You are cordially invited to attend the 2020 IEEE Nuclear and Space Radiation Effects Conference to be held July 20-24, 2020 at the Hilton Buffalo Thunder, in Santa Fe, New Mexico. The conference features a technical program consisting of eight to ten technical sessions of contributed papers describing the latest observations in radiation effects, a Short course on radiation effects issues with current relevance offered on July 20, a Radiation Effects Data Workshop, and an Industrial Exhibit. The technical program includes oral and poster sessions.

Papers on nuclear and space radiation effects on electronic and photonic materials, devices, circuits, sensors and systems, as well as semiconductor processing technology and design techniques for producing radiation-tolerant (hardened) devices and integrated circuits, will be presented at this meeting of engineers, scientists and managers. International participation is strongly encouraged.

We are soliciting papers describing significant new findings in the following or related areas:

- **Basic Mechanisms of Radiation Effects in Electronic Materials and Devices**
  - Single Event Charge Collection Phenomena and Mechanisms
  - Ionizing Radiation Effects
  - Displacement Damage
  - Radiation Transport, Energy Deposition, and Dosimetry
  - Materials and Device Effects
  - Processing-Induced Radiation Effects

- **Radiation Effects on Electronic and Photonic Devices, Circuits, and Systems**
  - Single Event Effects, Total Dose, and Displacement Damage
  - MOS, Bipolar, and Advanced Technologies
  - Systems on a Chip, GPUs, FPGAs, Microprocessors
  - Isolation Technologies, such as SOI and SOS
  - Methods for Hardened Design and Manufacturing
  - Modeling and Hardening of Devices and Circuits
  - Cryogenic or High Temperature Effects
  - Novel Device Structures, such as MEMS and Nanotechnologies
  - Emerging Modeling and Experimental Techniques for Hardening Systems

- **Space, Atmospheric, and Terrestrial Radiation Effects**
  - Characterization and Modeling of Radiation Environments
  - Space Weather Events and Effects
  - Spacecraft Charging
  - Predicting and Verifying Soft Error Rates (SER)

- **Hardness Assurance Technologies, Modeling, and Testing**
  - New Modeling and Testing Techniques, Guidelines, and Hardness Assurance Methodologies
  - Unique Radiation Exposure Facilities or Novel Instrumentation Methods
  - Dosimetry

- **New Developments of Interest to the Radiation Effects Community**
PROCEDURE FOR SUBMITTING SUMMARIES
Authors must conform to the following requirements:

1. Prepare a single Adobe Acrobat file consisting of a cover page and an informative two to four page summary describing results appropriate for 12-minute oral or poster presentation. The cover page must provide an abstract no longer than 35 words, the title, name and company affiliation of the authors, and company address (city, state, country). Identify the author presenting the paper and provide telephone, and email address. The summary must include sufficient detail about the work to permit a meaningful technical review. In the summary, clearly indicate (a) the purpose of your work, (b) significant new results with supporting technical material, and (c) how your work advances the state of the art. Show key references to other related work. The summary must be no less than two and no more than four pages in length, including figures and tables. All figures and tables must be large enough to be clearly read. Note that this is more than an abstract, but do not exceed four pages.

2. Prepare your summary in single-column or IEEE TNS standard two-column format, using 11 point or greater font size, formatted for either U.S. Standard (8.5 x 11 inch) or A4 (21 x 29.7 cm) page layout, with 1 inch (2.5 cm) margins on all four sides.

3. Obtain all corporate, sponsor, and government approvals and releases necessary for presenting your paper at an open attendance international meeting.

4. Summary submission is electronic only, through www.nsrec.com. The submission process consists of entering the paper title, author(s) and affiliation(s), an abstract no longer than 35 words, and uploading the summary. Authors are prompted to state their preference for presentation (oral, poster, or data workshop poster) and for session. Details of the submission process may be found at www.nsrec.com. The final category of all papers will be determined by the Technical Program Committee, which is responsible for selecting final papers from initial submissions.

Papers accepted for oral or poster presentation at the technical program are expected to be submitted for publication in the IEEE Transactions on Nuclear Science (January 2021). Selection for this issue will be based on a separate submission of a complete paper. These papers will be subject to the standard full peer review given all papers submitted to the IEEE Transactions on Nuclear Science. Further information will be sent to prospective authors upon acceptance of their NSREC summary. It is not necessary to be an IEEE member to present a paper or attend the NSREC. However, we encourage IEEE and NPSS membership of all NSREC participants.

RADIATION EFFECTS DATA WORKSHOP
The Radiation Effects Data Workshop is a forum for papers on radiation effects data on electronic devices and systems. Workshop papers are intended to provide radiation response data to scientists and engineers who use electronic devices in a radiation environment, and for designers of radiation-hardened systems. Papers describing new simulation or radiation facilities are also welcomed. The procedure for submitting a summary to the Workshop is identical to the procedure for submitting NSREC summaries. Radiation Effects Data Workshop papers will be published in a Workshop Record and are not candidates for publication in the Conference issue of the IEEE Transactions on Nuclear Science.

SANTA FE, NEW MEXICO (NORTHERN NEW MEXICO)
The Hilton Buffalo Thunder is located just outside downtown Santa Fe and provides access to many beautiful and historical Northern New Mexico attractions including the High Road Trip to Taos, Bandelier National Monument, Jemez Mountains, and many other world-renowned attractions. There is a rich and inspiring history in Northern New Mexico with influences from Hispanic, Anglo, and Native American cultures that are apparent in everything from the architecture to the food to the art. Santa Fe is known as a center for arts and culture and ranks as the country’s third largest art market. You will find nearly 300 art galleries and the 3rd largest State Museum system in the country featuring culture, history, and traditions of the Southwest. Treat yourself to the colorful markets and experience why Santa Fe has been considered a hub for trading for hundreds of years. With a backdrop of the Sangre de Cristo Mountains, Santa Fe is also the home of the world-class Santa Fe Opera.

Santa Fe was nationally recognized by several organizations in 2018. This comprised of recognitions as one of the top 15 cities in the US by 2018 Travel+Leisure World’s Best Awards and was one of the top 30 US cities to visit in 2018 according to Trip Advisor. Santa Fe has also earned a stellar reputation with food-lovers ranging from local New Mexican flavors to authentic world cuisines in recent years. The Santa Fe Margarita Trail Tour was recently recognized as one of the 10 Best Food and Drink Trails to Explore according to Pop Sugar.

For the outdoor enthusiast, Northern New Mexico provides hiking and biking year-around amongst beautiful backdrops and historical sites. The great outdoors and open sky also allow everyone to relax and enjoy activities such as golf, white-water river rafting, horseback riding, and fly-fishing. Remember, we are going to be at an elevation of 7,000 feet and likely in sunny weather.

Please join us at the Hilton Santa Fe Buffalo Thunder for NSREC 2020 and enjoy everything Northern New Mexico has to offer.