

Special Section: Selected Papers from the 28th Conference of the Nuclear Societies in Israel

The Nuclear Societies in Israel include the Israel Society for Radiation Protection (ISRP), the Israel Nuclear Society (INS), and the Israel Society for Medical Physics (ISMP). These three societies hold a biennial conference in which the scientific community in Israel dealing with nuclear science, technology, and engineering, as well as radiation uses and radiation protection, encounters. The 28th Conference of the Nuclear Societies in Israel (INS-28) was held between April 12 and 14, 2016, at the Dan Panorama Hotel in Tel Aviv, Israel. The INS-28 Conference included 25 plenaries, parallel and poster sessions, in which more than 160 studies in various scientific fields were presented.

We are very grateful to Professor Igor Pioro, who serves as the Editor of the *Journal of Nuclear Engineering and Radiation Science*, for hosting this special section dedicated to INS-28.

Our two largest societies, the INS and the ISRP, have advocated nuclear energy as one of the most environmentally friendly ways to produce baseline electricity for over a decade, especially with respect to global climate change. We are delighted to see that this message is beginning to infiltrate the “green” establishment, as presented at the conference by the Israeli Minister of National Infrastructures, Energy and Water Resources and by the Chief Scientist of the Israel Nature and Parks Authority.

The INS was established in 1974 by several senior academics. The first President of the society was the late Professor Shimon Yiftach, from the Department of Nuclear Engineering at the Technion—Israel Institute of Technology and former director of the Soreq Nuclear Research Center (SNRC); and the first Secretary, and later President, was Professor Yigal Ronen, from the Unit of Nuclear Engineering, Ben-Gurion University of the Negev (BGU) and former Dean of the Faculty of Engineering Sciences at BGU. Under their leadership, the INS joined the European Nuclear Society (ENS) and signed cooperation agreements with the Canadian Nuclear Society (CNS) and the American Nuclear Society (ANS).

The ISRP was founded in 1964, following the initiative of the late Professor Yehuda Feige, who is referred to as the father of radiation

protection in Israel, set up the Radiation Protection Department at SNRC in 1957 and was the first President of the Society. Under his leadership, the ISRP became one of the first national societies to join the International Radiation Protection Association (IRPA). In 1980, the ISRP hosted the Fifth International Congress of IRPA in Jerusalem, thanks to the efforts of another President of the society, Professor Tuvia Schlesinger.

Major subjects discussed at the INS-28 Conference included Nuclear Reactor Physics and Technology, Radiation Protection, Medical Physics, Radiation Dosimetry, Physical Properties of Nuclear Materials, Accelerators, Radiation Detectors and Measurements, Nuclear Security and Nuclear Forensics, Non-Ionizing Radiation, Simulations and Numerical Methods, Radiological Risk Assessment, Natural Radioactivity, Operational Radiation Protection, and Radioactive Waste and the Environment.

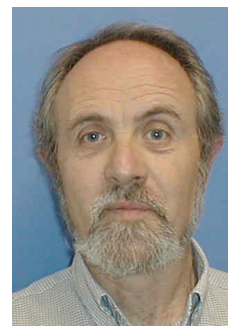
Special attention was also given in the conference to some of the main issues facing the nuclear energy sector and the radiation protection community, among which one may mention the uncertainty regarding the health effects of exposure to low doses of radiation, dosimetry of the eye lens and its protection as well as the environmental and radiological consequences of nuclear accidents and radiation safety aspects of postaccident recovery.

Finally, we hosted a symposium dealing with radiation protection in medicine, of both patients and medical staff. Since medical exposure is accounted for a significant contribution to exposure of the public and since the medical sector is the most exposed occupational sector, it was but natural for our societies to dedicate a special day to this issue. This day was recorded as the First Israeli Symposium on Radiation Protection in Medicine.

As co-chairmen of the INS-28 Conference, we would like to thank all the authors for their contributions presented in this special section of the *Journal of Nuclear Engineering and Radiation Science* as well as the reviewers, the editorial staff, and the Editor, who made this special section possible.



Dr. Ilan Yaar
President,
Israel Nuclear Society (INS)



Dr. Jean Koch
former President, Israel Society
for Radiation Protection (ISRP)