

PRIME MOVERS

Philippine Society of Mechanical Engineers

Western Region Saudi Arabia – Jeddah Chapter

Chartered 1995

Most Outstanding Chapter Years 2005, 2006, 2007, 2011, 2012 and 2013



Volume 17, Issue 1 May 2022

BOARD OF DIRECTORS

NIÑO JOSE A. LOPEZ, RMEE President

JOSE MELVIN D. SANTOS, RMEE, ASEAN Eng. Executive Vice President

JOBERT M. DE LA ROSA,

RMEEVP Internal Affairs

JOHN RAY O. MADLA, RMEE, ASEAN Eng VP External Affairs

MARIA MAY M. ATOLE, RMEE, RMP, ASEAN Eng. Secretary

LEONARD P. MERIALES, RMEE, ASEAN Eng. Treasurer

> WILLYN D. ESPINO, RMEE, ASEAN Eng. Auditor

SHERWIN D. FRANCISO, RMEE Press Relations Officer

> ORLAN C. MORIONES, RMEE, ASEAN Eng. Membership Director

JOHN ISAAC P. GONZALES, RMEE

Information Technology Director

NAPOLEON M. CASTAÑEDA, RMEE, RMP

Technical Affairs Director

NORIEL J. NOLLORA, RMEE Code of Ethics Director

OLIVER O. SALAZAR, RMEE, ASEAN Eng.

Professional Enhancement Director

AMOS JOEL A. ACOSTA, RMEE, ASEAN Eng. Plant Tours Director

DONALD B. MAKALINTAL, RMEE
Sports Director

LEE I. BONIFACIO, RMEE, M.A., ASEAN Eng. Immediate Past President

Jumpstart 2022

By Jobert M. De La Rosa

Greetings to all. It's been a pleasure to be with you and always at service to PSME-WRSA Jeddah Chapter.

As the Managing Editor and on behalf of the Newsletter Team, I am proud to present this year's First issue, Volume 17 of Prime Movers.

The activities of the Chapter starting with the Induction of the 2022 Board of Directors of the PSME-WRSA JC conducted by then National President Jerry C. Asuncion that was held virtually during our Annual Conference 2021; and we had the 1st Technical Webinar for 2022 conducted by Joey I. Villanueva, CPA last February 11, 2022.

2022 PME Writeshop was held virtually which was conducted with Engr. Crisostomo C. Ortiz and Engr. Napoleon M. Cepriaso last March 4, 2022 with an inspirational speech by

Engr. Ruben B. Serrano and we also had our Annual Thanksgiving led by the Chapter President Engr. Niño Jose A. Lopez held in Obhur last March 18, 2022.

Wonderful Adventure in Al Ullah with Engr. Maria May M. Atole for her dream escapade with an amazing journey experience in one day.

Other Activities are the reviews for Registered Mechanical Engineer and Registered Master Plumber in preparation for SPLE.

Engr. Napoleon M. Cepriaso wrote a technical article on Green Energy.

Upon lifting the limitations on gathering, there is a possibility for in-person activity from which PSME-WRSA JC kept its mission and continued its service to the general membership thru webinars, plant tours and community service. Now, let's turn on the key and Jumpstart our First Issue.

NEWSLETTER TEAM

INSIDE THIS ISSUE:

Editor-in-Chief : Lee I. Bonifacio Jumpstart 2022 1 Managing Editor: Jobert M. De La Rosa The President's Message 2 **Editorial Staff** : Sherwin D. Francisco 2022 Board of Directors 2-3 : Orlan C. Moriones Is Green Energy Green 4-6 : Bliven U. Garcia 1st Technical Webinar 7 Contributors : Niño Jose A. Lopez 2nd Technical Webinar 8-9 : Napoleon M. Cepriaso **Annual Thanksgiving** 10 : Napoleon M. Castañeda Wonderful Adventure 11-12 Oliver O. Salazar 2022 Review Program 13-14 Maria May M. Atole Joke Box 14

Page 2 Prime Movers

The President's Message

By Engr. Niño Jose A. Lopez



Welcome to our 1st issue of the 17th Volume of Prime Movers, it covers the events unfolded for the 1st Quarter but was delayed in release due to some unforeseen events. Nevertheless, we're back! We started January with a dash of hope as lockdowns and restrictions are being eased up and so we proceed for this year's strategic planning, but the rising cases of a new Omicron variant puts a halt on our outdoor activities such as the fellowship and sports. But still, this did not defer us to move on and yes, we were able to pile up our activities for our supreme members.

Slowly but surely, we are rising from the pandemic, with vaccinations in overdrive. The effects of Covid are minimized if not eliminated. But let's not be complacent because the virus is still around, and face mask is still a necessity and be better advised to wear it even in open air.

We will push for the resumption of in-person/face to face events particularly our Midyear and Annual Conference, but this time in a Hybrid Set-up so we can reach out to our members around the world. We know that you are all excited in rubbing elbows and sharing laughter with our colleagues and so we are asking your support for the success of our events. Same also with sports, face to face is back, but it will not be all about basketball. We will explore other interests like bowling, tennis, badminton wherein we get the same amount of exercise but with less contact and less chances of injury.

As of this writing, the SPLE for July was already cancelled for several reasons, but we're still praying that it will be reconsidered in the last quarter of this year. Nevertheless, our review program will still go on because we believe consistent preparation is the key in passing the Board.

Finally, Congratulations to Prime Movers team for an excellent job in this Issue. Enjoy reading and stay tuned for more WRSA activities.



The Spade of Faces PSME-WRSA JC



"Mechanical Engineers: Sustaining Digital Transformation Towards Industrial Excellence."

Page 4 Prime Movers

IS GREEN ENERGY GREEN?

By: Napoleon M. Cepriaso, PME, FPSME, ASEAN Eng. March 2022

Introduction

There are several available green technologies to generate electricity. But are they better than fossil fuels and nuclear power? One needs to compare not only the emission of different power sources but also its health and environmental impact. Electricity production accounts for about one fourth of global greenhouse gas emissions. The demand is about to rise as underserved populations connect to the grid, and the proliferation of electronics and electric vehicles.

For decades, the global trend into renewable energy is driving governments, private investors, and technology providers in search for better option. We have seen competition among technologies being promoted by various providers. Wind farms and massive arrays of solar panels are constructed everywhere as users increasingly turn to "green energy" as their preferred source of electricity. Not to mention wave technologies which are also in rapid development. However, is green energy green? Are there "hidden" health and environmental issues? Let us consider the most popular ones at this time, solar and wind.

Most countries are considering wind and solar farms to wean themselves from the so-called "dirty" energy. But few countries (or operators) have yet to fully tackle the long-term consequences of disposing these systems at the end of their commercial life which has environmental hazards like toxic metals, oil, fiberglass, and other materials. Manufacturing these systems has environmental impact as well.

Looking at the photo voltaic (PV) or solar

A paper released by the U.S. EPA (Environmental Protection Agency) predicts the volume of solar waste by 2050 per countries are as follows: United States - 10 million tons, Germany - 3 million tons, China - 20 million tons, Japan - 7.5 million tons, and India - 7.5 million tons. Solar arrays have a life cycle of about 30 years. The rapid adoption of solar everywhere has the problem of disposal behind it. Likewise, producing PV panels require various metals and some are highly toxic.

In 2019 US study of Solar Energy Industries Association, the growth of solar waste is already straining recycling and disposal capabilities with some panels improperly ending up in municipal landfills or stacking up in warehouses waiting for more inexpensive ways to recycle them. The cost of recovering the PV materials outweighs the costs of extracting what can be recycled, without adding the transportation expenses yet. The problem is not limited to large-scale solar utility farms, but also to households and businesses that opted to install rooftop PV modules. More have done so as they become cheaper, but those modules have less potential for recycling and recovery of materials due to smaller size and fewer number of panels. When the PV modules reach their end life, homeowners, businesses, and utility-scale operators face the prospect of safe disposal. Hence, there need to be more research on how to safely recycle high-value materials such as cobalt and lithium.

Cont... Is Green Energy Green?

What about the windmills?

Wind power also is taking off as a clean source of energy, but the EPA notes that windmills are the least energy producing and most physically difficult renewable energy waste stream to address. The sheer size of the windmills and the difficulty disposing them at recycling stations becomes a big challenge. While there is a market for second-hand windmills in Eastern Europe, Asia and Latin America, shifting used windmill components to these countries simply delays the waste disposal problem and puts it on the shoulders of countries less equipped to deal with the challenge.

Note that when a windmill project is decommissioned the plant's components and associated infrastructure would have to be removed from the site. The plant owner would salvage economically recoverable materials, and unsalvageable materials would be recycled/disposed at authorized location. In the US, some landowners, where the windmills are built, require bonds sufficient to reclaim the land to its original state. But these reclamation requirements still don't address the problem of what happens to these materials at disposal. Further, they don't guarantee the operator won't simply forfeit the bond and walk away.

Electric vehicles have challenges, too

As the public increasingly embrace electric vehicles, that move comes with its own environmental challenges. The value of the materials recycled from lithium-ion batteries is only about a third of the cost of the recycling operation. And the expense of extracting old lithium is about five times the cost of mining for lithium, according to the Institute for Energy Research. There is some innovation, however, with Japan's Nissan repurposing batteries to power streetlights. In the US, General Motors is backing up its data center with used Chevy Volt batteries.

The EPA notes, however, that these sort of "adaptive reuses" only delay the time for final disposal of the batteries and the need to deal with materials in the batteries that can cause fires or leach hazardous chemicals. While consumers may purchase renewable energy or renewable energy-based products with good intentions, that does not prevent the unintended adverse environmental consequences of these products.

What steps the industry is doing

The solar industry is looking to use fewer precious metals and other elements in the manufacturing process, such as decreasing the amount of silver in panels by 70%. While using less silver is economically attractive and less labor intensive, it makes recycling the solar panels less attractive. The cost decrease in the panels themselves has the potential to backfire and some of these newer panels are more fragile and likely to break, hastening the need for their disposal. On wind power, some manufacturers launched a wind blade recycling program. Nearly 90 % of the blade material, consisting of fiberglass, would be repurposed for cement production, cutting CO₂ emissions from that source by approximately 27%. The EPA is calling on researchers, states, industry, and other agencies to ensure green waste is sustainable from end to end, and that gaps in renewable energy waste management are addressed.

Page 6 Prime Movers

Cont... Is Green Energy Green?

Conclusion

Some study confirms that fossil fuels, mainly coal, place a heavy burden on the environment and that most renewable power projects have lower pollution-related impacts on the ecosystems and human health.

Nonetheless, no energy source is without adverse environmental side effects. Power plant siting, project design and technology choice are critical issues that investors and governments should consider very carefully.

Knowing the pros and cons of each technology is the key for better understanding in selecting the best option in any given location dependent on energy demand. Governments must balance the need for energy against the possible health and environmental impact in each locality.

Sources: Various websites

About the author:



Napoleon M. Cepriaso is a Professional Mechanical Engineer and Fellow Awardee of the Philippine Society of Mechanical Engineers (PSME), ASEAN Engineer, and a 2-time TOME Awardee. He is currently the Senior Projects Manager of Cleantech Saudi Arabia (Formerly, EgPhil Solar and Renewable Energy Solutions), Jeddah, Saudi Arabia.





1st Technical Webinar on Solid Financial Foundation and Parliamentary Procedure...

Our 1st Technical Webinar for the fiscal year 2022 consists of two parts. The first part entitled "Solid Financial Foundation" gave us an idea on how to spend our money wisely and find a good investment while working here in abroad. The second part entitled "Parliamentary Procedure" which is applicable to governing meetings of an organization like our regular B.O.D. meetings. This was conducted by our Technical Speaker, Mr. Joey I. Villanueva, Senior Executive Vice Chairman MD of IMG (International Marketing Group). It was held last February 11, 2022, with an attendance of Twenty (25) Professionals in different fields through virtual platform Zoom.

The program started with an opening remark from Engr. Niño Jose A. Lopez, our Chapter President in welcoming the participants in this event. The inclusion of our Vice President for PME Affairs, from PSME National Dr. Joemarie A. Arib as our Inspirational Speaker is truly an honor for us. He shared his thoughts about our PSME National status as he reminded us to stay as ONE PSME. In the continuation of the event, we heard our Guest Speaker Engr. Wilfredo R. Ruiz, FPSME, PME, 2000 and 2004 Chapter President was delivering his words to fellow attendees about the importance of joining an organization like the PSME - WRSA JC. He stated that helping fellow Mechanical Engineers thru our organization is an achievement in the eyes of our Creator.

As the event is ending, our Vice President for External Affairs, Engr. John Ray O. Madla, RMEE, ASEAN Eng. gave his final thoughts, thanking the participants in gracing this event especially to our speakers who spent their time with us.

Once again, on behalf of PSME – WRSA JC B.O.D.'s 2022, we expressed our gratitude to the members for their continued support to our activities.

Author by: Engr. Napoleon M. Castañeda Chapter Technical Affairs









Page 8 Prime Movers

2nd Technical Webinar on 2022 PME Writeshop



The 2nd Technical Webinar for this year 2022 was entitled "Be a Professional Mechanical Engineer (PME) and open new career opportunities" gave us an idea on how to become PME while working here in abroad. This was conducted by our Technical Speaker, Engr. Napoleon M. Cepriaso, PME, FPSME, ASEAN Eng. And Engr. Crisostomo C. Ortiz, PME, ASEAN Eng. It was held last March 04, 2022, with an attendance of Twenty-three (23) participants including the trainer through virtual platform Zoom.

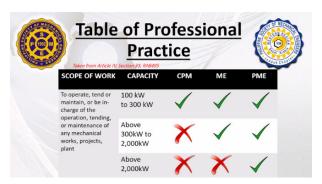
As part of the program started with an opening remark from Engr. Niño Jose A. Lopez, our Chapter President in welcoming the participants in this event. The inclusion of our Charter President (2016 PSME-JWR, 2015 PSME-WRSA Jeddah Chapter) Engr. Ruben B. Serrano, PME as our Inspirational Speaker is truly an honor for be with us. He encouraged all Registered Mechanical Engineers (RMEE) to take the Professional Mechanical Engineer (PME) due to its

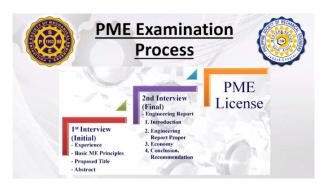
in the Philippines. From the data there are 95,000 RMEE while the PME's are only 5,600.

In the continuation of the event, we heard our Special Guest Message with the presence of Engr. Melanie Banayos, PME, 2022 National PSME President was delivering his words to fellow attendees about the update to all PME aspirants. The BME's are starting to conduct interviews, some are virtual, and the others are in-person, which will be held in PRC. She is encouraging to all Registered Mechanical Engineer to become a Professional Mechanical Engineer. It is opportunity to upgrade RMEE applicants for his career.

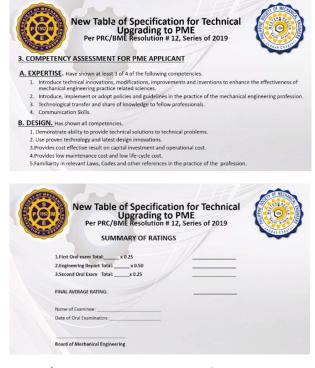
The writeshop course objectives are:

- 1. Understand the laws that govern the practice of Professional Mechanical Engineering.
- Understand the roles and responsibilities of PME
- Be aware of the process of the PME examination.
- 4. Identify the requirements for PME application.
- Will be able to construct the title of their proposed engineering report.
- 6. Will be able to construct the abstract of their chosen topic.
- 7. Have full understanding on the PME





Cont... 2nd Technical Webinar



The 1st speaker explained the Professional Practice in-charge in operation.

CPM = 100 kw to 300 kw

RMEE = above 300kw to 2,000 kw

PME = above 2,000 kw

And the PME examination process was also discussed as well from 1st interview to 2nd (Final) interview and once you pass both interviews you will have your PME License

The 2nd speaker explained well all the requirements in obtaining The PME License.

The Plaque of appreciation for the PME Speaker was presented by our Code of Ethics Director Engr. Noriel J. Nollora.

Membership Director Engr. Orlan C. Moriones announced that the RFID waiting to receive the 2nd and 3rd batch.

Professional Enhancement Director Engr. Oliver O. Salazar also informed the aspirants for the follow-up activity.

As the event is coming to a close, our Vice President for Internal Affairs, Engr. Jobert M. De La Rosa, RMEE, gave his final thoughts, thanking the participants in gracing this event especially to our Speakers who spent their time with us.

Program was ended by our Professional Enhancement Director Engr. Oliver O. Salazar as the Moderator and our Immediate Past President Engr. Lee I. Bonifacio as the Zoom Master.

We would like to thank all the attendees of this Writeshop and special thanks to PSME Agusan, PSME Balara, PSME Bahrain and PSME SOK for their participation.

Author by:

Engr. Oliver O. Salazar

Chapter Professional Enhancement



Page 10 Prime Movers

2022 Annual Thanksgiving















PSME-WRSA Jeddah Chapter held the Get Together in Obhur. Spending the nights with laugther, singing and chatting with other. Happy together as One PSME.

Wonderful Adventure in Al Ullah

By: Maria May M. Atole, RMEE, RMP, ASEAN Eng.

March 2022



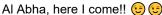
That's me... I'm looking for the tiger that's hiding in the rocky mountain.. CHARING..

Hi there!! Actually, since January 2022, together with my colleague that we planned this trip to Al Ullah. The plan was just to rent a car and or a van and the itinerary (place to visit specifically) will be on the spot. But this plan was cancelled due to a busy work schedule and the places to visit were all fully booked. I thought that going to Al Ullah will not be possible. Then, on Feb. 19, 2022, my colleague texted med that she asked the Travel Buddies (name of the travel tour) for the schedule tour and that's on March 3-4, 2022. One week before the tour,

the coordinator told us that there's a balloon festival. Since it's a once in a blue moon event, we grabbed the opportunity to ride. The cost was SAR150 for 15 minutes. Only 4 persons were allowed including the operator. Our departure here in Jeddah was 9:00 pm and we reached the winter park at exactly 6:00am in the morning. It was an 8-hour long drive (without stopover). We visited Dadan, Hegra Elephant Rock, Old Town, and the main highlight was the Hot Air balloon ride and Air Glow Show. That day was full of fun and once in a lifetime experience that I want to repeat. If you want to experience the coldness plus the fascinating views that Al Ullah can offer, the best time to visit is during the winter season and it will be November to March. At first, I don't think that Saudi Arabia has beautiful place like Al Ullah, at the back of my mind I picture only that it's only sand, rocky mountains and hot weather. I saw the beauty in their rocky mountains, farm of dates and hospitality that they can offer.

If you have a plan going to Al Ullah, go in the first or second weekend of March and your time is worth spending. For me, a one-day journey in Al Ullah is enough. Honestly, I enjoyed my weekend escapade adventure.

Thank you for tuning... And see you again here in our Prime Movers for my next adventure.





Page 12 Prime Movers

Cont... Wonderful Escapade Adventure













2022 Review Program











The Professional Regulation Commission (PRC) announces that the Special Professional Licensure Exam (SPLE) for OFWs will be conducted in the Middle East.

Here are the procedures and requirements before taking the exam:

- 3. Applicants shall apply online http://online.prc.gov.ph
- After completing the online transaction, the applicants shall submit to the Philippine Overseas Labor Offices (POLO) the printed

and signed Application Form together with photocopy of documents as identified below thru their respective professional organizations. Deadline for submission is on 01 May 2022.

- The POLOs shall submit the list of prequalified applicants for the various disciplines/ boards to PRC on or before 08 May, 2022.
- 2. Applicants shall submit the printed name online application forms (signed and with

Page 14 **Prime Movers**

Cont... 2022 Review Program

thumb mark affixed) together with the following documentary requirements to the POLOs for initial evaluation/ screening. The POLOs shall submit the list of pre-qualified applicants for the various disciplines/ boards 'to PRC on or before 08 May, 2022.

4.1 Basics Documents:

4.1.1. Photocopy of Transcript of Records (with or without scanned picture and remarks "For Board Exam Purposes")

4.1.2. Photocopy of Valid Passport

The originals of the above documents shall be presented to the PRC Examination Team for validation upon their arrival at their respective venue of assignment.

4.1.3. Two (2) passport size pictures with complete name tag.

4.2 Additional Specific Original Documents in the below stated **Boards:**

4.2.1. For graduates in BS Civil Engineering, BS Architecture, BS Mechanical Engineering, BS Sanitary Engineering, BS Chemical Engineering and BS Mining Engineering.

4.2.2. For High School Graduates/ Vocational/ College Graduates of other courses – Certificate of Experience for five (5) years in actual plumbing works under supervision of a Registered Master Plumber and High School diploma/ Transcript of Records.

Source: PRC 2022 SPLE Application for OFW's in Middle East

JOKE BOX 😇 😇





A German Shepherd, a Doberman and a cat died

In heaven, all three faced God, who wanted to know what they believed in.

The German Shepherd said, "I believe in discipline, training, and loyalty to my master."

"Good!" said God. "Sit at my right

"Doberman, what do you believed in?" asked God.

The Doberman answered, "I believe in the love, care and protection of my master."

"Aha," said God. "You may sit to my left."

Then God looked at the cat and asked, "And what do you believed in?"

The cat replied, "I believe you are sitting in my seat."

Appendix

Mister: Doc ipatanggal ko appendix ng misis ko

Doc: Di ba inalis ko ng last year yun? Walang tao dalawa ang appendix.

Mister: Alam ko pa yun. Pero meron pong taong dalawa ang misis! 😊 😊

Natinik si bunso

Bunso: Nay! Natinik po ako

Nanay: Oh, eto kumain ka ng saging

Bunso: Nay, ayaw pong matanggal ang tinik

Nanay: Kumain ka pa ng saging

Bunso: Nay, ayaw pong matanggal ang tinik

Nanay: Halika nga rito! Ngumanga ka para makita ko kung saan ka natinik

Bunso: Dito po sa paa. 😊 😇



Mabait na Boyfriend

Dad: Mabait ba ang boyfriend mo?

Anak: Yes Daddy

Dad: Maka-Diyos ba siya?

Anak: Sobra Dad Dad: Nasaan siya?

Anak: Andoon sa simbahan. Nagmimisa po 😊 😊

Pera o Asawa

Berting: Pre! Ano ang mas mahalaga, pera o asawa

Bentong: Siyempre pera. Kasi an pera habang tumatagal, lumalaki ang interest. Ang asawa, habang tumatagal, nawawalan ka ng interest. Tapos inubos pa ang pera

