

# WFEO YOUNG ENGINEERS / FUTURE LEADERS COMMITTEE (YEFL)

## REPORT - MARCH 2022

**Name of STC/PIC/WG:** *Young Engineers / Future Leaders Committee (YEFL)*

**Date:** 08 March 2021

**Chair:** **Eng. Firas Bou Diab**

Federation of Lebanese Engineers (FLE)

The WFEO committee on Young Engineers / Future Leaders (YEFL) is a motivated team of young engineers that work voluntarily to make (YEFL) acknowledged and celebrated as the global leader for the young voices of the Engineering profession. The work of the (YEFL) is aimed at enabling a sustainable ecosystem that provides support, resources and a platform for young engineers in the WFEO community, highlighting the role of young engineers worldwide in achieving the UN Sustainable Development Goals.

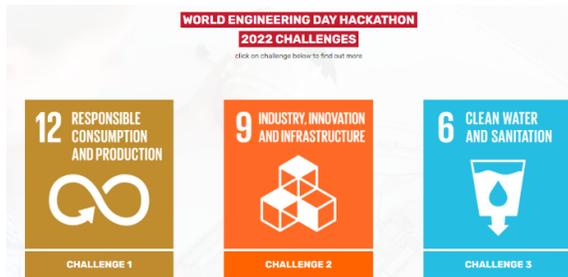


**Firas N Bou Diab**  
Chair, YEFL Committee

### MAIN THEMES COVERED IN THE PAST TWO YEARS:

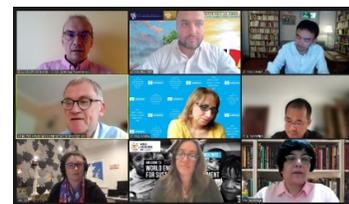
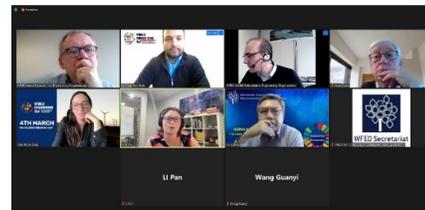
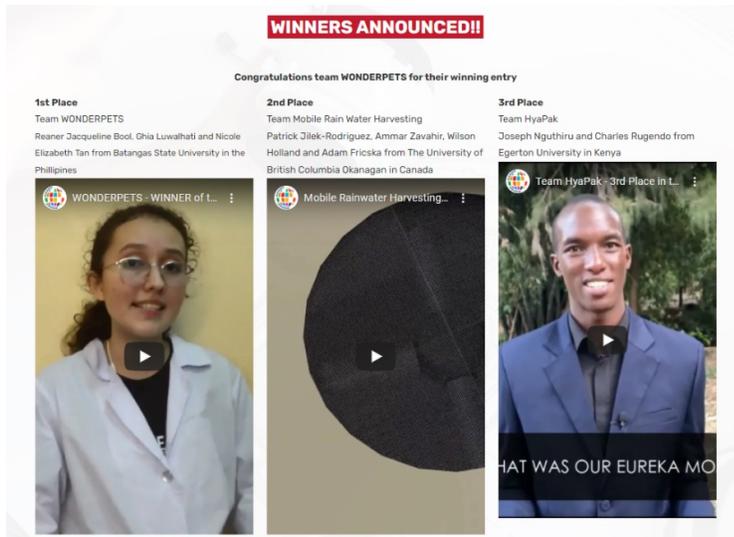
#### YEFL in the World Engineering Day 2022 Hackathon

Aligned with a 2022 Theme: **Build Back Wiser – Engineering the Future**, the **World Engineering Day Hackathon** encouraged engineering students to work in teams towards a global real-world problem.



The competition was a fast-paced simulation of a real-world project. Teams worked collaboratively on a problem to provide a set of deliverables within a short timeframe.

YEFL Chair and committee members lead and participated in the Hackathon working group and attended a number of preparatory meetings. The committee members contributed in the Preliminary Judging and YEFL Chair was one of the Finalist Judges for this Hackathon.



More info:

[www.worldengineeringday.net/hackathon/](http://www.worldengineeringday.net/hackathon/)

## YEFL and Partners celebrated World Engineering Day 2022



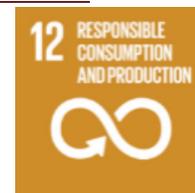
Aligned with 2022 Theme: **Build Back Wiser – Engineering the Future** and as part of the World Engineering Day Celebrations, the young engineers' panel was held on 15 Feb 2022 titled: **An Inspiring and Collective Young Engineering Vision**

Panelists were from different geographical regions of the world and are outstanding leaders, being nominated by WFE0, Federation of International Consulting Associations (FIDIC) Young Leaders Council, European Young Engineers (EYE), The Student Platform for Engineering Education Development (SPEED). The objective of the panel was to present perspectives and give an inspiring and shared vision of the role of young engineers in Engineering a Sustainable Future.



## World Engineering Day 2020 – YEFL Celebrating the Achievements of Young Engineers Around the World

The goal of the competition was to highlight the work of young engineers and their engineering achievements in advancing the UN SDGs. More than 400 young engineers from more than 70 countries, including some from the leading engineering universities of the world, showcased their projects to advance sustainable development through engineering as part of this competition aligned with UNESCO World Engineering Day.



Winner: *Aida Rafat, Imperial College London UK. Reducing textile waste and reducing pollution from textile dyeing technologies – SDG12.*

## World Engineering Day 2020: Engineering Heroes Mini-Series

YEFL Chair Firas Bou Diab speaking on SDG 8 – “Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”.

Episode link: <http://www.wfeo.org/podcast-engineering-leaders-sdg-8-firas-bou-diab/>



## World Engineering Day 2021 – YEFL Video Campaign: Young Engineers Leading the Way

YEFL invited young engineers from around the World to submit a video to showcase contributions that young engineers are making towards a more sustainable, resilient, and inclusive world. More than 40 young engineers from more than 20 countries, showcased their videos that highlighted the important role that young engineers play towards accelerating action towards sustainable development. All videos answered one of the following three questions:

1. What is the importance of engineering in working towards a more sustainable world?
2. What advice do you have for young engineers interested in making a positive impact in their community?
3. Share an example of how young engineers are already contributing to sustainable development.

Winner is *Roshan TEELUCK, from The Institution of Engineers Mauritius (IEM): <https://fb.watch/44LLZ0fVB2/>*

Runner up, *Ludvig Vraadal from Association of Nordic Engineers (ANE): <https://fb.watch/44LNZLQWJP/>*



The World Federation of Engineering Organizations (WFEO)  
Young Engineers/Future Leaders Committee

**DECEMBER**  
8  
8:30am CET  
6:30pm AEDT  
Duration: 1 hour

Moderator:  
Is pleased to invite you to the webinar series, "Engineering the Future"  
**Young Engineers Volunteering for the Future**

Panellists:

**Nicole Brown**  
WFEO YE/FL member

**Felicity Furey**  
Founder - Power of Engineering and Machinam

**Morgan Marshall**  
CEO - Robogals Global

**Fons Janssen**  
Co-founder Green Deal 4 Youth

**Firas Bou Diab**  
Chair of WFEO YE/FL Committee

Register here: <https://zoom.us/j/9631411111>

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**MARCH**  
17  
8:30am CET  
6:30pm AEDT  
Duration: 1 hour

Moderator:  
Is pleased to invite you to the next webinar in the YEFL series, "Engineering the Future"  
**Young Engineers = Board Members?**

Panellists:

**Nicole Brown**  
WFEO YE/FL member

**Avi Menon**  
Co-founder & Partner Kolko

**Mavis Elias**  
Founder & Chair of the Board I3M Foundation

**Ted Chen**  
Co-founder Evercomm Singapore

**Stacey Daniel**  
Director, Advisor & Coach Board Entrance

Register here: [bit.ly/3rn9JhH](http://bit.ly/3rn9JhH)

**FRIDAY 19th NOV 2021**  
14:00-15:30 (CET)

Webinar Series "Engineering the Future"  
**ETHICS IN ENGINEERING**

Moderator:  
**Michael Mhango**  
Co-Founder and Director GIACC  
Chair, Young Members Panel of SAICE

Speakers:

**Neil Stansbury**  
Co-Founder and Director GIACC

**Gregory Skene**  
Chair, Ethics Committee, SAICE

**Rodrigo Juárez**  
Vice Chair, FIDIC Future Leaders Council

**Priscilla Antunes de Menezes**  
Member of the Young Members Panel & Ethics Committee, SAICE

**Papias Kazianka**  
Chair, WFEO CAC

**Firas Bou Diab**  
Chair, WFEO YE/FL

Register: <https://shorturl.at/prV24>

***China Beijing International High-Tech Expo & WFEO webinar "A Sustainable Future: Young Engineers and 4IR"***

The WFEO Engineering for Innovative Technologies Committee and the Young Engineers / Future Leaders Committee organized the webinar "A Sustainable Future: Young Engineers and the Fourth Industrial Revolution (4IR)" on the 18th September 2020, during the 23rd China Beijing International High-Tech Expo (CHITEC). Young Engineers have ambition and desire for changing the world and are always contributing in proposing innovative technological solutions, driving the emerging 4IR. They are mobilizing to advance the Sustainable Development Goals to improve the lives of people and the health of the planet.

**FRIDAY 18th SEPTEMBER**  
15:00-17:00 BEIJING TIME (CET+6)

**A Sustainable Future: Young Engineers and 4IR**  
during the 23rd China Beijing High-Tech Expo

Moderator:  
**Dr. PENG Jing**  
Chair of WFEO Committee on Engineering for Innovative Technologies

Speakers:

**Prof. GONG Ke**  
President of World Federation of Engineering Organizations (WFEO)

**Mr. Yohan Ramasundara**  
Member of AI and RD WG, Immediate Past President, Australian Computer Society

**Ms. Carol Cai**  
Product Owner of Digital Manufacturing in SAP

**Eng. Firas Bou Diab**  
Chair of WFEO Young Engineers / Future Leaders Committee

## Collaboration with European Young Engineers (EYE)

### Water Reuse for a Sustainable Industry - Challenges and Opportunities in a Circular Economy.



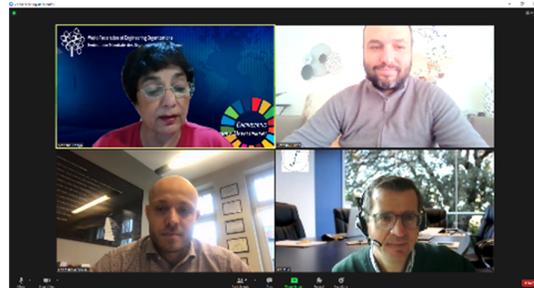
The webinar defined the existing barriers between politics, industry, and academia in

regards to the promotion of water reuse in industry, to create a sound cohesion between the technical and natural world. The webinar promoted SDG 6 and Young Engineers.

The poster is for a webinar titled 'WATER REUSE FOR A SUSTAINABLE INDUSTRY: Challenges and Opportunities in a Circular Economy'. It features logos for WFED/FMCE, FIDIC Future Leaders, EYE (European Young Engineers), and EYE Young Engineers. The poster lists several speakers: Alexandros Stefanakis (Editor in Chief of Journal Circular Economy &amp; Sustainability), Joaquim Poças Martins (Current Secretary of State for the Environment of Portugal), Virginijus Sinkevicius (European Commissioner for Environment, Oceans and Fisheries), Hans-Martin Friis Møller (ETP Kaldembug Library Chairman Debate Water Forum), and Francesca Pizzo (Secretary of the Joint Working Group on Water Reuse, LintLife). It also lists a moderator, Jeannie Mallia (EYE Head of UK Water Forum), and two introductory talks by Firas Bou Diab (Chair of WFED/FMCE Committee) and Nadja Yang (EYE Vice President of Public Policy). The event is scheduled for 26 January, 3:00 - 4:15 PM CET. A QR code and a registration link (https://bit.ly/2NbcncZ) are provided.

## COLLABORATION WITH FIDIC FUTURE LEADERS

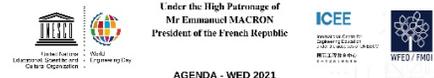
FIDIC Future Leaders is the group of young professionals of the International Federation of Consulting Engineers (FIDIC). Participation in the Future Leaders Management Certificate (FLMC) programme to strengthen the business expertise of young engineers and other professionals working in the field of consulting engineering.



## Second UNESCO Engineering Report, "Engineering for Sustainable Development – Delivering on the Sustainable Development Goals"

YEFL Chair Firas Bou Diab participated in the Round-table on the Engineering Report, featuring young engineers from every region of the world, at a high-level virtual event hosted by UNESCO on 4th March 2021. This high-level event showcased the leadership and contribution of Engineers from around the world to Sustainable Development.

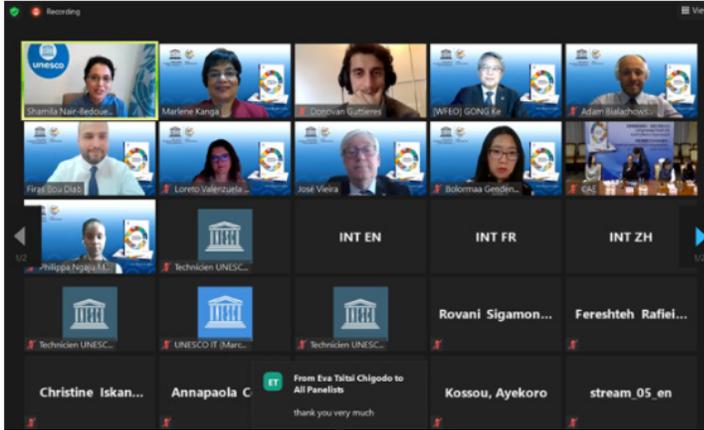
<http://www.wfeo.org/world-engineering-day-engineering-for-a-healthy-planet-celebrating-the-unesco-engineering-report-young-engineers-panel-discussion-at-the-main-event/>



**AGENDA - WED 2021**  
**Engineering for a Healthy Planet -**  
**Celebrating the UNESCO Engineering Report**

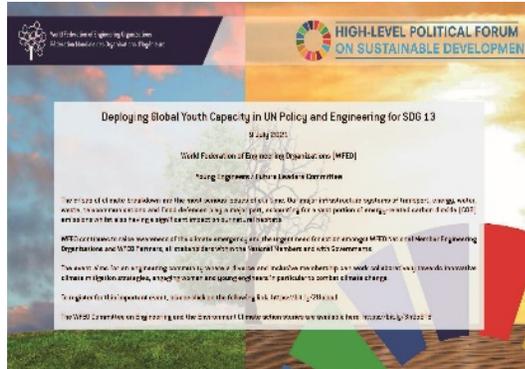
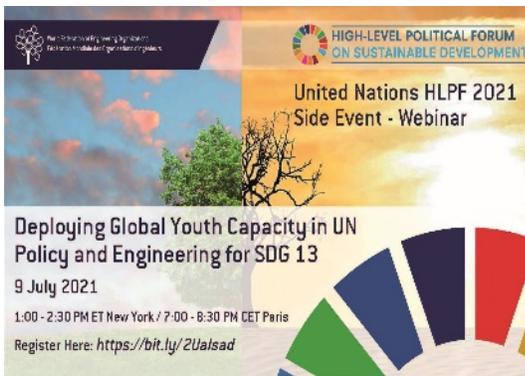
4 March 2021  
 1:00-2:30pm CET (Paris time, online)  
 Registration: <http://on.unesco.org/Eng04-03>

- Master of Ceremonies: Shamilia Nair-Bedouelle, ADG/SC**
- 13:00-13:40 High-level Opening and Launch of Report**
    - Audrey Azoulay, Director-General of UNESCO
    - Li Xiaohong, President of Chinese Academy of Engineering (representing Tsinghua University and ICEE)
    - Genina Rajam Bangaroo, Civil Engineering Student, University of Mauritius, Mauritius
  - 13:40 - 14:00 Introduction to the Report on Engineering for Sustainable Development: Delivering on the Sustainable Development Goals**
    - Wu Qidi, Director of ICEE and Co-chair of Engineering Report Steering committee - Introduction of the Report
    - Marklene Kanga, Immediate Past President, WFEO - Engineering in advance the UN Sustainable Development Goals
    - Gong Ke, President, WFEO - Engineering Innovations responding to pressing Challenges
    - José Vieira, President Elect, WFEO - Engineering education and capacity-building
  - 14:00 - 14:25 Round-table on the Engineering Report**
    - Moderator: Dohovan Gutierrez, former Chair UN Major Group Children and Youth, MIT, engineer (USA)
    - Firas Bou Diab, Chair, WFEO Young Engineers-Future Leaders (Lebanon)
    - Adam Bialachowski, Chair, International Federation of Consulting Engineers (IFDIC) Young Leaders Council (Poland)
    - Loreto Valenzuela Rosales, International Federation of Engineering Education Societies (IFEES), Associate Professor, Catholic University Chile, (Chile)
    - Philippa Njupaju Makobore, IEEE, Head, Instrumentation Division, Uganda Industrial Research Institute (Uganda)
    - Isolina Gomberson, International Network for Women Engineers and Scientists (INWES), School of Chemical Engineering, University of Ulsan (South Korea)
  - 14:25 - 14:30 Closing Remarks**
    - Shamilia Nair-Bedouelle, ADG/SC



Screenshot of speakers at the UNESCO-WFEO launch of the Second UNESCO Engineering Report

**WFEO – YEFL HLPF 2021 Side Event: Deploying Global Youth Capacity in UN Policy and Engineering for SDG 13**



WFEO and its Committee on Young Engineers / Future Leaders organized the HLPF 2021 side event “Deploying Global Youth Capacity in UN Policy and Engineering for SDG 13” on Friday, 09 July 2021, as a side event of the 2021 edition of the High-level Political Forum. The crises of climate breakdown are the most serious issues of our time. Our major infrastructure systems of transport, energy, water, waste, telecommunications and flood defenses play a major part, accounting for a vast portion of energy-related carbon dioxide (CO2) emissions whilst also having a significant impact on our natural habitats. WFEO continues to raise awareness of the climate emergency and the urgent need for action amongst WFEO National Member Engineering Organizations and WFEO Partners, all stakeholders within the National Members and with Governments. The event aimed for an engineering community where a diverse and inclusive membership can work collaboratively towards innovative climate mitigation strategies, engaging women and young engineers in particular to combat climate change.



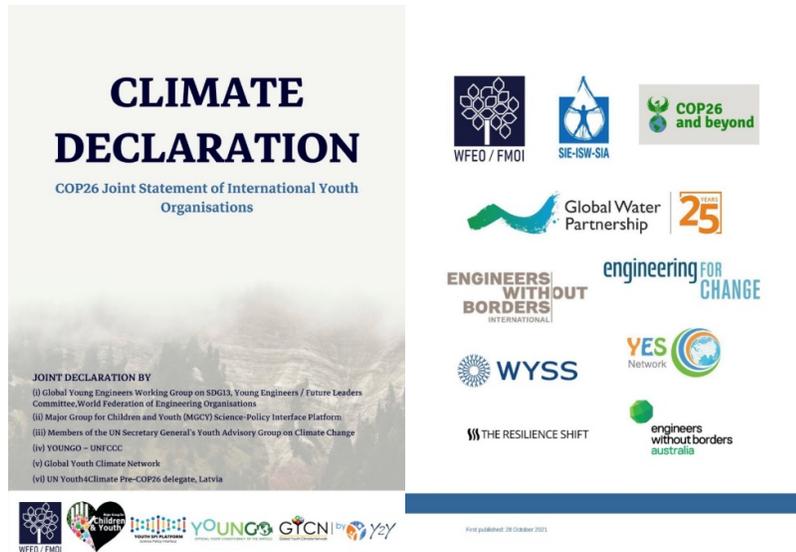
<https://youtu.be/zmzQfufF6zY>

## Participation in Glasgow Climate Change Conference (UNFCCC COP 26)

Climate Declaration: COP 26 Joint Statement of International Youth Organizations

- a) Engaged Heads of Delegation and Parties at the COP26 Blue Zone to present the Youth Joint Statement
- b) Secured the endorsement of partners like World Bank Global Youth Climate Network, UN Youth NGO (YOUNGO) etc.
- c) Participated in some COP26 panels – Capacity Building, Finance and Technology Day, Resilience Hub etc.
  - 3 of the 12 policy recommendations were either reaffirmed or adopted
  - 7 recommendations were either recognized or acknowledged with(out) action
  - 2 recommendations were not discussed: one highlighted for discussion in COP27
  - Remarkable youth attendance with very limited inclusion in actual policy discussions/negotiations

YEFL developing Capacity Building Initiatives with other youth leaders on the Path to COP27.



## KEY ACHIEVEMENTS, PUBLICATIONS, DECLARATIONS ETC.

Statement by the World Federation of Engineering Organizations, United Nations Secretary General Youth Advisors on Climate Action, Major Group for Children and Youth the Youth Science-Policy Interface Platform (SPI) At the 2021 High-Level Political Forum Side Event "Deploying Global Youth Capacity in UN Policy and Engineering for SDG 13.

[https://sustainabledevelopment.un.org/content/documents/28752Engineering\\_Joint\\_Statement.pdf](https://sustainabledevelopment.un.org/content/documents/28752Engineering_Joint_Statement.pdf)

**TICK THE CORRESPONDING BOX AND ADD AN EXPLANATORY TEXT ON THE WORK THAT HAS BEEN DONE IN RELATION TO THE SDG. (50 WORDS MAX. AND MAX OF TWO SDGS)**

- Goal 1: No Poverty** (detailed [in this page](#))
- Goal 2: Zero Hunger** (detailed [in this page](#))
- Goal 3: Good Health and Well-being** (detailed [in this page](#))
- Goal 4: Quality Education** (detailed [in this page](#))
- Goal 5: Gender Equality** (detailed [in this page](#))

**Goal 6: Clean Water and Sanitation** (detailed [in this page](#))

*Young Engineers/Future Leaders Committee and European Young Engineers, organized a webinar on Water Reuse for a Sustainable Industry: Challenges and Opportunities in a Circular Economy. The aim of this panel discussion was to define any remaining existing barriers between current politics, industry, and academia regarding the promotion of water reuse in industry, to create a sound cohesion between the technical and natural world. Through webinars like this, we aim to bridge the existing gap between politics and engineering.*

**Goal 7: Affordable and Clean Energy** (detailed [in this page](#))

**Goal 8: Decent Work and Economic Growth** (detailed [in this page](#))

**Goal 9: Industry, Innovation and Infrastructure** (detailed [in this page](#))

**Goal 10: Reduced Inequalities** (detailed [in this page](#))

**Goal 11: Sustainable Cities and Communities** (detailed [in this page](#))

**Goal 12: Responsible Consumption and Production** (detailed [in this page](#))

**Goal 13: Climate Action** (detailed [in this page](#))

*Young Engineers/Future Leaders Committee set-up a working group on SDG 13 to include and deploy young engineers' capacity in the Global Climate Emergency work. This working group aims to streamline the national young engineers' initiatives on SDG 13 so they contribute to the global UN targets. This will be achieved by preparing the national young engineers' strategies which are aligned to the UN initiatives and addresses the national climate change challenges including those relevant to the resource efficiency.*

**Goal 14: Life Below Water** (detailed [in this page](#))

**Goal 15: Life on Land** (detailed [in this page](#))

**Goal 16: Peace, Justice and Strong Institutions** (detailed [in this page](#))

**Goal 17: Partnerships for the Goals** (detailed [in this page](#))