



CLMD-RM-2023-742

Republic of the Philippines
Department of Education
REGION IV-A CALABARZON

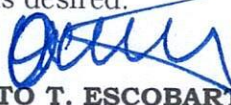
12 December 2023

Regional Memorandum
No. 742 s. 2023

**2023 REGIONAL SCIENCE AND TECHNOLOGY FAIR (RSTF)
WINNERS**

To **Schools Division Superintendents**

1. Relative to Regional Memorandum No. 695 s. 2023 entitled "2023 Regional Science and Technology Fair (RSTF)", this Office announces the winners for this event which was held last December 5 to 6, 2023 at the Bulwagan ng Karangalan Hall, DepEd Region IV-A, Karangalan Village, Cainta, Rizal.
2. Attached are the lists of winners with the 1st placer in each category automatically representing our region for the upcoming National Science and Technology Fair on a tentative date of March 13 to 15 with a venue yet to be announced.
3. The following are the enclosures for reference:
 - a. Enclosure No. 1: Regional Winners for Tuklas Life Science Category
 - b. Enclosure No. 2: Regional Winners for Tuklas Physical Science Category
 - c. Enclosure No. 3: Regional Winners for Tuklas Mathematics and Computational Science Category
 - d. Enclosure No. 4: Regional Winners for Tuklas Robotics and Intelligent Machines Category
 - e. Enclosure No. 5: Regional Winners for Science Innovation Expo
4. For questions and clarifications, please contact **PAUL GENCE L. OCAMPO**, Education Program Supervisor or the Chief of the Curriculum and Learning Management Division (CLMD), **VIERNALYN M. NAMA** at (02) 647-7487 loc. 420 or via email @ clmd.calabarzon@deped.gov.ph.
5. Immediate dissemination of this Memorandum is desired.


ATTY. ALBERTO T. ESCOBARTE, CESO II
Regional Director

cc: clmd/ROC7



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Enclosure 1: Regional Winners for Tuklas Life Science Category**Individual Category**

PROJECT TITLE	SDO	SCHOOL	STUDENT	COACH	PLACE
Influencing Factors on Growth, Polystyrene and Silicone Biodegradation Capacity of Mealworm (<i>Tenebrio Molitor</i>): An Input to an Integrated Entomoremediation Community-based Environmental Sustainability Program	RIZAL	Rizal National Science High School	MA. FRANCHESCA PAZ DE LEON	NANETTE S. STA. CATALINA	1st
Different Levels of Coconut Water as a Medium for Macapuno (<i>Cocos nucifera</i> var. macapuno) Embryo Rescue Culture	CAVITE PROVINCE	Indang National Highschool	EM JHEY P. CUADRA	MICHAEL T. PEÑAFLORIDA	2nd
Synergized Activity of Makahiya (<i>Mimosa pudica</i>) and Guava (<i>Psidium guajava</i>) Leaves Extract against <i>Pseudomonas Aeruginosa</i> and <i>Staphylococcus aureus</i> , Causative Pathogens of Surgical Site Infection	QUEZON PROVINCE	Quezon National High School	KYLE MEJIN L. VALLES	JERIC M. ILAO	3rd

Team Category

PROJECT TITLE	SDO	SCHOOL	STUDENTS	COACH	PLACE
Meta-Analytic Guided Design of Green Synthesized Cu-Zn Nanoparticles from Carabao Mango (<i>Mangifera indica</i> L.) Peel's Extract and its Exploratory Antifungal Activity against <i>Candida albicans</i>	SAN PEDRO CITY	Pacita Complex National High School	YESHA EUNICE R. KARUNUNGAN, MIKHAELLA P. MORADO, KEISHA ANGELIE M. YABUT	MARY JEAN P. SABANAL	1st
Organic Mulch out of Coconut Coir (<i>Cocos nucifera</i>) and Fish Scales (Dermal denticles) as Growth Enhancer for Lettuce (<i>Lactuca sativa</i>) Cultivation	QUEZON PROVINCE	Quezon National High School	EMMANUELETTE DANIELLE LAIREN V. DE LOS SANTOS, SHAMYCA P. DEODORES, KELSEY DAPHNE GAILE L. PASCUAL	JERIC M. ILAO	2nd
Antitermitic and Larvicidal Activities of False Shamrock (<i>Oxalis triangularis</i>) Leaves Extract Against Philippine Milk Termites (<i>Coptotermes vastator</i>) and Yellow Fever Mosquito (<i>Aedes aegypti</i>) Larvae	CAVITE PROVINCE	Angelo L. Loyola Senior High School	PETE BRADFORD R. ACHAY, CYRILLE MHA E. O. MANALO ROJELYN T. PARONE, RYAN S. CUTAMORA VIENNA	KATHLENE Y. BOLGADO	3rd

Enclosure No. 2: Regional Winners for Tuklas Physical Science Category**Individual Category**

PROJECT TITLE	SDO	SCHOOL	STUDENTS	COACH	PLACE
Potential Use of Corn (Zea mays) Husk with Soy (Glycine max) Wax as Water Resistant Paper Bags	LAGUNA	Los Baños Senior High	JUEL THERESSE T. NATIVIDAD	GLADYS A. LAMBAYONG	1st
PeaSole: (Arachis hypogaea) Peanut Hull as an Insulating Material for Footwear	CALAMBA CITY	Calamba City Science Integrated School	THESSA M. TUAZON	ROWENA L. ACOSTA	2nd
Detection of Rice Plant Stem Borer (Scirpophaga incertulas) Egg Mass through Python-based Image Processing	TAYABAS	Luis Palad Integrated High School	KOBE JAMES L. SAYAT	LADESSA R. PADUA	3rd
Synthesis and Characterization of Natural Threads Derived from Paragis Grass (Eleusine indica) Incorporated with Cotton Fiber	CAVITE PROVINCE	Angelo L. Loyola Senior High School	FRANZIS GLENN L. BAUTISTA	RYAN S. CUTAMORA JENILY T. RODRIGUEZ	4th

Team Category

PROJECT TITLE	SDO	SCHOOL	STUDENTS	COACH	PLACE
Photocatalytic Degradation of Rhodamine B Dye Using Hydroxyapatite Particles Derived from Blue Swimming Crab (Portunus pelagicus) Carapaces	CAVITE PROVINCE	Angelo L. Loyola Senior High School	MA. ANTHONETTE H. VERGARA, DWAYNE KEITH M. MAQUINAY, JUSTIN ANDREW A. REMOLIN	RYAN S. CUTAMORA	1st
Application of <i>Theobroma cacao</i> L. (Cacao) Pod Husk Fibers Packed in Nylon Nets as Eco-friendly Sorbent for Oil Sorption	BACOR CITY	SHS in San Nicholas III,	JAMES NIEKCO R. JIMENEZ, ALLENA L. FLORES, ANJON-LORES E. CAÑARES	ELARCIE BALSOMO	2nd
Adsorption of Acetic Acid from Aqueous Solution Using Spent Coffee Grounds Activated Carbon (SCGAC)	ANTIPOLO CITY	Antipolo City National Science and Technology High School	PAOLO MIGUEL M. CABUGOY VALERY KEN C. CAÑEGA ABCDEF JAY M. CERDA	LEAH B. JUNTADO	3rd

Enclosure No. 3. Regional Winners for Tuklas Mathematics and Computational Science Category

Individual Category

PROJECT TITLE	SDO	SCHOOL	STUDENTS	COACH	PLACE
Mathematical Models for Determining Reverberation Time of Acoustic Panels Made from Sugarcane (Saccharum Officinarum) Bagasse Integrated With Selected Recyclable Materials	CAVITE PROVINCE	Angelo L. Loyola Senior High School	PRINCESS AMIDHALA P. VALERIO	RYAN S. CUTAMORA	1st
Task & Focus: Development of an Anti-Procrastination Productivity Application for Students' Academic Procrastination	IMUS CITY	General Emilio Aguinaldo National High School	JACOB AYDEN ANTHONY G. BAUTISTA	JUNIOR EMIL S. AQUINO	2nd
VISMAPS: An Application Software Utilizing Normalized Difference Vegetation Index Embedded with a Decision Support System in Monitoring and Predicting the Land Use Land Cover of Dagatan Lake Vicinity in Tayabas City	TAYABAS	Luis Palad Integrated High School	CARLOS MIGUEL P. ENRIQUEZ,	WILSON C. RAMOS	3rd

Team Category

PROJECT TITLE	SDO	SCHOOL	STUDENTS	COACH	PLACE
Precision Unleashed: Harnessing the Potential of Cas9 sgRNA Data for Cutting-Edge TP-53 Gene Therapy	BACOR CITY	Senior High School Within Bacoar Elementary School	MARIA FATIMA R. REYES, ELISE YVONNE MACABEO, CHARLIEMAGNE O. MORATALLA	MARLONE J. AREVALO	1st
MangoPro: Performance Analysis of MobileNetV2's Machine Learning for the Detection of Diseases in Mango (Mangifera indica L.)	RIZAL	Rizal National Science High School	ASHLEY CAYLE NINA T. CABIGAO, JOHN MARCK B. PALPAL-LATOC, GABRIEL ASHLY S. VELASCO	ROMULO B. ARADA JR.	2nd
Project CoR: An Innovative Mathematical Formula in Predicting Future Annual Values of Humidity, Temperature, and Rainfall in CALABARZON	CALAMBA	Calamba City Science Integrated School	ADRIEL RAFAEL D. CUENO, GERRAN O. HUESCA, ROWENA L. ACOSTA	JOSE GABRIEL M. PASUMBAL	3rd

Enclosure No. 4: Regional Winners for Tuklas Robotics and Intelligent Machines Category
INDIVIDUAL CATEGORY

PROJECT TITLE	SDO	SCHOOL	STUDENTS	COACH	PLACE
Automated Alcohol Misting and UV-C Light Sterilizing Robot for Efficient Room Sanitation	CABUYAO CITY	Cabuyao INHS	JON BENNET D. DEYTO	ANN ROSE H. DE LEON	1st
Ligtas: Life-Saving Intelligent Ground-Based Teleoperated Robot as Alert System	Batangas CIHS	BATANGAS CITY	SEAN CLEO G. ASI	WENA DELGADO	2nd
Distrite: A Device/System That Prioritizes The Person With Disabilities (PWD) And Senior Citizen's Rights	Calamba CSIHS	CALAMBA	ABDUL HAKIM M. ANGLI	ROWENA L. ACOSTA	3rd

TEAM CATEGORY

PROJECT TITLE	SDO	SCHOOL	STUDENTS	COACH	PLACE
DAGITAB: Arduino-Based Efficient Automatic Algae Harvester Utilizing Photosynthetic Electrons	CAVITE PROV.	Cavite SIHS	LANZ ANRIK S. CABALLERO, RENZ JARED G. ROLLE, GELO MARCO C. SISON	ELAIN E. MALONES	1st
Raspberry Pi-Embedded System Via Convolutional Neural Network (CNN) Model for Automated Detection of Eye Diseases	RIZAL PROV.	Rizal NSHS	CHYNNA NICOLE S. TRINIDAD, CHRISTOPHER M. PEREZ, FIDEL TYRON B. CENIDOZA	MARLON P. STA CATALINA	2nd
Agrosmartflow: Automated Soil Moisture-Based Irrigation and Soil Content Nutrition Management System	IMUS	Gen F. Yengko SHS	ANTHONY L. DORADO, CARLOS MIGUEL L. MOJADO, MABEL N. HORIONDO	REUBEN B. VERUNGQUE	3rd

Enclosure No. 5: Regional Winners for Science Innovation Expo**INDIVIDUAL CATEGORY**

PROJECT TITLE	SDO	SCHOOL	STUDENTS	COACH	PLACE
Mango Peels, Corn Husk and Peanut Shells as Torrefied Lignocellulosic Biomass for Solid Combustion Charcoal	CALAMBA CITY	Calamba SIS	RAFAEL LORENZO L. ORTIZ	ROWENA L. ACOSTA	1st
Raise: Routinized Arduino-Incorporated Solar Energy-Powered Kiln for Bamboo and Wood Drying	CAVITE PROV.	Cavite SIS	JULIA MARIE A. CLIMACOSA	ELAIN E. MALONES	2nd
Reels: Recognizing Glass Eels Via Convolution Neural Network-Based Automated System for Morphological Identification	RIZAL	Rizal SHS	JOHN BERNARD F. CALDERON	GALILEO C. GERVACIO	3rd

TEAM CATEGORY

PROJECT TITLE	SDO	SCHOOL	STUDENTS	COACH	PLACE
ASLG (Assistive Sign Language Gloves): An Innovative Hand Movement Transcriber Integrated with Mobile App for Verbal Communication and Language Translation	CAVITE PROV	Cavite SIS	MA. SOPHIA T. HERNANDEZ, YASHRYLL HAULEEN R. CETRO, PRINCESS MAE F. CATIBAYAN	ELAIN E. MALONES	1st
Sustainable Farming: Feasibility of Hydroponics With Multi-Purpose Free Energy Water Pump Integration	BATANGAS PROV	Calaca SHS	GENESIS M. DIMAILIG, KRISelda F. PEREZ, JAY ARCHRIS D. LAYLAY	KATRINE G. CAAG	2nd
Solar-Powered Mechanical Transplater	TAYABAS	Luis Palad IHS	LIANNE L. LIMYOCO ATHEENA LEONOR S. GAELA QUISHA JANE L. GALVAN	JOE VICTORIA B. DAELO	3rd