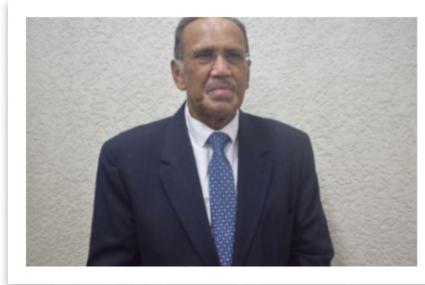


**MESSAGE OF THE PRESIDENT
Mr. Raj Prayag, GOSK, PDSM**

Dear Colleagues,

Following the AGM held on the 18th March 2022, those elected to serve on the Executive Council met on Friday the 25th March and got down to work out a very comprehensive programme for the next two years.



Over and above the two flagship projects which are 1) the membership of the Washington Accord and 2) the mentorship of the Graduate Engineers leading to eventual registration with the CRPE, this EC is most keen to support in the advancement of our noble profession at the National, Regional and International levels.

This EC has decided to be pro-active when it comes to the welfare of our fellow engineers, raising the standard of engineering, bring awareness of the most valuable contribution of our fellow engineers in the development of our country and making the Engineers voice heard on major issues concerning national policies.

As IEM was the main initiator and sponsor of the CRPE Act in 1965 leading to the regulated practice of engineering in Mauritius, IEM has again to be the main voice in the drafting of the New Engineers Bill, providing for the profession for the next 3 to 4 decades to come.

The membership of the Washington Accord is going to bring about a paradigm change in the graduate engineering education programs in our island and I cannot thank enough the heads of our three public universities, UoM, UTM and UDM for their collaboration.

The mentoring of our graduate engineers, running of CPD courses, organisation of workshops, Seminars, talks as well as be the voice of the Engineers with the media.

There is a formidable team at the IEM at work and we are looking forward to your support, and contribution to enhance our profession and the status of the Engineers in society.

Engineers are the agents of change and change will make us rise to challenges. Please, fellow engineer, kindly please be part of the solution.

This newsletter will be our quarterly vehicle of communication with the world. If you have something worth sharing, please send us your papers.

If you are not a member of the IEM, please join us today. Please visit at www.iemauritius.com.

**Strategy proposed by the President
of IEM for period 2022- 2024**

Vision 2022-2024

- ◆ IEM is to provide leadership in all matters of Engineering.
- ◆ IEM to be the spokesperson and voice for the Professional Engineers in Mauritius
- ◆ Initiate, present and bring to public opinion great orientations for the sustainable development of Mauritius with regard to Infrastructures, Water security, Energy and environmental policies.
- ◆ To inform the GOM, Ministries, the Media etc. of IEM's role in the society.
- ◆ Establish permanent liaison with UOM, UTM and UDM.
- ◆ Establish permanent liaison with the industry through BM, MCCI, BASECA, ACE etc.
- ◆ EAB – To be a Provisional Member of Washington Accord / IEA by June 2024.
- ◆ Training of Graduate Engineers under an MOU with the Ministry of Labour, Industrial Relations etc. and IEM to be more pro-active with regard to quality of Training 2022-2024.
- ◆ New Engineering Bill to reflect the new engineering era under the WA 2022.
- ◆ To reinforce liaison and collaboration with WFEO/NBA/IEI/ECSA/SAFEQ
- ◆ To provide leadership at the level of Southern Africa Federation of Engineering Organisation to bring about better harmonisation of policies, enhanced exchanges and sharing of experiences. Narrowing gaps between national Engineering Institutions. Seeking and enhancing working arrangements and Cooperation with SADC, UNESCO, WFEO, IOC and COMESA.

IEM COUNCIL MEMBERS 2022-2024

President

MR. PRAYAG RAJ HEMNSING
G.O.S.K. PDSM. PEng.C.Eng. B.Sc. M.Sc.
MICE. FIEM
*President Elect Southern Africa Federation of
Engineering Organisations 2021-2023*

Vice President

Dr. NOWBUTH MANTA DEVI

Secretary

Dr. DOOKHUN VIMI

Treasurer

Mr. PEERMAMODE ABOO BAKAR

Council Members

Mrs. RUGHOOPUTH RESHMA
Mr. ROBEE KAUSHAL
Mr. BUCKTOWAR TAKESH
Mr. GREEDHARRY KAMLESH

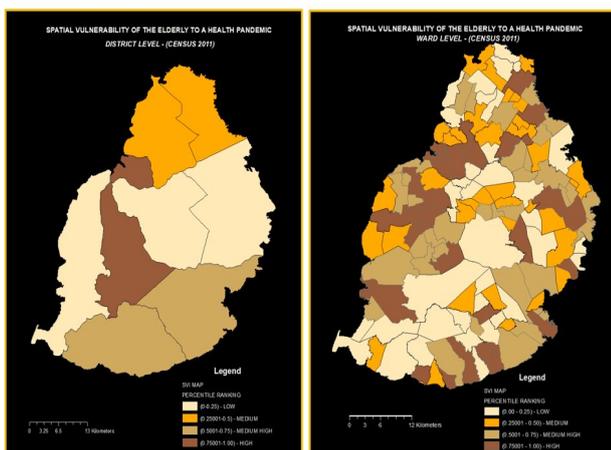
WFEO Symposium on Energy Transition and COVID-19

IEM PARTICIPATION AT THE WFEO SYMPOSIUM OCTOBER 2021

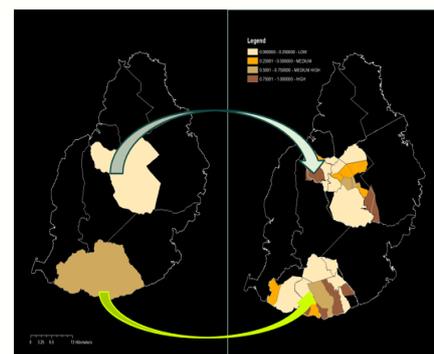
IEM Mauritius participated with the World Federation of Engineering Organisation (WFEO) symposium on “*Energy transition and Covid-19 crisis: the role of engineers*” organised by the WFEO Committee on Energy, held on Wednesday 6th and Thursday 7th October 2021. IEM was represented by Dr. (Ms) Manta Nowbuth who participated through an online presentation on the topic ‘*Mapping Spatial Vulnerability of the Elderly to a Health Pandemic; Challenging the Engineering Community to develop more resilient cities*’.

This study considered a number of indicators which contribute to the vulnerability of one of the most affected groups of the society to the health pandemic. The indicators were combined using the concepts of social vulnerability index (SVI) to illustrate relative vulnerability over the island. This study was carried out using the latest published information on census data (2011), at both district and ward levels. These two scales highlighted an important point, often overlooked in decision making and planning; that of resource availability for communities. At district level, it may seem all pertinent resources are available, but when considered at ward level, not everybody has easy access to the facilities., specially during periods of restricted mobility and connectivity. This puts much stress on those groups of the society who are dependent on support.

This study also shed light on the need for the development physical infrastructure that takes into consideration the vulnerable groups of the society when it comes to connectivity and mobility and hence, the need for higher investments in more renewable energy.



SVI MAP – COMPARATIVE STUDY (SVI ANALYSIS AT DISTRICT & AT WARD LEVELS)



*At district level there can be enough facilities
At community level, not everybody has the means to access all facilities.*

World Engineering Day Celebration on 4th of March 2022 at the Lecture Theatre of LT2 University of Mauritius: Joint initiative of Institution of Engineers Mauritius



Engineering plays a key role in achieving the UN Sustainable Development Goals (SDGs) as it utilizes the principles of science and mathematics to develop practical applications in food, water, energy, environment, sustainable cities, natural disaster resilience and other areas which are crucial to mankind. It is also crucial to the development of new technologies enabling the 4th Industrial Revolution such as artificial intelligence, robotics, quantum computing and Internet of Everything, among others. Engineering is at the heart of the modern world and will shape the

future, as has been the case for millennia. (UNESCO, 2021). Realizing the key role of engineering for humanity and its environment, the 4th of March is proclaimed as the World Engineering Day (WED) for sustainable development by UNESCO at the request of World Federation of Engineering Organizations (WFEO). The purpose of the WED is among others, to engage key players including government agencies, industries, non-governmental organizations and the public at large, in national debates on how to address the need for engineering capacity and improve the quality of engineers, who would integrate the job market to solve the world's most pressing problems. With this objective in mind, the Faculty of Engineering of the University of Mauritius partnered with the Institution of Engineers of Mauritius to mark this special day on 4 March 2022. A half-day workshop was organized with participants from both the public and private sector. Due to prevailing restriction, the number of participants attending physically was limited to fifty, and the organisers made provision for the workshop to be available for online attendees. This year's theme for the WED was 'Build Back Wiser'.

Three speakers intervened at this workshop, namely Mr Rudy Oh Seng, Senior Environment Officer, Department of Climate Change, Ministry of Environment Solid Waste Management and Climate Change, Mr Raj Prajag (GOSK) Honorable President of IEM/Chairperson of EAB and Associate Professor Dinesh Hurreeram, Dean of the Faculty of Engineering, University of Mauritius.

Mr Oh-Seng presented the latest IPCC report and highlighted salient points of the climate change impacts faced by SIDS, while calling for more synchronized actions from local engineers to address the adverse impacts of climate change. Mr Raj Prayag apprised the members of the IEM and participants on the vital need to get engineering programmes accredited. The Dean of Faculty of Engineering launched the Discussion Paper on Sustainable Renewable Energy Pathway for Mauritius, paper prepared by a research team from the Faculty of Engineering. This was followed by the launching of IEM Journal 2022 by Mr Shyam Roy, President of IEM. The theme of the journal was Impacts of Climate Change on SIDS: What Engineering Solutions?

The event was also complemented by a Prize Giving Ceremony for Final Year Engineering Project Competition & a brief presentation by the first prize winner.

Report by Dr Vimi Dookhun, Member of the Organizing team for World Engineering Day 4th March 2022 and Secretary of the Executive Committee Institution of Engineers Mauritius, Senior Lecturer and Head of Department Chemical and Environmental Engineering, Faculty of Engineering, University of Mauritius.



MENTORING OF YOUNG TRAINEE GRADUATES IN ENGINEERING IEM MONITORING PROGRAMME

Dr. Manta Nowbuth & Mr. Kamlesh Greedharry

1.0 BACKGROUND

In the 2016/17 budget speech, the Ministry of Finance and Economic Development (MOFED) announced a scheme to provide young graduates in Engineering the necessary training in the Public Sector in view of obtaining their eventual registration with the Council of Registered Professional Engineers of Mauritius (CRPE). Subsequently, the Ministry of Labour, Industrial Relations, Employment and Training (MOL) was entrusted with the responsibility of setting up and managing the scheme. In 2017, in view of the large number of applications received, cabinet took the decision for extending the training scheme to the Private Sector.

The Institution of Engineers, Mauritius wrote to MOFED in February 2017 to propose its assistance in organising suitable training programmes for the young graduates over two years to ensure that the trainees are ready for registration as Engineers as per the criteria set by the CRPE. Two programmes were proposed; Programme A for those already enrolled or to be enrolled in the Public Sector and Programme B for those interested to be enrolled in the Private Sector.

For both programmes A & B, the training proposed by IEM consisted of the following:

A first workshop to be organised by IEM with the collaboration of CRPE during the first month of the training to brief the trainees on procedures and requirements for registration.

Setting up of a training programme over 2 years in each of the major field of Engineering; Electrical, Mechanical and Civil.

Follow up with Ministries/Departments, Supervisors and Trainees to ensure that the latter are working in a satisfactory environment, under close supervision and complying with the requirements of CRPE. A visit shall be scheduled every 6 months.

A workshop to be organised by IEM jointly with CRPE during the last months of the training to guide the graduate engineers on the preparation of their report to be submitted to CRPE.

IEM had already identified and compiled a list of mentors with membership at Corporate level, who are either Senior Engineers or retired Engineers, all registered with the CRPE to undertake the mentoring sessions.

2.0 STATUS AS AT MARCH 2022

As at March 2022, the Ministry of Labour Human Resource Development and Training has forwarded to IEM 12 lists of Trainee Engineers under placement in different organisations, for both public and private sectors. The first batch was received in 2016 and the latest one (list 12) was received on 21 March 2022. As at end of March, 301 graduates have completed their training and 141 new trainees (lists 9, 10 and 11) are at different stages of training. Workshops for Stages 1 and 2 have been completed for lists 1 to 8. Workshop Stage 1 was to be conducted for list 12 and Workshop Stage 2 for lists 9 and 10.

3.0 WORKSHOP STAGE 1 - 23 APRIL 2022



The Stage 1 Workshop was held for LIST 12 received from the Ministry of Labour, Human Resource Development and Training on 23 April 2022. This workshop was attended by 34 graduate trainee engineers, mentors and IEM council members. Mr. Raj Prayag shared his vision of the Engineering profession and guided the trainees to the purpose of the IEM Mentoring programme which was to act as support to the graduate trainee engineers to register as professional engineers, after their 2 years' training. Mr. R. Dhaliyah emphasised on the requirements of a training programme for registration as Professional Engineers. He placed much emphasis on the need for a

comprehensive programme as per CRPE requirements. Mr. J. Munbauhal, previous Mentoring Coordinator, shared his experience with the trainees on the advantages trainees can get if they make the most of the IEM mentoring programme. He also shared the concerns expressed by past trainees and the support of mentors to find solutions. Mr. J. Munbauhal shared the success stories of some of the graduate trainees who have eventually registered with CRPE as Professional Engineers. Graduate trainees shared their concerns about training programmes not meeting the CRPE requirements. A meeting of Mentors is scheduled on Wednesday 27 April and these will be taken on board.

STRATEGIC PLAN FOR IEM TRAINING CENTRE

CONTINUOUS PROFESSIONAL DEVELOPMENT

Dr. Vimi Dookhun

1.0 Background

IEM is a certified Training Centre unfortunately dormant for some time but being revived under the lead of Mr Jeet Munbauhal. However only one Training workshop had been organized during the year 2021 due to Covid-19. The training entitled **Health & Safety for Engineers** was held on Saturday 6th March 2021 with 27 participants.

2.0 SWOT Analysis



Aim and Objectives of programme

IEM intends to extend its training courses to several areas not ventured before and these include

Marketing for Engineers, Finance for Engineers, Negotiating Skills for Engineers, Presentation Skills for Engineers, Economy for Engineers, Project Management among others.

A short professional course is planned for 2-3 June 2022 on Coastal Engineering in collaboration with an expert on Coastal Engineering and Ports Management from the University of Stellenbosch, South Africa.

LANCEMENT DU PROJET « GREEN CHARGING OF ELECTRIC VEHICLES IN MAURITIUS »



À l'heure où le climat mondial est lourdement affecté par les émissions de GES causées par une industrie des transports toujours plus polluante, la mobilité électrique apparaît comme une solution alternative d'avenir pour rendre les déplacements plus durables. Une équipe de chercheurs de l'Université des Mascareignes s'est penchée sur la question et a ainsi initié le projet « Green charging of electric vehicles in Mauritius ». Le lancement officiel de ce projet a eu lieu ce jeudi 7 avril 2022 au campus de Rose-Hill en présence de la CEO de HSBC Mauritius, Mme Bonnie Qiu et plusieurs acteurs du secteur des transports.

Ce projet de recherche a vu la collaboration du secteur privé et de l'Université de Perpignan (France) et se déroulera sur 3 années. L'objectif est de promouvoir l'utilisation des véhicules électriques à Maurice et d'optimiser l'utilisation de l'énergie solaire pour les recharger. Par ailleurs, dans un avenir proche, l'UdM envisage d'offrir la possibilité aux habitants du quartier de Camp Levieux (Rose-Hill) de recharger gratuitement leurs vélos ou motos électriques dans l'enceinte de l'Université.

Pour le Dr L. Latchoomun, responsable de ce projet, « l'Université des Mascareignes a relevé le défi de contribuer à l'initiative gouvernementale d'atteindre les objectifs de développement durable d'ici 2030 ». Selon lui « le climat mondial est fortement affecté par les émissions de dioxyde de carbone dues à une industrie des transports de plus en plus polluante, nous ne pouvons rester insensibles. Le passage à la mobilité électrique s'avère essentiel. Cependant, nous devons encourager l'utilisation d'énergies propres et renouvelables pour alimenter notre flotte croissante de véhicules électriques ».

Sur ce projet, l'UdM compte sur l'appui financier de la HSBC comme l'a réexprimé Mme Bonnie Qiu, CEO HSBC Mauritius : « La HSBC collabore avec divers secteurs pour pouvoir offrir à la génération future des solutions aux problèmes climatiques allant vers des infrastructures durables aux solutions ancrées sur la nature et à l'énergie propre. Nous sommes très fiers de soutenir l'Université des Mascareignes à hauteur de Rs 745 000, pour la première année de son programme de recherche. Comme la transition vers les véhicules électriques est importante pour le climat, il est essentiel de s'assurer qu'ils sont alimentés à l'énergie propre et verte. Par conséquent, rendre la recharge solaire économiquement et techniquement viable pour les propriétaires de véhicules électriques est une étape essentielle pour placer Maurice sur la voie de devenir une plaque tournante pour les véhicules électriques verts ».

À propos de l'Université des Mascareignes

L'Université des Mascareignes est la plus jeune université publique de Maurice et en partenariat avec l'Université de Limoges, France. Elle propose plusieurs diplômes et masters dans le domaine de l'ingénierie, du commerce, de la gestion ainsi qu'en technologies de l'information.

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