

Special Section:

Selected Papers From the International Youth Nuclear Congress 2018 - 26th WiN Global Annual Conference

Dear Readers,

In March 2018, close to 450 people from all around the globe met in Bariloche, Argentina, for the IYNCWiN18 conference; co-hosted by the International Youth Nuclear Congress (IYNC), the Argentinian Young Nuclear Generation (AYNG), Women in Nuclear (WiN) global, and WiN Argentina. This conference was conducted in the spirit of the vision and goals both organizations share: the promotion of nuclear sciences and applications for enhancing the quality of life in the most safe and secure way.

The program covered many topics presented in workshops, technical tracks, panel discussions, and plenary forums ranging from new trends in nuclear energy to nuclear applications in health, agriculture, and environmental postaccidental management.

Although critical voices often question their need, nuclear power and radiation science offer opportunities and solutions for the urgent needs to combat hunger, poverty, illnesses, and climate-change effects, and simultaneously meet energy needs and sustainable development of mankind at large.

Despite an ongoing debate about the benefits of nuclear energy (mainly in Europe), which was triggered by past accidents at the Chernobyl and Fukushima NPPs, many countries, specifically in Asia and Arab countries, are re-establishing or embarking on nuclear energy.

Advanced and new technologies have been developed, which are safe and at low risk or with a much lower impact after a potential accident. Some of those were presented and discussed.

WiN and IYNC signed a Memorandum of Understanding in 2016 aiming at enhancing their cooperation. One area of collaboration between both organizations for several years is the Nuclear4Climate initiative. This initiative was created jointly by the French Nuclear Energy Society (SFEN), the American Nuclear Society (ANS), and the European Nuclear Society (ENS), with the United Nations Framework Convention on Climate Change (UNFCCC) COP21 (Conference of the Parties) climate talks, which took place in Paris in December 2015. This initiative has brought together nuclear scientists from all corners of the globe in their efforts to promote the environmental credentials of nuclear energy in its contribution to reduce carbon emissions. Both organizations, IYNC and WiN inter alia, are involved in and support this initiative as evidenced in their contributions in Paris (France, 2015), Marrakech (Morocco, 2016), Bonn (Germany, 2017), and Katowice (Poland, 2018).

A special focus of this conference and a general objective of both IYNC and WiN organizations is knowledge transfer between generations and across international boundaries. As such, IYNC-WiN18 brought together matured professionals in the nuclear field and young people either in the beginning or the midterm of their professional life for their own career planning. It also intended to foster the career of young women in a STEM (Science, Technology, Engineering, and Mathematics) environment still dominated by men. Thus, an extended mentorship program was launched to pair young people with experienced scientists, engineers, and



Fig. 1 Participants of IYNCWiN18, in Bariloche, Argentina

decision makers to help the young generation making their way toward nuclear sciences and engineering. Finally, the poster sessions allowed participants to share their recent work with the science community and the award ceremony highlighting outstanding contributions in our efforts to promote atoms for peace, completed the program (Fig. 1).

We, the co-chairs of this international conference being the first one of its kind conducted in Latin America, are pleased to welcome you to this Special Section capturing the essence and key materials presented at the IYNCWIN18; that has been developed with the effort of the IYNCWIN18 JNERS. Guest Editors: Kevin Fernandez-Cosials, Valentina Avincola, Fidelma Di Lemma, and Ignacio Gomez.

Co-chairs of IYNCWIN18
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