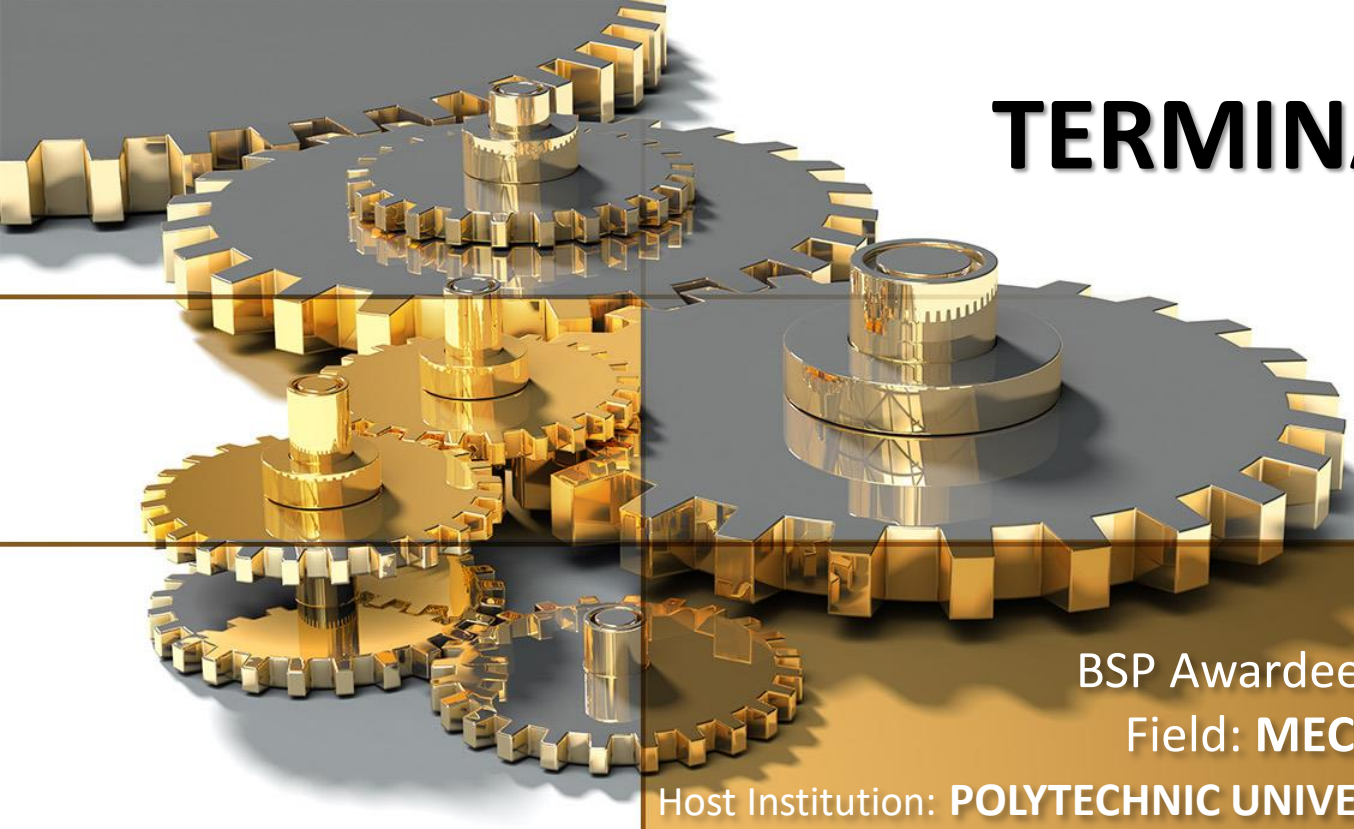


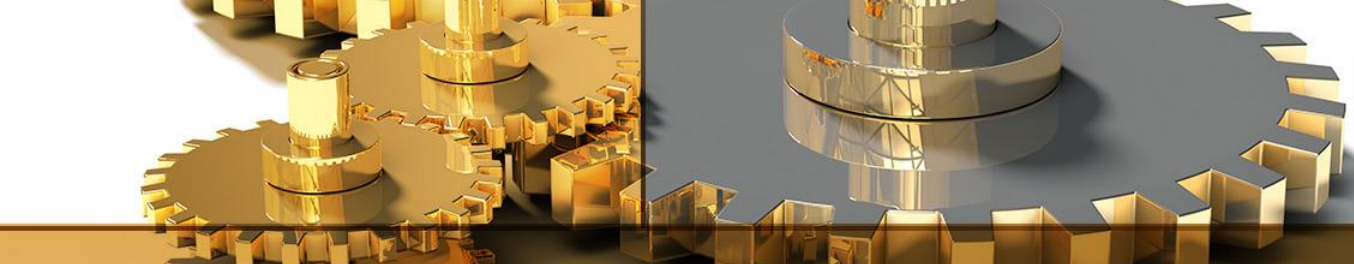
TERMINAL REPORT

BSP Awardee: **DR. GINNO L. ANDRES**

Field: **MECHANICAL ENGINEERING**

Host Institution: **POLYTECHNIC UNIVERSITY OF THE PHILIPPINES**

Duration: **MAY 2018 – MAY 2020 (2 YEARS)**



NATURE OF THE PROBLEM

Polytechnic University of the Philippines is aiming to strengthen the College of Engineering (CoE) research and academic capabilities. As of this time, there are only few doctoral degree holders in Engineering at PUP.

In support to the conduct of research projects and to further enable the researchers of the University on science, technology, engineering and environment, engaging highly qualified experts such as Balik Scientists in the field of research is deemed important. Dr. Ginno Lizano Andres pioneered, conceptualized and spearheaded the Capacitive Deionization research in the Combustion Laboratory at the Ritsumeikan University, Shiga Japan. Ritsumeikan University is one of the top private universities in Japan that is known to pursue research and education “beyond borders”. In his stint as Long-Term Balik Scientist of the Polytechnic University of the Philippines he pioneered Mechanical Engineering researches such as: Capacitive Deionization, Air Quality Monitoring System, Vertical Axis Wind Turbine with Earthquake Alarm System, Photobioreactor, and Novel Material as Anode and Cathode for Power Generator Aluminum Air Reactor. He also submitted numerous proposals in which five (5) of those were approved and given funding.

RATIONALE

Currently, Dr. Ginno L. Andres holds several designations namely; Director of the PUP Intellectual Property Management Office , Program Chair of Doctor of Engineering in Engineering Management, Chief of the Center for Engineering and Technology Research, Project Leader of Novel Material as Anode and Cathode for Power Generator Aluminum Air Reactor research worth 10.3 Million pesos, Project Leader of CHED funded projects such as: PUP Mechanical Engineering Fabrication Laboratory and PUP Advanced Technological Training Center to ready Engineering Students for Industry 4.0 having 12 Million pesos and 10 Million pesos funding, respectively. Dr. Ginno L. Andres is now passionate in assisting PUP to translate innovative researches into commercially viable products.

Reason that the Expert was chosen to work on the identified problem

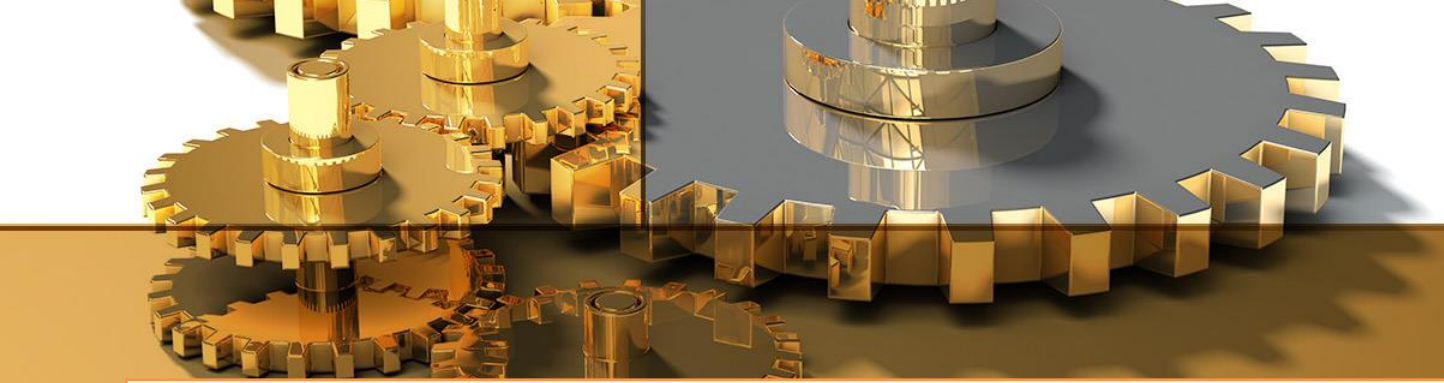
Dr. Ginno L. Andres obtained both of his Master and Doctor of Engineering degrees at the Ritsumeikan University, Japan.

Ritsumeikan University is one of the top private universities in Japan, that is known to pursue research and education “Beyond Borders”.

Dr. Andres pioneered, conceptualized, and spearheaded the research about ***Capacitive Deionization Technology*** in their laboratory. His research through his professor and industrial collaborators has gained more attention and well-funded.

He developed a ***carbon electrode using inexpensive activated charcoal powder***. Designed and constructed a ***Capacitive Deionizer stack system*** for treatment of rinsed water of the incineration ash.

At present, he is one of the Associate Professors of the undergraduate and graduate engineering students in Polytechnic University of the Philippines. He also supervises funded researches, and guides PUP research projects toward commercialization.

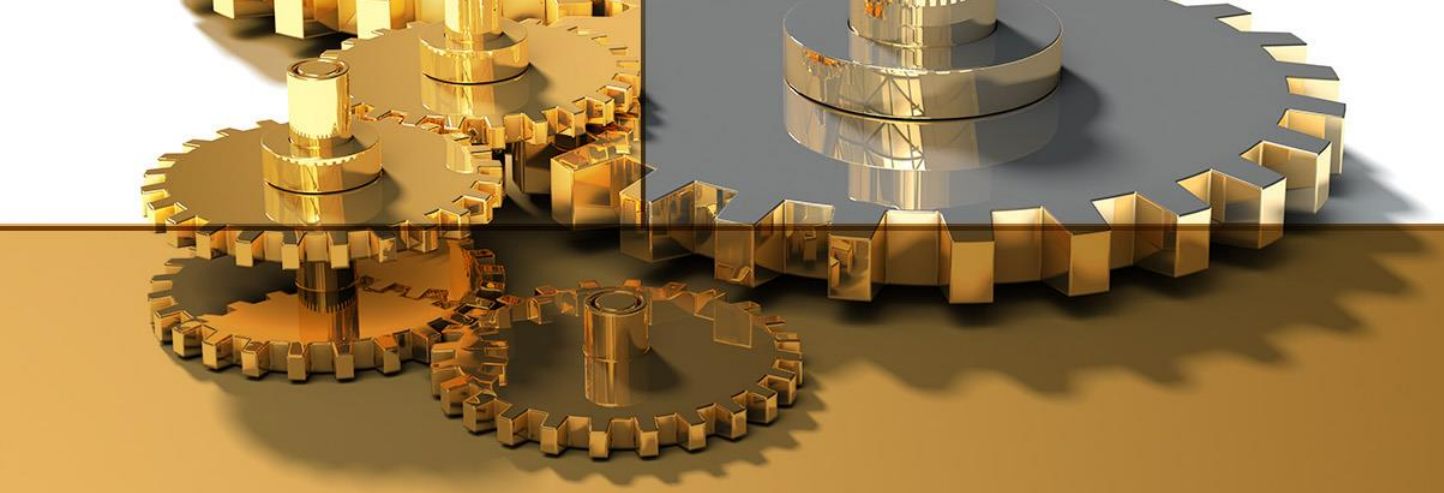


HONORS RECEIVED

Honors/Awards Received	Institution/Address
DOST-Balik Scientist Long Term	Polytechnic University of the Philippines
DOST-Balik Scientist Short Term	Isabela State University and Nueva Vizcaya State University
DOST-Balik Scientist Short Term	Batangas State University and Isabela State University
Outstanding Faculty SY 2018	Polytechnic University of the Philippines
Outstanding Faculty SY 2019	Polytechnic University of the Philippines

POSITIONS / DESIGNATIONS OF DR. GINNO L. ANDRES AS OF 2021

1. Director, PUP Intellectual Property Management Office
2. Chief, Center for Engineering and Technology Research, Institute for Science and Technology Research
3. Chairperson, Doctor of Engineering in Engineering Management Program, Institute of Open and Distance Education PUP Open University System
4. Project Leader, Novel Material as Anode and Cathode Electrode for High Power Generator Al-Air Reactor
5. Co-implementor Project Leader, Scoping Study to Identify Key Environmental Problems of Industries in Valenzuela City
6. MMIEERDC Research Committee Deputy Chairperson



ACTIVITIES CONDUCTED

GINNO L. ANDRES

BALIK SCIENTIST

2018 - 2020

MARCH 2018 ORGANIZED MECHANICAL ENGINEERING RESEARCH EXHIBIT

Development of Vertical-Axis Wind Turbine for Powering Street Lights

J. E. **Cariño**, R. S. **De Jesus**, M. A. **De Luna**, T. B. **Malicdem** and W. R. **Oliva**
Department of Mechanical Engineering
Email: *ginnoandres@gmail.com*

Vertical-axis wind turbine (VAWT) system having a simple and stable structure in comparison with the horizontal-axis wind turbine (HAWT) system was investigated. We modelled four virtual rotor models: two-bladed Savonius, modified two-bladed Savonius, three-bladed Savonius, and three-bladed airfoil. For the fairness of the analysis, the four rotor models were dimensioned with the same rotor swept area. The Savonius and airfoiled rotor models have a semicircle and NACA 0018 profile, respectively. We analyzed the pressure variation of these four rotor models at different angles of attack using a wind tunnel simulation software. The three-bladed airfoiled rotor was found to have a positive net rotation effect at almost every angle of attack.

For the construction of the prototype, we used Hot-Wire cutting process to cut three blades out of the Styrofoam blank. We used the NACA 0018 airfoil profile for the blades with a chord length of 4 inches and length of 12 inches. The material used for the spokes was foam with a thickness of 5/16 inch. The spokes were cut to a shape that can hold the blades and the locking mechanism with the least foam material. The axial-flux generator system was used for the conversion of rotational mechanical energy of the VAWT rotor into electrical energy.

The axial-flux generator suited the unique physical construction of the vertical-axis wind turbine system, thus, eliminating the gearing mechanism if a radial-flux type of generator was used instead. The generator system comprised of 12 neodymium magnets for the rotor and 90 turns of gage-30 magnetic wire for the stator. The generator produces a single-phase AC voltage.

In the Philippines, remote areas don't have access to electricity, especially those in the southern Philippine islands. In a country of more than 7, 600 islands, provision of on-grid electricity is challenging and expensive. Without access to electricity, there will be no available street lights; hence, people suffer walking in a dark path every day when going home from school or work. To aid this problem, some of the public and private institutions provided street lights powered by solar panels. The problems arising from this method are: solar panel cannot generate electricity during the night and when it is cloudy; and that maximum efficiency can only be achieved if the solar panel faces the sunlight. Even though the solar panel method works and is already in used, the use of VAWT for powering street light can do the job anytime of the day and in any wind direction.

APRIL 2018 DOST RESEARCH PROPOSAL GC DEFENSE


PCIEERD
MMIEERDC
DOST-NCR
SIGNING OF THE
MEMORANDUM OF AGREEMENT
HOTEL JEN, MANILA
JULY 11, 2018


PCIEERD
MMIEERDC
DOST-NCR
SIGNING OF THE

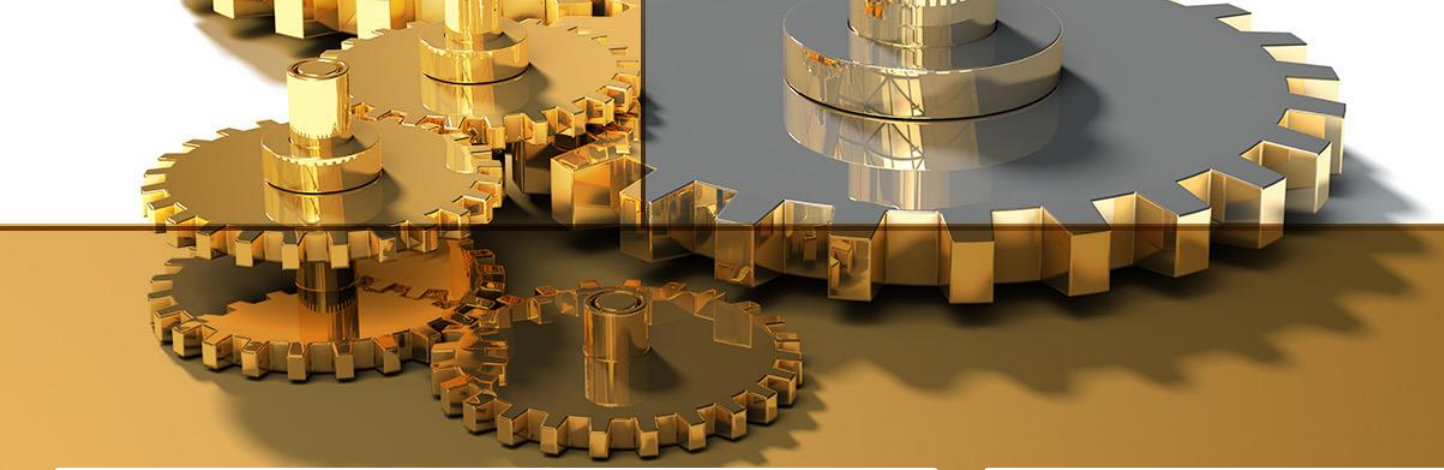
2018 ACTIVITIES

MMIEERDC GENERAL ASSEMBLY MEETING

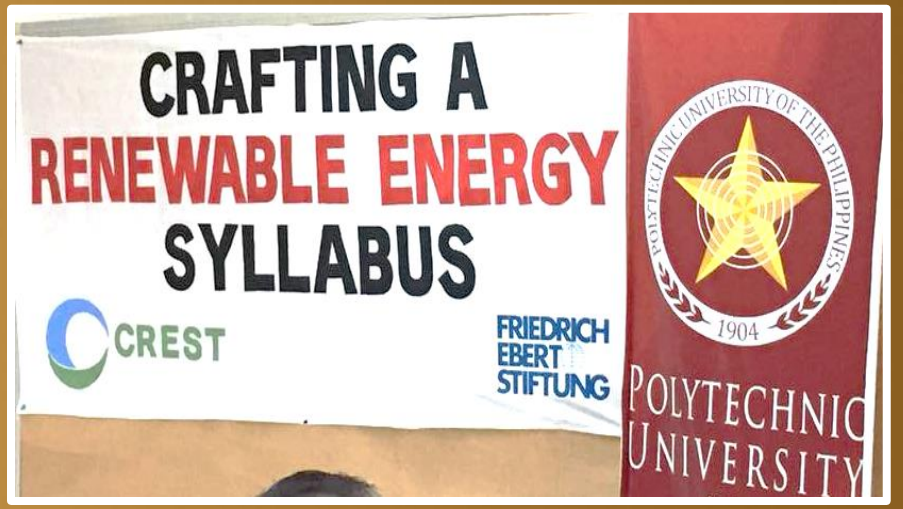

METROPOLITAN MANILA
INDUSTRY, ENERGY, AND EMERGING TECHNOLOGY
RESEARCH AND DEVELOPMENT CONSORTIUM
YEAR-END ASSESSMENT
DAYS HOTEL, TAGAYTAY
15-16 NOVEMBER 2018


JOCELYN R. MORENO
EARIST


ENGR. GUILLERMO O. BERNAB
Polytechnic University of the Philippines
DR. GINNO L. ANDRES
Polytechnic University of the Philippin




CRAFTING A


CRAFTING A
RENEWABLE ENERGY
SYLLABUS
CREST
FRIEDRICH
EBERT
STIFTUNG
POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
1904
POLYTECHNIC
UNIVERSITY

2018 ACTIVITIES
MMIEERDC PROPOSAL WRITESHOP
May 21-22, 2018

MMIEERDC 2nd Proposal Workshop and Packaging

NUCLEAR ENGINEERING COURSE AT PNRI

2018 ACTIVITIES STRATEGIC PLANNING WORKSHOP

Output

MMIEERDC R&D priorities for 2018-2022

MMIEERDC Operations Manual

Activities for year 2018

The 4th Annual Balik Scientist Program Convention

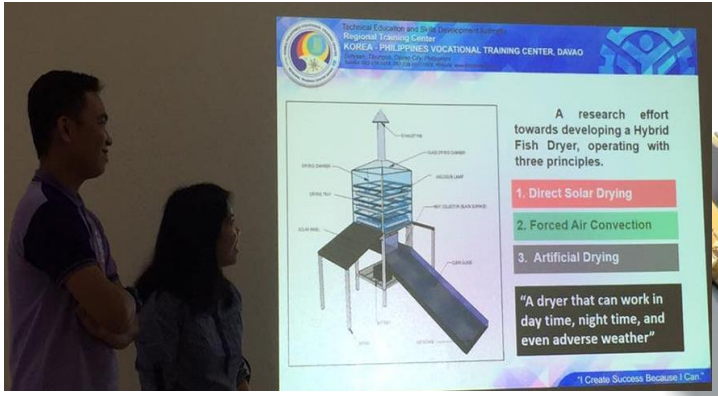
National Science and Technology Week 2018

PROPOSAL WRITESHOP at Marikina Polytechnic College


METROPOLITAN MANILA
INDUSTRY, ENERGY, AND EMERGING TECHNOLOGY
RESEARCH AND DEVELOPMENT CONSORTIUM
YEAR-END ASSESSMENT
DAYS HOTEL, TAGAYTAY
15-16 NOVEMBER 2018


Committee Activity Plan

Technology Research in Aid of Mock-up Development to Enhance Instruction Delivery – TESDA (Extension)



College of Engineering Extension Program 2018

PCIEERD-National Consortium Convention 2018

2018 Proposals (PCARRD, ukri)

Submitted CHED Newton Fund
Leveraging smart infrastructure innovations to achieve safe, smart sustainable management of road networks in the Philippines
Project Leader Aziz Zeeshan (Salford University, UK), Manuel M. Muhi (PUP)

Newton Fund Institutional Links Grants – Application (2018 IL7 – April)

Ginno Andres <ginnoandres@gmail.com>

Working Title: Leveraging Smart Infrastructure Innovations to achieve Safe, Smart and Sustainable Management of Road Networks in the Philippines
Duration of Collaboration: 12 Months
Proposed Start Date: Feb 2019
Total Value of Grant Requested: Feb 2020
UK principal applicant name and title: Dr Zeeshan Aziz
UK principal applicant gender: Male
UK lead institution: The University of Salford, Manchester
Formal legal description of contracting entitle including registered office address
Partner country : Philippines
Partner country principal applicant name and title: Dr Manuel M. Muhi
Partner country principal applicant gender: Male
Partner country lead institution: Polytechnic University of the Philippines

1. Proposal Summary

Please give a short summary in plain English	v1

Co-proponent for PCAARD proposal on food safety technology

SMART TRANSPORTATION SYSTEM AND ASSET MANAGEMENT

December 20, 2018

Dr. Andres Lizano
Mechanical Engineering Department
Polytechnic University of the Philippines

Dear Dr. Lizano,

Congratulations!

Your application has been selected for the 5-day research workshop on **Smart Transport System and Asset Management** happening at **Century Park Hotel** in Manila, from **January 14 to 18, 2019.** In this workshop, 20 selected scholars from the Philippines and 20 selected scholars in the UK will gather to discuss current trends in research and solutions from industry. During this workshop, you will be provided free hotel accommodation at Century Park Hotel from Sunday, January 13, to Friday, January 18. We will be utilizing twin room sharing, and each participant will be paired with another participant. We will also be covering your transportation expenses and airfare going to and from the venue.

Regarding meals, breakfast will be complimentary at the hotel, while lunch will be served at the meeting venue every day. There will be a welcome dinner on Monday, January 14, and there will be a group dinner in Tagaytay on Wednesday, January 16. The participants will each be provided a 500 PhP allowance for Tuesday, Thursday and Friday dinner.

Upon receipt of this letter, please kindly email your confirmation to Dr. Neil Lopez (neil.lopez@dlsu.edu.ph) and Ms. Kriezl Esurena (kriezl.esurena@dlsu.edu.ph). In your confirmation email, please provide us an estimate and breakdown of your transportation expenses going to and from the workshop venue so we can prepare your reimbursement. We can reimburse for fuel, toll, bus, taxi and other public transport expenses. Please submit official receipts on January 14 to receive your reimbursement. Kindly provide your FULL NAME in the email for preparation of reimbursement.

Again, congratulations and looking forward to your participation in the meeting!

Yours truly,

Dr. Jose Bienvenido Manuel Biona
Full Professor, Mechanical Engineering Department
Director, Center for Engineering and Sustainable Development Research, De La Salle University

NRCP ANNUAL SCIENTIFIC CONFERENCE AND 86TH GENERAL MEMBERSHIP ASSEMBLY WITH THE THEME “HUMANIZING THE FOURTH INDUSTRIAL REVOLUTION”

TACKLING THE CHALLENGES OF URBAN AIR POLLUTION LINKING RESEARCH AND POLICY FOR AIR QUALITY IMPROVEMENT

2019 DOST visit, meeting, proposal evaluation

SHELL ECO MARATHON 2019

LAKBAY-ARAL 2019

UNIVERSITY 4.0 “Ushering in the New Age of Enlightenment and Collaboration in the Philippine R&D”

TRAINING SEMINAR ON INTELLECTUAL PROPERTY AWARENESS, TECHNOLOGY TRANSFER AND COMMERCIALIZATION

SEMINAR ON "BUILDING SUC'S INNOVATION ECOSYSTEM"

5TH ANNUAL BALIK SCIENTIST PROGRAM CONVENTION WITH THE THEME, “BALIK SCIENTISTS: INNOVATORS FOR SUSTAINABLE DEVELOPMENT”

SOLAR LAMP AND ECOBRICKS MAKING FOR THE LOCAL GOVERNMENT UNITS AND VOLUNTEERS IN THE PROVINCE OF SORSOGON CUM SEMINAR ON ENVIRONMENT AND RENEWABLE ENERGY

MMIEERDC GENERAL ASSEMBLY MEETING

CAPABILITY AWARENESS ON INTELLECTUAL PROPERTY, TECHNOLOGY TRANSFER AND COMMERCIALIZATION

CO-ORGANIZED LECTURE SEMINAR –THE BIG ONE VALLEY FAULT SYSTEM IN METRO MANILA.

CO-ORGANIZED – 2019 BEST UNDERGRADUATE THESIS COMPETITION FOR SCIENCE AND TECHNOLOGY

CO-ORGANIZED – INTERNATIONAL SCIENCE AND TECHNOLOGY CONFERENCE 2019

PUP GRADUATE SCHOOL OPEN UNIVERSITY-PANEL OF EVALUATOR

PUP COLLEGE OF ENGINEERING, DEPARTMENT OF MECHANICAL ENGINEERING- PANEL OF EVALUATOR

ISTEC 2019 – PRECONFERENCE -PAPER REVIEWER

DOST-PCIEERD PROJECT PROPOSAL
TECHNICAL PANEL EVALUATOR


CORES MMXX
COMPUTER RESEARCH AND ENGINEERING SYMPOSIUM
The Technological Eureka: Explicating Opportunities and Igniting Ingenuity
February 5-8, 2020

Other 2019 Accomplishments

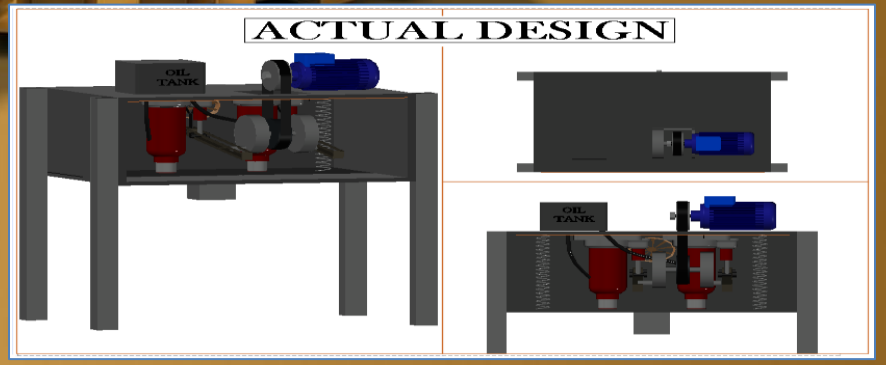
- 4th NATIONAL RESEARCH AND DEVELOPMENT CONFERENCE (NRDC)
- SEMINAR WORKSHOP ON RESEARCH UPGRADING AND PERFORMANCE EVALUATION: STRENGTHENING THE SCIENTIFIC FOUNDATION
- DOST-PCIEERD 93RD GOVERNING COUNCIL MEETING
- ERDT MEETING WITH DOST-ERDT OFFICIALS
- 2019 ANNUAL PAASE & SYMPOSIUM
- PCAARRD ANNIVERSARY MEETING
- PRESENTED DOST PROJECT PROPOSAL FOR TECHNICAL PANEL EVALUATION AND DEMONSTRATION
- 41ST ANNUAL SCIENTIFIC MEETING
- NATIONAL SCIENCE AND TECHNOLOGY WEEK 2019
- RENEWABLE ENERGY ACADEMY WORKSHOP
- CONSULTATIVE MEETING ON RESEARCH ON ADVANCED PROTOTYPING FOR PRODUCT INNOVATION AND DEVELOPMENT USING ADDITIVE MANUFACTURING TECHNOLOGIES (RAPPID-ADMATEC)
- 2019 ANNUAL INNOVATION AND TECHNOLOGY SUPPORT OFFICE (ITSO) PLANNING

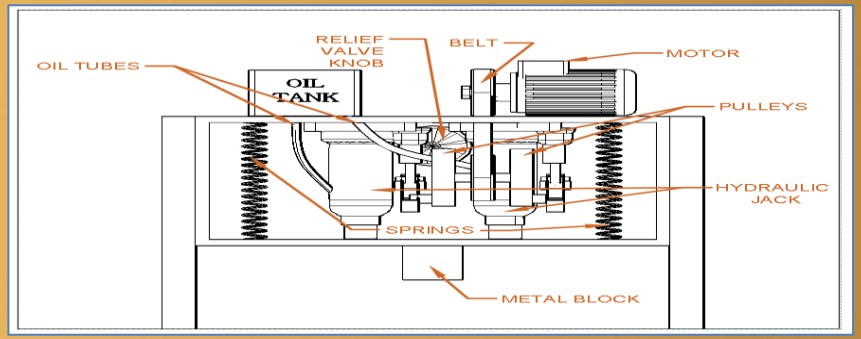
Other 2019 Accomplishments

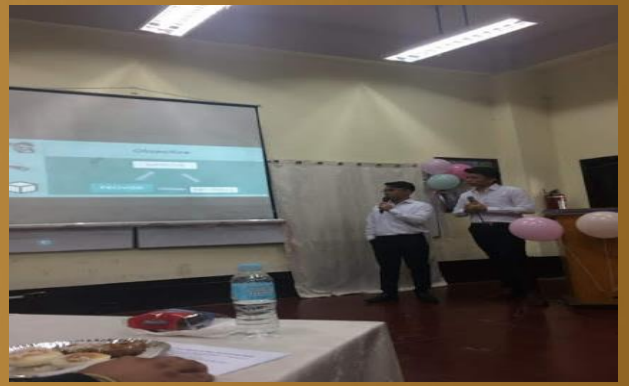
- MEETING ON THE POSSIBLE CREATION OF CENTERS ON ENERGY STORAGE IN TECHNOLOGICAL INSTITUTE OF THE PHILIPPINES AND POLYTECHNIC UNIVERSITY OF THE PHILIPPINES UNDER NICER- DEPARTMENT OF SCIENCE AND TECHNOLOGY
- DESIGN THINKING AND RESEARCH PROPOSAL WRITING
- IDEATION AND PROJECT DESIGN WORKSHOP FOR INDUSTRY LEADERS AND ACADEME RESEARCHERS
- WORKSHOP ON THE PROJECT PROPOSALS ON INFORMATION AND ENGINEERING TECHNOLOGY
- IP AWARENESS AND COMMERCIALIZATION OF RESEARCH
- SEMINAR ON INTELLECTUAL PROPERTY AWARENESS AND COMMERCIALIZATION OF RESEARCH
- 2019 YEAR END ASSESSMENT, PLANNING GAD-THEMED TEAMBUILDING
- CO-ORGANIZED LECTURE SEMINAR – SYNCHROTON AND X-RAY FREE ELECTRON FACILITIES: BIG COLLABORATIVE SCIENCE IN THE DIFFRACTION LIMIT SCALE

2019 ON-GOING RESEARCH ACTIVITIES and EXPERT RESEARCH SERVICES

SEMI-AUTOMATIC TIME EFFICIENT SALT BLOCK MANUFACTURING SYSTEM







LOW-COST GEOPHYSICAL RESISTIVITY DEVICE

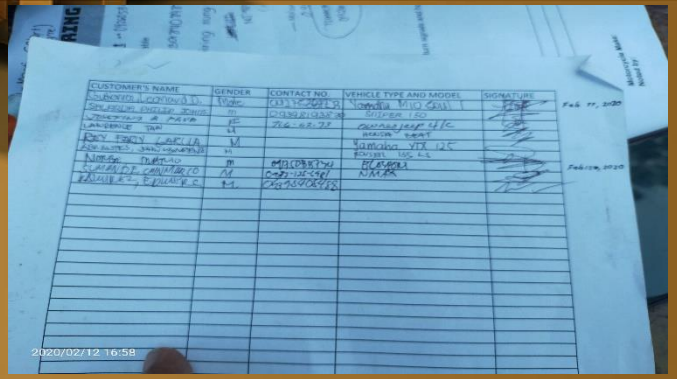
CYLINDRICAL SCREW-TYPE GRAIN DRYER DESIGN AND FABRICATION OF SNAKE ROBOT FOR POSSIBLE APPLICATION FOR SEARCH, SURVEY AND INSPECTION

FABRICATION OF A NOVEL MATERIAL AS ANODE AND CATHODE ELECTRODES FOR HIGH POWER AL-AIR BATTERY GENERATOR

2019 ON-GOING RESEARCH ACTIVITIES and EXPERT RESEARCH SERVICES

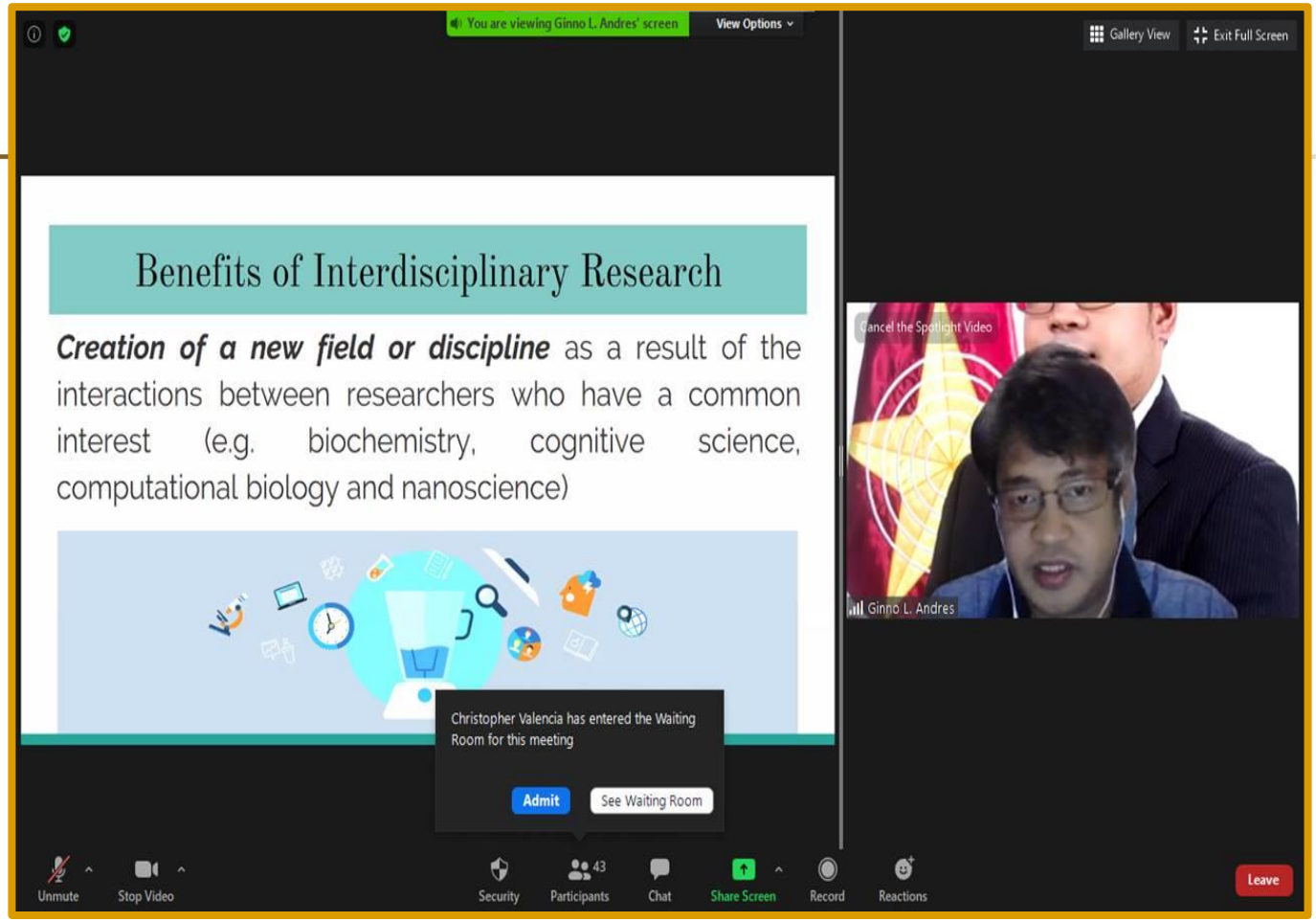
- LIGHT WEIGHT BELT CONVEYOR CARRIER FOR MECHANIZED SALT HARVESTING
- UTILIZATION AND PROTOTYPING OF VERTICAL-AXIS WIND TURBINE (VAWT) AND SOLAR ENERGY TO POWER STREET LIGHT EQUIPPED WITH EARTHQUAKE ALARM SYSTEM
- HHO-GENERATOR: AN EXPERIMENTAL STUDY ON THE EFFECTIVITY OF ELECTROLYTE SOLUTION AND NUMBER OF CELL IN HYDROGEN PRODUCTION
- ENERGY GENERATING-STEPS: PIEZOELECTRIC TRANSDUCERS AS A SOURCE OF ELECTRIC POWER

Mechanical Engineering Extension Project: Automotive and Motorcycle Preventive Maintenance Service



2020 National Innovation Contest and Exhibit

The Art of Success "SUC Expo 2020"


You are viewing Ginno L. Andres' screen
View Options
Gallery View
Exit Full Screen
Benefits of Interdisciplinary Research
Creation of a new field or discipline as a result of the interactions between researchers who have a common interest (e.g. biochemistry, cognitive science, computational biology and nanoscience)
Cancel the Spotlight Video
Ginno L. Andres
Christopher Valencia has entered the Waiting Room for this meeting
Admit
See Waiting Room
Unmute
Stop Video
Security
Participants
43
Chat
Share Screen
Record
Reactions
Leave


OPPO F11 Pro

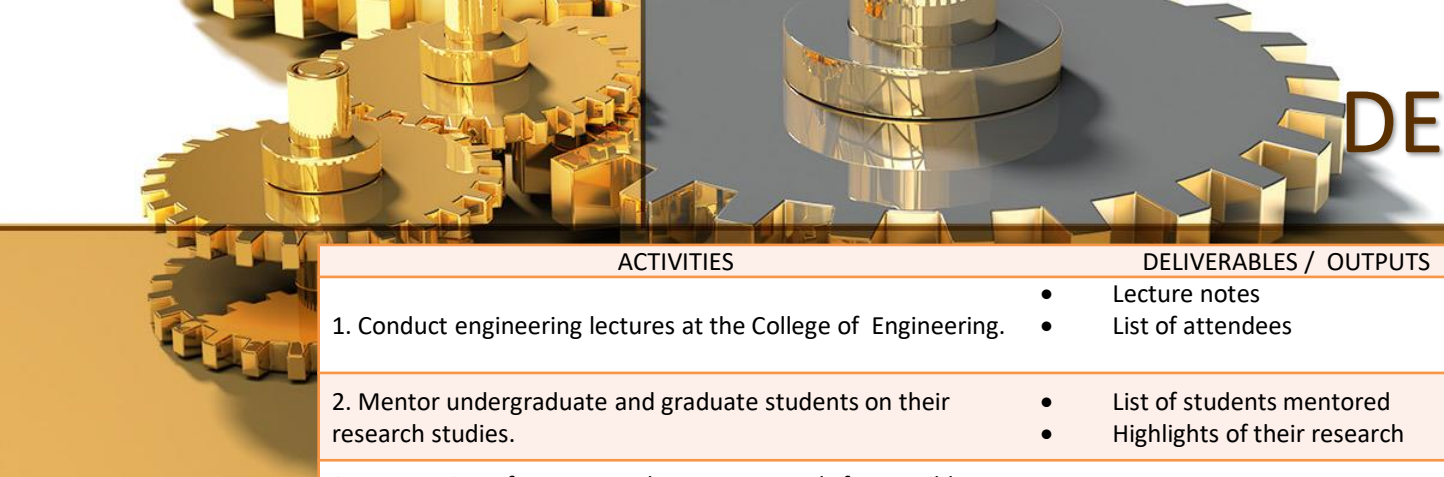

PUP Team Kontra COVID19
"Face Shield mula sa PUP
para sa Bayan"


BRGY. 635


OPPO F11 Pro

Other 2020 Accomplishments

- Public Consultations NCR Cluster on Draft Guidelines of RA11312
- Memorandum of Agreement with Intellectual Property Office of Philippines
- MOA signing with the ITSO-IPOPHL
- Memorandum of Agreement for Research Collaboration between PUP Mechanical Engineering Department and Advance Manufacturing Center (AMCen)-DOST



DELIVERABLES

ACTIVITIES	DELIVERABLES / OUTPUTS
1. Conduct engineering lectures at the College of Engineering.	• Lecture notes • List of attendees
2. Mentor undergraduate and graduate students on their research studies.	• List of students mentored • Highlights of their research
3. Preparation of two research grant proposals for possible funding from the DOST and other funding institutions.	• Packaged research project proposal/s ready for submission to DOST-PCIEERD
4. Collaborate with Ritsumeikan University for future researches	• Research Plan
5. Fabricate capacitive deionization electrode suitable for waste-water from the industries.	• Manuscript / patent
6. Test suitability and characteristics of different charcoal sources as activated carbon raw material.	• Manuscript / patent / final product
7. Provide technical assistance to Engineering laboratories of PUP.	• Consultation report
8. Coordinate with other HEIs in the Philippines and other researchers from PUP for research collaborations.	• Research Plan
9. Conduct study on the fabrication and assembly of high efficiency photovoltaic cells.	• Manuscript

1. Conduct engineering lectures at the College of Engineering

2. Mentor undergraduate and graduate students on their research study.

3. Preparation of two research grant proposals for possible funding from the DOST and other funding institutions

CHED Institutional Grants 2:34 PM (7 hours ago)

to me

Dear Sir,

Please note that your MOA for the project enittled: **The PUP Mechanical Engineering Advanced Fabrication Laboratory and Training Center to Support Innovative Student Inventions and Cater SME's** is at OC for signature.

Upon checking with our accounting office, as of May 27, 2020 PUP has the following ageing accounts under GAA which need to be settled ASAP.
Furthermore, we cannot release the funds for your project unless the listed amounts have been liquidated.

20,222,746.13 (>2 years overdue)
746,391.40 (>2 years overdue)

Please coordinate with our accounting office, the details and liquidation of the said amount at **8441-1232.**
Don't forget to send us the proof of liquidation.
As per our chief kindly give us feedback by **June 11, 2020.**

For clarification, you may reach Ms. CJ Arellano at 09451261387.
Thank you and keep safe.

Proposals Submitted for Research Funding/Grant

1. Novel Material as Anode and Cathode Electrode for High Power Generator A-Air Reactor (Received Funding-DOST)
2. The PUP Mechanical Engineering Advanced Fabrication Laboratory and Training Center to Support Innovative Students Inventions (Approved Funding-CHED)
3. Scoping Study to Identify Key Environmental Problems of Industries in Valenzuela City (Received Funding-DOST)
4. Proposed Energy Storage Testing Center at Polytechnic University of the Philippines-Manila (Submitted to DOST)
5. Establishment of Technology Business Incubator at the Polytechnic University-Manila to support Research Outputs Start-ups (Submitted to CHED)

Proposals Submitted for Research Funding/Grant

6. Microalgae as Potential Source of Biofuel: Design and Fabrication of an Automatic Photobioreactor System (Received Funding-PUP IRG)
7. 3D Printing Fabrication Laboratory to augment on Mass Production of Personal Protective Equipment (PPEs) for Philippines' Frontliners (Submitted to CHED)
8. Project AEGIS: Allied Equipment for Guaranteed Increase Security, A response project to help lift the health and security during COVID-19 pandemic (Received Funding-SMART Innovation Generation Grant)
9. Development of a Smart Assessment System for Unreinforced Historical Buildings using 3D Terrestrial Laser Scanning (3D-TLS) (Submitted to DOST)
10. The PUP Mechanical Engineering Advanced Technological Training Center to ready students for Industry 4.0 (Approved Funding-CHED)

Proposals Submitted for Research Funding/Grant

11. Establishment of Environmental Technologies for Sustainable Industry (NICER DOST)

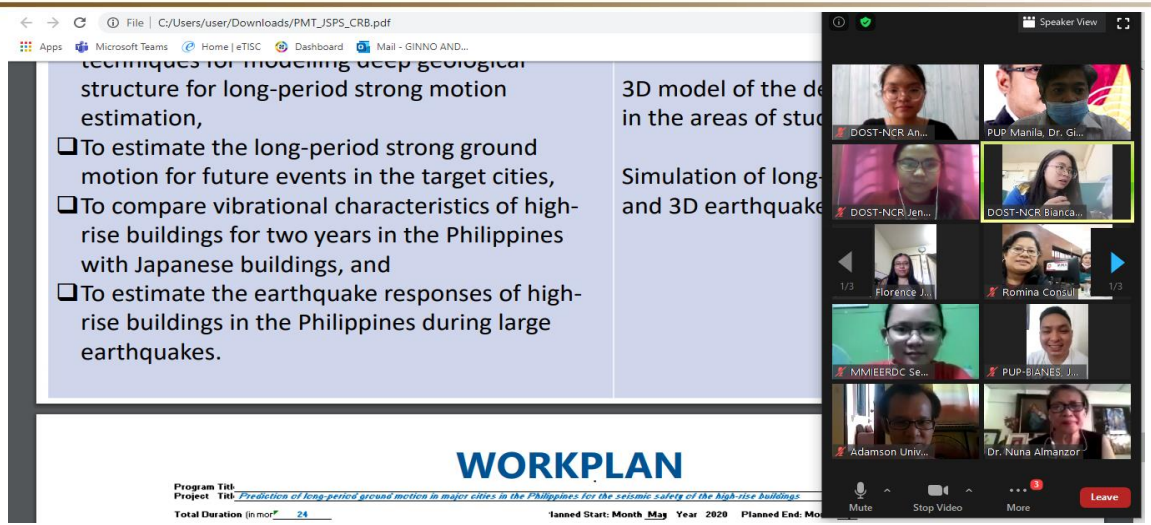
12. Leveraging smart infrastructure innovations to achieve safe, smart sustainable management of road networks in the Philippines (CHED Newton Fund)

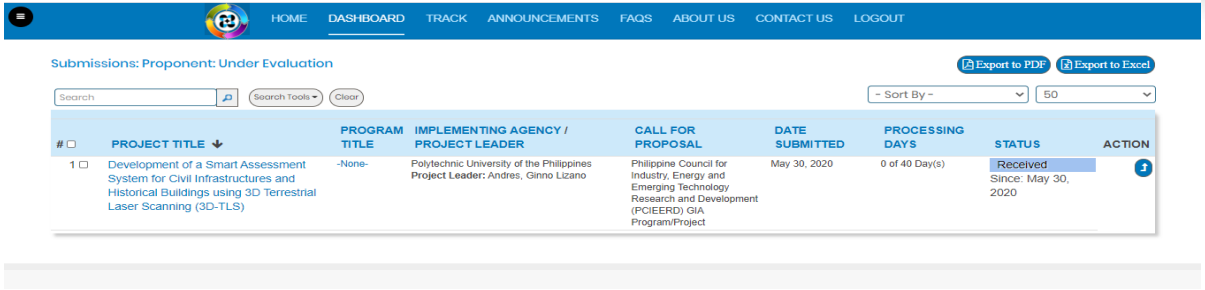
13. (PCAARD)

14. (UKRI)

15. Microplastics (PCIEERD)

4. Coordinate with other HEIs in the Philippines and other researchers in PUP for research collaborations





5. Collaborate with Ritsumeikan University for future researches

YOSHIHARA YOSHINOBU <yoshi@se.ritsumei.ac.jp>
to me

Dear Dr. Ginno L. Andres,

Thank you for your letter.
I am very pleased to hear that you are working hard at your home university.
My lab is also researching aluminum-air batteries, so it might be helpful for your research starting.
If you want to contact Dainen Co. about activated carbon immediately, I will ask Dainen to contact you directly.
Please let me know if you have a schedule to come to Japan. I look forward to seeing you.

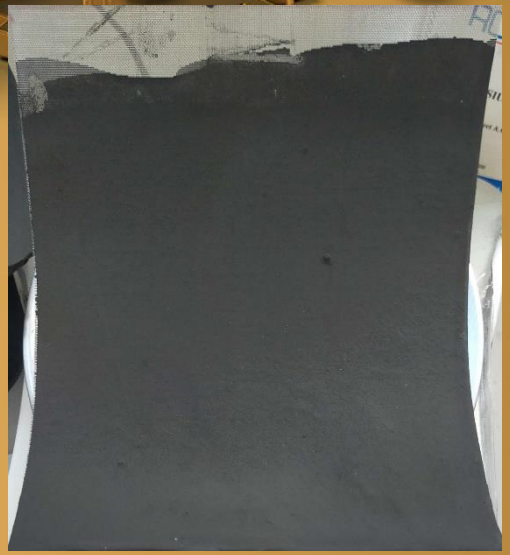
_/

Yoshinobu Yoshihara
Department of Mechanical Engineering
Faculty of Science & Engineering
Ritsumeikan University
1-1-1 Nojihigashi, Kusatsu, Shiga 525-8577, Japan
Tel. +81-77-561-2748
Fax:+81-77-561-2665
e-mail : yoshi@se.ritsumei.ac.jp

_/

6. Fabricate capacitive deionization electrode suitable for waste water from the industries

7. Test suitability and characteristics of different charcoal sources as activated carbon raw material



8. Provide technical assistance to Engineering laboratories at PUP

9. Conduct study on the fabrication and assembly of a high efficiency photo voltaic cells


TRAINING SEMINAR ON
INTELLECTUAL PROPERTY AWARENESS
TECHNOLOGY TRANSFER and
COMMERCIALIZATION
HUAWEI P30 lite
TRIPLE CAMERA


HUAWEI P30 lite
TRIPLE CAMERA

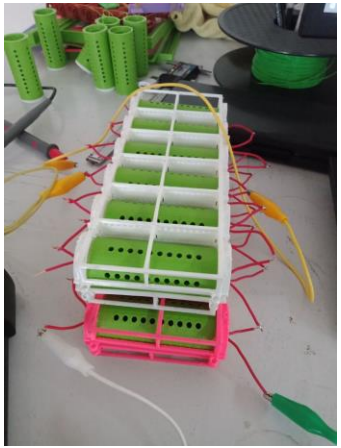

FILWIN Awardee

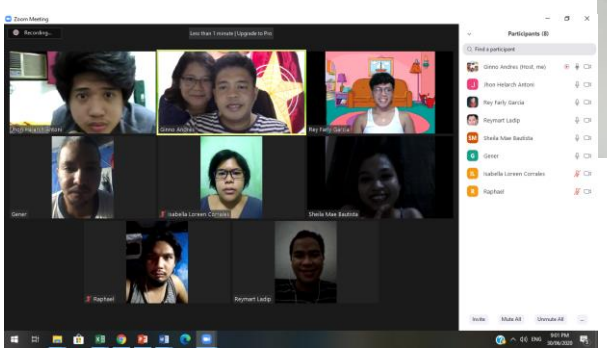

3rd Place
C.I.D.
Chemical Inspecting Device
OPPO A9 2020


University of the Philippines
College of Engineering
UPC 2018
FINAL JUDGING
Oral Presentation
01 June 2018
9 am to 12 nn

SEVEN (7) APPROVED PROJECTS

1. Novel Material as Anode and Cathode Electrode for High Power Generator A-Air Reactor Year 1 (Received Funding-DOST)





Republic of the Philippines
Department of Science and Technology
PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND EMERGING TECHNOLOGY RESEARCH AND DEVELOPMENT (PCIEERD)

08 October 2020

DR. MANUEL M. MUHI
President
Polytechnic University of the Philippines
2nd Floor South Wing PUP A., Mabini Campus
Anona Street, Sta. Mesa Manila

Attn: ***Dr. Ginno L. Andres***
Project Leader

Dear ***President De Guzman:***

This refers to the Year 2 Renewal of the PCIEERD-GIA funded project titled ***"NOVEL MATERIAL AS ANODE AND CATHODE ELECTRODE FOR POWER GENERATOR AL-AIR REACTOR"*** which was approved by the PCIEERD Governing Council (GC) in its meeting 23 September 2020.

We confirm the Year 2 PCIEERD-GIA financial assistance amounting of **TWO MILLION EIGHT HUNDRED THIRTY TWO THOUSAND THREE HUNDRED TWENTY FOUR PESOS (₱2,832,324.00)** covering the period 15 September 2020 – 14 September 2021. Please note that the above-mentioned budget has been subjected to deductions per DBM National Budget Circular No. 580. Attached for your reference is the approved Line-Item-Budget (LIB) of the Project.

It is also understood that all provisions stipulated in the Memorandum of Agreement (MOA) covering the project shall be in full force.

Please confirm acceptance of conditions set forth in this grant by affixing your signature below. Kindly return the signed Conforme within two (2) weeks upon receipt to facilitate the release of funds.

Thank you.

Very truly yours,

DR. ENRICO C. PARINGIT
Executive Director

CONFORME:
Implementing Agency

Witnesseth:

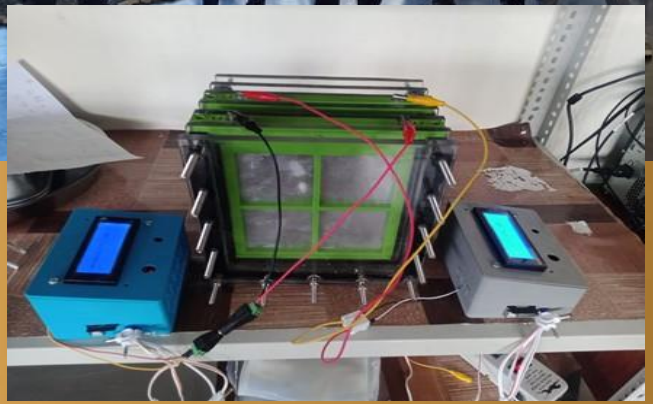
DR. MANUEL M. MUHI
President, PUP-Sta. Mesa

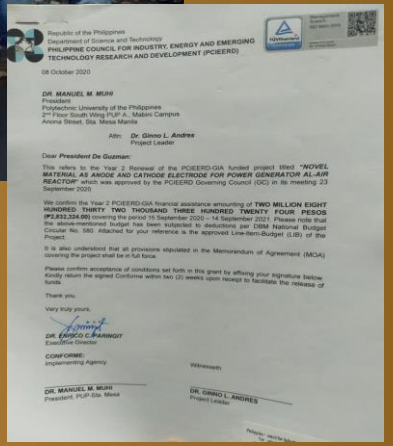
DR. GINNO L. ANDRES
Project Leader

SEVEN (7) APPROVED PROJECTS

1. Novel Material as Anode and Cathode Electrode for High Power Generator A-Air Reactor Year 2 (Received Funding-DOST)

Figure. 3 Al-air Reactor Assembly





Republic of the Philippines
Department of Science and Technology
PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND EMERGING TECHNOLOGY RESEARCH AND DEVELOPMENT (PCIEERD)

08 October 2020

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Polytechnic University of the Philippines
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Anona Street, Sta. Mesa Manila

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Project Leader

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DR. ENRICO C. PARINGIT
Executive Director

CONFORME:
Implementing Agency

Witnessed:

DR. MANUEL M. MUHI
President, PUP-Sta. Mesa

DR. GINNO L. ANDRES
Project Leader

SEVEN (7) APPROVED PROJECTS

2. The PUP Mechanical Engineering Advanced Fabrication Laboratory and Training Center to Support Innovative Students and Inventions(Approved Funding-CHED)

CHED Institutional Grants <chedoiqag.grants@gmail.com> Wed, Jul 8, 2020, 3:42 PM

to me, vpred

Dear Dr. Andres,

As per our accounting office the Polytechnic University of the Philippines has an outstanding balance to CHED. Please see attached file for your reference.

Kindly liquidate the said amounts so we can process the release of funds for your project entitled: **The PUP Mechanical Engineering Advanced Fabrication Laboratory and Training Center to Support Innovative Student Inventions and Cater SME's.**

Please coordinate liquidation with our accounting at 8441-1232 and kindly send us your proof of liquidation.

Thank you.

Republic of the Philippines
OFFICE OF THE PRESIDENT
COMMISSION ON HIGHER EDUCATION

January 23, 2020

DR. EMANUEL C. DE GUZMAN
President
Polytechnic University of the Philippines
Sta. Mesa, Metro Manila

Dear **President De Guzman :**

This has reference to the project titled "**The PUP Mechanical Engineering Advanced Fabrication Laboratory and Training Center to Support Innovative Students and Inventions**," which was approved by the Commission for funding.

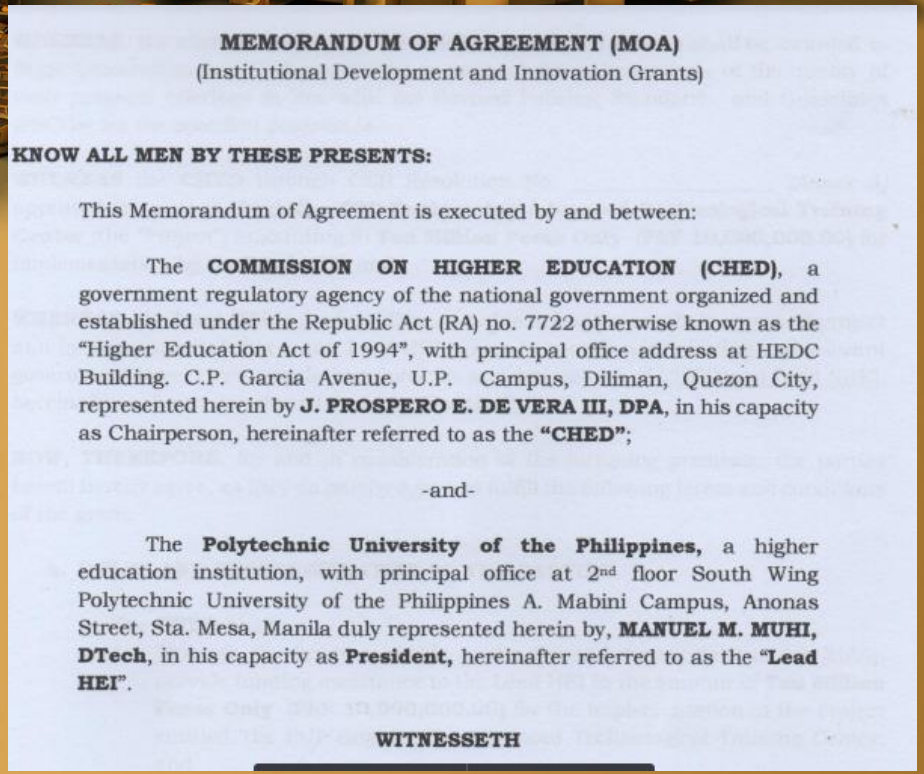
Relative to this, we are inviting the **Project Leader** to participate in the *Orientation on Project Implementation* to be held on January 27, 2020, 9:00 a.m.– 5:00 p.m., at the CHED Auditorium, HEDC Building, C.P. Garcia Ave., UP Diliman, Quezon City.

The participant is requested to bring laptop and copies of the following which shall be used as reference during the activity:

- CHED Initiated Grants Form I
- Gantt Chart
- Project Summary Sheet
- Logical Framework
- Governing Board Resolution
- Certification that the project was not submitted for consideration/funding in other

SEVEN (7) APPROVED PROJECTS

3. The PUP Mechanical Engineering Advanced Technological Training Center to ready students for Industry 4.0 (Approved Funding-CHED)



MEMORANDUM OF AGREEMENT (MOA)
(Institutional Development and Innovation Grants)

KNOW ALL MEN BY THESE PRESENTS:

This Memorandum of Agreement is executed by and between:

The **COMMISSION ON HIGHER EDUCATION (CHED)**, a government regulatory agency of the national government organized and established under the Republic Act (RA) no. 7722 otherwise known as the "Higher Education Act of 1994", with principal office address at HEDC Building. C.P. Garcia Avenue, U.P. Campus, Diliman, Quezon City, represented herein by **J. PROSPERO E. DE VERA III, DPA**, in his capacity as Chairperson, hereinafter referred to as the **"CHED"**;

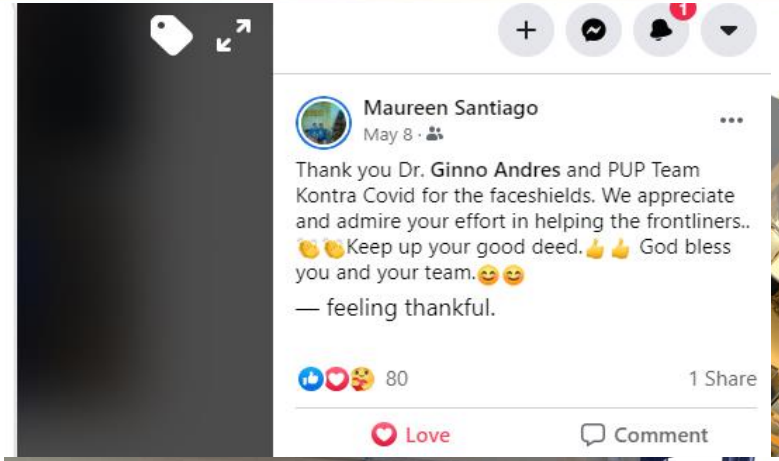
-and-

The **Polytechnic University of the Philippines,** a higher education institution, with principal office at 2nd floor South Wing Polytechnic University of the Philippines A. Mabini Campus, Anonas Street, Sta. Mesa, Manila duly represented herein by, **MANUEL M. MUHI, DTech**, in his capacity as **President,** hereinafter referred to as the **"Lead HEI"**.

WITNESSETH

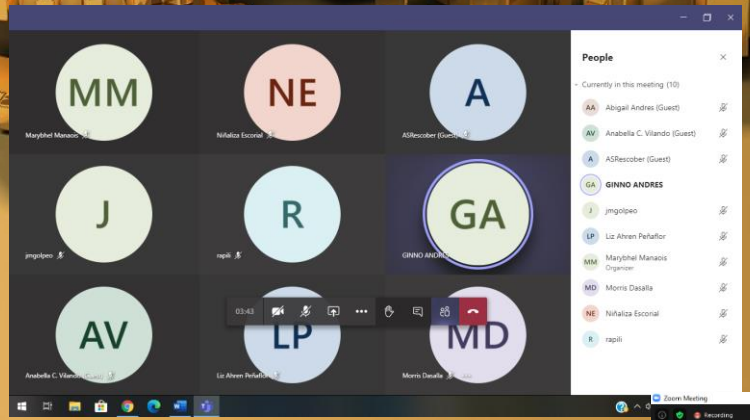
SEVEN (7) APPROVED PROJECTS

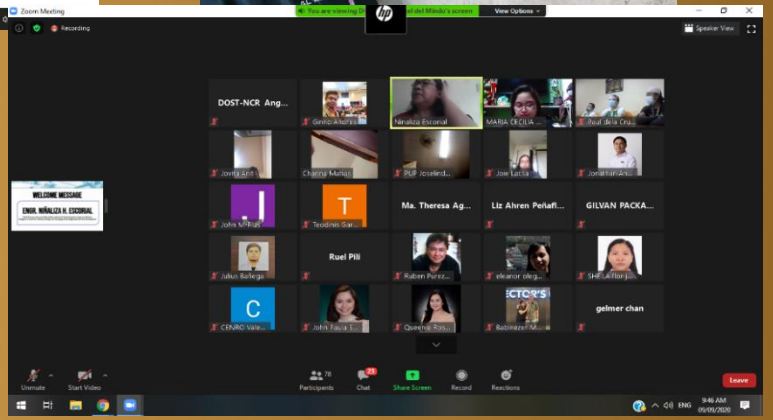
4. 3D Printing laboratory for production of face shield (Approved Funding-PUP and Private Donors)



SEVEN (7) APPROVED PROJECTS

5. Scoping Study to Identify Key Environmental Problems of Industries in Valenzuela City (Received Funding-DOST PCIEERD)





SEVEN (7) APPROVED PROJECTS

6. Microalgae as Potential Source of Biofuel: Design and Fabrication of an Automatic Photobioreactor System (Received Funding-PUP IRG)

SEVEN (7) APPROVED PROJECTS

7. Project AEGIS : Allied Equipment for Guaranteed Increase Security, A response project to help lift the health and security during COVID-19 pandemic (Received Funding-SMART Innovation Generation Grant)

EQUIPMENT AND SKILLS TRAININGS DONE

SOLID EDGE 2020 & ULTIMAKER CURA 4.7

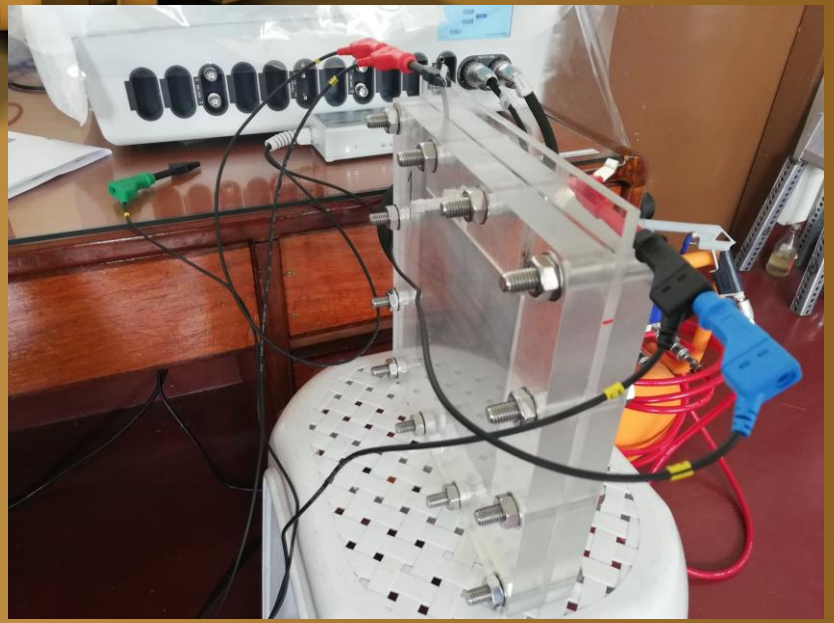
CNC ROUTER OPERATION

EQUIPMENT AND SKILLS TRAININGS WITH OUTREACH PROGRAM DONE

EQUIPMENT AND SKILLS TRAININGS

ESTABLISHMENT OF LABORATORIES WITH EQUIPMENT

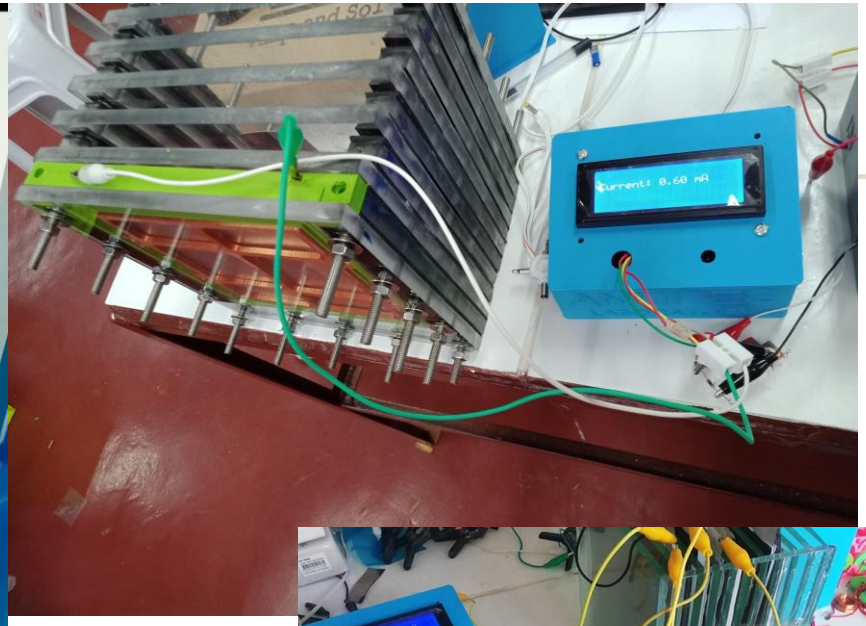
COLLEGE OF ENGINEERING AND ARCHITECTURE BLDG



ENGINEERING & SCIENCE RESEARCH CENTER

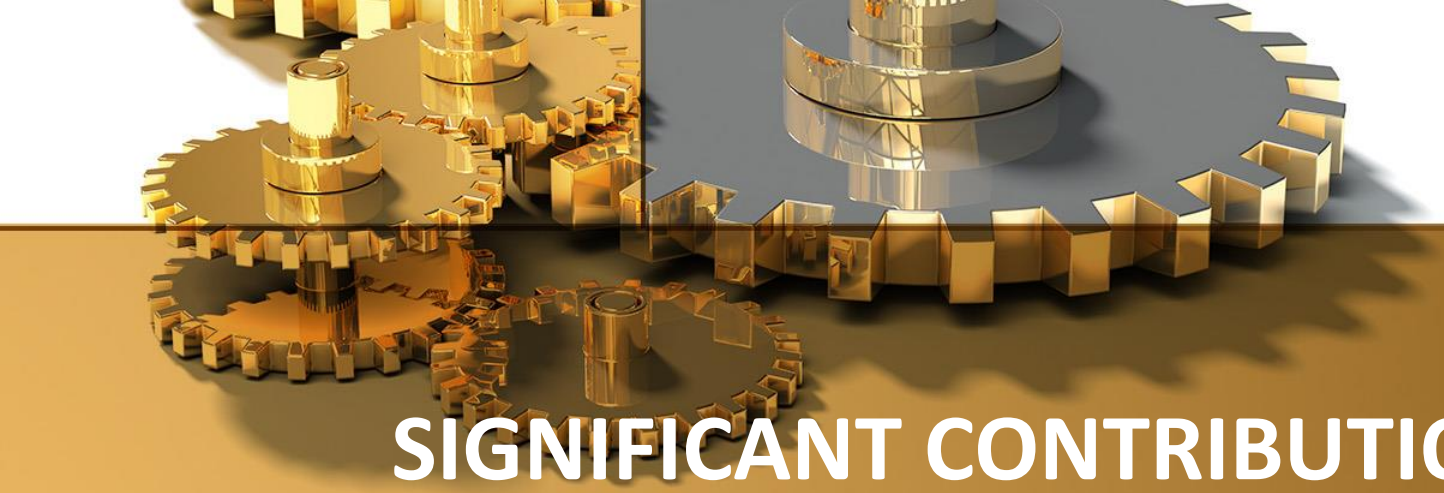
ESTABLISHMENT OF LABORATORIES WITH EQUIPMENT AND SUPPLIES

IMPROVISED DEVICES, FACILITIES, AND EQUIPMENT


Current: 0.60 mA


ANDRES
LABORATORY
ANDRES
LABORATORY

STRENGTHENED PARTNERSHIPS/COLLABORATIONS



SIGNIFICANT CONTRIBUTIONS

GINNO L. ANDRES
BALIK - SCIENTIST
2018 - 2020

SUMMARY

Activities (*as indicated in TOR)	Deliverables (*as indicated in TOR)	% accomplished	Remarks
Conduct engineering lectures at the College of Engineering	• Lecture notes • List of attendees	100	
Mentor undergraduate and graduate students on their research study.	• List of students mentored • Highlights of their research	100	
Preparation of two research grant proposals for possible funding from the DOST and other funding institutions	• Packaged research project proposal/s ready for submission to DOST-PCIEERD	100	
Collaborate with Ritsumeikan University for future researches	• Research Plan	100	

SUMMARY

Activities (*as indicated in TOR)	Deliverables (*as indicated in TOR)	% accomplished	Remarks
Test suitability and characteristics of different charcoal sources as activated carbon raw material	Manuscript/patent	100	
Provide technical assistance to Engineering laboratories at PUP	• Consultation report	100	
Coordinate with other HEIs in the Philippines and other researchers in PUP for research collaborations	• Research Plan	100	
Conduct study on the fabrication and assembly of a high efficiency photo voltaic cells	• manuscript	100	

5Ps Summary

	Name	Duration	Place (if applicable)
People Trained	BS ME Students Local Community Master of Eng'g Students Faculty/Instructors	2018 - present	PUP and TESDA

	Title of Project	Date implemented	Funding Agency
Project Implemented	1. Novel Material as Anode and Cathode Electrode for High Power Generator A-Air Reactor	2019 - present	DOST PCIEERD

5Ps Summary

	Title of Project	Date implemented	Funding Agency
Project Implemented	2. 3D Printing laboratory for production of face shield	2020	PUP and Donors
	3. Scoping Study to Identify Key Environmental Problems of Industries in Valenzuela City	2020 – present	DOST PCIEERD
	4. Microalgae as Potential Source of Biofuel: Design and Fabrication of an Automatic Photobioreactor System	To start soon	PUP IRG

5Ps Summary

	Title of Project	Date implemented	Funding Agency
Project Implemented	5. The PUP Mechanical Engineering Advanced Fabrication Laboratory and Training Center to Support Innovative Students Inventions and Cater MSME's	TBA (PUP grants for liquidation)	CHED
	6. The PUP Mechanical Engineering Advanced Technological Training Center to ready students for Industry 4.0	TBA	CHED

5Ps Summary

	Title of Project	Date implemented	Funding Agency
Project Implemented	7. Project AEGIS: Allied Equipment for Guaranteed Increase Security, A response project to help lift the health and security during COVID-19 pandemic	2021	Smart

5Ps Summary

	Title of Publication	Date of Submission	Place (if applicable)
Publications	Capacitive Deionization (CDI): An Environmentally Friendly Water Purification Technique	2019	TABSING, PUP Professorial Chair Lectures Vol. 1
	Capacitive Deionization: Previous Studies and Hands-on Demonstration	2019	TABSING, PUP Professorial Chair Lectures Vol. 1

5Ps Summary

	Title of Publication	Date of Submission	Place (if applicable)
Publications	UTILIZATION AND PROTOTYPING OF VERTICAL-AXIS WIND TURBINE (VAWT) AND SOLAR ENERGY TO POWER STREET LIGHT EQUIPPED WITH EARTHQUAKE ALARM SYSTEM	2019	International Science, Technology and Engineering Conference
	LOW-COST GEOPHYSICAL RESISTIVITY DEVICE	2019	International Science, Technology and Engineering Conference
	DEVELOPMENT OF A METHANE GAS QUANTIFIER FOR THE ANALYSIS OF METHANE PRODUCTION OF AN ORGANIC MATERIAL (ZEA MAYS VAR. INDETATA) IN A SMALL SCALE REACTOR	2019	International Science, Technology and Engineering Conference

5Ps Summary

	Title of Presentation	Date	Place
Presentation made	UTILIZATION AND PROTOTYPING OF VERTICAL-AXIS WIND TURBINE (VAWT) AND SOLAR ENERGY TO POWER STREET LIGHT EQUIPPED WITH EARTHQUAKE ALARM SYSTEM	2019	Bohol
	LOW-COST GEOPHYSICAL RESISTIVITY DEVICE	2019	Bohol
	DEVELOPMENT OF A METHANE GAS QUANTIFIER FOR THE ANALYSIS OF METHANE PRODUCTION OF AN ORGANIC MATERIAL (ZEA MAYS VAR. INDETATA) IN A SMALL SCALE REACTOR	2019	Bohol

5Ps Summary

	Title of Presentation	Date	Place
Presentation made	Technology Research in Aid of Mock-up Development to Enhance Training Delivery	November 28-30, 2018	Marikina
	Training Seminar on Intellectual Property Awareness, Technology Transfer and Commercialization	July 24-26, 2019	PUP Ragay, Lopez, Mulanay and Unisan

5Ps Summary

	Title of Proposal	Date of submission	Funding Agency
Proposal	1. Novel Material as Anode and Cathode Electrode for High Power Generator A-Air Reactor	2018	DOST PCIEERD
	2. The PUP Mechanical Engineering Advanced Fabrication Laboratory and Training Center to Support Innovative Students Inventions and Cater MSME's	2019	CHED
	3. Scoping Study to Identify Key Environmental Problems of Industries in Valenzuela City	2019	DOST PCIEERD
	4. Proposed Energy Storage Testing Center at Polytechnic University of the Philippines-Manila	2019	DOST
	5. Establishment of Technology Business Incubator at the Polytechnic University-Manila to support Research Outputs Start-ups	2019	CHED


NORDE


THETOPNOTCHERS

Philippine Nuclear Research Institute (PNRI)
and
Japan Atomic Energy Agency (JAEA)
awards this

CERTIFICATE OF COMPLETION

to

GINNO L. ANDRES, D.Eng.

for having participated for eighty (80) hours in the

FOLLOW-UP TRAINING COURSE ON
REACTOR ENGINEERING LEVEL 1
2 – 13 July 2018

Given this 13th day of July 2018
at PNRI, Diliman, Quezon City, Philippines

CARLO A. ARCILLA, Ph.D.
Director

IPPEI AMAMOTO, Ph.D.
FTC Coordinator, JAEA

Program/Projects/ Activities Implemented

II. 2019 IP Awareness, Technology Transfer and Commercialization Seminar/Training

PUP-Ragay

PUP-Mulanay

PUP-Lopez

PUP-Unisan

5 PUP Branches and Satellite Campuses (PUP-Ragay, PUP-Lopez, PUP-Mulanay and PUP-Unisan) were visited to conduct IP Awareness, Technology Transfer and Commercialization Seminar/Training last July 22-26, 2019.

Program/Projects/ Activities Implemented

III. Regional Invention Contest and Exhibit (RICE-2019)

35 Entries from the College of Engineering, College of Science, Institute of Technology and PUP Senior Highschool qualified for the DOST-NCR Regional Invention Contest and Exhibit 2019 at TIP-QC held on Nov. 6-8, 2019.

- 24 entries for SIBOL College category
- 10 entries for SIBOL Highschool category
- 1 entry for LIKHA Professional category

PUP Team Kontra COVID19

“Face Shield mula sa PUP para sa Bayan”

PUP Team Kontra COVID19

“Face Shield mula sa PUP para sa Bayan”

College of Engineering

Mechanical Engineering Students

Intellectual Property Management Office

Hygears




Polytechnic University of the Philippines (Official)
April 7 at 11:06 AM ·

PHOTOS: With the increasing need for personal protective equipment (PPE), various students from the Colleges of Engineering (CE) and Architecture and Fine Arts (CAFA) - PUP Sta. Mesa answered the call to produce homemade face shields and develop an original protective helmet for COVID-19 frontliners. Production for face shields began on March 30, wherein 20 face shields were distributed to security officers (barangay tanod) of Barangay 628 while Manila Police District Station 8 received 10 pieces. On March 31, Mary Mount Hospital in Bulacan received 50 pieces. Helmets were also initially distributed to PUP frontliners.

"Sa ngayon po may mga requests na po kaming natatanggap from hospitals and barangays," Intellectual Property Management Office Director Dr. Ginno Andres shared.

He spearheads the production of face shields in the Engineering and Science Research Center (ESRC) where three (3) of the seven (7) 3D printers are already working to produce ten (10) face shields each. A total of 70 face shields per day are printed. Helmets, on the other hand, are originally designed by a team of Engineering and Interior Design students. They are also in the process of mass producing this PPE for later distribution.

Dr. Andres is ably assisted by Engr. Farley Garcia of the Energy Research Laboratory and Engr. Joseph Bianes of the Civil Engineering Department. Mechanical Engineering student volunteers include Mark Gerald Abilay, Cliff August Batalla, Sung Hum Cho, John Xavier Escobido, Marvin Lagazo, Gian Maghanoy, Ian Rafer, and Terence Tabon. Other volunteers include Roger Carino (BS Interior Design) and Jerico Garcia (BS Electrical Engineering). Zach Belmonte of the TUPT Alumni Association and the JPSME TUPT Chapter aid on 3D printing of filaments and acetates used for the face shields.

For those interested in supporting this noble endeavor, you may course your donations through the following methods:
GCash – John Xavier Escobido – 0927 4365513
or
PUP – Economics Alumni Association, Inc.
Philippine National Bank (PNB) - Cubao
Savings Account Number: 127 810 147 263.

#PUPKontraCOVID19

Maureen Santiago
May 8 ·

Thank you Dr. **Ginno Andres** and PUP Team Kontra Covid for the faceshields. We appreciate and admire your effort in helping the frontliners.. 👏👏Keep up your good deed.👍👍 God bless you and your team.😊😊

— feeling thankful.

80 1 Share

Love Comment

Write a comment...


INSTITUTE FOR SCIENCE AND TECHNOLOGY RESEARCH
Sta. Mesa, Manila
Academic Calendar Shift Program | Seminar-Workshop on
Preparing Good Quality and Highly Competitive Research Pro
June 10 – September 15, 2020 | Webinar & Offline Training Sessions
In collaboration with the National Academy of Science and Technology-Philippines (NAST-Phil) - Outstanding Young Scientists (OYS)
For more information, email us at aletfabregas@gmail.com
OPEN FORUM
Ginno Andres
Chief Gary Antonio Lirio
Armin Coronado
A. Fabregas
Recording
Speaker View
Exit Full Screen
A. Fabregas
Chief Gary Antonio Lir...
Ginno Andres
romeo ilagan
Verna Magnaye
Dennis Avila
Lambert De Guia
Mariel Leo Violeta
Rey Oronos, Jr.
Riza Rizalina Quinc...
Erwin Acorda
ERNIE AVILA
Armin Coronado
Oscar M. Bumangl...
Iluminada Vivien D...
Lynel Tabien
Ruth Oclida
JR Thadeus Arche
John Dustin Santos
Paul John Capote
Abel Pelandiana
Rosalia Pinlac
Christopher Valencia
Armieliza Dela Cruz
Aldrin Obsanga
Mute
Stop Video
Security
Participants
Chat
Share Screen
Record
Reactions
Leave

THE CHALLENGES

Institution

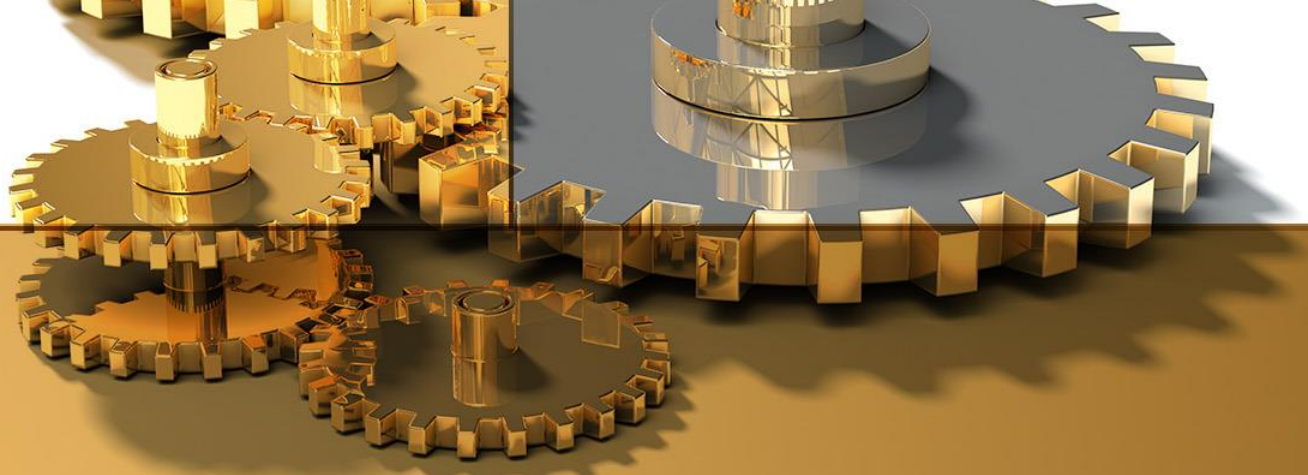
- Harmonization of researchers within the institution is a big challenge.
- Not all researchers are dedicated researchers.
- Although institutional research funding is available, however faculty are afraid to submit proposals.

Organization

- It is hard to lead leaders or manage managers
- Some people quit or complain when things have to be done that needed hard work or challenging

Community

- Pandemic



THANK YOU SO MUCH DOST PCIEERD and the BALIK SCIENTIST PROGRAM!

PARA SA BAYAN!