m hotels, offices, and commercial space. The National Structural Code of the Philippines (NSCP) National Building Code of the Philippines, and the data gathered by the group were the basis in the design of the structures and specifications of the project. The study includes the structural and architectural plans, the plumbing layout plans, the electrical layout and lightning facilities. The Construction Project Management (CPM) diagrams and the estimate cost of the proposed construction. A budget amounting to Php 40 million will establish the proposed Centennial Building funded either by the Administration itself or may seek some assistance from the Department of Budget and Management and other sector groups that will initiate the said project. To the Romblon State College officials, this study will serve as a guide if ever the project will undertake. Based on the results of the study, the authors recommend that the Centennial Building will be provide with lifter for the disabled person and fire extinguishers so as to attain the safety of the people.	
STUDENTS Arguelles, Ramon D.; Bernales, Jerome A.; Candari, Allan J.; Dalisay, Ellen B.; Dalisay, Jeremy S.; Fabello, John Michael F.; Fetalco, Herschel M.; Gacu, Daryl M.; Isuga, Love Lee M.; Mazo, Jeffrey T.; Oquias, Ricky M.; Owings, Grace B.; Soledad, Eroll M.	ADVISER Engr. Jason F. Rufon

RSU-CE-014

TITLE PROPOSED CONSTRUCTION OF ROMBLON STATE COLLEGE MINI-DAM AND IRRIGATION STRUCTURE	YEAR 2007
ABSTRACT This study aims to research on the workability of Constructing the Romblon State College Mini- Dam and Irrigation Structure in Odiongan, Romblon Main Campus. This study intends to answer the question classified within the three functions of management, technical and financial. The Authors gathered all the necessary data in the preparation of this study. Actual surveys were conducted on the proposed site; personal interviews were done to the project in charge of the College specially the farm manager and in-charge of the auxiliary department. Inputs on the highest level and lowest level of water during rainy/wet season and dry season on its optimum level was considered reliable source to meet the purpose of the study and considered it feasible. The group visited the provincial office of National Irrigation Administration (NIA) including its existing Irrigation Structures situated at Barangay Tabobo-an, Odiongan, Romblon and the Department of Public Works and Highways whose function are related to the study. On this research work, all important data and particulars were gathered, evaluated, conceptualized and analysed to find out the descriptive relationship of the study to the given problem. After determination and careful analysis of the result of the study, revelations tend to show that;	

<p>1. The proposed project appears technically significant, financially practical, profitable, beneficial and feasible.</p> <p>2. It will solve the demand requirements of sufficient supply of water of the entire farm of RSC for second and third cropping.</p> <p>3. It will practically support and help our farmers and students taking up their micro projects.</p> <p>It is being considered and recommended that this study is deemed viable and highly feasible for immediate implementation.</p>	
<p>STUDENTS Andres, Andrevon A.; De Castro, Marlon F.; Fabito, Bernard T.; Fajel, Ernie M.; Fernandez, John Mark G.; Fetalver, Jake D.; Fontilar, Ruel M.; Gelito, Joann D.; Ilacio, Flordeliza S.; Magallon, Maria Elena B.; Musa, Juliet G.; Muyargas, Nelson M.; Relox, Rexter M.; Rotoni, Nenwel M.; Tubang, Shella Mie S.</p>	<p>ADVISER Mr. Eddie M. Fabila</p>

RSU-CE-013

<p>TITLE PROPOSED ROMBLON STATE COLLEGE MAIN CAMPUS WATER SUPPLY SYSTEM (LEVEL II)</p>	<p>YEAR 2007</p>
<p>ABSTRACT This study was conducted from December 2006 to March 2007 at Odiongan, Romblon. The data used were gathered from certain agencies and offices both inside and outside of the campus in Odiongan, Romblon. To determine the feasibility of the project the Authors considered the following question:</p> <p>1. Technical Study</p> <p>a) What technical information are needed/?</p> <p>b) What design capacity will be required?</p> <p>2. Management Aspect</p> <p>a) Who are the key personnel needed in order to sustain its smooth operation efficiently?</p> <p>b) Who will implement the project?</p> <p>3. Financial Aspect</p> <p>a) What is the estimated cost of the project?</p> <p>b) What is the source capital of the project?</p> <p>4. Other aspect</p> <p>a) Who will benefit the project?</p> <p>b) How the proposed projects can be of help to the College's battle cry of becoming a State University?</p> <p>This is limited to proposals and estimation based to existing water supply structure relative to the proposed project. It will help the campus to be a stable community, economically. Having self-administered potable water system, Romblon State College can uplift its socio-economic status since water is a necessity. This will serve as source of information for engineers and related fields about the feasibility of the same kind of project. To our development planners, this will help them formulate plans more credible and realistic plans. The proposed site of the project is situated at Romblon State College Main Campus seeds and seedling center in proximity to the rice field. This will ensure pressure of underground water in consideration with the proponents proposed project. In the survey conducted by the authors in the different building, respondents often experienced scarcity of water supply among others. This leads the proponent to prepare a design and proposed water supply system. The study included the site development plan, water system design (ie. Including chlorinating and elevated tanks, pipeline network distribution, fire hydrant, and water supply system) CPM diagram and estimated cost of the proposed construction. The proposed project had an estimated cost of ₱ 3,551,839.50 The Gregorio F. Forcadas Jr. and Associates Consulting Firm will undertake the plans and design of this proposed project. Maintenance and management will be undertaken by the RSC Main Campus Administration.</p> <p>The proposed water supply system will not only solve the shortage of water supply inside the campus but also this study will make this college become a progressive partner in building a nation toward a strong republic if ever the project will be implemented, the structure needed in the proposed project is designed to serve in water supply system and attain durability.</p>	
<p>STUDENTS Agbas, Kim Solajo; Falcutila, Gerard Maestro; Jandoc, John Richard Soledad; Madronio, Sonny Ching Fruelda; Morada, Paolo Montesa; Moral, Christopher Mago; Fabro, Laarni Angeles; Famerio, Catherine Fabito; Gado, Jerlene Gallos; Gregorio, Arcelle Felia; Sombilon, Ivy Rose Salibio; Tan, Chona Fajarito</p>	<p>ADVISER Engr. Jabez- Stewart F. Faulan</p>

TITLE PROPOSED CONSTRUCTION OF LOW COST HOUSING SITIO COLIS CALUNACON, SAN ANDRES, ROMBLON	YEAR 2005
ABSTRACT <p>This project study was conducted from November 2004- February 2005 at Sitio Colis, Calunacon San Andres Romblon. It is about the proposed construction of a low-cost housing for the underprivileged indigent families in town of San Andres. The priority is to provide permanent and decent home, efficiently equipped with primary amenities and facilities, which are basically needed. The proposed housing project is located at Sitio Colis, Calunacon San Andres Romblon which is approximately 300m away from the National road. It has a total land area of 5283sq. meters and near to the town proper of San Andres. The study includes the proper ways of construction of a housing development plan containing design of one (1) model housing unit with complete plans, cost and labor estimate, duration of the work, design analysis and specifications including its lighting system, water system, drainage system, road network, and proper garbage disposal system. The design and specifications of one (1) model housing unit includes the architectural design, structural design, analysis, electrical layout, and plumbing layout. The effective, safe and economical design used was the Ultimate Strength Design (USD) for this type of the proposed project. The plans are based on the design standard imposed by the housing project such as Gawad Kalinga Foundations, Housing for Habit, and PAG-IBIG Housing Project.</p> <ol style="list-style-type: none"> 1. Technical Aspects <ol style="list-style-type: none"> a. What is the technical knowledge needed? b. What is the design capacity required? 2. Management Aspects <ol style="list-style-type: none"> a. Who will implement the project? b. What are the materials, machines and equipment's needed on the project? c. What is the manpower requirement? 3. Financial Aspects <ol style="list-style-type: none"> a. What is the estimated cost of the project? b. What is the source of capital to finance the project? 4. Marketing Aspects <ol style="list-style-type: none"> a. Who will benefit the project? b. What is the appropriate rental/lease to have the return on investment in due time? 5. Others Aspects <ol style="list-style-type: none"> a. What socio-economic benefit and other contribution will it give to the public? b. How can the project be of help to the town's progress? <p>The proponents believed that the findings based in the assumptions of data references to the prevailing rental fee of the existing housing project gave us strong justification that the project is feasible. They further conclude that in venturing same kind of project, they need a careful and meticulous analysis of the housing potentials in order to establish a good outcome. The proposed housing project is an ideal solution to the housing needs of underprivileged families because the proponents consider the consumer's aspect to pay. They enumerated the results based on the years considered in each scheme presented to make it affordable for all class of families. Therefore, based on the results presented the project is being recommended for operation because of its feasibility. Further the researcher recommended that careful and accurate studies will be done with regards to its economic aspects and structural designs so as to attain the safety of the people using the houses with less cost. It is further recommended that families who are the future owner of the housing project should form an association that shall facilitate their community needs and goals. Also recommended for the first party to have a rules and regulations to follow awareness in the social and environmental aspects must also be given considerations.</p>	
STUDENTS Alcantara, Marlon; Calaud, Vicmar; Canulo, Chevruel; Dalisay, Jason; Famaran, Roselyn; Familara, Philip; Fernandez, Alex; Fetalvero, Christian; Foja, Lowel; Forcadas, Manny; Forcadas, Michelle; Formilleza, Ryan James; Fradejas, Hanilyn; Francisco, Rodel; Galang, Julius; Galiga, Aldren; Gocela, Amable; Ignacio, Boyet; Jandoc, John Mark; Juanzo, Cherry; Madali, Renia; Magbata, Modesto Jr.; Marin, Jimson; Mariño, Jesus; Marquez, Cherry Lyn; Maulion, Niño Val; Miñano, Aldrin; Mingo, Anna Mercy; Romero, Felipe; Salazar, Roel; Villanueva, Donna; Visaga, Felomina	ADVISER Engr. Jabez-Stewart Faulan

TITLE THE PROPOSED RELOCATION AND CONSTRUCTION OF LOOC PUBLIC MARKET	YEAR 2004
ABSTRACT The study purposes a construction of public market in Looc, Romblon. The study presents a development plan and provides the design and details of a modern building which will improve the old ne. Ultimate Design Method (USD) was used in the design of the project. Included in this book are the extent of the study, the description of the project and the proposed project. The results of the questionnaire survey conducted in the market are outstanding evidences of the real need of the proposed project. Photographs would show him actual conditions of the old market, which needs to improve. The proposed construction will be done in a phase to phase basis. It aims to improve and provides modern market facilities for suitable physical and environmental conditions of the market. This improvement is for the benefit of both the users and the costumers. Moreover, man commercial investors will attract in the area, and in return, the Municipality could achieve higher market revenues and better operation, management and maintenance of the market. The effectiveness of this study can be determined in a cost benefit analysis for its implementation. This study should be presented to the Sangguniang Bayan of the Municipality of Looc, for approval and adoption. The proposed construction of Public Market has an estimated amount of P5, 162,626.00. The fund should come from loan to the Municipal Development Fund. In the survey conducted by the authors in the Municipality of Looc about the operation of the existing Public Market, rental fee is P7.00 per square meter per day. The authors decided to offer P8.00/ square meter per day with an increase of fifty centavos every year. In order for the proposed public market to be sustained and successful, it should provide spaces and facilities for different business and services like Carinderias, Eateries, Groceries, Hardware Stores, Agricultural and Marine Supply Stores, Cold Storage Facilities, Bakery, Bottled Beverage Depot, Pharmacy, Dry Goods Store, Wet and Dry Market Section, Auction Market and Jeepney and Tricycle Terminals. It is therefore recommended that the Municipal Government should be put first on this income generating project. This will foster social and economic prosperity upon the Municipality. It will serve as the stepping- stone in the development of the Municipality as well as the Province.	
STUDENTS Faa, Alfie; Faminial, Hargye; Fadrigore, Mark; Fetalvero, Archie; Galicia, Jeffrey; Fajarito, Ma. Charo; Fusilero, Dremafe	ADVISER Engr. Gregorio Forcadas Jr.

TITLE PROPOSED UPGRADING AND IMPROVEMENT OF ODIONGAN EXISTING DRAINAGE SYSTEM	YEAR 2004
ABSTRACT This study was conducted from November 2003 to February 2004 at Odiongan, Romblon. Data used are gathered from certain agencies and offices of Municipality of Odiongan. To determine the feasibility of the project the authors considered the following question: 1. Technical Study a. What is the technical knowledge needed? b. What design capacity will be required? 2. Management Aspect a. Who are the key personnel needed in order to produce best output? b. Who will implement the project? 3. Financial Aspect a. What is the estimated cost of the project? b. What is the source capital of the project? 4. Other Aspect a. Who will benefit project? b. How the proposed project can be of help to the town's progress? This is limited to proposals and estimation basing to the existing drainage structure relative to the proposal project. It will help people of Odiongan to solve the perennial problem of flooding specifically during rainy season. This will serve as source of information for engineers and related fields about the feasibility of the project of the same kind. To our Government development planners, this will help them formulate plans more realistic and progressive. The proposed site of the project is situated at the Poblacion, Odiongan covering the five barangays: Ligaya, Liwayway, Liwanag, Tabing-	

dagat and Dapawan. It has a total area of 335 hectares. In the survey conducted by the authors in the different area, all of the five barangays suffered from drainage problem like; the water is always stagnant, the canal is filled with trash and some areas have no drainage canals. This leads the proponent to prepare a design and propose the upgrading and improving of the existing drainage system. The study includes the site development plan, drainage system design, CPM Diagram and estimated cost proposed construction. The proposed project had an estimated cost of P13, 295,502.00. The Darwin Musico and Associates consulting firm will undertake the plans and design for the said project. Maintenance and management will be undertaken by the local government office. The upgrading and improvement of the existing drainage system will not only solve the flooding experience in Odiongan but also this study will be effective preliminary tools for the Odiongan officials if ever the project will be implemented. The structure is designed so as to serve its desired purpose and to last for a long period of time.

STUDENTS Forlales, Blenda Joy Tambalque; Mendoza, Arlan Lucidos; Minano, Peter Ramos; Ferrer, Christina Fere-ira; Gremarin, Vilma Panoy; Gado, Evangeline Cano; De Villa, Yeldren Evangelista; Galisanao, Edgardo Galicia	ADVISER Engr. Darwin F. Musico
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RSU-CE-009

TITLE PROPOSED CONSTRUCTION OF TWO-STOREY APARTMENT BUILDING WITH WATER PURIFYING STATION	YEAR 2004
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ABSTRACT
 This study was conducted from November 2003 to February 2004 at Romblon State College, Odiongan Romblon. This was conducted to determine the viability and feasibility of constructing and operating a Two- Storey Apartment Building with water purification station. The proposed project will help to solve the existing problems of investors who would want to engage in business and I will also provide clean, safe, pure and good quality of drinking water to people. The project study was conducted to propose the construction of the Apartment and to engage in Water Purification business. The proposed site of this project is situated at Poctoy, Odiongan Romblon with an approximate total land area of 473 sq.m. The structural design and specification were based on the ACI Code, NSCP and the data gathered by the group. The study included the architectural plans, the structural analysis, the electrical plan, the plumbing layout plans, the CPM diagrams, the water purifying process and the water purifying station. The construction of Two-Storey and engaging in water purifying business must be well planned in order to produce a structure and water station filled to fulfil its purpose. The proposed project is designed and planned so as to serve its desired purpose of housing customers conveniently and to provide clean and safe drinking water to people. The structure is designed to last for a long period of time though it considers an economic life of fifteen (15) years and require only minimum maintenance. JADE Construction Company will undertake the construction, operation and management of the project. Specifically, it sought to answer the following questions:

1. What is the effect of putting up a Two-Storey building and water Purification business to the economic and environmental aspects of Romblon, particularly to the town of Odiongan?
2. What are the requirements and the economical advantages of putting up this kind of business?
3. What are the sources of water supply and the importance of using purified water?
4. Is Poctoy a suitable place for the location of the project?

From the survey conducted by the authors in the different apartment in Odiongan, rental fee ranges from P3, 000 to P10, 000. Based on the existing fee the authors decided to start offering rental of P3, 500 per month and 5% increase in maintenance every 5 years thereafter. While the bottled water worth P4.00 to P7.00 depending the sizes of containers and the amount of refilled water from 350ml up to 5 gallons including hot and cold water dispenser. Purified water adopted a pricing incentives based on volumes and terms offered to the general public in Odiongan. Through drinking purified water, spread of disease will be minimized. Putting up a Two-Storey building and a water purification business will help people generate employment. It will give additional income to the barangay Poctoy were the project is to be located as well as to the Municipality of Odiongan through taxes. It will give beautiful and clean surroundings by landscaping the area. Before constructing the proposed project, we must have the building permit, sanitary permit, mayor's permit and other requirements needed for the construction and putting up a business. The source of water is from (Pato-o, Poctoy, Batiano Water System) where water has an abundant supply. It is not impossible to encounter problems with regards to our primary source of water to be used in purification. So, the researchers provide an alternative, the deep well. Source of found as an equal distribution of the investors for an amount of P460, 000 each. The total project cost is P3, 645,687.20 and has an expected income of P24, 491,335.00 within 15 years of operation. Payback period of the investment is approximately 5 years including the interest. Return on investment is P24, 491,335.00 considering 15 years' life span of

the building. Therefore, the authors recommend the proposed construction of a Two-Storey Apartment Building with Water Purifying Station because it is viable and feasible as reflected in the cost and return analysis.

STUDENTS Baligat, GERALYN A.; Gabanan, JOHN VINCENT A.; Gabaldon, ANNALYN G.; Gajarion, DARLYN M.; Miralpes, JULY M.; Mortos, VINCENT M.; Napoles, ALFIE F.; Regala, ISRAEL O.	ADVISER Engr. JASON F. RUFON
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RSU-CE-008

TITLE PROPOSED CONSTRUCTION OF BEACH RESORT	YEAR 2004
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ABSTRACT
 This study was conducted at Romblon State College, Odiongan Romblon from October 2003 to MARCH 2004. This was conducted to determine the viability and feasibility of constructing and operating a beach resort complex in the Municipality of Odiongan. Specifically it sought to answer the following questions:
 1. What is the effect of constructing a Beach Resort in Odiongan, on economic and environmental aspect?
 2. Will the construction contribute to the social uplift of Odiongan and also for the province of Romblon in general?
 3. Is Odiongan a suitable place for the location of the project?
 The project is expected to help the towns generate employment. This will also help the Civil Engineering students, practicing Civil Engineers and other related fields about the viability of the project of the same kind. The researcher's shows the viability of the project based on the data gathered within the province particularly in the town of Odiongan. Other related data was based on the existing Beach Resort and other commercial establishment with the same nature of business. The location of the project was proven to be best choice because of accessibility. It can be reached by tricycle or any Public Utility Vehicle from Odiongan pier approximately 10 minutes, or from Batangas (8hrs) from Manila (10hrs); also by pump boat from Mindoro (Dangay, Roxas, 4hrs) or from Boracay (Caticlan, 2hrs). The study is limited to proposals and estimation based on the existing structures relative to the proposed project. Operation of the structure was based on a twenty percent consideration of the projected demand of hotel and resort to patronize the services of the proposed beach resort. The total estimated construction cost of the project is P20, 691,863. Payback period of the investment is approximately 4years including the interest. Return on investment is P43, 891,358 after 10 years of operation. The feasibility of the project is fully supported with results of the findings that at approximate 4 years' time the project cost can now be repaid. Therefore, based on the result presented, the project is being recommended for operation because of its feasibility.

STUDENTS Fajutrao, EDISON JR. SALMINGO; Gabute, DANNY SUMAGINSING; Fainsan, MICHAEL GERVACIO; Hindap, ARC MEÑEZ; ROJA, CHIQUI LOU GADON; GALINDEZ, RELMAY LONGSAGAY; FADEROG, MARY ANA LYN LEAÑO; FADRIQUELA, GIDEON RUBIO	ADVISER Engr. CRISAURO R. FALLAR III
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RSU-CE-007

TITLE PROPOSED CONSTRUCTION OF MEMORIAL GARDEN (DIVINE PARADISE MEMORIAL GARDEN)	YEAR 2003
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ABSTRACT
 This study was conducted from November 2002 to February 2003 at Odiongan Romblon. Data used are gathered from Local Civil Registrar office of Municipality of Odiongan. The proposed construction of memorial garden will not only solved the congestion of existing cemeteries here in Odiongan but it will ease the burden of the bereaved family who visits the area and it will help the economy of the Municipality of Odiongan. The proposed site of this project is situate at Anahao, Odiongan, Romblon with the total area of 20000 sq.m. The structural design and specification were based on the NSCP Code and the estimation of all materials used were based on Estimation book by Max Fajardo Jr. This study includes the Site Development Plan, Drainage and Plumbing Layout, Water Supply Plan, Architectural Plans, Structural Plans, Electrical Plans, CPM Diagram and estimated cost proposed construction. The proposed project had an estimated cost of P7, 098,054.00. The payback period of the investment is five to six years excluding the interest, return of the investment is P12, 830,048.18. The MRG Builders and Developers will undertake the construction. Operation and Management will be undertaken by the Management Staff they hired. To determine the viability of the project, the authors considered the following questions:
 1. Technical Aspect

<ul style="list-style-type: none"> a. What is the suitable location for the project? b. What is the technical knowledge needed? 	
2.Management Aspect	
<ul style="list-style-type: none"> a. What are the materials, machine, equipment's and devices needed on the project? b. What are the key personnel needed in order to produce the best output? 	
3.Financial Aspect	
<ul style="list-style-type: none"> a. What is the estimated cost of the project? 	
4.Marketing Aspect	
<ul style="list-style-type: none"> a. What is the appropriate price of the lot property to have the return of investment in due time? 	
STUDENTS	ADVISER
Gacu, Jackson O.; Galicia, Mary Grace C.; Madrid, Reselle E.; Malacad, Michelle M.; Morales, Riosy G.; Rufon, Romena V.	Engr. Crisauro R. Fallar III

RSU-CE-006

TITLE	YEAR
PROPOSED CONSTRUCTION OF LOW-COST HOUSING	2003
ABSTRACT	
<p>This project study was conducted from November 2002-February 2003 at Tulay, Odiongan Romblon. The project study is all about the proposed construction of low-cost housing to the underprivileged families in the town of Odiongan, Romblon. The priority is to provide decent homes efficiently, equipped with basic amenities and facilities, which is basically what is needed. The proposed housing project is located at Barangay Tulay, Odiongan Romblon with a total area of 0.673 hectare. It is approximately 1.275 kilometers away from the town proper. The study includes the preparation of a housing development plan containing design of one (1) model housing unit with complete plans and specifications including its drainage system, water distribution system, lighting system, road network and garbage disposal system. Time duration (VPM) and cost estimating are also presented. The design and specifications of one (1) model housing unit include the architectural, structural, electrical, and plumbing. The structural design for the proposed project used was the ultimate strength design method (USD). The plans are based on design standard imposed by housing and land use regulatory board (HLURB) the Department of Public Works and Highways (DPWH) and conforms all building and design codes provided by different implementing laws in construction.</p>	
1.Technical Aspect	
<ul style="list-style-type: none"> a) What is the suitable location for the project? b) What is the technical knowledge needed? c) What design capacity will be required? 	
2.Management Aspect	
<ul style="list-style-type: none"> a) Who will implement the project? b) What are the materials, machine, and equipment's needed on the project? c) What is the manpower requirement of the project? d) What are key personnel of the organization structure are needed in order to maximize its operation to produce the best output? 	
3.Financial Aspect	
<ul style="list-style-type: none"> a) What is the estimated cost of the project? b) What is the source of the capital to finance the project? 	
4.Marketing Aspect	
<ul style="list-style-type: none"> a) Who will be benefited by the project? b) What is the appropriate rental/lease rate to have the return on investment in due time? 	
5.Other Aspect	
<ul style="list-style-type: none"> a) What socio-economic benefit and other contributions will it give to the public? b) How can the project be of help to the town's progress? 	
<p>The total income within 10 years is P19, 904,783.76. Payback period of the investment is 10 years excluding the interest. Return on investment is P 7,467,571.67. Considering the 20 years' life span of the Housing. Feasibility of the study is fully supported with results of the finding that at 10 years' time the project cost can be repaid. As shown in table I, the total cost of the project including the operation and maintenance totalled to P12, 502,800.13 and the gross income is P19, 904,783.76 giving a net income of P7, 401,983.63. The researchers believe that the findings based in the assumptions of data reference to the prevailing rental fee of Odiongan gave as strong justification that the project is feasible. Therefore, based on the result presented the project is being recommended for operation because of its feasibility. Further the researchers recommend that careful and accurate studies will be done with regard to its economic aspects and structural</p>	

design so as to attain the safety of the people using the houses with less possible cost. The proposed housing project if implemented is an ideal solution to the housing needs of underprivileged families in Odiongan, Romblon. It will provide better homes and sufficient facilities and will significantly alleviate the substandard living conditions of those people. It will surely enhance economic and social development not only to the beneficiaries concern but also to the Municipality itself. Future dwellers are suggested to organize at working force that will help construct their own homes. This will momentarily provide income to the beneficiaries themselves. It is further recommended that future homeowners should form an association that shall facilitate their needs and goals. To ensure safety of properties against intruders, a perimeter fence should be provided. Good management is also important in maintaining the subdivision for without it all, these better facilities and structures will not be efficiently utilized. With these recommendations, the houses will be ideal for occupancy.

STUDENTS Capillo, Rolly M.; Fabriculana, Mark Ian S.; Fallaria, Ma. Martina F.; Fetalsana, Vanessa M.; Madrona, Alexmond M.; Magcalayo, Neil D.C.; Sim, Jim B.	ADVISER Engr. Crisauro R. Fallar III
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RSU-CE-005

TITLE PROPOSED CONSTRUCTION OF TWO-STOREY COMMERCIAL BUILDING	YEAR 2002
<p>ABSTRACT</p> <p>This study was conducted from November 2001-February 2002 at Odiongan, Romblon. The proposed project is offered for commercial ventures through rentals or lease. To determine the viability of the project, the proponent considered the following questions:</p> <ol style="list-style-type: none"> 1. Technical Aspect <ol style="list-style-type: none"> a) What is the suitable location for the project? b) What is the technical knowledge needed? c) What design capacity will be required? 2. Management Aspect <ol style="list-style-type: none"> a) Who will implement the project? b) What are the materials, machine and equipment's needed on the project? c) What is the manpower requirement of the project? d) What are the required officers and key personnel of the organization structure in order to maximize its operation to produce the best output? 3. Financial Aspect <ol style="list-style-type: none"> a) What is the estimated cost of the project? b) What is the source of the capital to finance the project? 4. Marketing Aspect <ol style="list-style-type: none"> a) Who will be benefited of the project? b) What is the rental/lease rate appropriate to have the return on investment in due time? 5. Other aspects <ol style="list-style-type: none"> a) What socio-economic benefit and other contributions will it give to the public? b) How can be the project be of help for the town's progress? <p>This study is limited to proposals and estimation based on the existing structures relative to the proposed project. Rental estimate was based on the existing rental fee in the community. The construction of a two storey commercial building will help people of Dapawan generate employment. The findings of the study will serve as source of information for engineers and related fields about the viability of the project of the same kind. To our Government development planners, this will help them formulate plans more realistic and progressive. In the survey conducted by the authors in the different business ventures in Odiongan existing rentals were: Lyn's Restaurant and Snack Bar renting P10,000 a month with a space area of 7m×8m, RTW is P4,500/mo. With a space of 3.5m×6m, Mini Mart P7,700/month in an area of 4m×8m, studio at P1200/month at an area of 3m×4m and an office space of P2,500 having an area of 3.5m×2.5m. Relative to the existing rental price the researchers established a rental fee of P8, 000. From this estimate the financial and marketing aspects were based in computing the return on investment and the expected profit the project will earn in order to measure its feasibility. EAGLE company's function is consultative and operative. Its main office is located at Liwanag, Odiongan Romblon nearby Romblon State College Administrative Building. Engr. Cecel Gay P. Magramo is the present manager with six key officials under her. Source of fund was an equal contribution of the investors for an amount of P350, 000.00 each resulting to a total of P2, 450,000 as financial capital. The total estimated construction cost is P 2,410,318.00. Payback period of the investment is approximately 5 years excluding the interest. Return on investment is six million one</p>	

hundred eighty-nine thousand two hundred twelve pesos and twenty centavos (P6, 189,212.20) considering twenty years' life span of the building. Feasibility of the study is fully supported with results of the findings that at approximately 5 years' time the project cost can now be repaid. Further, the yearly income after 6 years time is a good source of funding other projects since the accumulated amount is good enough to support another projects. The return on investment of six million one hundred eighty-nine thousand two hundred twelve pesos and twenty centavos (P6, 189,212.20) is tantamount to consider the investment feasible. Therefore; based on the result presented the project is being recommended for operation because of its feasibility.

STUDENTS Fontabla, Jeanette F.; Magramo, Cecel Gay P.; Lagueza, Jefferson F.; Fadriquelan, Jeffrey F.; Martinez, Ernie S.; Fruelda, Mickel F.; Maestre, Blue R.	ADVISER Engr.Crisauro R. Fallar III
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RSU-CE-004

TITLE PROPOSED CONSTRUCTION OF TWO-STOREY APARTMENT BUILDING	YEAR 2002
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ABSTRACT

This study was conducted from November 2001- February 2002 at Odiongan, Romblon. The project study is about the construction of the Two-Storey Apartment Building. The proposed Two-Storey Apartment Building will not only solve the existing problems of investors and students in their lodging but this will also help other employees who are just staying in the Municipality of Odiongan for their work's sake. The project was conducted to propose the construction of the Apartment. The proposed site of this project is situated at Torrel, Dapawan Odiongan Romblon with an approximate total land area of 396 square meters and it will be mostly made of concrete and provided with proper arrangement of rooms. The structural design and specifications were based on the ACI Code, National Building Code of the Philippines and data gathered by the group. This study included the architectural plans, the structural plans, the layout and lighting, the plumbing layout plans, CPM diagrams and the estimated cost of proposed construction. The construction of Two-Storey Apartment must be well planned in order to produce a structure fitted to fulfil its purpose. The structure is designed so as to serve its desired purpose of housing customers conveniently. It is also designed to last for a long period of time though it considers an economic life of twenty (20) years and require only minimum maintenance. The proposed construction of Two-Storey Apartment has an estimated amount of P3, 587,164.65 and the fund should come from the proponents having equal sharing of investment. The AF Construction Company will undertake the construction, operation, and management of the project. To determine the viability of the project, the proponent considered the following questions:

1. Technical Aspect
 - a) What is the suitable location for the project?
 - b) What is the technical knowledge needed?
 - c) What design capacity will be required?
2. Management Aspect
 - a) Who will implement the project?
 - b) What are the materials, machine and equipment's needed on the project?
 - c) What is the manpower requirement of the project?
 - d) What key personnel of the organizational structure in order to maximize its operation to produce the best output are needed?
3. Financial Aspect
 - a) What is the estimated cost of the project?
 - b) What is the source of the capital to finance the project?
4. Marketing Aspect
 - a) Who will be benefited of the project?
 - b) What is the rental rate appropriate to have the return on investment in due time?
5. Other Aspects
 - a) What socio-economic benefit and other contributions will it give to the public?
 - b) How can the project be of help for the town's progress?

In the survey conducted by the authors in the different apartment in Odiongan, rental fee from P3, 000 to P10, 000. Based on the existing fee the authors decided to start offering rental of P5, 000 per month and 10% increase every year thereafter. Source of fund was an equal contribution of the investors for an amount of P550, 000 each. The total estimated construction cost is P3, 587,164.00. The total income within twenty years is P24, 624,000. Payback period of the investment is 3 years excluding the interest. Return on investment is Payback period of the investment is 3 years excluding

the interest. Return on investment is P15, 118,100 considering twenty years' life span of the building. Therefore; based on the result presented the project is being recommended for operation because of its feasibility. As far the project study is concern, it is then recommended that careful and accurate studies will be done with regard to its economic aspects and structural design so as to attain the safety of the people using the building with less possible cost.

STUDENTS Esteban, Roderick M.; Formon, Antonio Jr. M.; Gado, Joel M.; Garcia, Andres C.; Madeja, Felbert M.; Mortel, Felisa, R.; Tulio, Arnold F.	ADVISER Engr. Crisauro R. Fallar III
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RSU-CE-003

TITLE PROPOSED CONSTRUCTION OF TWO-STOREY FAST FOOD CENTER LIWAYWAY, ODIONGAN, ROMBLON	YEAR 2002
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ABSTRACT
This study was conducted from November 2001-February 2002 at Odiongan, Romblon. The proposed project is offered for canteen and snack bar operation. To determine the viability of the project, the proponent considered the following questions:

1. Technical Aspect
 - a) What is the suitable location for the project?
 - b) What is the technical knowledge needed?
 - c) What design capacity will be required?
2. Management Aspect
 - a) Who will implement the project?
 - b) What are the materials, machine and equipment's needed on the project?
 - c) What is the manpower requirement of the project?
 - d) What are the required officers and key personnel of eh organization structure in order to maximize its operation to produce the best output/?
3. Financial Aspect
 - a) What is the estimated cost of the project/?
 - b) What is the source of the capital to finance the project?
4. Marketing Aspect
 - a) Who will be benefited of the project?
 - b) What is the rental/lease rate appropriate to have the return on investment in due time?
5. Other Aspects
 - a) What socio-economic benefit and other contributions will it give to the public?
 - b) How can the project be of help for the town's progress?

This study is limited to proposals and estimation based on the existing structures relative to the proposed project. Operation of the structure was based on a twenty per cent consideration of the expected population to patronize the services of the snack bar and canteen. This will help solve the problem of the students regarding food service. The findings of the study will serve as source of information for canteen operators and other businessman planning to enter on food service operation, Source of fund was an equal contribution of the investors for an amount of P220,000.00 each resulting to a total of P1,540,000 as financial capitals. The total estimated construction cost is P 1, 47,214.53. Payback period of the investment is 2.48 years excluding the interest. Return on investment is P3, 675,586 after ten years of operation was realized. Feasibility of the study is fully supported with results of the findings that at 2.48 years' time the project cost can now be repaid. Therefore; based on the result presented the project is being recommended for operation because of its feasibility.

STUDENTS Alvar, Chet; Fajarito, Evie; Fajutnao, Edward; Selosa, Carlito Jr.; Forcadas, Roel; Haincadto, Enoch; Salmingo, Nenoy Jose	ADVISER Engr. Crisauro R. Fallar III
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TITLE A PROJECT STUDY ON A PROPOSED CONCRETING OF A 1.060 KM. CAMPUS ROAD, RSC, ODIONGAN, ROMBLON	YEAR 2001
ABSTRACT This study aimed to explore the feasibility of Proposed Concreting of 1.060 km. Campus road in RSC, Odiongan Romblon. The study was done from October too February 2000-2001. The design of the proposed project was based on the design criteria used in Provincial Road as referred by the Department of Public Works and Highways personnel based on the data gathered by the proponents. It has a net length of 1.060 km or 1060 m. It has a total width of 6.0m, including 0.5-meter shoulder and 0.5. Canal on both sides. It serves as a link of the other agricultural areas and urban area of the Municipality of Odiongan. The proposed road is just a 6.1 m away from the National road leading to Looc and to Public Market. It is connected to the Romblon Provincial Hospital with an access road. The total estimated cost was P4, 150,520.96 and the forecasted life span is fifteen (15) to twenty (20) years. After a thorough examination and careful analysis of the results of the study, findings tend to show that the project appear technically and financially viable and feasible. The findings revealed that the completed facility will help society and the school achieve the maximum use of its resources or the maximum productivity of its people. Thus, the proponents wish to recommend the immediate implementation and construction of the said project.	
STUDENTS Asuncion, Aleth M.; Coching, Genelito Jr.; Fabon, Paulino M, Fesalbon, Zarra R.; Gadon, Gallard D.; Garcia, Mitzi Dawn M.; Llorca, Zosimo Miguel K.; Magracia, Jocres M.; Martinez, Finlane N.; Molina, Adriel	ADVISER Engr. Crisauro R. Fallar III

TITLE PROPOSED CONSTRUCTION OF ROMBLON STATE COLLEGE TWO-STOREY ENGINEERING BUILDING	YEAR 2001
ABSTRACT The project study is about the construction of the Two-Storey Engineering Building of Romblon State College. The project was made to propose the construction of the Romblon State College Two-Storey Engineering Building. The inadequate classrooms for Engineering students are the reason of proposing the study. Classes are scheduled on the evening and these gives additional burdens to students. This leads the group to prepare a design and propose the construction of the Two-Storey Engineering Building of Romblon State College. The proposed Two-Storey Engineering Building will not only solve the existing problems of the students but this will also help the Romblon State College to be more systematic in the delivery of instruction. Thus, this will improve the quality of teaching and learning of the students as a whole. The project study was conducted to propose the construction of the Engineering Building. This study was analysed and data were gathered. The proposed site of the Romblon State College Engineering Building will be situated at the vacant lot in front of the College Library with an approximate total land area of 1381.33 sq. meters and it will be mostly made of concrete. The building will be provided with proper arrangement of classrooms. The structural design and specifications were based on the ACI Code National Building Code of the Philippines and data were gathered by the group. This study will include the architectural plans, the structural plans, the layout and lighting facilities, the plumbing layout plans, the CPM diagrams and the estimated cost of proposed construction. The proposed construction of the Romblon State College Two-Storey Engineering Building should be allocated an amount of P9, 156,235.375 and the fund should come from the Department of Budget and Management through the initiative of the Representative of Lone District of Romblon. The Romblon State College Administration shall be responsible in the management of its operation and maintenance. The Department of Public Work and Highways (DPWH) will undertake the actual construction and manage the construction of the project and will enforced the adherence of the contractor to the approved plans and specification prepared by the agency. The construction of the Two-Storey Romblon State College Engineering Building will help solve the problems regarding the lacking of classrooms of Engineering students. This study will be effective preliminary guide for the Romblon State College officials if ever the project will be implemented. The rapid increase of Engineering Students populations is the basic reason for the construction of the Engineering Building and it must be well planned in order to produce a structure fitted to fulfil its purpose. The construction of Two-Storey Romblon State College Engineering Building will solve the present problems and will help the Institute of Engineering and Technology faculty, staff and students to have more classrooms to be used during their classes. The structure is designed so as to serve its desired purpose. It is also designed to last for a long	

period of time and requires only minimum maintenance. As far as the project study is concern, it is then recommended that careful and accurate studies will be done with regard to its economic aspects and structural design so as to attain the safety of the people using the building with less possible cost. Parking area is recommended to be constructed at the vacant area in front of the Engineering Building. Water tank and proper ventilation should also be provided so ass to give daily supply of water and to give comfort to the students who are going to use the building. There must be a fire exit on the roof deck. Soil test must be done to know whether the soil can accommodate a two-storey building or not. There should be a drainage outlet in the plant boxes. Special septic vault for laboratory. The construction of the Two-Storey Engineering Building will be provided with cost analysis. The relocation of the site be also studied. Further study will be highly recommended on the construction.

STUDENTS

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