



WFEO YEFL STC International Strategic Planning Forum - Stakeholder Collaboration for Global Integration of Youth in Industry

The Young Engineers Future Leaders (YEFL) Standing Technical Committee (STC) was established to give a voice to young engineers and allow for input from a previously unrepresented segment of the engineering population, with a critical mission to present the young engineer's perspective and create a global network and voice for Young Engineers. The YEFL STC has approached this goal using various means and activities since inception (2010) which has culminated in the need for the global and regional engagement of all stakeholders involved in the development of young engineers to create a win-win alignment through collaboration. We have termed these four year (2015 -2019) strategic stakeholder engagements the **“Stakeholder Collaboration for Global Integration of Youth in Industry”**. As a committee, comprising young engineers' leaders around the world, we believe that these engagements will throw up underlying issues affecting young engineers development, and expedite the realization of our goal of bridging the gap between young engineers' ingenuity and industry/societal challenges, and hopefully help in developing the solutions to pressing global issues.

The first regional engagement forum was held in Kuwait (March 2015) for the Middle East, followed by the Asia-Pacific region which was held in Kyoto, Japan (November/December 2015). In 2016, the South American stakeholders were gathered in Peru (November 2016) and plans are underway to have the Europe engagements in Rome this year. Our strategy is an ongoing phased strategy that does not aim to resolve all the region-specific issues faced by young engineers globally; rather, we aim to provide the support and networks needed to continue to tackle these issues head-on, to form strong, resilient young leaders, and to make progress in growing the collective representation of young engineers in industry, and professional organizations.

The repeating themes from the regional engagements in the Middle-East, Asia Pacific and South America include:

Technical and Professional Competence Development: This theme highlights the gap in the number of engineers required by industries, and those available and competent to fill resourced positions. It also presents an opportunity to drive the campaign to encourage more youth and women to pursue engineering careers, thus increasing the number of engineers available and competent to solve engineering problems globally. Other concerns raised include the availability of structured development programs for Young engineers in industry, obsolete educational curricula when compared with current industry technologies/competences etc.

Entrepreneurship and Start-up Programs: This theme focuses on the reality of 18-year-old CEOs, child mobile app developers, and collegiate humanitarians in various engineering sectors and industries. Young engineers often come up with solutions to industry and societal problems. These young engineers require support to translate these innovative solutions to working systems for the benefit of humanity and their nations' economies. The value of establishing a start-up or private enterprise is not only fulfilling personal ambition, creating jobs for oneself and others, and improving their nations' economies but also has the added benefit of expanding the limits of innovation & creativity that will usher our world into the future.

Soft skills Development: Young engineers should be able interact with colleagues, the industry, the public, policy makers and the government in today's world. Cultivating the skills to relay important engineering concepts across all



sectors' traditional "terminology" barriers is critical to meeting the expectations across these divides. We are facilitating discussions around focused improvement of young engineers' presentation skills, networking abilities, technical writing skills, appreciation of financial tools, awareness of marketing, ethics, and managerial skills etc.

Coaching and Mentorship Programs: Young engineers require a better appreciation of the enormity of their regional industry challenges to be able to realize the opportunities for improvement and development. A key repeating theme is the need for structured approaches for young engineers to be introduced to the industry early in their educational and professional careers through volunteering, active internships and short-term assignments. These structures though mostly existent are not designed for the fast pace of change/development in today's world, and are to be reviewed to reflect more collaboration between young engineers, academia and industries.

Sensitization on Burning Global Issues: Stakeholders agree on the need for Young engineers to be sensitized and consistently reminded of the burning issues affecting our world today! This will better guide the choice of how best we apply novelty for the benefit of humanity. Going forward, every program organized for young engineers globally shall incorporate discussions on the global issues affecting our continuous existence on this planet; sustainable energy and power, environment, climate change, sustainable infrastructure development, healthcare, diversity and inclusiveness, cyber-security, water and sewage, population and urbanization, and other global burning issues.

The summary of the YEFL STC focus for these engagements includes three (3) thematic areas which are to:

- Accurately collate the peculiar challenges of YE across the regions of the world;
- Present a position paper clearly articulating these challenges and expectations with WFEO and other regional and national engineering societies and organization; and
- Socialize the wider global community (UNESCO, UN, World Energy Council etc.) of YE position to enable more useful impact of YE in industry.

These focus areas also align seamlessly with mostly the UN Sustainable Development Goals 4, 8 & 9; however, our events and activities cover the other young engineers' and 'innovation' aspects.

SDG 4 – Quality Education

SDG 8 – Decent Work and Economic Growth

SDG 9 – Industry, Innovation and Infrastructure

We end this paper with a clarion call on all stakeholders and policy makers in industry, corporate organizations, governments and NGOs to partner with us to give young engineers all over the world the support and enabling environment to translate their ingenuity into working systems for tackling the burning issues currently threatening our humanity and our world!
