



Eng. Lucía Pía Torres

Project Coordinator of Sinergeia S.A., and Energy Service Company in Argentina.

She has worked most of her career as an Industry Practitioner. She started her professional career working as a Quality & Logistic Analyst for Communications Area at BGH S.A., an Argentinian local company that has been in the market for more than 100 years.

From 2008 to 2010, she worked as Sales Engineer at Endress+Hauser, a reputed Swiss Process Automation firm where she specified and quoted measurement and control instruments and

the correct operating philosophy and maintenance for different types of industries in Argentina.

Then, she joined Schlumberger, where she worked as Field Engineer in Wireline Open and Case Hole segment, in the Oil, Gas & Mining Industry. She received training in the USA and worked in the Oil Fields in the South of Argentina.

Two years later, she joined AB InBev where she started as Production Engineer and then worked as Project Engineer for all Latin America Brewing Plants. She has led projects during the design, erection and commissioning phases of new plants, process standardization, new products, production upholding and revamping. There, she acquired regional experience, working not only in Argentina, but Chile, Brazil, Uruguay, Paraguay, Bolivia, Peru, and Ecuador Industrial Plants.

In 2015 she moved to INVAP where she worked as Process Instrumentation and Control Manager for Nuclear Projects for Argentina, Argelia, India, etc., especially for low power investigations purpose reactors, radioisotopes plants and combustible elements plants.

In December 2016, Pía joined Sinergeia and contributed to build the technical and commercial department for the company. With her regional experience in diverse projects in a wide range of industries, and her contacts with local suppliers, she has developed new business opportunities in energy services. On the ESCO field, Pía is an experienced engineer, having carried out a series of Energy Audits and Projects in the private and public sector, Efficient Lightings Programs for local Municipal Governments, and has given several Energy Efficiency Conferences to educate and raise awareness about the responsible use of resources.

Pía Torres is an Electronics Engineer, having completed her studies in one of the oldest and most prestigious universities in Argentina, Universidad Nacional de Tucumán, Faculty of Exact Sciences and Technology.

She has a Diploma in Project Management from National University of Buenos Aires and she planned to pursue the PMI-PMP® Certification this year. She received also the formation of the Energy Leaders Training Program in the local chapter of the World Energy Council, where she is also volunteer.

She has been a volunteer and actively participated in IEEE since 2001, where she started working in her university's student branch. Nowadays she has local, regional and global positions and has had the possibility to activate and promote the creation of other student branch & student chapters.

With her work, she continues contributing with her knowledge to new generations. Also, since she is developing in Technical Environments and Industry, acting as a link between the students and active participation with the development of Technology in Argentina and Latin América, and been a reference for the insertion of Young Women and Men in Science/Technology/Engineering

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Lecture Topics

1. The 1st Fuel – Energy, Energy Efficiency and Sustainability

Let's start by the beginning... Climate Change is a Reality

Why is Climate Change produced? Emissions of (CO₂) modify the composition of the atmosphere, increasing the temperature of the Earth and causing a distortion in the global climate system.

From the industrial revolution until today, the burning of fossil fuels (oil, coal and gas), which are used to produce energy, releases greenhouse gases (CO₂) into the atmosphere, increasing the temperature of the Earth and causing a distortion in the global climate system.

Consequences and Impacts of Climate Change: Melting of glaciers and other permanent ice masses throughout the planet (a situation that puts the world's largest reserves of fresh water at risk and that will cause sea level rise) Increase in heat waves, floods and droughts. Disease expansion - Collapse of Ecosystems

Our Challenge: achieve a sustainable energy model and commit to an energy revolution capable of reducing CO₂ emissions to avoid out of control climate change

We must: change the way we produce and use energy. The replacement of dirty energy sources (coal, gas, oil) with clean ones (solar and wind).

Saving Energy is a Must.

2. Could Women Save the World? - Women, Gender Equality and Climate Change

We inhabit a world where the climatic repercussions accentuate even more the existing social inequalities in general and those of gender in particular. And where inequality prevents an efficient and fair fight against climate change.

Both social problems correspond to the same socio-economic productivity model based on overexploitation and unequal access to natural resources, land, credit or technology.

Bali, Indonesia: Four times more women die than men when floods occur.

Sri Lanka: Women represented two thirds of the 33,000 people who died or disappeared.

Women represent 20 of the 26 million climate refugees.

There are also examples in developed countries: after Hurricane Katrina in the United States, two thirds of the people who lost their jobs were women. In France, during the heat wave of 2003, 65% of deaths were also women.

Sustainable development requires action on three fronts: social, economic and environmental.

Women, as more than the half of the humanity, are key to achieving progress in each of these areas, but we need to ensure equal rights and opportunities for them. This requires the empowerment of women and the elimination of discriminatory barriers in a number of areas, including agriculture, energy, health, education, employment and disaster risk reduction.

It's all about creating opportunities for all, to work together and give ourselves the chance to contribute to save the world.

3. Personal and Professional Development – Challenges of Young Professionals in the Industry 4.0

Many young people who are searching for their first job opportunities are not clear about the qualities sought in the available profiles. These young professionals not only have a goal set for their future, but also have personal interests: they want to take time to travel to other countries, space for family and friends, and continuous looking for new opportunities. Currently, most young people are concerned about entering a large company but for a short period of time, approximately 1 to 2 years.

Companies and industry have changed to be able to subsist on today's world, and not only seek the best averages and technical knowledge, but critical thinking and logic are essential to develop day after day.

In addition, the acquired extra knowledge, such as computer courses, languages and soft skills, are very valued. Ability to know how to listen to others, good communication, exchange knowledge, teamwork and leadership are strongly required.

Someone who is willing to develop an empathy with customers, colleagues and boss, capable of solving problems in a fast way without losing control of the situation is a must.

Volunteering, complementary courses, cultural, sports and recreational activities are excellent sources to acquire these skills. The key is to know how to promote them and use them to empower our professional and personal development.

4. Diversity & Technology - Humanitarian & Educational Project Management

In a globalized world, every profession or occupation is tangentially interconnected with technology, therefore it is not a novelty that we need more engineers, scientists and technologists to be able to face these changes.

In order to achieve our goals and develop these professions, we just need to be more inclusive and strongly involve women. That is our challenge!

There are still not enough role models to inspire new generations to follow a technical professional path, in spite of the massive mass media it is not easy to publicly identify successful women or men in those fields. Unfortunately, we still need to "See" to "Believe".

We start from the base that there are certain stereotypes among some professions: men are discriminated in health care tasks, children and the elderly (nursing, gerontology, kindergarten teachers) and on the contrary the scientific professions are not "socially suitable" for women, especially in hard engineering such as mechanics, electronics, electricity, etc.

The social construction, games and toys of early childhood, the ghost of mathematics and physics as difficult and boring subjects. Also, the lack of alternatives and promotion of vocations regardless of gender, do not help in the selection of sciences as a future professional in general, and much less in girls.

RoboTeam Project is an initiative of volunteers from the IEEE Women in Engineering Argentina group that seeks to encourage scientific-technological vocations in children, using programming and robotics, playful exercises and motivational activities.

The objective is to promote integration and diversity, from the point of view of gender and socio-economic, by presenting them a creational alternative technology, which can positively influence their future professional choice in Engineering.