

World Federation of Engineering Organizations (WFEO)

Committee on Education in Engineering (CEIE)

Activities 2019 - 2023

Achievements Past, Present, Future

- Quarterly CEIE meetings
- Mentoring Programs to achieve IEA Signatory Status (2020 - 2022)
- Organized International Conference on Engineering Education & Accreditation ICEEA 2021, ICEEA 2022 and ICEEA 2023
- Published IDEAS Journal -20 and IDEAS Journal -21
- Organized the CEIE Education Session in WEC2023 in Prague, Thursday 12th October 2023
- CEIE members have opportunity to speak at ICEEA and at WEC2023 session



Mentoring Work

- WFEO - CEIE achievements of the past two years are very remarkable and well match with the theme for the HLPF 2022 –

“Building back better from the coronavirus disease (COVID-19) while advancing the full implementation of the 2030 Agenda for Sustainable Development”.
- WFEO - CEIE did the Mentoring Work with its partners in international engineering to align its engineering education benchmarks with the UN SDGs. The work was supported by UNESCO.



Mentoring Support

Mentoring support has been given by the following members/Economies -

National Board of Accreditation India (NBA)

Pakistan Engineering Council (PEC)

Institution of Engineers Sri Lanka (IESL)

China Association of Science and Technology (CAST)

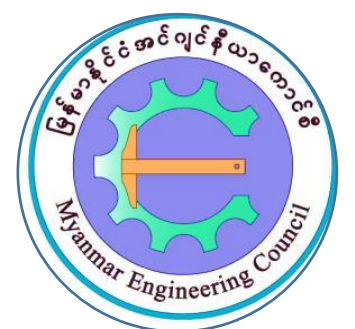
Board of Engineers Malaysia (BEM)

Engineering Council of South Africa (ECSA)

Peruvian Engineers Association (CIP)

Association for Evaluation and Accreditation of Engineering Programs (MUDEK)

Myanmar Engineering Council (MEngC)



Members/ Economies who were interested to seeking mentoring to become IEA Provisional Signatories

- Institution of Engineers Mauritius (IEM)
- Engineers Board of Kenya (EBK)
- Ghana Tertiary Education Commission (GTEC)

Regular meeting were held virtually with a systematic approach to build capacity to achieve international standards



Mentoring Programs

- Mentoring Tracking Schedules were recorded to monitor the program and for future references. A wiser way was developed to mentoring new economies seeking international recognition of their engineering education systems.
- Completed an initial term of 3 years, Concluded Nov 2022 per Terms of Reference for this project between WFEO and IEA. Final meeting was on 23 Feb 2023 and report provided to annual IEA meeting June 2023
- CEIE thanks Dr Marlene Kanga Past President, WFEO, UNESCO & IEA for their support and working closely and collaboratively.



ICEEA 2021



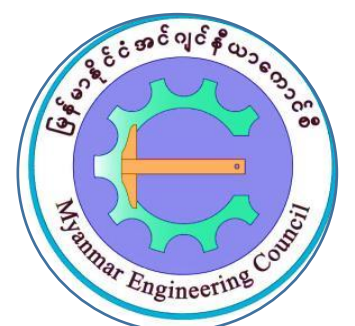
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Myanmar Engineering Council

**International Conference on Engineering Education
Accreditation - ICEEA 2021**

**Quality Engineering Education towards Sustainable
Development**

**held virtually 14, 15 16 January 2021
from 12:30pm to 5pm Myanmar time / 7am to 12:30pm CET**



ICEEA 2022



The banner features a background of a robotic arm and gears. On the left, there is a stylized tree logo with blue leaves and orange gears. The text is centered and includes the Myanmar Engineering Council logo and name in Burmese and English, the event title 'ICEEA 2022, MYANMAR', the dates '16th & 17th JULY', the full name of the conference, and the theme. At the bottom, there are logos for the World Federation of Engineering Organizations (WFEO) and the Myanmar Engineering Council (MEC).

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Myanmar Engineering Council

ICEEA 2022, MYANMAR

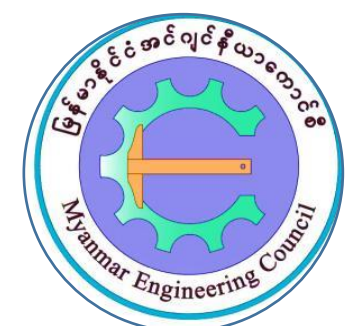
16th & 17th JULY

International Conference on Engineering Education Accreditation

Theme: “Quality Engineering Education Towards Engineering the Future”

 World Federation of Engineering Organizations
Fédération Mondiale des Organisations d'Ingénieurs

 WFEO-CEIE



ICEEA 2023



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Myanmar Engineering Council

ICEEA 2023, MYANMAR

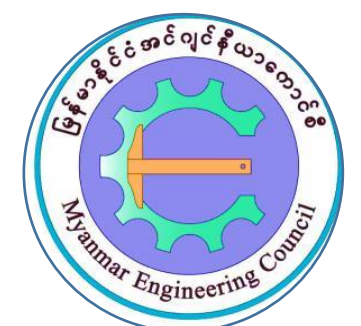
27 & 28 JULY 2023

International Conference on Engineering Education Accreditation

Theme: “Accelerating the Full Implementation of the 2030 Agenda for
the Sustainable Development at all Levels through Engineering”



World Federation of Engineering Organizations
Fédération Mondiale des Organisations d'Ingénieurs



IDEAS Journal

Number 20

- 9 papers on Engineering Education from both local and international experts
- Presented at ICEEA 2022
- Available on WFEO website: [IDEAS Engineering Education Journal number 20 - WFEO](#)

IDEAS

for better education & training for engineers

“QUALITY ENGINEERING
EDUCATION TOWARDS
ENGINEERING
THE FUTURE”

Committee on Education In Engineering
World Federation of Engineering Organisations
Number 20, October 2022



IDEAS 20

List titles of papers and authors for IDEAS 20

<u>Message Section</u>	
✚ Message from President, World Federation of Engineering Organizations (WFEO) Prof. José Vieira -----	1
✚ Message from President, Myanmar Engineering Council Prof. Dr. Aung Kyaw Myat -----	2
✚ Message from Chair, WFEO Committee on Education in Engineering Prof. Dr. Zaw Min Aung -----	3

<u>Paper Section</u>	
✚ Transforming Engineering Education for Sustainable Development: From Vision to Actions with Impact Dr. Marlene Kanga -----	4-7
✚ Engineering Education and Accreditation Focus on a Better Future for All Emeritus Professor Elizabeth Taylor AO -----	8
✚ Cultural Intelligence in Engineering Education Academician Tan Sri Dato' Ir. Prof. Dr. Chuch Hean Teik -----	9-10
✚ A Study on Becoming Full Signatory of Washington Accord for a Statutory and Regulatory Body such as Myanmar Engineering Council (MEngC) through Quality Engineering Education towards Engineering the Future Engr. Dipl.-Ing. Myint Oo -----	11-15
✚ Review on Assessment of Final Year Project Performance in Civil Engineering Dr. Nilar Aye -----	16-20
✚ Implementation and Assessment Methods of OBE in Engineering Education Dr. Htay Htay Win -----	21-26
✚ Analysis of Course Outcomes in Electrical Power Engineering Curriculum using Illustrative Verbs derived from Bloom's Taxonomy Dr. Wanna Swe -----	27-33
✚ Achievement and Challenges Encountered during the Implementation of Quality Management System and Accreditation in Mandalay Technological University Dr. San Yu Khaing -----	34-39
✚ Curriculum Benchmarking towards the Quality of Electronics Engineering Programs Dr. Tin Tin Hla -----	40-45

IDEAS Journal

Number 21

- 7 papers from experts presented at ICEEA 2022 and ICEEA 2023
- IDEAS Journal No, 21 was released at the CEIE session in WEC 2023 and is available here:

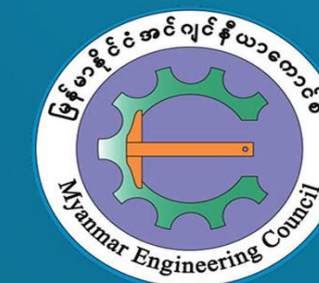
<https://myanmarengc.org/web/content/48256>

IDEAS

for better education & training for engineers

ACCELERATING THE FULL
IMPLEMENTATION OF THE 2030
AGENDA FOR THE SUSTAINABLE
DEVELOPMENT AT ALL LEVELS
THROUGH ENGINEERING EDUCATION

Committee on Education In Engineering
World Federation of Engineering Organisations
October 2023



IDEAS 21

List titles of papers and authors for IDEAS 21

Message Section

- ✚ Message from President, World Federation of Engineering Organizations (WFEO)
Prof. José Vieira ----- 1
- ✚ Message from President of Myanmar Engineering Council, President of Federation of Engineering Institutions of Asia and the Pacific (FEIAP), Vice President of ASEAN Academy of Engineering and Technology
Prof. Dr. Aung Kyaw Myat ----- 2
- ✚ Message from Chair, WFEO Committee on Education in Engineering
Prof. Dr. Zaw Min Aung ----- 3

Paper Section

- ✚ The World Engineering Day Hackathon: An Innovative Approach to Problem-Based Learning
Dr. Marlene Kanga -----
- ✚ The Role of Accreditation in Assuring the Profession of Engineering
Dr. Lincoln A Wood -----
- ✚ Industry, Academia, Government and Engineering Regulatory Bodies' Collaboration to Empower Engineering Education
Engr. Refilwe Buthelezi -----
- ✚ Empowerment Teaching: A Model for Successful International Knowledge Transfer In Engineering
Prof. Dr. Jürgen Kretschmann -----
- ✚ The implementation of Soft Skills in the Higher Studies of Engineering to achieve the 2030 Agenda for the Sustainable Development Size
Dr. Rodrigo Perez Fernandez -----
- ✚ Globalization of Engineering Capacity Building and its Realization Path
Professor WANG Qinglin -----
- ✚ Sustainability Development Goals & Engineering Education
Prof. (Dr.) K. K. Aggarwal -----

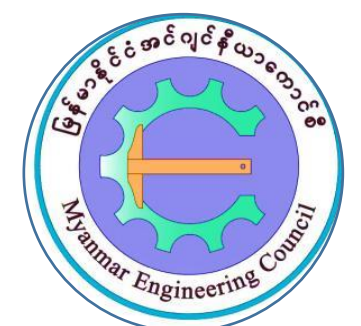
WFEO Academy

WFEO-CEIE- Sub Committee

- Chair: Dr Marlene Kanga, Past President WFEO
- Representative from Signatories of International Engineering Alliance (IEA)
- Representative from International Federation of Engineering Education Societies (IFEES) and Global Engineering Deans Council (GEDC)
- Representative from WFEO members.
- Presentations from ICEEA 2022 uploaded on WFEO ACADEMY website for further training for engineering educators and accreditation bodies

Principle

- UNESCO Open Science Principles
- Essential training at no cost for accreditation bodies/professional engineering institutions, engineering educators and assessors, qualified engineers, technologists and technicians
- Individuals who are members of WFEO Members (National/Affiliate/Associate) can access the training



WFEO CEIE will continue hosting for 2023-2027

- Myanmar Engineering Council thanks WFEO Board and WFEO General Assembly for approval to continue to host the committee for 2023-2027.
- Dr Zaw Min Aung will continue to Chair the Committee.
- We welcome WFEO members who wish to nominate representatives to this Committee to help us to continue our important work.



Thanks for your kind attention

zawminaung@gmail.com
9595089334

